A mixed methods study exploring student nurses' Trait Emotional Intelligence (TEI) during nurse education

By

Allison Evans

A thesis submitted in partial fulfilment of the requirements of Birmingham City University for the degree of Doctor of Philosophy

School of Nursing and Midwifery
Faculty of Health, Education and Life Sciences
Birmingham City University
March 2022

ABSTRACT

Introduction

Nurse educators have a mandatory responsibility to create and deliver programs that develop emotionally intelligent practitioners. However, the evidence exploring what transpires for students during the course of nurse education is limited. Using the clearly defined concept of Trait Emotional Intelligence (TEI), the aim of this mixed method longitudinal study was to establish what impact undergraduate nurse education has on the development of students' emotional intelligence.

Methodology

A TEI questionnaire was used to collect quantitative data measuring students TEI throughout their pre-registration education. Statistical tests were used to establish if there were any changes in students' TEI at the end of year one and again at the end of the course. Four semi-structured interviews explored students' perceptions of TEI and Interpretative Phenomenological Analysis (IPA) was used to understand students' lived experiences. Generating quantitative and qualitative data helped to compare perceptions of TEI across different knowledge paradigms.

Results

Quantitatively, 187 participants completed the questionnaire on all three occasions. Statistical analysis of the cohorts' scores demonstrated a reduction in overall TEI and at sub factor level throughout the course. Four key themes were generated from the qualitative data: conceptualisations of EI, emotional expression vs suppression, 'sensing the vibe' and relationships. Integrated analysis identified similarities and differences between the two data sets providing insight into students' perceptions of TEI, expressed in words and numbers, to generate knowledge from two polarised paradigms.

Conclusions and recommendations

The strategic development of emotionally intelligent undergraduate curricula is required in order to meet the NMC's aim of producing emotionally intelligent nurses. An incremental reduction in TEI, significant loss of self-motivation and the routine use of emotional suppression to the detriment of personal wellbeing are of particular concern. Creating environments to enhance students' TEI requires significant investment and intentional activity in both academic and practice settings.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 3: Integrative Literature Review of Trait Emotional Intelligence

Chapter 4: Methodology

Chapter 6: Quantitative results

ACKNOWLEDGEMENTS

Thank you to all my family and friends who have loved and supported me during this long and difficult journey. Special thanks to my husband Leon who has listened, encouraged and inspired me to keep going. This work is dedicated to my boys Joshua and Simeon who have taught me so much. Simeon, you may not have been able to say a word but you have shaped me and this work more than you will ever know.

Thank you to my supervisors Professor Lucy Land, Professor Mervyn Morris, Dr Panagiotis Rentzelas, Dr Ben Appleby and Dr Chris Inman. None of us anticipated so many changes to the supervisory team but you have each made a unique and valuable contribution. Thanks for being willing to pick up the supervisory baton at various stages and run this marathon with me. I am also grateful to my colleagues for listening and helping me to shape my ideas, and to the research department and faculty of health for supporting my application.

A special thanks to the participants in this study who were willing to share their thoughts, ideas and experiences. Finally, to all nurses working in health and social care contexts, who continue to care for patients and service users with kindness and compassion despite being pushed to the very limit by the pandemic. Thank you for everything, we owe you so much more than applause.

CHAPTER 1 – INTRODUCTION

1.1 Nurse Education and Emotional Intelligence

As a nurse practitioner, educator and qualified counsellor I have a special interest in supporting students as they learn how to manage the emotional demands of nursing practice. This thesis explores student nurses' emotional intelligence during nurse education and the impact it has on students as they prepare to enter professional practice.

Modern nursing care requires nurses to respond to complex patient needs, demanding a high degree of proficiency and resilience (NMC, 2018a). Overcoming the challenge of providing increasingly sophisticated care has been compounded by an inadequate number of registered nurses (RN's) in the United Kingdom. Developing RN's through undergraduate education with the capacity to manage the complexities of modern healthcare is essential to address the growing crisis (National Health Service (NHS) Long Term Plan, 2019). The need to increase the number of registered nurses able to manage the challenges of modern healthcare settings has been exacerbated by a global pandemic.

Providing complex care to meet the needs of others who are emotionally and physically vulnerable requires empathy, the aptitude to perceive and manage emotion effectively, a significant degree of self-control, optimism and the ability to motivate oneself and others while maintaining personal wellbeing (Foster, et. al. 2015b). Although any single emotional social framework cannot capture all of the attributes required, researchers and educators have identified Emotional Intelligence (EI) as a meaningful umbrella concept (Zeidner, et. al. 2012; Cleary, et. al. 2018, Snowden, et. al. 2018).

In its simplest form, EI has been described as the ability to understand and organise emotions while showing empathy towards others in a manner that enriches life (Cerit and Beser, 2014). In the literature, EI as a theoretical construct is defined in a number of ways. Without specification, it remains a broad construct incorporating a variety of theories, subject to on-going debate regarding its nature, measurement and potential for development (Conte, 2005; Zeidner, et.al. 2012; Foster, et.al. 2015a). Significant criticisms have been levelled against many studies due to confusion surrounding the operationalisation of differing constructs, and a lack of rigour in measurement (Matthews, et. al. 2011; Nauheimer, 2015; Wan Husin, 2017).

EI incorporates an important range of social and emotional attributes allied to nursing practice. It is now recognised as an important construct and has been included in the

Nursing and Midwifery Council (NMC) 'Future nurse: Standards of proficiency for registered nurses' (2018a).

> *"In order to respond to the impact and demands of professional nursing practice, they (nurses) must be emotionally intelligent and resilient individuals" (NMC, 2018a p.3).*

However, without a clear evidence base the requirement to develop student nurses' EI through pre-registration education remains problematic. There is general agreement that the capacity to perceive, make sense of, express and manage one's own emotions, while simultaneously supporting others to manage their emotions, are essential skills for nurses. Yet it remains unclear to what extent student nurses are aware of or possess these qualities (Forbes-Rankin, 2009; Ballatt and Campling, 2011; Beauvais et al. 2011; Por et al. 2011; Fernandez et al. 2012). Similarly, the question of how best to equip students to develop these skills in order to become more emotionally intelligent in both academic and practice contexts remains unclear (Cleary, et. al. 2018). Additional research is required to establish the impact of nurse education on students' EI.

1.2 Research need: theoretical, empirical and professional

1.2.1 The context of 21st century nursing care – A changing landscape

The broad range of skills and attributes required by nurses is extensive and the role of the 21st century nurse is multifaceted.

> *"Registered nurses provide leadership in the delivery of care for people of all ages and from different backgrounds, cultures and beliefs. They provide nursing care for people who have complex mental, physical, cognitive and behavioural care needs, those living with dementia, the elderly, and for people at the end of their life. They must be able to care for people in their own home, in the community or hospital or in any health care settings where their needs are supported and managed. They work in the context of continual change, challenging environments, different models of care delivery, shifting demographics, innovation, and rapidly evolving technologies. Increasing integration of health and social care services will require registered nurses to negotiate boundaries and play a proactive role in interdisciplinary teams. The confidence and ability to think critically, apply knowledge and skills, and provide expert, evidence-based, direct nursing care therefore lies at the centre of all registered nursing practice." NMC, 2018a p.3*

Nurses must possess far more than an enquiring mind and a variety of skills (NMC, 2018a). Nursing practice exceeds the application of a practical skill set and the nurse is more than a conduit for ensuring the competent performance of these skills (International Council of Nurses (ICN), 2015). In the arena of health and social care, all those involved in caring are routinely required to engage with their own emotions and those of patients, relatives and

colleagues in the course of their daily work (Gray, 2009; Badolamenti, et. al. 2017; Laurence, 2017). This relational process inevitably involves emotional engagement, influenced by the nurses' own thoughts, feelings and values formed and reinforced through life experience (Manara, et al, 2014).

The ability to meet people's '*complex mental, physical, cognitive and behavioural care needs'* requires the capacity to engage with emotion and the ability to think critically. Critical thinking in itself is a complex process, involving the synthesis of evidence to inform nurses' decision-making and make rational evaluations (Kaya, et. al. 2017). The weight of evidence using established critical thinking dispositional scales and neuroimaging suggests a connection between emotional intelligence, particularly empathy, and the capacity for critical thinking (Michelangelo, 2015; Kaya, et. al. 2018; Yao, et. al. 2018; Hasanpour, et. al. 2018). The combination of emotional intelligence and strong critical thinking skills enables nurses to deal more effectively with the challenge of complex decision-making in environments suffused with emotion.

1.2.2 Challenges to providing complex care with compassion

In addition to the ability to think critically, nursing professionals require a combination of practical skills and self-knowledge in order to deliver holistic care. This necessitates an understanding of emotions and an awareness of how to deal with them, and yet there is a lack of research exploring the role of emotions in nurses' development (Augusto Landa, et. al. 2010; Laurence, 2017). Nursing has often been described as a '*caring profession'* with evidence to support the notion that most nurses enter the profession with the desire to care for others as their primary motivation (Eley et al, 2012; Glerean, et. al. 2019). While the primary motivation has not changed, technological advances, an escalation in complicated co-morbidities and the needs of an ageing population have changed the context of the profession. Increased demand, levels of expectation and a rapidly growing body of evidence have altered the way in which nursing care is defined and health care is delivered in increasingly politicised environments (Traynor, 2013; Willis, 2015).

A number of high profile reports have detailed examples of inadequate care in a range of healthcare settings, highlighting the need for emotionally intelligent nursing (Francis, 2013; Mencap, 2012; Berwick, 2013; Keough, 2013; Bubb, 2014). Nurse leaders have called for a greater emphasis on compassionate care (Cummings and Bennett, 2012); while others have commented on the changing contexts within which nursing takes place, the impact of an ageing population and the challenge of attempting to regulate for compassion, balancing the needs of patients and the nurses who care for them (Beer, 2013). Thinking about the contexts within which nurses work is an important part of equipping the next generation to

deliver quality care and prepare them for the reality of employment. This includes the opportunity to learn how to manage and respond to unconscious social systems, think critically and adapt to external demands in increasingly complex healthcare organisations (Sines, 2013).

1.2.3 Development of the NMC Future Nurse Standards

In response to unfavourable reports (Mencap, 2012; Francis, 2013; Berwick, 2013; Keough, 2013; Bubb, 2014) and the increased complexity of healthcare provision in the UK, Health Education England (HEE) was invited to review nurse education. They concluded that the future of nursing as a profession relied on radical changes to nurse education (Willis, 2015). The NMC responded by embarking on an extensive consultation process, which in addition to the development of the 'Future Nurse: Standards of proficiency for registered nurses' (NMC, 2018a), also produced the 'Standards for student supervision and assessment' (NMC, 2018b), 'Standards for pre-registration nursing programs' (NMC, 2018c) and 'Standards framework for nursing and midwifery education' (NMC, 2018d).

During this process, EI was identified as an essential quality to enable nurses to manage their own health and wellbeing needs, fundamental to coping with the demands of the profession. More specifically, standard 1.10 states the mandatory requirement for registered nurses at the point of registration to;

> *"Demonstrate resilience and emotional intelligence and be capable of explaining the rationale that influences their judgments and decisions in routine, complex and challenging situations" (NMC, 2018a, p.9).*

Articulating the relationship between EI, critical thinking, decision-making and effective communication in constantly changing, complex healthcare environments, the 'Future Nurse Standards of proficiency for registered nurses' (NMC, 2018a) for the first time identified emotional intelligence as an essential quality for nurses. Nurse educators are now mandated to create and deliver programs that develop emotionally intelligent practitioners who are robust enough to flourish in challenging health care environments.

There are three different EI constructs identified in the literature, ability, trait and mixed models, each with its own definition. Previous research suggested that the absence of an agreed definition, model or means of assessment contributed to a persistent lack of understanding about how EI applies to nursing practice (Bulmer-Smith, et. al. 2009). During the consultation phase of the development of the Future Nurse Standards, the NMC produced several draft versions. The penultimate version (NMC, 2017a) proposed that the inherent strengths of EI and resilience, present to some degree in participants from the outset of the programme, had potential for development during the educational

process. The language used appeared to support the notion of EI as a trait, however, the description of EI found in the glossary of this version did not mirror existing definitions of either trait or ability EI models (NMC, 2017a). There was no clarification provided and the final version of the standards released in May 2018 incorporated fewer references to EI and no definition (NMC, 2018a).

Following a request to the curators of this process for the rationale surrounding this decision, their response articulated a continued commitment to developing an emotionally intelligent workforce through a more inherent inclusion of its principles incorporated across the platforms and annexes. Revisions were made to the final version of the NMC standards (2018a) based on the existence of freely available definitions and in response to consultation feedback, which expressed the view that EI was not readily assessable or measurable (Walters, 2018). The measurability of 'soft skills', such as communication and teamwork has been a contentious issue for many years in relation to a range of nursing qualities (Windle, et. al 2011. Fields, et. al. 2011. Sinclair, et.al 2016. Morrell, et. al. 2020). The concept of compassion is similarly beset with arguments surrounding assessment, and yet academics, mentors and patients have little difficulty identifying traits associated with nurses who practice with or without compassion (Durkin, et al. 2018). Despite the challenges associated with measurability, the lack of a definition and conceptual alignment in the NMC standards (2018a) represents a missed opportunity to clarify the application of EI to nurse education and practice.

1.2.4 The extent of the challenge

Nurses need to be emotionally intelligent in order to manage the complexity and cope with the emotional demands of the role (NMC, 2018a). Nonetheless, the ambition to develop an emotionally intelligent nursing workforce with the combination of skills, knowledge and personal qualities outlined in the 2018 standards while commendable, remains challenging. Maintaining an adequate nursing workforce with the combination of attributes required to meet the demands of a growing and ageing population, has become increasingly difficult (NHS Employers, 2015; Royal College of Nursing (RCN), 2016; RCN, 2017a; RCN, 2017b; NMC, 2017; NHS, 2018; Beech, et. al. 2019; McIlroy, 2019; Rolewicz and Palmer, 2019; National Audit Office (NAO), 2020; NHS Digital, 2021).

The authors of the Closing the Gap report (Beech, et. al 2019) provided a sobering view of the ongoing situation, suggesting that in line with current trends there will be more than 84,000 additional nurses required by 2021 than are likely to be produced through training. The situation worsened dramatically due to the Covid-19 pandemic, with an RCN survey in 2020 reporting that more than one third of nurses were now considering leaving the

profession (Borneo, et. al. 2020). In this context, the retention of registered nurses is vitally important.

The Francis report clearly identified a lack of caring behaviour associated with inadequate staffing and poor culture (Francis, 2013). A persistent decline in registered nurse to patient ratios, reduced morale and reports of staff under profound stress contribute to challenging practice environments (West, et. al. 2020). As student nurses spend fifty percent of their time in these settings, a degree of enculturation is almost inevitable. Secondary socialisation exposes individuals to hidden practices, attitudes and subcultures, that can be subsequently integrated into their own practice (Salisu, et. al. 2019). Given the relationship between nurses' EI and caring behaviours (Nightingale, et. al. 2018), reduced exposure to emotionally intelligent role models has the potential to inhibit the development of students' EI and limit the opportunity to develop caring behaviours. Nonetheless, while the extent of the challenge cannot be underestimated, the proposal to enhance EI through nurse education has the potential to become part of the solution.

Concerns about the recruitment and retention of registered nurses (RCN, 2017b; The Health Foundation, et. al. 2018; Rolewicz and Palmer, 2019) also relate to student nurse populations where high levels of attrition remain problematic (Beech, et. al. 2019). The Future Nurse standards (NMC, 2018a) were a major part of re-envisioning nurse education. Evidence suggests that student nurses with higher EI are more likely to complete pre-registration education (Stenhouse, et. al. 2016). Incorporating EI into the Future Nurse standards (NMC, 2018a) has the potential to inform effective teaching and learning strategies to enhance student nurses' EI and reduce attrition.

Equally, a rapid increase in the number of students undertaking pre-registration courses is required to meet the growing demands of the NHS and an ageing population. However, some of the changes made to the funding of nurse education have affected student demographics in particular a reduction in mature students (Beech, et. al. 2019). This is significant given the suggestion that EI increases with age (Tsauousis and Kazi, 2013).

The NHS bursary reform (2017) removed the opportunity for healthcare students to receive a bursary during their education, replacing it with access to the same student loan system used by other students on non-healthcare courses (Department of Health and Social Care (DOHSC) 2017). The stated intention was fourfold: to improve access for disadvantaged students, provide additional upfront funding to students via the loan system, increase the number of university places by up to 10,000 and improve the potential for students with a first degree to access funding to support a further qualification in nursing (DOHSC, 2017). However, this decision also had the potential to discourage applicants due to the debt

accrued, thus reducing student numbers, increasing nursing vacancies and risking patient safety (UNISON, 2017). The RCN (2018) reported that two years after the removal of the bursary, student applications for nursing courses had indeed reduced by a third, with those made by mature students plummeting by 40%. In response the government pledged to provide every student nurse with a payment of £5,000 per year, with an additional £3,000 to incentivise students joining hard to recruit disciplines like mental health (Gov.uk, 2019). Nonetheless, the reduction in applications from mature students is of particular concern for mental health and learning disability courses which traditionally attract older students (Beech, et. al. 2019).

If EI increases with age (Tsauousis and Kazi, 2013) additional emphasis may need to be placed on enhancing EI in nursing curricula to meet the developmental needs of a younger demographic. Similarly, while there is currently no evidence available to determine if EI differs between fields of nursing, there may be distinct attributes associated with particular disciplines. Identifying aspects of EI which require development according to field of practice, using the data to inform targeted teaching and learning opportunities, may have the potential to improve retention of students in learning disability and mental health fields.

It is important to acknowledge the impact of government interventions that have shaped the educational climate and the clinical contexts within which students spend their time. If EI is an essential quality for nurses, then teaching and learning environments and those responsible for supporting their learning, must have the capacity and resources to facilitate its development and model its application to practice (Hurley, 2008; Jack and Wibberley, 2013). Nonetheless, the literature suggests a lack of clarity regarding the range of EI constructs and the means by which they are measured (Cleary, et. al. 2018). The next chapter provides an overview of these constructs and the tools developed for the purpose of assessment. The aim is not to provide a comprehensive discussion of EI, but to retain the focus on the application of EI to nursing and nurse education relevant to this study.

1.3 Research aim and objectives

In light of the increased emphasis on nurses' EI, the aim of this study was to address the research question: What is the impact of nurse education on the development of undergraduate nurses' emotional intelligence?

Derived from this aim, four research objectives were identified to gain a better appreciation of EI in relation to nurse education.

i. To identify how EI relates to nurse education.
ii. To determine how to evaluate EI during nurse education.
iii. To examine what happens to students' EI during nurse education
iv. To provide new perspectives to support the development of EI during nurse education.

The research aims to contribute a more precise understanding of the effect nurse education has on EI, based on the construct of trait EI (TEI). Through this approach, the research offers evidence-based insight into the impact on EI and targets areas for development relevant to nurse education.

1.4 Research outline and thesis structure

In order to achieve the research aim, this study is based on three main components. An overview of the evidence related to EI and nursing, a synthesis of relevant literature on trait emotional intelligence (TEI) and an empirical study. The first component involves a narrative review of the literature; the second a synthesis of literature pertaining to TEI and nursing. The third component is an empirical study based on exploring TEI using survey and interpretative phenomenology methods.

- Chapter 1 – Introduction
- Chapter 2 – An introduction to emotional intelligence literature and its application to nursing
- Chapter 3 – Integrative literature review of Trait Emotional Intelligence in undergraduate nurse education
- Chapter 4 – Methodology
- Chapter 5 – Analytical approach
- Chapter 6 – Quantitative results
- Chapter 7 – Qualitative results
- Chapter 8 – Discussion
- Chapter 9 – Conclusions and recommendations

CHAPTER 2: AN INTRODUCTION TO EMOTIONAL INTELLIGENCE LITERATURE AND ITS APPLICATION TO NURSING

Emotional intelligence is defined in a number of ways, incorporating a variety of theories and approaches to measurement (Foster, et. al. 2015a; Zeidner, et. al. 2012). The next chapter provides an overview of these constructs, the tools developed and how EI has been applied to nursing and nurse education.

2.1 Early EI research and methods of classification

The first use of the term 'emotional intelligence' was by Barbara Leuner (1966) a psychotherapist exploring the impact of early maternal separation; although no definition was provided, the term later appeared in a doctoral thesis on the study of emotion by Wayne Payne in 1985 (Llewellyn-Nash, 2015). Petrides (2011) argued that the roots of the concept related to the study of social intelligence by Thorndike (1920), who referred to the ability to understand and manage human relationships wisely. Nevertheless, it was Salovey and Mayer who provided the first definition of emotional intelligence in 1997:

> *"The ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others." (Mayer, et. al. 2000, p.82)*

Later Petrides and Furnham (2000) made the distinction between ability and trait constructs based on the use of maximal performance or self-reporting questionnaires. The ability construct uses maximal performance tests to measure the theoretical understanding of an individual's emotional functioning. In contrast, trait EI measures use self-reporting questionnaires to enable individuals to rate their capacity to respond to emotionally laden situations (O'Connor, et. al. 2019).

Since then, conceptual heterogeneity has led to significant challenges in selecting the correct tools for the appropriate methodological application (Keefer, 2015). In particular, rigorous debate about the use of self-assessment tools continues, as authors argue that measures of typical performance are subjective and therefore unsuitable for the measurement of EI. While others argue that these are the sole means available to researchers attempting to measure self-perceptions of emotions influencing an individual's decision making in everyday life (Michaelangelo, 2015).

According to Zeidner, et. al. (2012), individuals may have insufficient self-insight to be able to assess their own emotional capacity and abilities with any accuracy. For that reason, Keefer (2015) advised caution when using these techniques due to the tendency for

individuals to overestimate their positive attributes. Nonetheless, allied schools of psychology and psychiatry have been using self-reporting scales successfully for many years to aid diagnosis (Passmore, 2012; Michaelangelo, 2015). Self-reporting measures may not be able to assess emotional abilities objectively, however, they can provide unique information about an individual's self-identity, particularly when applied and interpreted appropriately (Keefer, 2015). Furthermore, Siegling, et. al. (2015c) argue that in the field of EI self-reporting measures have been subject to a number of meta-analyses (Martins, et. al. 2010; O'Boyle, et. al. 2010) within which they consistently surpassed maximal performance ability measures, although this is reliant on robust psychometric design and alignment with a sound underpinning theoretical framework (Siegling, et. al. 2015c).

In the literature, there are three conceptually distinct categories of EI represented; ability, mixed and trait models (O'Connor, et. al. 2019). In an attempt to clarify various concepts and measurement tools, Lewis, et. al. (2017) completed a narrative review using the three streams approach developed by Ashkanasy and Daus (2005) to re-categorise EI constructs according to the measure used. Stream one included ability EI measures, stream two identified studies based on ability models but using self-assessment measures and stream three used self-reporting measures of EI, including components not identified in the original Salovey and Mayer (1997) definition. According to O'Connor, et. al. (2019), the term trait EI can be used to define studies in stream two and three due to the use of self-reporting measures. Petrides and Mavroveli (2018) state the legitimacy of this depends on the interpretation of results within the context of trait EI theory. Stream 3 was subsequently redefined as 'mixed model' due to the use of measures combining competencies, social skills and traits (O'Connor, et. al. 2019). Despite repeated attempts to reclassify the EI literature, confusion persists due to the use of the same labels to describe different concepts, the absence of a maximal performance test to measure AEI and a myriad of self-reporting instruments (Hellwig, et. al. 2020).

2.2 Ability EI

Ability EI is described as a means of making decisions that are more intelligent by incorporating emotions into thought processes and connecting cognitive ability with EI (Rees, 2016). The Salovey Mayer model clearly articulated the view that EI is a set of measurable cognitive abilities, distinct from other parts of personality and intelligences (Mayer, et. al. 2000; Petrides, 2011). Subdivided into four categories, their ability EI model (AEI) incorporated: emotional perception and identification, emotional facilitation of thought, emotional understanding and emotional management (Papadogiannis, et. al. 2009; Mayer, et. al. 2000).

Salovey and Meyer (1990) undertook the first systematic programme of research, developing the original conceptual model and the first ability test: The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Matthews, et. al. 2011). Ability measures require individuals to resolve problems with emotional implications according to correct or incorrect answers, providing an indication of a person's capacity to understand and work with emotion (O'Connor, et. al. 2019). The measurement of ability EI remains synonymous with the use of the MSCEIT, irrespective of its persistent psychometric limitations, particularly those associated with its emotion understanding and perception sub factors (Zeidner, et. al. 2012; Evans, et. al. 2020).

A range of studies have reported positive relationships between EI and cognitive ability (Checa and Fernandez-Berrocal, 2015; Tacheuchi, et. al. 2015; Evans, et. al. 2020). In contrast, others found no relationship between EI and general cognitive ability, based on self-assessment or by observation of personal relationships (Boyatzis, et. al. 2015; Wan Husin, 2017). Despite the notion that alternative measurable intelligences exist, the evidence remains flawed by a lack of consistency in operationalisation and concept construction (Hedlund and Sternberg, 2000; Antonakis and Dietz, 2010; Fiori and Antonakis, 2011; Fiori, et. Al. 2014).

2.3 Mixed models

Goleman's EI model popularised in 1995 and revised in 1998, included a wide variety of characteristics which sit outside of the ability model leading to its redefinition as a mixed model (Zeidner, et. Al. 2012). Goleman (1996) and Bar-On (1997) were dominant theorists engaged in the development of mixed models incorporating a more comprehensive range of emotional competencies.

Goleman developed an 'Emotional Competency Model' (Goleman, 1996) differentiating between abilities by reframing the use of emotion as a range of competencies developed through self-work rather than a cognitive ability (Llewellyn-Nash, 2015). Criticisms levelled at Goleman's model relate to the blending of personality features such as optimism and empathy with emotional competencies like mood regulation, contributing to a general lack of construct clarity (Matthews, et. Al, 2007; Zeidner, et. Al. 2012). Goleman's (1996) highly publicised model made some extraordinary claims about the significance of EI as more important for achieving success than cognitive ability routinely measured by intelligence quotient (IQ). He argued that EI training had the potential to remedy a range of social ills by increasing individuals' EI (Goleman, 1996). However, while there was some evidence to support this viewpoint, the lack of conceptual clarity and a robust measurement tool meant the initial promise remained unfulfilled (Matthews, et. al. 2011).

The work of Bar-On (1997) emerged concurrently, providing an alternative framework for mixed EI via his Emotional Social Intelligence model which he revised in 2006 (Wood, et. al. 2009). He defined EI as:

> *"An array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On 1997, p.14).*

This definition included an eclectic mix of resources required to manage daily life incorporating a repertoire of psychological competencies (Wood, et. al. 2009). According to Mayer et. al. (2000), the fundamental question Bar-On sought to answer related to the fact that some people appeared to succeed more readily than others. Exploring the interface between inter and intrapersonal elements of social interaction, blending cognitive abilities and aspects of personality, this mixing of cognitive and non-cognitive abilities contributed to its classification as a mixed model of EI (Llewellyn-Nash, 2015; Wan Husin, 2017).

Several mixed EI tools were subsequently developed including Bar-On's Emotional Quotient inventory (EQ-i) and the Shutte Emotional Intelligence Scale (SEIS) (Matthews, et. al. 2011), although the latter is classified as a trait measure by Gardner and Qualter (2010) due to a number of trait facets and has also been used as an ability tool due to its theoretical origins (Snowden, et. al. 2015a; Stiglic, et. al. 2018). According to Seigling, et. al. (2015b) the EQ-i does not measure the key concepts articulated in the model, for example some facets including independence and reality testing have no emotional connection. Despite various versions, this tool is rarely used in peer-reviewed literature (Siegling, et. al. 2015b).

2.4 Trait models

Trait emotional intelligence is concerned with the way in which people understand their emotional world and is rooted in literature associated with the study of personality and emotion (Petrides, et. al. 2016). The origins of TEI emerged from the earlier ability and mixed model EI literature as part of a 'second wave' (Matthews, et. al. 2012).

In psychology:

> *"A trait is a dimension of personality used to categorise people according to the degree to which they manifest that particular characteristic." Burger, 1997 In: Maltby et.al. 2013 pp.154.*

The two primary models of trait personality theory refer to hierarchical structures composed of either 'The Giant Three' (Eysenck, 1970) or the 'Big Five' (Costa and McCrae, 1985) major personality dimensions. Within these superordinate traits, referred to as factors, there are a range of clustered personality attributes labelled as subordinate facets (Maltby, et. al. 2013).

In contrast to previously outlined EI models, which are related to cognitive ability, Petrides et.al. (2007) identified trait EI as a group of emotional self-perceptions obliquely aligned to the big five within the personality factor space. Trait models argue that EI integrates a distinct set of personality traits, which go beyond the five-factor model to incorporate emotional function and regulation (Zeidner, et. al. 2012; Andrei, et. al. 2016). Trait EI recognises the inherent subjectivity of emotion. The trait EI model and the subsequent development of the Trait Emotional Intelligence Questionnaire (TEIQue), according to Petrides (2009a), make it possible to explore individual differences through emotion-related self-perception. The assertion that TEI exists as part of personality hierarchies is supported through verification of its heritability using the TEIQue tool (Vernon et al, 2008).

The origins of the TEIQue were in the EQ-i and the NEO-PI-R, a tool designed to assess facets of the big five personality traits (Zeidner, et. al. 2012). The aim was not to measure concrete abilities but rather to assess personal beliefs about various elements of emotional self-efficacy by using typical performance scales (Keefer, 2015). Petrides et. Al. (2010) developed the TEIQue, a valid and replicable psychometric tool, to measure facets of emotion and personality associated with EI. While other trait EI tools are available including the Multi-Dimensional Intelligence Assessment (MEIA) (Tett, Fox and Wang, 2005), the TEIQue's validity remains superior as the other measures incorporate a limited number of trait EI facets (Gardner and Qualter, 2010; Andrei, et. Al. 2016).

The aim of the TEIQue is to provide a measure of self-perception, which includes a score for overall TEI and additional scores at factor levels of well-being, self-control, emotionality and sociability with fifteen underpinning facets (Petrides, 2009a). The measure has acceptable alpha coefficients and extensive evidence to support its use cross culturally (Petrides, 2009b; Mikolajczak, et. Al. 2007; Freudenthaler, et. Al. 2008; Mavroveli, et. Al. 2012; Martskvishvili, et. Al. 2013; Jolic-Marjanovic, et. Al. 2014; Gokcen, et. Al. 2014; Siegling, et. Al. 2015b; Andrei, et. Al. 2016; Di Fabio, et.al. 2016). Nevertheless, its overlap with existing trait personality theory and self-assessment generally remains a source of concern, as it can be assumed that those who lack EI may not be in a position to accurately assess their own emotional capacity (Codier, et. al. 2010; Matthews, et. al. 2011; Zeidner, et. al. 2012; Foster, et. al. 2015a; Van der Linden, et. al. 2017). However, the evidence to validate the concept of trait EI and its measurement via the use of the TEIQue has been sufficiently corroborated (Petrides, et. al. 2016; O'Connor, et. al. 2019), allowing for the possibility of useful TEI research exploring its role in employment, particularly involving a significant amount of emotional labour, or as a predictor of general and mental health (Martins, et. al. 2010; Petrides, et. al. 2016).

2.5 The application of EI

The idea that EI has the potential to aid success more effectively than intelligence has been promoted extensively in the press (Gibbs, 1995). A proliferation of self-help books emerged following the launch of Daniel Goleman's best-selling book 'Emotional Intelligence: why it can matter more than IQ' in 1996. Extensive research followed, undertaken in a wide range of settings.

The literature identifies clear associations between EI and improved psychological wellbeing, workplace success, higher educational attainment and a range of positive life outcomes (Kotsou, et. al. 2018; Lea, et. al. 2019). A range of systematic reviews report positive relationships between EI, recovery from acute stress, reduction in suicidal behaviour, lower levels of aggression and less intensive use of smoking, alcohol and illicit substances (Kun and Demetrovics, 2010; Dominguez-Garcia and Fernandez-Berrocal, 2018; Lea, et. al. 2019). Higher EI is also associated with increased wellbeing and a greater capacity to cope with stress amongst teachers, doctors, physiotherapists, social workers and police officers (Weng, 2011; Kinman and Grant, 2011; Brunetto, et. al. 2012; Swami, et. al. 2013; Gribble, et. al. 2017; Merida-Lopez and Extremera, 2017; Carvalho, et. al. 2018).

Nonetheless, the existence of three different models of EI has significant implications for application. The ability model focused on cognition suggests that EI can be taught, learned and objectively measured (Bulmer-Smith, et. al. 2009). Mixed models propose a combination of competencies, skills and non-cognitive capabilities influencing the way in which individuals' abilities enable them to adapt to environmental demands (Webb, et. al. 2013). Trait models aligned to aspects of personality support the notion that facets can be enhanced but not necessarily acquired (Petrides, 2009a; Van der Linden, et. al. 2018). Despite these differences, the weight of evidence supports the positive impact of EI for individuals and those around them in a range of settings; although, the use of varied EI concepts continues to limit the application of theory to practice (Cleary, et. al. 2018).

2.6 Emotional intelligence and nursing

The application of EI to nursing practice initially lagged behind its use in business (Bulmer-Smit, et. al. 2009; Gilar-Corbi, et. al. 2019). The absence of a strong evidence base has limited the capacity to operationalise EI in nurse education and practice. While the commitment to develop emotionally intelligent nurses has been articulated through the inclusion of EI in the Future Nurse Standards (NMC, 2018a), a summary of the evidence available is required in order to understand the current situation.

2.6.1 Student nurses age, gender and EI

In order to determine if there is a relationship between EI and students' age, it is important to differentiate between changes associated with the ageing process and those occurring in response to pre-registration nurse education. Cleary, et. al. (2018) concluded there was no relationship between age and EI in a systematic review of EI and resilience in pre-registration nurse education. These findings were limited by the lack of longitudinal studies and the inclusion of literature referring to ability and trait EI measures, with no acknowledgement that the concepts or their methods of assessment were different (Andrei, et. al. 2016).

Similarly, as a predominantly female profession it is necessary to determine the role of gender in the development of student nurses' EI. The importance of EI in relation to gender is particularly significant as historically nursing has been a female dominated profession. Ball et. al. (2012) identified that only 8% of hospital nurses were male at the time of their study. Although there has been some improvement with 11.4% of nurses now identifying as male, the number of men entering nurse education has remained static at around11.5% for the last decade (Williams, 2017). The view that nursing relies on attributes that are more feminine persists and gender stereotyping continues to affect nurses' lived experiences (Rowlinson, 2013). Men are more typically described as aggressive or courageous, while women are perceived as sensitive and affectionate (Lopez-Zafra and Garzia, 2014) and empathy is persistently viewed as a stereotypically female trait (Siegling, et. al. 2015b).

Nursing practice historically has shown a gender bias and nursing curricula have been frequently feminised (Inoue, et. al. 2006; Kermode, 2006). This directly impacts attrition as student nurses with the least gendered views of nursing are most likely to leave as a result of the dissonance created (McLoughlin, et. al. 2010). Recognising the potential for gender bias in nursing practice and education is essential in order to minimise attrition and encourage more men to enter a profession subject to entrenched stereotypes (Dean, 2018). However, research including gender related findings based on student nurse populations is limited. Studies in Scotland and Slovenia suggested that female students reported higher overall trait EI, although on closer inspection the results of the Slovenian study were not significant (Stenhouse, et. al. 2016; Stiglic, et. al. 2018).

Establishing if there are verifiable differences between nursing students' age, gender and their perceptions of EI is important. If differences exist, there is the potential for students to perceive the impact of nurse education differently, which may require adjustments to nursing curricula and adaptations to teaching and learning strategies.

2.6.2 EI and selection for pre-registration nurse education

Evidence suggests a relationship between nurses' EI and patients' perceptions of compassionate care (Rankin, 2013). Furthermore, enhanced communication and conflict resolution skills associated with EI have been shown to improve patient safety as a result of more effective teamwork (Codier and Codier, 2017), incentivising the selection of emotionally intelligent nursing students. According to Llewellyn-Nash (2015), gaining an understanding of a student's emotional history through the lens of EI may also improve their experience of nurse education and inform helpful adaptations to the educative content of nursing programmes. However, identifying potential students who have both the academic ability and EI to complete the course and become resilient professionals is a challenging task (Taylor, et. al. 2014). Raising academic entry criteria has improved confidence in student ability to study at degree level. Further exploration of students' emotional intelligence and its influence on the experience and outcomes of nurse education is required (Bulmer-Smith, et. al. 2009; Beauvais, et. al. 2011; Shanta and Garguilo, 2014; Stenhouse, et. al. 2016).

There are few studies attempting to measure levels of overall EI amongst student nurses in relation to available norms, part of the standardisation process required in order to facilitate comparisons between different populations (Coolican, 2018). Cerit and Beser (2014) noted that EI levels amongst student nurses were average, while Snowden, et. al. (2015a) identified that student nurses had higher levels of EI than students studying computing at the same university. These results were replicated by a subsequent study comparing EI in nursing and engineering students in Slovenia (Stiglic, et. al. 2018).

According to Sharon and Grinberg (2018), assessing potential students' EI should be part of the selection process for nursing programmes. In contrast, Jones-Schenk and Harper (2014) and Snowden et. al. (2018) advised caution, arguing that the breadth of EI concepts and measures used, combined with the absence of an ideal range to support admission, limits its value. Nonetheless, Cleary, et al. (2018) observed that a number of articles included in their systematic review recommended further consideration of EI in the eligibility criteria. Foster, et. al. (2015a) recommended that EI screening of nursing applicants would be beneficial, although should not necessarily lead to rejection.

One UK study suggests that personality factors have a significant relationship to student nurses' attrition rates (Deary, et. al. 2003). This is supported by a more recent Australian study, which observed a quarter of student nurses had extreme scores for some personal traits, suggesting they may be unsuitable for the demands of the profession (Pitt, et. al. 2014). A more thorough understanding of EI may in time, lead to the possibility of ensuring

those who demonstrate extreme scores could be helped to appreciate the demands of the role and encouraged to pursue more suitable career options. This would be preferable to excluding candidates based on particular traits, as the requirements for different roles within the profession are highly variable (Eley, et. al. 2012; Petrides and Sevdalis, 2009). The rejection of candidates based on EI scores alone potentially exacerbates the challenges associated with selection and retention of nursing students. While assessing EI as part of the selection process may be useful, more evidence is required to determine its value and impact before implementation.

2.6.3 EI, academic achievement and attrition

Evidence supports a relationship between EI, academic achievement and attrition. Completing nurse education requires perseverance and considerable motivation. Petrides' (2009a) trait model incorporates the capacity to keep going despite adversity as a specific self-motivation trait. Similarly, some mixed EI models include self-motivation (Cerit and Beser, 2014), although this is not a concept associated with ability EI (Zeidner, et. al. 2012). Research suggests most students begin their education highly motivated and with a caring nature (Eley, et. al. 2012; Sokola, 2013; Pitt, et. al. 2014). Cerit and Beser (2014) observe the connection between high self-motivation and the perception of low financial status amongst nursing students. Recognising that nursing is a relatively poorly paid profession the potential for extrinsic motivation through monetary reward is limited. Subsequently, high levels of intrinsic motivation, or self-motivation, are required in order to succeed. However, their study does not identify a specific EI construct or provide sufficient evidence to support the reliability of the tool employed, which limits the validity of its findings (Foster, et. al. 2015a).

According to a number of studies, overall EI has a direct impact on academic achievement and improves performance in clinical settings (Forbes-Rankin, 2009; Por et al. 2011; Beauvais, et. al. 2011; Fernandez, et. al. 2012; Rankin, 2013). Student nurses with higher EI achieved higher grades (Snowden, et. al. 2015a and 2018; Sharon and Grinberg, 2018). Petrides (2009a) maintained that trait EI acts as a moderating factor in academic achievement meaning that students with low EI whose emotional and cognitive resources are outweighed by the demands of the situation will almost certainly have reduced academic success. Guo, et. al. (2019) established that junior nursing students with lower EI were also more likely to procrastinate due to a lack of self-belief and fear of failure. However, these findings require careful consideration before application to UK contexts as the programme of nurse education, healthcare and culture are significantly different in China. Nonetheless, Por et. al. (2011) reported a positive correlation between EI, the capacity to manage stress,

wellbeing and coping. Similarly, a longitudinal Australian study based on AEI also noted an increase in students' ability to utilise emotions over time (Foster, et. al, 2017). Given these findings it is unsurprising that subsequent evidence identified a positive relationship between EI and the completion of pre-registration nurse education (Snowden, et. al. 2018).

EI provides a helpful framework to explore the impact of nurse education as it incorporates a range of factors identified as affecting student nurses' decisions to leave the program; for example, the capacity to manage stress, motivate oneself, form and maintain relationships, and influence the emotions of others (Petrides, 2009a). An intrinsic motivation to care for people and encouragement from others were both identified as mitigating factors reducing the risk of students leaving nursing programmes before completion (Hoeve, et. al. 2017). Developing students' intrinsic motivation and capacity for healthy interpersonal relationships through emotionally intelligent teaching and learning environments offers the potential to reduce attrition. This is vitally important, as despite interventions the rate of student nurse attrition remain stubbornly high at 24% (Beech, et. al. 2019). However, in order to create targeted educational interventions a more detailed appreciation of the specific attributes developed or inhibited is required.

Students' experiences during nurse education have a significant impact on their decision to complete the course and gain registration or leave (Lovegrove, 2018; Chan, et. al. 2019). However, despite having established this connection, measurement of EI alone without any attempt to understand students' lived experiences will not provide the insight needed. Additional research is required to explore students' exposure to EI in education and practice, and the impact this has on their development.

2.6.4 EI, compassionate care and the role of empathy

The NMC (2018a) standards for proficiency state the requirement for nurses to be emotionally intelligent at the point of registration. While there are no specific attributes identified, many of the standards incorporate elements of EI. For example, in annexe A standard 2.9 states nurses must at the point of registration be able to;

> *"Engage in difficult conversations, including breaking bad news and support people who are feeling emotionally or physically vulnerable or in distress, conveying compassion and sensitivity." NMC, 2018a, p.28*

The development of creative strategies to provide education that combines high level scientific knowledge while modelling and enhancing skills to provide compassionate care is vital (Willis, 2015). Completion of pre-registration nurse education is not the final goal, rather the development of nurses who are able to deliver evidence based person-centred care:

academic knowledge combined with empathic understanding, translated into action to deliver compassionate care (NMC, 2018a).

The capacity to empathise is an intrinsic element of trait, ability and mixed EI models (Petrides, 2009a; Bar-On, 2013). Although described differently as the importance of being able to perceive and understand emotion, empathy remains fundamental to ability EI constructs (Mayer and Salovey, 1997). Despite evidence suggesting nurses are empathic, reports of inadequate care lacking compassion indicate that at times this appears lost in translation to practice (see section 1.2.2). This may be a reflection of wider societal concerns. Herdman (2004) argues that we live in a post-emotional society, empathy is transformed into antipathy and emotion is almost completely separated from action. Nonetheless, empathy remains an essential quality for nurses but is only effective when translated into action and applied to patient care (Hunt, et. al. 2017).

Evidence suggests that student nurses may have higher levels of empathy than those in other health professions (Petrucci, et.al. 2016) and according to Lovan and Wilson (2012) there is no significant change in empathy through the course of nurse education, although others have noted a reduction in empathy levels on exposure to clinical practice (Reynolds and Scott, 2000; Wear and Zarconi, 2008; Ward et al., 2012). Empathy is undoubtedly an important element in the provision of compassionate care (Hunt et.al. 2017). However, Morse, et. al. (2006) reported that high levels of empathy were positively associated with increased risk of burnout. Student nurses need to learn how to separate personal emotional responses from those of the patient by providing patient-centred responses, which create connections, rather than leaving patients feeling isolated in response to self-focused comments (Morse, et, al. 2006). This process necessitates emotional self-regulation (Hunt, et. al. 2017). However, the capacity for self-regulation, another essential element of EI, also requires a significant degree of self-awareness during empathic interactions in order to prevent burnout (Hunt, et. al. 2017).

2.6.5 The importance of self-awareness

Inextricably linked to EI, self-awareness is multifaceted, combining intrapersonal and interpersonal emotional and relational components. Helping nurses to recognise and manage stress, engage in healthy behaviours, develop an understanding of others, increase empathy, improve self-esteem and manage challenging situations has a positive influence on workplace environments (Rasheed, et. al. 2018).

Many strategies proposed to develop self-awareness incorporate the need for reflection, described as the ability to engage in honest self-assessment, considered essential for

nursing practice (Davies, et. al. 2010; Hunt, et. al. 2017; Rasheed, et. al. 2018). However, it is argued that nurses frequently do not demonstrate the ability to reflect at a level which goes beyond educational requirements, and fail to utilise reflection as a means of enabling them to manage demanding emotional situations (Ghaye and Lillyman, 2010; Nairn et. al, 2012; Rees, 2013; Edwards, 2014). Self-awareness and reflection have been pre-requisites for all undergraduate programmes since 2010 (NMC, 2010). Nonetheless, despite an extensive body of literature to support reflective practice as a means of raising self-awareness, there is a lack of empirical evidence to demonstrate its operationalisation in nursing practice or research (Rasheed, et. al. 2018). In the same way as the development of EI requires purposeful intention (Petrides, 2019), improving self-awareness takes effort and begins with a conscious choice (Rasheed, et. al. 2018).

Even though it is a familiar notion that self-awareness is highly important for nurses, many nurse educators do not consider emotional awareness as an essential part of the curriculum (Freshwater and Stickley, 2004). More recently there has been considerable effort to develop reflective practice as an integral part of nurse education and revalidation (NMC, 2016). Foster, et. al. (2015a) undertook an integrative review which identified a number of commonly recommended interventions to develop students' self-awareness and enhance personal growth. These included reflection using story (Adamson and Dewer, 2015), mindfulness techniques (Walker and Mann, 2016) and the use of role-play (Hayes, et. al. 2018). Nonetheless, there was limited evidence to support meaningful change (Foster, et. al. 2015a).

2.6.6 The influence of registered nurses on students' EI

Evidence suggests student nurses may be particularly vulnerable to emotional distress in response to situations experienced while on placements. A number of studies (Melissa-Halikiopoulou, et. al. 2011; Aradilla-Herrero et. al. 2012) report an association between pre-registration exposure to clinical practice and an increase in suicidal thoughts (Cleary, et. al 2018). A frequently occurring theme in the literature is the need for effective, regular clinical supervision and help to manage emotions following practice exposure (Foster, et. al. 2015b). Following their narrative review, Lewis, et. al. (2017) recommended the development of EI as an intervention to reduce the risk of emotional distress associated with placement experiences. However, later suggestions included a more proactive approach, in contrast to the current response based interventions, proposing the development of a more 'emotional curriculum' including EI in all aspects of nurse education (Banks van Zyl and Noonan, 2018).

The development of an 'emotional curriculum' relies on engagement by registered nurses to facilitate the process. However, students report negative or negligible experiences of mentors influencing their ability to cope with emotional elements of the work (Jack and Wibberley, 2013). Evidence suggests registered nurses believe EI is innate and cannot be taught; subsequently they pay little attention to its development (Jones-Schenk and Harper, 2014). In order to create emotionally intelligent curricula, the lack of knowledge and understanding of EI exhibited by mentors and academic staff needs to be addressed (Cleary, et. al. 2018).

Several studies (Hurley, 2008; Jack and Wibberley, 2013) highlight the importance of student exposure to tutors and clinical mentors who model EI consistently throughout the educational process, providing a positive influence and helping them to become compassionate and emotionally aware practitioners. This is particularly important as uncovering and working with difficult emotions can be challenging for nurses, who are obliged to remain emotionally controlled (Edwards, 2014; Van Zyl and Noonan, 2018). Strategies are required, which go beyond the ability to reflect on practice, in order explore these deeper themes safely (Edwards, 2014). Failure to learn how to express and manage emotion may lead to students hiding their emotions and an inability to develop effective support systems. Professional socialisation including opportunities for nursing staff to discuss strategies for managing emotion is essential (Wilson, 2016).

2.6.7 Enhancing EI through nurse education

Psychological and physical wellbeing, employability, retention, the ability to relate socially and a reduction in bullying have all been shown to improve with increased emotional intelligence (Nelis, et. al. 2011; Foster, et. al. 2015a; Petrides, et. al. 2016). Furthermore, EI relates positively to job satisfaction (Schutte and Loi, 2014), career adaptability (Coetzee and Harry, 2014) and the capacity to manage stress created in response to emotional labour (Karimi, et. al. 2014). Carragher and Gormley (2017) also argue that EI is an important factor associated with leadership behaviours and skills. It is supported by several studies demonstrating a positive correlation between EI and leadership qualities (Codier, et. al. 2010; Benson, et. al. 2012; Walter, et.al. 2012; Butler, 2021).

Since the development of the Future Nurse Standards (NMC, 2018a), student nurses have been required to develop skills previously associated with advanced practice, to provide more leadership and to take increased responsibility for co-ordinating care. Interdisciplinary teamwork and interprofessional learning in healthcare are important elements in this process, improving role appreciation, dispelling stereotypes and supporting successful engagement in collaborative decision making, while remaining flexible in response to

frequently changing demands (McCallin and Bamford, 2007; Flowers, et. al. 2014; Guraya and Barr, 2018). EI is an essential component of interdisciplinary teamwork; knowledge and cognitive ability alone are not enough as failure to address emotional aspects of the work compromises the effectiveness of the team (McCallin and Bamford, 2007; Lambert, 2021). Nonetheless, the integration of EI into healthcare training has not yet been achieved despite evidence to suggest its positive impact on a range of factors associated with effective teamwork including; improved decision making, the reduction of destructive behaviours, enhanced communication skills and increased trust between colleagues leading to better collaboration (Flowers, et. al. 2014; Raghubir, 2018; Skarbaliene, 2019). Gribble, et. al. (2017) noted a significant decline in occupational therapy, physiotherapy and speech and language therapy students' EI following extended exposure to practice environments, suggesting that university educators should include EI in sessions to prepare interprofessional facilitators and placement supervisors to support students in practice. More research is required to ascertain which specific aspects of students' placements were associated with the changes in EI observed (Gribble, et. al. 2017).

Similarly, it remains unclear how best to equip student nurses to become more emotionally intelligent in academic and practice contexts (Cleary, et. al. 2018). Some studies (Tiwari, et. al. 2003; Zhang and Lambert, 2008) identify associations between the capacity to critically analyse situations, consider the views of others and EI. Begley and Glacken (2004) agree that analytical and emotional engagement with problem solving are both important, arguing that EI must be taught prior to exposure to clinical placements in order to enable students to cope. One suggestion is that increased use of simulation may improve EI, although specific traits or abilities in need of development have not yet been determined (Jones-Schenk and Harper, 2014; Cleary, et. al. 2018).

Existing evidence suggests that some elements of EI change during the course of nurse education (Aradilla-Herrero, et. al. 2013; Shanta and Garguilo, 2014; Foster, et. al. 2015a; Foster, et. al. 2017) which concurs with the view that traits are flexible to adaptation (Petrides and Sevdalis, 2009; Nelis, et. al. 2009; Mikolajczak, et. al. 2015; Petrides, et. al. 2016), although Petrides, and Sevdalis, (2009) proposed that some traits are more amenable to adaptation than others are. Current research exploring the impact of nurse education on EI is subject to a range of methodological limitations (Petrides, et. al. 2016). Cleary, et. al. (2018) completed an integrative review of EI and resilience in pre-registration nurse education based on fourteen articles selected following a well-constructed design despite the absence of differentiation between EI models. They concluded that while some interesting findings had emerged there was insufficient evidence to confirm EI improves academic success, communication or retention. There are considerable limitations

associated with the research available, including a lack of qualitative evidence. Nonetheless, the weight of evidence suggests EI remains stable during nurse education (Cleary, et. al. 2018). Some studies reported an increase in EI (Benson, et. al. 2010; Snowden, et. al. 2015a) and one longitudinal study using an ability EI tool reported a significant decrease in total EI scores (Cheshire, et. al. 2020). However, the majority of studies are either cross sectional, longitudinal within a short timeframe, or they do not report EI scores at the end of the programme. Restrictions of scale, design and insufficient reporting indicate the need for further investigation.

2.7 Research focus

The opportunities for further exploration of EI in nursing contexts, based on a clear theoretical understanding using a variety of research methods are numerous (Bulmer-Smith, et. al. 2009). However, essential to this process is the explicit identification of the construct adopted and the use of appropriately validated measures applied to nurse education programmes (Foster, et. al, 2015a). While some authors recommend the pursuit of additional research using AEI models (Ashkanasy and Daus, 2005; Conte, 2005; Zeidner, et. al. 2012) the majority of the limited research available used self-assessment measures (Foster, et. al. 2015a; Carragher and Gormley, 2016). Subsequently, O'Conner et. al. (2019) recommend the use of trait EI measures, particularly when predicting personal or professional effectiveness. Specifically, the TEIQue due to its reliability and validity make it a comprehensive and effective self-reporting tool (O'Connor, et. al. 2019).

Based on the literature available, the notion of a separate intelligence, objectively quantified through self-assessment measures does not yet have an adequate body of evidence to support its use in nursing research, leading to the rejection of ability EI for the purpose of this thesis. In contrast, the evidence supporting the use of trait EI theory is persuasive. Pursuing the trait model provides the best opportunity to develop the currently limited body of evidence relating to EI and nursing. However, it is not enough to review the evidence based on the use of self-assessment measures; in order for the interpretation of their results to be legitimate, this must take place within the context of trait EI theory (Petrides and Mavroveli, 2018).

2.8 The need for an integrative review

Trait emotional intelligence has been identified as the EI construct most relevant to nurse education. An integrative review is required in order to identify the most appropriate methods to evaluate its application to nurse education. As TEI is a concept that can be explored using different empirical approaches, it is necessary to incorporate evidence from both quantitative

and qualitative studies. Insight gained from diverse methodologies can be combined to create the breadth of insight required to provide an appropriate evidence base for nursing practice (Whittemore and Knafl, 2005).

The use of a clearly defined EI construct and appropriately aligned measurement tools are essential in order to develop an empirical foundation for this study (Matthews, et. al. 2011; Nauheimer, 2015; Wan Husin, 2017). Subsequently, the following integrative review explores the evidence base, with a specific focus on trait EI theory and its measures in pre-registration nurse education.

CHAPTER 3: INTEGRATIVE LITERATURE REVIEW OF TRAIT EMOTIONAL INTELLIGENCE IN UNDERGRADUATE NURSING

The previous chapter provided an overview of EI literature and its relevance to nursing and nurse education. Using integrative review methods to scrutinise TEI specifically and its application to nurse education, this chapter informs the empirical focus for the study.

3.1 The review

3.1.1 Aim of the review

The aim of this review was to identify who, when, how and by what methods TEI has been explored in nurse education. Specific objectives were to establish:

1. Relevant demographic characteristics of the nursing students involved in the studies, when they were undertaken and the methods used to explore how much of the TEI construct.
2. How does TEI affect the outcome or experience of pre-registration nurse education?
3. What impact does pre-registration nurse education have on students' TEI?

3.1.2 Methodological objectives

Current understanding of TEI suggests different types of activities are captured and tested using different methodologies (Bulmer-Smith, et. al. 2009). The integrative review methodology was selected (Whittemore and Knafl, 2005) as it supports inclusion and synthesis of papers from diverse methodologies, and encourages methods of synthesis, such as meta-summary (Finfgeld-Connett, 2018) to capture and frame diverse literature relevant to the study objectives.

- To clearly articulate the focus and purpose of the review.
- To create a well-defined rigorous search strategy to identify evidence pertinent to the review aim and questions.
- To evaluate the literature selected using appropriate tools to assess the methodological quality.
- To analyse the data through unbiased interpretation and iterative comparison of sources.
- To contribute further to the field by drawing conclusions about the quality of the evidence currently available relevant to the review questions.

3.2 Design

The design of this review was based on integrative review methods, selected to support the inclusion and exclusion of papers with diverse methodologies (Whittemore and Knafl, 2005). PRISMA guidance was used to map inclusion and exclusion and as a checklist to support a systematic approach (http://prisma-statement.org/).

3.2.1 Search methods

The primary literature search focused on nursing and healthcare databases including CINAHL (Cumulative Index of Nursing and Allied Health Literature), PsycArticles and Psycinfo (Database of abstracts of psychological literature), MEDLINE (Medical Literature Analysis and Retrieval System) and the Cochrane Library including all resources in the English language from 1995 onwards.

3.2.2 Search strategy

EI was popularised as a concept in 1996 following the publication of Daniel Goleman's book 'Emotional intelligence: Why it can matter more than IQ' (1996). However, trait emotional intelligence did not emerge until later. Subsequently, the date limits for this review were from 1996 onwards to incorporate all early and developmental literature articulating the concept. Terms were combined using the Boolean AND/OR operator and truncation (*) was applied where appropriate (i.e. nurs*).

In addition, EThOS was utilised to access PhD theses completed incorporating emotional intelligence and nursing or nurse education. Supplementary resources were located by scrutinising reference lists of literature identified and reviewed by previous methods (Aveyard, 2018). The final search was completed in January 2020.

3.2.3 Inclusion strategy

The review question informed the inclusion criteria for the studies selected. This required evidence generated from qualitative and quantitative primary studies related to pre-registration nurse education. Pre-registration nurse education is a term primarily used in the UK. Alternative definitions based on terminology utilised in other countries with comparable educational systems, meeting the healthcare needs of similar populations, were therefore considered. Some studies compared TEI in both pre and post registration educational contexts. Only those findings related to pre-registration education were incorporated.

TEI represents the belief that EI is part of the personality rather cognitive ability. The TEI construct affirms the notion that the extent to which an individual possesses emotional self-

efficacy relies on personal perception, accurately measured via self-assessment (Petrides, 2009a). Ensuring there was a coherent understanding of the concept utilised was an important aspect of this review. In order to begin to narrow the construct focus, studies involving pre-registration nurse education referring specifically to ability measures were excluded. However, interchangeable use of terminology and measures made it difficult to distinguish between mixed and TEI quantitative studies. The review subsequently focused on TEI but included studies where the results of mixed or TEI measures were used and interpreted in the context of TEI theory (Petrides and Mavroveli, 2018), retaining articles articulating underpinning concepts interpreted through the lens of TEI theory. Any lack of coherence between the use of model and measure was considered as part of the analysis.

3.2.4 Inclusion criteria

As studies based on quantitative and qualitative methods were relevant to the review questions, a mixed method review was undertaken. Development of inclusion criteria was guided by the use of the SPIDER Tool, see Table 1 (Cooke, et. al. 2012).

Table 1: Application of SPIDER Tool.

S - Sample	Pre-registration student nurses
PI - Phenomenon of interest	Trait Emotional Intelligence (TEI)
D - Design	Quantitative and qualitative studies: questionnaires, surveys, interviews, focus groups, case studies or observations.
E - Evaluation	Statistical analysis, experiences, opinions, attitudes, perceptions, beliefs, understanding, feelings.
R - Research type	Empirical: quantitative, qualitative and mixed methods

Studies were included if they clearly related to pre-registration nursing students and TEI. Studies referring to the concept of TEI, or where this involved measurement, the use of self-assessment tools aligned to mixed EI concepts but interpreted in relation to TEI were also retained.

Table 2: Inclusion criteria for studies

Acceptance of studies was based on meeting the inclusion criteria according to the participants in the sample, the phenomena of interest, design of the study and language.

Sample: Students undertaking pre-registration nurse education programmes

Phenomena of interest: Studies aligned to the concept of trait or mixed emotional intelligence as one of the concepts upon which they are based.

Design: Studies that measure observe or comment on student nurses' experiences of TEI during pre-registration education. These could include a variety of analytical, descriptive or observational designs.

Language: Studies written in English.

3.2.5 Exclusion criteria

Including a rationale for exclusion strengthens literature reviews; studies which did not meet the inclusion criteria were subsequently excluded.

Table 3: Exclusion criteria for studies

Studies were excluded from the review if they had any of the following elements.

Sample: Studies that did not include participants who were pre-registration nursing students.

Phenomena of interest: Studies not aligned to the concept of trait or mixed models of EI, or that utilised a form of measurement associated with AEI.

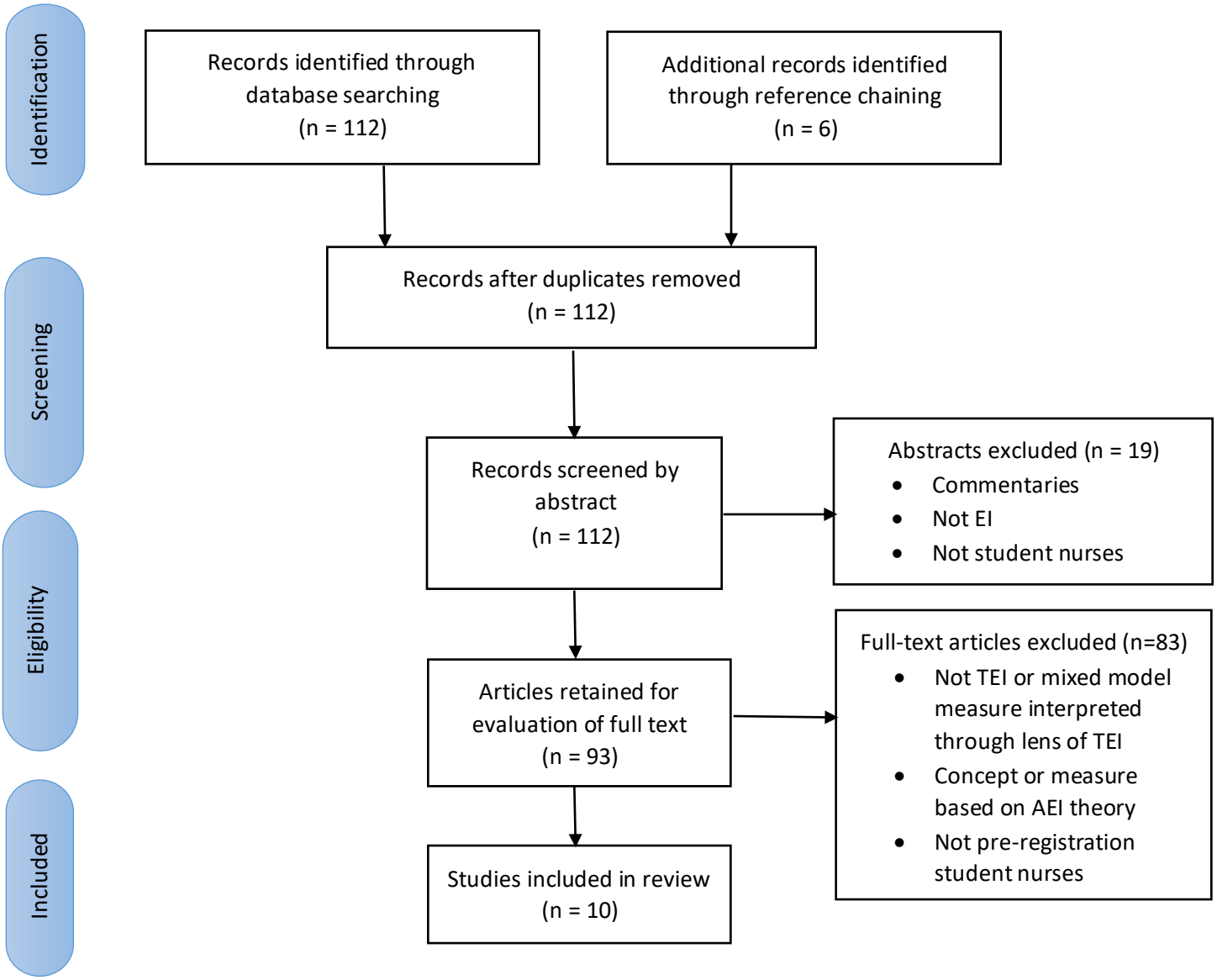
Design: Studies based on opinion without including an empirical method.

Language: Studies written in languages other than English.

3.2.6 Search outcome

The review outcome produced 118 citations. Eight duplicates were identified and removed leaving 110 citations. Following a review of titles and abstracts and the application of the inclusion criteria, full copies of 10 papers were retained for review (see Figure 1).

Figure 1: PRISMA 2009 Flow Diagram (Moher, et. al. 2009)



3.2.7 Quality appraisal

The primary focus of this review was to determine the suitability of literature for inclusion within the study rather than to assess its quality. Nonetheless, it was necessary to explore strengths and weaknesses of the studies through critical appraisal in order to determine methodological quality. Despite the potential to incorporate a wide range of qualitative and quantitative studies, following application of the inclusion and exclusion criteria, only quantitative analytical surveys were retained, a number of which related to different aspects

of the same longitudinal study. The methodological quality was assessed using the relevant Joanna Briggs Institute (JBI) appraisal tools (JBI, 2017).

3.2.8 Data extraction

Examination and summary of results, primary outcomes, strengths and weaknesses of the studies included in the review led to the population of a data extraction table (Appendix A). Despite the fact that some studies were methodologically weak, they were relevant to the research question and therefore included.

3.2.9 Data synthesis

By using a systematic approach to identify primary empirical studies the aim of this review was to identify relevant demographic details of the study participants, establish when the studies were undertaken and during which stage of nurse education, how the research was conducted and what methods were employed; furthermore, to ascertain how much of the TEI concept was explored to assess the impact of these findings on the outcome and experience of nurse education. Adherence to a clear method to managing the data, aligned to the aims of the study were important in order to produce a coherent review of the literature (Aveyard and Bradbury-Jones, 2019). By using a narrative approach to explore the evidence available, the synthesis of the data became a generative process. The combination of interpretation and a systematic approach created the potential to engage with ideas in a more thoughtful way, facilitating an in-depth, critically reflective process (Greenhalgh, et. al. 2018).

A data extraction table produced through tabulation led to the identification of key characteristics of each study (Appendix A). Clustering these characteristics led to the identification of similarities between findings (Figure 2). Key findings were consolidated into groups of themes (Table 4) reflecting questions posed for this review (Aveyard, 2018).

Figure 2: Representation of iterative process used to interpret data and generate themes

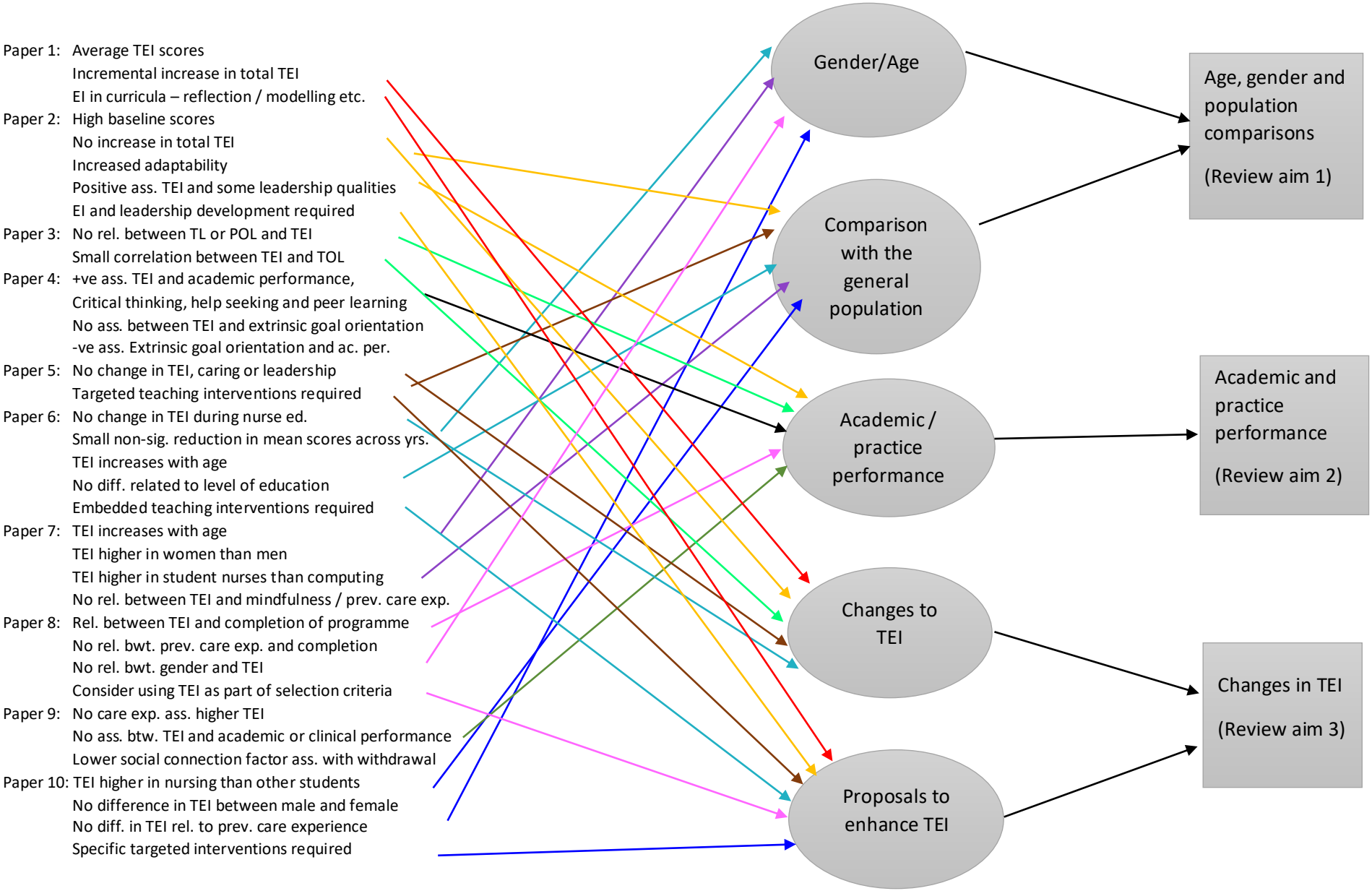


Table 4: Theme generation

Theme 1: **Differences in TEI according to students' age, gender and the general population.**	**Theme 2:** **The relationship between TEI and student nurses' academic and practice performance.**	**Theme 3:** **The impact of pre-registration nurse education on students' TEI.**
Gender/Age 7.Snowden, et. al. (2015a) 6.McHugh Rappold, S. (2017) 8.Snowden, et. al. (2018) 10.Stiglic, et. al. (2018)	2.Benson, et. al. (2012) 4.Fernandez, et. al. (2012) 8.Snowden, et. al. (2018) 9.Stenhouse, et. al. (2016) 3.Duygulu, et. al. (2011)	*Identified changes* 1.Benson, et. al. (2010) 2.Benson, et. al. (2012) 3.Duygulu, et. al. (2011) 5.Larin, H. M. et. al (2011) 6.McHugh Rappold, S. (2017)
Comparison to the general population 2.Benson, et. al. (2012) 5.Larin, H. M. et. al (2011) 6.McHugh Rappold, S. (2017) 7.Snowden, et. al. (2015a) 10.Stiglic, et. al. (2018)		*Proposals to enhance TEI* 1.Benson, et. al. (2010) 2.Benson, et. al. (2012) 5.Larin, H. M. et. al (2011) 6.McHugh Rappold, S. (2017) 8.Snowden, et. al. (2018) 10.Stiglic, et. al. (2018)

Using this process to formulate groups, three themes emerged:

Theme 1: Differences in TEI according to nursing students' age, gender and general population (Review aim 1).

Theme 2: The relationship between TEI and student nurses' academic and practice performance (Review aim 2).

Theme 3: The impact of pre-registration nurse education on students' TEI (Review aim 3).

The themes generated aligned with the aims of the review. However, information relating to the methods used, when they were undertaken and how much of the TEI construct was explored for each study, were interpreted and discussed across all three themes. Similarly, limitations of the studies included in this review were incorporated throughout as part of the critically reflective process.

3.3 Results

3.3.1 Theme 1: Differences in TEI according to students' age, gender and general population

One of the aims of the review was to gain a clearer appreciation of who the student nurses engaged in TEI research were. This required a review of nursing students' demographic data and the analysis applied in the literature.

3.3.1.1 Age and gender

The relevance of age and gender emerged as a clear theme. Previous EI studies highlighted these as significant factors although depending on the concept of EI adhered to and the measure used there were different expectations surrounding the effects (Zeidner, et. al. 2012; Tsauousis, et. al. 2013; Lopez-Zafra and Garzia, 2014; Cleary, et. al. 2018). See earlier discussions in sections 2.6 and 2.7.

Most studies reported the mean ages of their participants as 20-25.5 years (Benson, et. al. 2010; Larin, et. al. 2011; Benson, et. al. 2012; Snowden, et. al. 2015a; Stenhouse, et. al. 2016; McHugh Rappold, 2017, Snowden, et. al. 2018), although two did not (Duygulu, et. al. 2011; Stiglic, et. al. 2018) and one recorded a slightly higher mean at 29.0 years (Fernandez et. al. 2012). Participants in Fernandez, et. al. (2012) were predominantly international students, a unique feature of this study. The authors noted the inclusion of a significant number of mature international students, 90% of whom did not have English as their first language, as a significant limitation (Fernandez, et. al. 2012).

Only two studies tested an age-related hypothesis. The first undertaken by Snowden, et. al. (2015a) examined the relationship between EI, previous caring experience and mindfulness amongst student nurses and midwives. This cross-sectional study, part of a wider longitudinal survey, involved a large number of participants from two Scottish universities (N=938). The design incorporated two different measures of EI to represent both theoretical perspectives using an ability (SEIS) and trait measure (TEIQue-SF). Students were allocated to groups according to age (17-20, 21-25, 26-30, 31-35, 36-40, 41 and over) and tested for differences between groups. Providing a clear rationale for the choice of statistical analysis strengthened the validity of the findings (Curtis and Drennan, 2013). An increase in EI with age was reported using both measures.

Similarly, a cross sectional study by McHugh Rappold (2017) undertaken as part of a doctorate, measured the effect of nurse education on TEI scores. This study included participants (N=51) from sophomore, junior and senior years of nurse education from four American universities. Using the Bar-On EQ-i 2, the results showed a positive correlation between age and EI. However, the author conducted a power analysis reporting the sample size as significantly below the recommended number (N=162) limiting the generalisability of the results. Nonetheless, these results concurred with the findings of Snowden, et. al. (2015a), which found student nurses' TEI increased with age.

Establishing differences in TEI associated with gender was problematic. Two studies were based on participant groups who were all female (Benson.et. al. 2010; Duygulu, et. al. 2011)

and subsequently were unable to generate any findings in relation to gender. The majority of studies reported predominantly female participants, for example McHugh Rappold (2017) who had an inadequate number of male participants (N=3), preventing gender related analysis. However, Snowden et. al. (2015a) were able to test for differences in TEI between genders and reported a statistically significant difference between male and female students, females producing significantly higher scores than males (Snowden, et. al. 2015a). In a subsequent prospective longitudinal study, based on the same sample, Snowden, et. al. (2018) suggested that female students would be more successful as a result. However, further analysis revealed comparable completion rates for male and female students. The explanation for the disparity between findings was attributed to the TEIQ-SF social connection factor previously identified as a confounding variable (Snowden, et. Al. 2015b). Described by the authors as gender bias associated with this factor, once removed from global TEI scores, the differences between male and female scores were no longer evident (Snowden, et. Al. 2018).

In recognition of the gender bias identified in the TEIQ-SF, Stiglic, et. al. (2018) executed a similarly designed study based on the work of Snowden, et.al (2015a) using the full version of the TEIQue. Their cross-sectional descriptive study hypothesised that male students would have lower TEI than female students. However, the results based on Slovenian nursing and engineering students' responses reported no significant differences in TEI between male and female participants. In contrast to the study by Snowden, et. al. (2015a) the data were normally distributed and parametric tests applied. Despite analysing engineering and nursing students' responses separately, there were no statistically significant differences between genders in either group. However, the engineering group were mostly male and the nursing group predominantly female, which the authors identified as a limitation of the study (Stiglic, et. al. 2018). Despite the paucity of evidence, the literature suggests there is no relationship between gender and TEI in student nurse populations.

3.3.1.2 Student nurses' TEI in comparison to the general population

Several studies within this review sought to compare student nurses' TEI scores with those of the general population. While unable to identify optimum levels of TEI for student or registered nurses, the use of some self-assessment tools provided an indication of average scores in comparison to those generated by the general population. These findings were pertinent as they contributed to the aim of discovering who the student nurse participants in TEI studies were.

Following their cross-sectional survey using the EQ-i short form (EQ-i:S), Benson, et. al. (2010) reported that undergraduate nursing students demonstrated average or effective emotional and social capacity across all four years of the programme, when compared to standardised scores and interpretative guidelines. However, the small convenience sample included just 25 female students from each year of the programme (n=100) and the lack of analysis relating to age or gender were significant omissions. The study was further limited by the lack of discussion regarding the distribution of data (Curtis, et. al. 2018). Larin, et. al. (2011) also examined the changes in 'emotional-social intelligence', between student nurses (N=73) and physical therapy students (N=60). This quasi-experimental study included a clear description of the protocol for determining the sample size, in addition to confirmation and achievement of the required number of participants to detect differences between groups (Funder, et. al. 2014). Results indicated that all students' EQ-i:S scores were within effective functioning range at overall and subscale levels. However, while the design of this tool provided scores for overall EI and five composite clusters based on the fifteen subscales, the findings are not comparable with those of the full version of the tool at factor level (Bar-On, 2013). Nonetheless, similar findings reported by McHugh Rappold (2017) using a revised version of the full EQ-i: 2.0 tool (Bar-On, 2013) confirmed that all nursing students' mean scores were above average. The TEIQue and TEIQ-SF tools do not have numerical interpretative guidelines in the same way as the EQi. Petrides (2009a) asserts that the use of 'off the shelf' norms should not be used routinely, as they are unlikely to be representative of the population to which they are applied. Subsequently, studies using the TEIQue or TEIQ-SF do not report results according to averages generated outside of the sample group (Snowden, et. al. 2015a; Stenhouse, et. al. 2016; Stiglic, et. al. 2018).

By using a cross sectional survey design, some studies provided a comparison between different student groups. Using this design can provide helpful insight into association, although it cannot address causation (Sedgwick, 2014). Evidence generated using this method relates to a single moment in time, representing those particular people at that time but cannot be generalised. Nonetheless, by using these approaches researchers were able to look at attributes across different student or professional groups (Maltby, et. al. 2010). Larin, et. al. (2011) discussed EQ-i: 2.0 scores in relation to the interpretative guidelines as previously reported, and provided a comparison between students studying nursing and physical therapy. There were no significant differences in EQ-i:S scores between groups. Similarly, McHugh Rappold (2017) compared the scores of nursing (N=51) and education students (N=7) reporting a difference in mean scores. However, the result was not statistically significant and the author recognised these were unlikely to represent the

population given the small number of education students involved in the study (McHugh Rappold, 2017).

Snowden, et.al (2015a) compared TEIQ-SF scores for nursing (N=868) and computing students (N=68) reporting a statistically significant difference between groups. While this study had unequal group sizes, the effect was mitigated by the use of non-parametric analysis (Lowry, 2020). There is some evidence to suggest that under these circumstances non-parametric alternatives lead to poorer results than when using parametric tests (Zimmerman, 1987; 1998). Nonetheless, nursing students generated higher TEI scores than their computing counterparts using this method. The scores taken on the first day of their respective programmes provided evidence of pre-existing levels of TEI preceding any potential impact in response to the educational process. A later study by Stiglic, et. al. (2018) based on the same design compared 113 nursing students with 104 engineering students and reported statistically significant differences between the two groups following analysis of both TEIQue and SSEIT scores. In this study, group sizes were equitable and data normally distributed, subsequently parametric tests were applied providing robust results. Student nurses generated higher TEI scores than engineering students (Stiglic, et. al. 2018).

Based on the results available, nursing students have average/effective levels of TEI at the outset of their pre-registration education. These are comparable to other healthcare professionals and may be equitable to education students. In contrast, students studying computing and engineering had lower levels of TEI. This supports evidence of a positive correlation between TEI and vocational interests, due to a combination of environmental and genetic factors (Schermer, et. al. 2015); although, Stiglic, et. al. (2018) stated the need for additional research to include other healthcare professionals in order to establish if TEI was higher amongst student nurses in particular or common to all vocational professions. While it is unclear if TEI is higher amongst nurses specifically, there is no evidence to suggest that student nurses have low levels of TEI at the commencement of pre-registration nurse education.

3.3.2 Theme 2: The relationship between TEI and student nurses' academic and practice performance

A number of authors have suggested that the relationship between EI and its influence on the experience and outcomes of nurse education requires further exploration (Bulmer-Smith, et. al. 2009; Beauvais, et. al. 2011; Shanta and Garguilo, 2014; Stenhouse, et. al. 2016). Directly addressing the second aim of this review, the next section examines the evidence referring to the impact of TEI on the outcome and experience of nurse education. Five articles addressed the relationship between TEI and performance.

Fernandez, et. al. (2012) explored the connection between emotional intelligence and academic performance in first year nursing students beginning an accelerated graduate programme in an Australian university using a prospective survey design. Eighty-one participants took part in a survey using the TEIQue-SF and the results were linked to their academic grades six months into their course. Following stepwise multiple regression analysis it was established that EI was a significant predictor of academic performance. Further analysis demonstrated a positive association between TEI and peer learning, help seeking and critical thinking. Fernandez, et. al. (2010) identified a willingness to seek support and work with peers maximised participants' potential for learning, while the ability to think about the subjects studied enthusiastically and expansively enhanced academic performance. Nonetheless, there were some limitations to this study inasmuch as the sample group was predominantly female international students (see section 3.3.1.1) and the measurement of academic success occurred after only six months of the course. There was no evidence to support the continuation of these trends throughout the programme. Fernandez, et. al, (2010) concluded that longitudinal studies involving a larger number of participants, including a greater proportion of young local students were required in order to ascertain if these findings are generalisable.

A subsequent prospective longitudinal study of undergraduate nurses and midwives completed in the UK by Snowden, et. al. (2018) concurred, reporting a positive association between TEI and completion of pre-registration education. Baseline TEIQue-SF scores were collected at the beginning of the programme and analysed to ascertain if there was a relationship between EI and successful completion of pre-registration nurse/midwifery education. Both parametric and non-parametric testing of the data generated from a large sample of students produced statistically significant results. The clarity of the statistical process used and the rationale for parametric and non-parametric tests demonstrated transparency and replicability (Asendorpf, et. al. 2013); although as Snowden, et. al. (2018) observed, there is no explanation for students delaying or not completing. This type of in-depth information could only be generated by interviews or observation of individual participants which were not a feature of the study.

However, there is a notable difference between the two studies inasmuch as Fernandez, et. al. (2010) analysed the relationship between TEI and student grades during the first 6 months and the second (Snowden, et. al. 2018) examined the relationship between TEI and completion on time. While the former was limited by a lack of longevity, the latter did not consider the grades achieved using the more broadly defined criteria of completion on time as a measure of student success.

Interestingly, during the second phase of the Snowden, et. al. (2018) longitudinal study, the relationship between TEI and performance based on the result of year one modules was not significant (Stenhouse, et. al. 2016). There was no relationship between TEI and performance, in contrast to the study undertaken by Fernandez, et. al. (2010). However, the results of a separate analysis of the social connection factor of the TEIQue-SF did predict withdrawal from the course at the end of year one. The authors hypothesised that the traits associated with the social connection factor influenced more than academic performance and provided an indication of challenges associated with relationships, a key element in both university and practice components of the course (Stenhouse, et. al. 2016). Results using the ability EI tool were not significant by the end of the programme, meaning there was no association between ability EI and course completion and supporting the notion that TEI is a more useful indicator of completion on time. However, the challenges associated with the social connection factor of the TEIQue-SF require further investigation before considering its potential use as part of the selection process for nurse education (Snowden, et. al, 2018). One of the limitations of this otherwise well designed study is the absence of repeated application of the TEIQue-SF test on completion of the pre-registration nursing course as proposed in the initial research design (Stenhouse, et. al. 2016). Baseline TEIQue-SF scores were taken on entry to the programme and used in the final analysis. Consequently, there is no evidence to determine what happened to students' TEI during the course.

Students with higher TEI scores are more likely to complete on time. What remains unclear is how this relates to nursing practice, as there are no studies focussing specifically on the relationship between TEI and efficacy in practice. Nonetheless, learning to lead is an important aspect of nursing practice, an intrinsic part of nurse education and a pre-requisite for registration (NMC, 2018). Duygulu, et. al. (2011) studied the connection between TEI and leadership based on a sample of 184 female students studying nursing at a single Turkish university. Sixty-nine were freshmen and 85 seniors. Using the Bar-On EQ-i score in this cross sectional survey there were no significant differences in TEI between the two groups, although the apparent absence of testing for violations of assumptions of normality and the lack of rationale for the combination of parametric and non-parametric tests are limitations of this study (Casson and Farmer, 2014; JBI, 2020). Nonetheless, there was a small significant correlation between task oriented leadership and TEI. Interestingly there was no correlation between people-oriented leadership and TEI, suggesting that students relied on task-oriented leadership approaches. Given the nature of nursing which incorporates a wide range of people-focused skills, these results are perhaps surprising, particularly as there is some evidence to support the connection between EI and transformational leadership (Duygulu, et. al. 2011). Nevertheless, the relationship between

leadership skills and TEI and their application to practice, or the extent to which they contribute to successful placement experiences remains unclear.

3.3.3 Theme 3: The impact of pre-registration nurse education on students' TEI

The third aim of this review was to ascertain what happens to TEI specifically during pre-registration education. Five of the ten articles included reported findings based on this question.

3.3.3.1 Changes to TEI identified during pre-registration nurse education

Benson, et. al. (2010) completed a cross-sectional survey analysing scores generated by the use of the EQ-i:S to identify differences between four groups, representing the four years of study, with 25 students in each group (N=100). Reporting a significant difference between students' total TEI scores in Years 1 and 4, there were also differences between these groups in two of the six subscales, interpersonal and stress management, and a positive linear association demonstrated between higher categories of TEI functioning and year of study. While this provided some useful indications, the quality of the study is limited by its cross-sectional design, an incomplete explanation of the data analysis strategy (see 3.3.1.2) and the modest sample size involving only female participants (see 3.3.1.1). However, these results do not concur with those of the similarly designed study by Duygulu, et. al. (2011) who reported no significant differences in EQ-i:S scores between first and final year students. Benson, et. al's (2010) findings are confirmed by the work of McHugh Rappold (2017), who found no statistical differences between sophomores, junior or senior students for either total or subscale EQ-i: 2.0 scores; although it is important to note that the study by McHugh Rappold (2017) had major limitations in relation to its sample size, lack of a meaningful comparison group and single data collection point (see 3.3.1.2).

Larin et. al. (2011) used a repeated measure design to determine if there were any significant changes in student nurse and physical therapy students' EQ-i:S, Self-Assessment Leadership Instrument (SALI) and Caring Ability Inventory (CAI) scores after exposure to clinical practice. Results were based on the scores of 120 subjects, 61 nursing students from a single American university and 59 physical therapy students from one American and one Canadian university. Sample size calculations were met to ensure accurate identification of significant correlations between EQ-i:S, SALI and CAI scores, with the exception of the group of Canadian physical therapy students. There were no significant differences detected after clinical exposure using any of the measures. Attributing the lack of change to high base line scores associated with students in health professions, the authors recommended longitudinal studies including other groups and more participants (Larin, et. al. 2011).

Addressing some of these limitations, Benson et. al. (2012) used a repeated measure longitudinal design. Fifty-two participants completed a range of tests including the EQ-i:S, the Self-Assessment Leadership Instrument (SALI) and Caring Ability Inventory (CAI) on entry to the programme, after their first clinical experience in year two and at the end of their fourth year. There were no statistically significant changes to total EQ-i:S scores at any stage (Benson, et. al. 2012). However, student scores on one subscale, adaptability, increased throughout the programme. Additional findings established a positive correlation between changes in total EQ-i:S scores and leadership, and in the caring inventory subscales of knowing and courage. These limited changes suggested there was no enhancement of EI, leadership or caring during nurse education, with the exceptions of adaptability, courage and professional caring which were slightly improved. However, the sample size was small representing only 14% of the cohort studying a problem-based curriculum, which may not be transferable to other institutions or alternative curricula designs (Benson, et. al. 2012). Unfortunately, the only large-scale robust longitudinal study of TEI (Snowden, et. al. 2015a and 2018) did not provide a comparison between TEIQue-SF scores at the beginning and end of pre-registration nurse education. It is therefore not possible to ascertain if any changes in TEI took place during the course, only that higher baseline scores were associated with successful completion (Snowden, et. al. 2018).

The weight of evidence suggested that completing nurse education had no effect on overall TEI. Although the TEIQue-SF provides sub-factor scores, Petrides (2009a) the author of the tool does not recommend its use to generate scores at factor or facet level. Subsequently, there is no evidence of change reported at sub-factor level for studies using the TEIQue-SF and factor analysis did not form part of the design for the only study using the full version of the tool (Stiglic, et. al. 2018). The Bar-On tool EQi and its subsequent derivatives EQi:S or EQi:2.0 are similarly designed. The EQi and the renormed EQi:2.0 also generate scores for its fifteen subscales in addition to overall EI (Bar-On, 2013). Scores for some subscales improved in studies using this measure, specifically interpersonal and stress management (Benson, et. al. 2010) and adaptability (Benson, et. al. 2012). Based on the limited information available, further research, particularly longitudinal, is required to confirm the impact or indeed lack of impact that nurse education has on students' total TEI and its subscales (Benson, et. al. 2010; Benson, et. al. 2012; Snowden, et. al. 2018).

3.3.3.2 Proposed interventions to enhance TEI

A number of proposals with the potential to enhance TEI during pre-registration nurse education were evident in this review. Benson, et. al. (2010) highlighted strategies to enhance reflection and improve TEI, including increased modelling of TEI and improved

mentorship. Additionally, encouragement to engage in creative arts, exercise, journaling and relationships, which foster concepts associated with TEI could be fruitful areas to explore in nursing curricula. Larin, et. al. (2011) agreed that specific targeted interventions are required which according to McHugh Rappold (2017) will need considerable effort to embed within teaching strategies, in order to achieve the goal of enhancing student nurses' TEI. Duygulu, et. al. (2011) concurred with the observation that TEI does not improve easily and is certain to involve considerable effort. Stiglic, et. al. (2018) agreed that specific interventions may be required, emphasising the fact that there is no evidence to suggest that simply performing a caring role will enhance TEI (Larin, et. al. 2011; Snowden, et.al. 2015a; Stenhouse, et. al. 2016; Snowden, et. al. 2018 and Stiglic, et. al. 2018). Although there was widespread recommendation for targeted interventions to enhance TEI during nurse education, authors agreed further evidence is required to establish their effectiveness before they can be applied with confidence (Benson, et. al. 2010; Benson, et. al. 2012; Duygulu, et. al. 2011; Larin, et. al. 2011; McHugh Rappold, 2017; Stiglic, et. al. 2018).

3.4 Discussion

The requirement to develop emotionally intelligent nurses mandated by the NMC standards (2018a) is problematic given the continued use of various definitions, measures and the ongoing debate concerning the potential for development. Issues associated with the use of various models of EI were minimised in this review by focusing on TEI specifically. Evaluating the research available to address clearly identified review questions made it possible to gain an appreciation of students' TEI during nurse education, identifying significant gaps in the literature.

3.4.1 The relevance of students' age and gender

According to the literature, most student nurses begin pre-registration education in early adulthood before personality traits stabilise and become reasonably constant between the age of 30-65 (Caspi, et. al. 2005; Zeidner, et. al. 2012). The evidence also suggests TEI increases with age, although these findings were not conclusive. Life experience generated through the ageing process may equip students to cope with the emotional demands of the nurses' role. Nevertheless, age is not the only factor associated with an individual's emotional intelligence as adaptation may occur following exposure to life changing experiences or in response to considerable effort (Petrides, 2009a). There was insufficient evidence in this review to support the suggestion that recruiting a greater proportion of mature student nurses would inevitably lead to a more compassionate and emotionally intelligent nursing workforce (Francis, 2013; Willis, 2015). However, if the mean age of

students entering nurse education continues to decrease in response to current funding mechanisms (see section 1.2.7), additional educational input and support may be required to foster the development of TEI in younger students.

Identifying the gender of participants in the TEI studies in this review was particularly important, as historically nursing has been a predominantly female profession (see section 1.5.1). Extensive debate surrounds the gender imbalance in nursing and a wide range of strategies have been developed to address the issue (Punshon, et. al. 2019). Acknowledging any gender differences associated with TEI is essential as these may translate into disparate experiences of nurse education depending on whether the student is male, female or has an alternative gender identity. However, reaching conclusions about TEI and gender was difficult as most studies identified included only a small proportion of male participants and there were no references to participants using alternative gender descriptors. Only two studies included in this review referred to potential gender differences: both hypothesised that male students would have lower TEI than female students. However, while the design for each study was similar and the sample sizes adequate the findings did not concur.

Students enrolling on nursing programmes may have above average TEI attracting them to the profession due to the nature of the work (see section 3.5.2) with the potential for unusually high scores amongst male students, although female student nurses' scores may be above average for the same reason. In response to this possibility, Stiglic, et. al. (2018) undertook separate analysis to provide comparisons between student nurses and other student groups, reaching the conclusion that there were no differences between male and female students' TEI (Stiglic, et. al. 2018). These findings concurred with the weight of evidence generated through research based on non-student nurse populations which concluded that there is no difference in TEI relating to gender (Petrides and Furnham, 2000; Fernandez-Berrocal, et. al. 2004; Saklofske, et. al. 2007; Arteche, et. al 2008: Whitman, et. al. 2009; Sanchez-Ruiz et. al. 2010). Subsequently, it is possible to state with a degree of confidence that there are no differences in student nurses' overall TEI associated with gender.

However, there was no evidence available in this review to determine if there were differences between female and male student nurses' TEI at sub-factor level. Despite evidence generated from participants within the general population to suggest there are some gender differences associated with specific traits (Arteche, et. al. 2008; Petrides, 2009a; Siegling, et. al. 2015b), additional research is required to explore potential differences in student nurse populations at sub-factor level to address this gap in the

literature, although this is likely to remain a challenging exercise given the predominance of female students.

3.4.2 Comparisons between student groups

A number of studies in this review considered the question of whether student nurses' TEI scores were comparable with the general population. As TEI is measured using self-assessment typical performance scores, it is not possible to interpret the data using fixed numerical criteria (Keefer, 2015). However, by interpreting results using group norms where available, or by comparing scores generated by other student groups, several studies provided evidence to support that student nurses have average or above average levels of TEI (Larin, et. al. 2011; Benson, et. al. 2012; Snowden, et. al. 2015a; McHugh Rappold, 2017; Stiglic, et. al. 2018).

Student nurses had higher TEI than students enrolling on non-vocational courses and there was no evidence to suggest that student nurses had insufficient TEI to enable them to manage the emotional demands of the role, effectively challenging the notion that students recruited and selected for nurse education may not have the attributes required to equip them for nursing (Francis, 2013). While this does not eliminate the possibility of individual students with low TEI accessing pre-registration nurse education, none of the studies included in this review recommended the use of TEI scores as a single selection criterion. Nonetheless, its inclusion as part of the selection process may improve the potential to identify and support students with lower TEI, reducing their risk of withdrawal from the programme. Caution is advised before using TEI scores to reject students below a fixed level as the definitions of low, average or high TEI are not standardised.

The idea proposed by the Francis (2013) report that previous care experience is essential in order to ensure student nurses have the qualities required to become compassionate, competent nurses was rejected (Snowden, et. al. 2015a; Stiglic, et. al. 2018). The evidence contradicted the suggestion of a positive association between previous care experience and TEI; in direct contrast, students with previous care experience had lower levels of TEI than those without (Snowden, et. al. 2015a; Stenhouse, et. al. 2016). Nonetheless, there may be other transferrable skills acquired through healthcare or life experience developed by mature students entering nurse education, which may be beneficial to the role. However, given the dominance of women in healthcare roles (Ball, et.al. 2012; Rowlinson, 2013) the recruitment of people with previous care experience has the potential to perpetuate the gender bias in nursing, while simultaneously risking the selection of people with lower TEI. Recruitment and selection strategies targeting older female students with experience in health and social care based on the assumption that enhanced TEI is a general outcome of women's life

experiences are ill advised. Male and female applicants for pre-registration nurse education should be encouraged irrespective of age or previous care experience. Nevertheless, it may be useful to consider TEI testing as part of the selection process in order to provide specific support to address areas of vulnerability.

3.4.3 The relationship between TEI and student nurses' academic and clinical performance

Using a range of criteria to examine different measures of success including programme completion, academic grades and clinical performance within various timeframes, the evidence of this review supported an association between TEI and student performance. However, completion of the programme, academic grades and clinical performance are not the same.

The relationship identified in this review between student nurses' academic performance and TEI concurs with earlier evidence, which noted that adolescent students with high TEI were better able to cope with the demands of study through their use of extended social networks (Petrides, 2009a), reducing stress levels and moderating performance anxiety in students with low cognitive ability. However, the participants in Petrides' (2009a) study were not comparable to those in university populations, limiting the transferability of the findings. Nonetheless, Fernandez, et. al. (2010) confirmed the relationship between TEI and the use of social networks to access support in the student nurse population, identifying a positive association between TEI, help seeking behaviour and peer learning, which maximised students' learning potential and enhanced academic performance.

Pre-registration nursing programmes require students to pass all practice and academic modules, however there were no studies differentiating between these two elements. While additional research is required to confirm the relationship between TEI and student nurses' academic grades, there is also a lack of evidence exploring the relationship between students' TEI and their experience or performance in practice. Practice assessments are often ungraded, further complicating the situation as it becomes difficult to determine if students are simply passing or excelling. Furthermore, while it seems TEI scores at the outset of nurse education have an impact on programme completion, there is a dearth of literature exploring student nurses' lived experiences of TEI during the process.

3.4.4 The impact of pre-registration nurse education on students' TEI

The evidence reporting the effect of nurse education on TEI was contradictory. One study observed senior students had higher TEI scores than junior students (Benson, et. al. 2010);

other studies of similar design reported no differences (Duygulu, et. al. 2011; McHugh Rappold, 2017). Engaging in practice had no impact on TEI scores (Larin, et. al. 2011) and the only repeated measure longitudinal study concluded that there were no significant changes by the end of the programme (Benson, et. al. 2012).

Nurse education is challenging, incorporating significant academic study while periodically immersing students into clinical environments to facilitate the application of theory to practice. Furthermore, the majority of students are under the age of 30, still in early adulthood (see section 2.6). Following Petrides' (2009a) suggestion that adaptation is most likely to occur in response to significant life changes, it was reasonable to assume there may be changes to students' TEI through immersion into emotionally challenging environments during early adulthood. Nevertheless, the weight of evidence suggested that completing pre-registration education had no effect on overall TEI, leading Duygulu, et. al. (2011) to conclude that changes in TEI do not occur easily, or simply through completion of academic or practice components of nurse education. In order to achieve a significant change in total TEI, intentional and purposeful interventions during nurse education may be required.

However, there were indications of small changes in some TEI subscales. Benson et. al's. (2010) cross sectional survey noted students' interpersonal skills and capacity to manage stress improved. Working effectively in teams in academic and practice environments is an essential component of nurse education. Developing the skills required to negotiate shared educational tasks and seek help when required are important factors determining student success. Similarly, interpersonal skills are integral to the practice assessment process, based on the continuous appraisal of attitudes and behaviours (NMC, 2018a). The evidence suggests exposure to adversity while successfully balancing academic and practice requirements enabled students to increase their capacity to manage stress.

Nonetheless, Benson, et. al. (2012) observed no improvement in interpersonal skills, or the capacity to manage stress in their subsequent longitudinal study, although there was an increase in adaptability (Benson, et. al. 2012). It is possible that the multi-faceted nature of nurse education significantly increased students' capacity to manage change and adapt. Although limited, the evidence suggests the potential for more significant changes in TEI at factor level, which may appear at different stages of the educational process. Based on the preliminary information, additional studies to confirm the impact, or indeed lack of impact, nurse education has on students' total TEI and more specifically at subscale level are required (Benson, et. al. 2010; Benson, et. al. 2012; Snowden, et. al. 2018).

The absence of qualitative studies exploring students' perceptions of what happens to TEI during nurse education is particularly problematic when attempting to discern what enhances

or inhibits its development. While the quantitative data provided some indication of potential changes, the lack of evidence describing the lived experience in students' own words restricts the evidence base for proposed interventions or additional support.

Nonetheless, there were a number of proposals made to enhance TEI in nurse education by the authors of the studies included in the review. For example, Benson, et. al. (2010) suggested that improved modelling of TEI by educators and practice staff, combined with focused mentorship interventions to develop specific traits would be helpful. Previously, criticism has been levelled at mentors and academics who have not provided enough support to enable students to manage emotional elements of the work, or develop healthy coping mechanisms (Jack and Wibberley, 2013). Perhaps because of an inadequate understanding of EI, many qualified nurses adhere to the belief that it is an innate fixed characteristic, subsequently paying little attention to its improvement (Jones-Schenk and Harper, 2014: Cleary, et. al. 2018). In order to enhance TEI, during nurse education specific interventions may be required to improve registered nurses' appreciation of the construct and the potential for its development.

Other recommendations included enhanced strategies to improve students' ability to reflect (Benson, et. al. 2010). Although the capacity for honest reflection is essential for nurses, opportunities to make meaningful use of those reflections to manage feelings in response to emotional situations are often missed (Davies, et. al. 2010; Ghaye and Lillyman, 2010; Nairn, et. al. 2012; Rees, 2013; Edwards, 2014; Hunt, et. al. 2017;). There have been recommendations made for many years to improve nurses' self-awareness through reflective practice (Foster, et. al. 2015a). Nonetheless, progress towards achieving this ambition is slow. Perhaps this is in part due to the development of professional armour during nurse education, which covers feelings so successfully students struggle to bring them to mind after the event, limiting their capacity for reflection (Walker and Mann, 2016). Benson, et. al (2010) suggested that journaling, engaging in creative arts and developing relationships that foster TEI concepts may prove helpful in this process. Having disproved the assumption that simply engaging in the delivery of care without any additional effort will develop TEI (Stiglic, et. al. 2018), it is necessary to embed specific targeted interventions into teaching and learning strategies to enhance student nurses' TEI (Larin, et. al. 2011; McHugh Rappold, 2017; Stiglic, et. al. 2018).

3.5 Summary of key findings

This is the first integrative review focusing specifically on student nurses' TEI. It is important as the use of a single EI construct provides a clear lens through which to view the data. The

literature included in this study, while limited, fulfils these criteria through cogent orientation to TEI theory and the use of appropriate measures.

Evidence suggested that TEI increases across the lifespan although the significance of gender was inconclusive. While nursing has predominantly been a female gendered role, there is inadequate evidence to support the notion that female students' TEI is higher than that of male students. There was no analysis of students' ethnicity or cultural background in any of the articles included in the review, revealing a significant omission in the literature.

Students selected for nurse education do not lack emotional intelligence. However, higher TEI is associated with successful completion of the course. The relationship between TEI scores and academic performance is extremely limited. There is no evidence to support the notion that higher levels of TEI are associated with practice placement success, despite the assumption that TEI is particularly important for nursing practice. Early identification of students with low TEI scores who are at risk of failure to complete on time has the potential to create opportunities for targeted support. However, a significant amount of additional research is required to develop an evidence-based understanding of 'optimal' TEI scores for student nurses before considering TEI tests as exclusion criteria.

The lack of longitudinal data examining TEI throughout nurse education particularly at sub factor levels is notable. Similarly, the absence of any qualitative enquiry has limited the potential to explore students' experiences of TEI during nurse education using their own words. In order to establish which elements of nurse education students feel enhance or inhibit growth of TEI, a phenomenological enquiry is required.

Overall, nurse education appears to have no impact on TEI scores. However, there is some evidence to support changes at sub factor level. Further research is required to examine modification of TEI at this level, which may reveal subtle changes occurring throughout the educational process. There is no empirical evidence to support specific interventions enhancing TEI and no elements identified which inhibit TEI during nurse education. Similarly, there is no data indicating which factors are most in need of development.

3.6 Proposed focus for new research

Based on the evidence reviewed, numerous opportunities exist to develop a better understanding of student nurses' TEI during undergraduate education. A longitudinal study is required to gather additional data relating to age and gender and to measure changes in TEI at global and sub factor levels throughout nurse education. Similarly, there is the need for qualitative inquiry to explore students' lived experiences of TEI. By pursuing a mixed method study, it is possible to address many of the gaps identified in the literature. The next

chapter outlines the underpinning methodological assumptions informing the study design, including clearly articulated research questions for each element.

CHAPTER 4: METHODOLOGY

4.1 Introduction

The following chapter explains the philosophical stance and research paradigm chosen to address the research question: *What is the impact of nurse education on the development of undergraduate nurses' emotional intelligence?* In the process, it provides a clear rationale, justification and critical evaluation of the methods used and a detailed explanation of the procedures for operationalising data collection and analysis.

4.1.1 Contemporary nursing practice

The ontological stance adopted by the nursing profession is that nursing is both art and science (Henry, 2018), although some consider this an excessive simplification of the pathophysiological and bio-psycho-social processes involved in the discipline of nursing (Smith and Fitzpatrick, 2019). Students undertaking nurse education are required to develop a comprehensive bio-scientific knowledge base and the complex interpersonal and communication skills necessary to deliver effective and compassionate care (NMC, 2018a). Learning to provide competent nursing care relies on evidence to inform decision making, achieved through the development of research based on the collection, analysis and integration of valid data in combination with practice expertise (LoBiondo-Wood and Haber, 2017). Implementing evidence-based practice is developed through systematic inquiry, using a range of research methods driven by questions emerging from clinical practice regardless of philosophical paradigm (Boswell and Cannon, 2018).

Contemporary healthcare is multifaceted requiring a range of research approaches to develop insights and understanding. The nursing profession increasingly relies on a collective viewpoint, generated from a body of evidence incorporating a range of epistemological perspectives. It is developed through the combination of micro level approaches to appreciate the subjective perspectives of individuals, and macro level investigations to determine patterns and trends (Halcomb et. al 2009). Nurse educators are mandated to facilitate the development of students' emotional intelligence, to enable them to manage the challenges of working in multifaceted healthcare settings and thrive despite the emotional demands of nursing practice (NMC, 2018b). Without a clear understanding of students' current experiences of TEI both individually and collectively, the impact of nurse education on their TEI remains unclear.

4.1.2 TEI and nursing

The integrative literature review in the previous chapter highlighted the empirical studies exploring the relationship between nurse education and TEI, although the evidence available examining the impact of nurse education on the development of students' TEI remained limited. All of the studies reviewed were based on quasi or non-experimental designs. Although evidence produced using these methods may limit the potential to state cause and effect, they are an effective means of exploring differences and relationships between variables, and for providing group comparisons (LoBiondo-Wood and Haber, 2017). These earlier studies also supported the validity of psychometric tools suitable for measuring changes in TEI, creating the potential to use deductive reasoning to examine students' responses to external stimuli through post positivist research methods, and to generate reliable empirical evidence (Bowling, 2014). Subsequently, quantitative methods were used to examine the impact of nurse education on students' TEI for one element of this study.

Equally, an individual's self-perceptions of their capacity to perceive, express and manage emotion are integral to TEI theory. However, despite evidence to support the use of interpretivist research methods to explore subjective experiences in healthcare professions with good effect (Morse, 2013; Rohleder and Lyons, 2015), there were no studies identified using qualitative enquiry to provide insight into students' lived experiences of TEI during nurse education. In light of this significant omission in the literature, an element of qualitative enquiry was included in the design of this mixed method study.

4.2 Ontological and epistemological perspectives

Theoretical perspectives provide a lens through which observations can be interpreted. Therefore, it was important to begin by identifying the theoretical assumptions and perspectives involved in the design of this research and their influence on the way in which data was interpreted (Bowling, 2014). This section introduces the ontological and epistemological stance of this research and its relevance to TEI and nurse education.

The ontological question asks what the characteristics of reality and existence are and how they shape action. In the context of this research, does TEI exist and if so does it have an impact on nurse education? Whereas the epistemological question asks what the characteristics of the relationship between the knower and what can be known are, and the answer is inevitably framed by the response to the ontological question (Seligman, 2013). In this study, the epistemological question asks; what is the relationship between students' perceptions of TEI and nurse education?

Post positivist approaches support the ontological perspective that there is an objective reality which can be independently verified through quantitative research methods (Chamberlain, 2015). While the relativist ontological perspective of interpretivist research methods explores what it means to be in this world of being (Munhall, 2013), a subjective epistemological paradigm explores the interactions between individuals to the world through qualitative methods (Doyle, 2016). While historically the two paradigms have been in conflict with each other, the emerging pluralistic approach recognises that there are strengths and limitations to both post-positivist and interpretative methods (Betzner, 2008; Johnson and Gray, 2010).

4.2.1 A dialectic stance

Adopting a dialectic stance requires the deliberate integration of post-positivist and interpretative lenses (Rocco, et. al. 2003), within which assumptions from different philosophical traditions are highly important, guiding inquiry decisions to enhance, reframe and develop understanding (Greene and Hall, 2010). A dialectic stance acknowledges that while philosophical assumptions are significant, life experiences, political factors, context, personal values and beliefs contribute to the formation of broader mental models, which inevitably influence the design, collection of data and analysis of results (Greene and Hall, 2010). In the context of this study the researcher's experience as a nurse, counsellor and nurse educator combined with exposure to research and practice in each field will have uniquely influenced the choices made. According to Greene's dialectic stance, these mental models subsume philosophical paradigms to provide a broader, more robust frame within which to pursue social inquiry combining the attributes of realism and relativism (Betzner, 2008). Employing a combination of varying paradigms (mental models) provides the opportunity to initiate fresh insight (Bazeley, 2017), observing differences between the way things really are and the way they seem to be by recognising the significance of the contexts within which people live their lives (Fagerstrom and Bergbom, 2010).

The impact of nurse education on student nurses' perspectives of TEI, although a single phenomenon, can be investigated through measurement of TEI and exploration of lived experience. The results generated provide the potential to incorporate findings relating to both the object of study and the paradigm employed, with each method acting as a carrier for unique information (Betzner, 2008). It is difficult to completely separate different epistemological perspectives in these circumstances due to the interaction between learning opportunities offered to students and their interpretation of these. The relationship between teaching and learning is achieved through the student's sense making of both content and process, rather than through a mechanistic procedure (Biesta, 2010). Exploring TEI in nurse

education also necessitates undertaking research in open social systems subject to re-organisation. The context subsequently influencing the process of testing the validity of a range of hypotheses leads to new findings rather than deterministic causality (Biesta, 2010).

Post positivism and interpretivism are two distinct worldviews unlikely to be completely reconcilable. This research therefore attempted to hold the contradictions, valuing the social world while reflecting the different approaches to understanding reality in order to create fresh insight (Creswell and Plano Clark, 2018). By using the epistemological approach of dialectics in nursing research it is possible to generate new knowledge through respectful dialogue, balancing the emphasis between philosophical questions and clinical experience (Fagerstrom and Bergbom, 2010). Subsequently, a dialectic stance was used throughout this study incorporating the epistemological worldviews of both post-positivist and interpretative research traditions, viewed through the lens of the researcher's mental model to explore TEI within the context of nurse education.

4.3 Research paradigms

4.3.1 Post positivism

The first element of this study, based on post-positivism was designed to identify changes to students' TEI throughout the course of nurse education. Supported by quantitative research methods based on realism, a post-positive perspective adopts the premise that it is possible to evaluate objective realities without bias (Jacobson, 2020). By pursuing this approach, it is possible to examine changes in TEI, and the relationship between those changes and a range of student demographics, to develop findings which reflect the community view (Seligman, 2013). Distance was maintained between the students and the researcher, who remained impartial, as data were gathered objectively via an instrument as part of an unbiased process (Creswell and Plano Clark, 2018).

4.3.2 Interpretivism

The second element utilised interpretivism to explore the meaning of TEI to students, identifying factors which may inhibit or promote its development during the course of nurse education. Using this individual perspective provided the opportunity to identify multiple realities, representing different beliefs and experiences to discover meaning negotiated between the participant and researcher (Munhall, 2013; Morgan, 2014) and generating subjective, created findings based on individual students' beliefs, feelings and perceptions of their TEI interpreted through the lens of participant and researchers' worldviews (Seligman, 2013; Jacobsen, 2020). Using this approach Llewellyn-Nash (2015) concluded that it may be

more meaningful to apply EI to nurse education as 'emotional wisdom' in order to facilitate the development of both student and teachers' emotional competence. As the only study identified using interpretative methods to explore EI in nurse education, this highlighted the need for further research using this method to gain insight into student nurses' lived experience of TEI during nurse education.

4.3.3 Mixed methods

Mixed methods research has been identified as a third methodological movement with a rapidly expanding body of knowledge incorporating a range of designs (Cresswell and Plano-Clark, 2018; Moorley and Cathala, 2019). The need to use complementary methods using different theoretical perspectives in nursing research has become unavoidable (Fagerstrom and Bergbom, 2010). Incorporating a range of values and assumptions, mixed methods research does not focus on the need to develop an absolute definition through the resolution of tensions between the two approaches (Bressan, et. al. 2016). Rather, there is growing consensus that it is a method reflecting a move away from the philosophical disputes, refocusing on the combination of approaches to create a breadth and depth of understanding emerging through corroboration (Creswell, 2010; Bressan, et. al. 2016).

Mixed methods research techniques have significant advantages over the use of single method studies (Betzner, 2008). Acknowledging that there are multiple ways of seeing and experiencing the world through the integration of different views about what is valuable and important (Leavy, 2017), the use of mixed methods recognises different ways of conceptualising reality, with the potential for enhancement through meaningful dialogue (Plano Clark and Ivankova, 2016). This is particularly evident when attempting to make sense of concepts reflecting the complexity of how we perceive the world, which require exploration through a variety of data collection methods (Betzner, 2008; Creswell and Plano-Clark, 2018; Bazeley, 2018). An element of qualitative enquiry also provided the opportunity to gain an appreciation of students' subjective, lived experiences of TEI during nurse education including an exploration of specific sub-factors.

Mixed methods studies are often criticised for their limited articulation of theoretical perspectives, inadequate links to the research question, and methods selected (Hesse-Biber, 2015). The design of this mixed method study is clearly aligned to TEI theory and its measurement, and is connected to the research question through an extensive examination of the literature associated with EI and nursing (Chapter 2) and TEI in nurse education (Chapter 3). It outlines the choice of pertinent research methods to add to the existing quantitative evidence base and develop fresh lines of qualitative enquiry. Similarly, critics

commonly identify difficulties associated with attempting to combine seemingly polarised paradigms, leading to binary thinking and an inability to combine data in a way which corroborates both methodological approaches (Flick, 2017). Often demonstrated through partial integration of quantitative and qualitative data in published mixed method studies, a significant proportion of researchers appear to make no effort to integrate data in a meaningful way (Bazeley, 2018). To mitigate this risk individual and combined data analysis strategies are clearly outlined in Chapter 6 of this work.

Using mixed method designs is considered a positive strategy for addressing research questions in healthcare (Bressan, et. al. 2016). Proper investigation of phenomena, which have both quality and quantity, necessitates the capture of both aspects and an exploration of the connection between them in order to gain a full appreciation of the concept under investigation (Bazeley, 2018). Given the aim of this study to explore the relationship between nurse education and TEI, a mixed methods approach was indicated through the combination of objective measurement strategies for the cohort and interpretative subjective interactions with individuals.

4.4 A dialectic approach to mixed methods

By embracing a dialectic stance, it was possible to gain insight derived from quantitative and qualitative study to explore student nurses' TEI during pre-registration nurse education. It is possible to view TEI through a post-positivist lens as a single reality measured quantitatively using the TEIQue psychometric tool. However, from an interpretivist perspective it can also be experienced differently by individuals representing multiple realities. Both paradigms were perceived as of equal value in this thesis, neither aspect assuming more importance than the other with no expectation of a single emergent reality. Rather, it was possible to explore similarities and differences between the two data sets in order to understand student nurses' perceptions expressed in words and numbers.

By adopting a dialectic approach, using two methods to generate data, it was possible to identify areas of convergence, divergence and dissonance, with the potential to engage with difference in a meaningful way, understanding and listening with respect rather than focusing only on consensus to generate understanding (Greene and Hall, 2010; Plano Clark and Ivankova, 2016; Greene, 2008). By engaging in this reflexive, iterative process exploring students' TEI through the juxtaposition of two significantly different research paradigms, it was possible to create generative findings through in-depth exploration of convergent and divergent themes (Betzner, 2008; Bazeley, 2018).

4.5 Establishing positionality and mitigating risk as an 'insider researcher'

As a senior nurse lecturer employed within the organisation within which this study was conducted, the author is classified as an 'insider' researcher (Trowler, 2011). The benefits of this position include ease of access to respondents and the opportunity to generate more meaningful, empathic accounts of participants' lived experiences, creating thick descriptions as a result of understanding the context and culture (Trowler, 2011; Gair, 2012). However, there are also challenges associated with this approach including the potential for enculturation to limit objectivity and role conflict when employed as a lecturer and researcher in the same organisation (Mercer, 2007; Trowler, 2011). The insider researcher needs to maintain a high degree of self-awareness in order to prevent their own preconceptions, 'blind spots' or assumptions influencing the participant's responses or the data analysis. These can lead to interview bias, avoidance of sensitive topics or a lack of explanation relating to shared experience, with the potential to generate false or premature conclusions (Locke, 2019; Mercer, 2007; Greene, 2014). If managed carefully, the insider researcher can use insights based on their own beliefs, values and experiences to helpfully inform the research design and process (Greene, 2014). As Ross (2017) observes, a brief research encounter with someone from outside of the organisation with very limited understanding of the context has the potential to be equally hazardous to the participants. Nonetheless, it is vitally important to maintain an awareness of and respond to the intrinsic power imbalance associated with undertaking insider research to prevent participants from feeling disempowered or coerced (Trowler, 2011; Locke, 2019). Subsequently, safeguards were employed to address the disparity in power between the researcher as a senior lecturer and the participants who were students within the same faculty (see section 4.6.3.3).

A range of tools were utilised throughout this study to mitigate the risks associated with the process of undertaking insider research including the use of a detailed research journal, team interaction, debriefing, multiple sources of data, development of a clear audit trail and reflexivity (Greene, 2014). Keeping a research journal and reflective accounts in addition to a log of activities provided the opportunity for transparency and reflexivity throughout the research process (Greene, 2014; Engward and Davis, 2015; Hammond and Wellington, 2021). Regular meetings with the supervisory team, informal interactions with other researchers to debrief, and formal progression reviews with the research committee supported the trustworthiness of the process (Greene, 2014). Similarly, the potential for myopic interpretation of the data was reduced by employing mixed methods. The use of multiple sources and methods of data collection, and a supervisory team from nursing and psychology disciplines provided a range of theoretical frameworks influencing and

challenging the way in which findings were analysed (Greene, 2014). A clear audit trail of the research process was also maintained, including a record of all raw data, methodological, field and personal notes and the results generated stored in accordance with faculty guidelines (see sections 4.5.4.5 and 4.6.3.7). However, practicing reflexivity was perhaps the most important tool to avoid potential bias. Actively engaging in reflexivity allowed the researcher to explore their social and emotional relationship to participants, preserve an appropriate degree of distance and maintain the capacity to engage critically with the data (Sikes and Potts, 2008; Greene, 2014).

4.6 Reflexivity

Reflexivity provides the opportunity to identify the researcher's position, expose bias or measures taken to manage bias, adding rigour to the quality of the work through methodological self-consciousness (Lear, et. al. 2018). Adopting a reflexive stance through the use of a research journal enhances credibility by providing a transparent account of the researcher's dynamic relationship with the work (Engward and Davis, 2015; Hammond and Wellington, 2021). In light of the complex decision-making process undertaken, reflexivity is a valuable tool enabling researchers to document and make sense of the experience (Davis, 2020). The challenges associated with the design, delivery and the integration of findings generated by two different research methods are particularly complex, so reflexivity was essential. Although more commonly associated with qualitative research, a consistent approach to reflexivity was adopted throughout this study to provide context to the choices made (Davis, 2020). By incorporating both quantitative and qualitative elements equally in the reflexive process, it was possible to critically analyse the procedures undertaken and the decisions made throughout (Walker, et. al. 2013). Reflexivity through multi-perspective practices offers the opportunity to gain an understanding of the phenomena as a result of different knowledge gained through alternative means (Alvesson, et. al. 2008).

Maintaining a reflexive stance throughout is not easy despite the use of a research journal. For this reason, nurses engaging in research are encouraged to use a reflexive model to enhance the rigour of the process (Sparkes, and Smith, 2013; Engward and Davis, 2015). Although the literature identifying and supporting the use of specific reflexivity models in nursing is sparse, the Alvesson and Skoldberg model (2009) has been identified as a useful tool for nurse researchers and was subsequently adopted for this work (Engward and Davis, 2015). This model incorporates four distinct elements, the first problematises the data including the techniques involved in collection and the methods used; the second focuses on the interpretative activity, inevitably influenced by the researcher's engagement with the data. The third element requires an awareness of the political-ideological nature of the

research, recognising the phenomena as embedded within a particular social context shaped by ethical and political factors. Finally, the fourth explores issues of authority and representation, acknowledging the influence of social contexts in the communication of the research, affecting both the text and its author's potential claim to extrinsic reality (Bates, 2014; Engward and Davis, 2015; Alvesson and Skoldberg, 2018).

The application of this reflexive process began in the introduction to this thesis through an explanation of the motivation for the research and the impact of various professional roles undertaken as nurse, counsellor and lecturer, recognising their influence and effectively positioning the researcher within the work (Lear, et. al 2018). Subsequently, excerpts from a reflexive diary were utilised throughout to illustrate the impact and value of reflexivity in the research process, recording the transition of the diary from a conduit for introspection to a constructive tool to facilitate the iterative process (Clancy, 2013).

Reflexivity boxes have been placed at relevant junctures throughout this thesis each focusing on an individual element of the Alvesson and Skoldberg (2009) model. Of the four elements the second, which encourages the researcher to explore their influence on the interpretation of the data, was the most helpful. The commitment to maintaining this approach during the process of analysing both quantitative and qualitative data provided the opportunity for increased transparency surrounding the researcher's relationship with the data. The third stage of the model was also useful as a prompt to consider the ethical and political factors which have shaped the inclusion of TEI as a concept in nurse education and the impact of healthcare contexts.

As this first early excerpt demonstrates, reflexivity provided the opportunity to explore the iterative process, helping to reframe and overcome the discomfort on the journey towards becoming a more confident researcher (Table 5).

Table 5. Reflexive example 1: Problematising the data and methods used (Alvesson and Skoldberg, 2009)

Excerpt from research diary August 2015

"It seems when it comes to joining the research community everyone has an opinion and they are more than willing to share their expertise. Most of the time this is great, helping me to develop the rationale for the design of my study. But sometimes it seems everyone is an expert while I am a novice grappling with epistemology and research methods changing my mind according to the latest opinion, each step towards developing a more coherent idea of what I am hoping to do critiqued by others. Although I'm sure this is a helpful part of the iterative process sometimes it can be difficult to manage, as people comment on the ugliness of your 'new born baby'. Nonetheless, I am learning to recognise the importance of interrogating the techniques I use, particularly in light of the complexity of using mixed methods. I need to collect the data using effective methods but I also need to connect with it, it needs to make sense to me. At the same time, I need to be transparent about the way in which my role in the university impacts the process, acknowledging the influence of existing knowledge and previous experience."

4.7 QUANTITATIVE METHOD

This section introduces the quantitative research method designed to explore the impact of pre-registration nurse education on students' TEI. It was anticipated that there may be changes to students' TEI at global and sub-factor level during nurse education and there may also be differences associated with students' gender, age and field of study. However, the literature did not provide a clear basis upon which to formulate the direction of change. Evidence suggests there is no relationship between TEI and gender, although TEI does appear to increase with age (see section 3.4.1). There were no previous studies exploring TEI between fields (see section 3.3.1.2), so it was only possible to tentatively suggest there may be some differences. Similarly, previous research suggested that global TEI does not significantly increase during nurse education; however, there was an absence of literature to suggest the direction of change at factor or facet level (see section 3.3.3.1). Subsequently, the following scoping hypotheses were developed based on the evidence available.

4.7.1 Scoping hypotheses

1. There will be no significant differences in TEI scores at global, factor or facet levels between genders.
2. TEI scores will increase with age at global, factor and facet levels.
3. There will be significant differences in TEI scores at global, factor and facet levels between students across the four fields of nursing.

4. There will be significant differences in students' TEI scores at global, factor and facet levels between year 1, year 2 and year 3 of study.

4.7.2 Design

Data were collected from the same sample of students over a three-year period. To discover the impact of nurse education on TEI, a longitudinal approach was pursued, providing the opportunity to identify statistically significant changes in response to exposure to a particular shared experience (Rees, 2016). Participants were recruited from a single large cohort of student nurses rather than providing a comparison between cohorts, maximising the potential to uncover meaningful statistical differences. Collecting data from the same sample also ensured homogeneity of educational experience, helping to control for variability associated with different teaching practices.

4.7.3 Cohort demographics

Participants were recruited from a single large cohort of nursing students joining the BSc (Hons) Nursing programme, across all four fields of nursing, undertaken at a Midlands university in 2015. The cohort of 467 students was 90% female (N=422) and 10% (N=45) male. Ages ranged from 18-56 years old, with a mean age of 28 years. The proportion of students within the cohort from each field of nursing and their ethnicity are outlined in Table 6.

Table 6: Field of nursing and ethnicity data

	Number (N)	Percentage of the cohort overall (%)
Field of nursing		
- Adult	313	67 %
- Child	67	14 %
- Mental Health	51	11 %
- Learning Disability	36	8 %
Ethnicity		
- Asian or Asian British	40	8.6%
- Black or Black British	91	19.5%
- Chinese	1	0.2%
- White	309	66.1%
- Mixed white and black Caribbean	18	3.9%
- Other Asian backgrounds	4	0.9%
- Other ethnic backgrounds	1	0.2%
- Other mixed backgrounds	2	0.4%
- Preferred not to say	1	0.2%

4.7.4 Materials

4.7.4.1 Dependent measure

Following a critical review of the literature (see chapter 3), the TEIQue tool was identified as an effective self-reporting measure of TEI, with proven validity and reliability (O'Connor, et. al. 2019). Developed by Petrides (2009a), the TEIQue is a psychometric instrument exclusively based on trait EI theory (see section 2.4). This 153 item questionnaire was anticipated to take approximately 25-30 minutes to complete. Analysis of factor and facet level data were required to test the hypotheses of this study (see section 3.3.3.1). The suggestion of a gender bias associated with the TEIQue-SF (see section 3.3.1.1) led to the choice being made to use the full, longer version of the TEIQue.

It is generally considered good practice to use a range of assessment tools to provide a more robust measurement profile than might be achieved through the use of a single tool (Snowden, et.al. 2015b). While this may provide a wider perspective, it can also create problems when multiple scales are completed within a single setting as participants may not always notice the variations between response options associated with different tools (Hartley, 2014). The TEIQue also takes a considerable amount of time to complete. Consequently, the decision was taken to limit the quantitative element of the study to the application of the longer more robust version of this single tool.

It is considered good practice to avoid the unnecessary collection of data not directly associated with the research questions (Resnik, 2008). The TEIQue is accompanied by a form requesting comprehensive demographic data, although this information does not affect the scoring of the instrument (London Psychometric Laboratory (LPL), 2021). For this reason, the request for information relating to income bracket, educational qualification, religious belief, political convictions and hours dedicated to voluntary work were removed as they were not relevant to the study. Gender, age, field of study and ethnicity were retained as these held the potential to fill gaps in the existing literature and were pertinent to the research questions. A copy of the TEIQue questionnaire including the request for demographic data can be found in Appendix B.

The questionnaire is formulated to provide a comprehensive measure of participants' TEI, incorporating one hundred and fifty-three positively and negatively worded items. Combinations of positively and negatively worded questions are considered advantageous, reducing the potential for respondent acquiescence, although there is some risk of careless responding and confirmatory bias using this approach (Weijters, et.al. 2013, Hartley, 2014). TEIQue responses are made on a seven-point scale ranging from completely disagree (1) to

completely agree (7). Each item belongs to a single facet, with fifteen facets in the constructs sampling domain conceived as conceptual parcels.

4.7.4.2 Description of TEIQue facets

Providing a description of individual facets was important as they formed the basis upon which the data were interpreted. The following table (Table 6) outlines the descriptions provided by the TEIQue's author (Petrides, 2009a).

Table 7: TEIQue facet descriptions

Facet	Example of item
Adaptability The capacity to adapt to changes in environments and conditions maintaining a flexible approach to life and work. Low scorers may find it difficult to accommodate change and have fixed or inflexible views.	*Item 65: "I don't mind frequently changing my daily routine".*
Assertiveness Knowing how to ask for the things and engage in confrontation when required. Being able to stand up for your rights and beliefs. Those generating low scores for this facet find it difficult to say 'no' and retreat in challenging situations.	*Item 151: "I tend to 'back down' even when I know I'm right"*
Emotion expression Being able to express feelings to others with clarity and confidence. Low scores are associated with difficulty talking to others about emotion-related thoughts and feelings.	*Item 30: "I find it difficult to speak about my intimate feelings even to my closest friends.*
Emotion management The capacity to influence and manage other people's emotions. Knowing how to help others feel better. Low scorers are easily overwhelmed by the emotional outbursts of others leading to the development of adaptive coping mechanisms.	*Item 18: "I'm usually able to influence the way other people feel."*
Emotion perception The capacity to perceive emotions in self and others. Those with low scores ignore emotional signals sent by others and find it difficult to know how they feel.	*Item 45: "Many times I can't figure out what emotion I'm feeling."*
Emotion regulation Proficiency in controlling personal emotional states. The aptitude to change personal mood through insight and effort. Low scorers are often irritable, prone to moodiness and find it difficult to overcome setbacks.	*Item 36: "I know how to snap out of my negative moods."*

Empathy Understanding other people's perspectives, needs and desires. Those generating low scores seem self-centred and opinionated, unable to understand the views of others.	*Item 95: "Imagining myself in someone else's position is not a problem for me."*
Happiness Cheerfulness, feeling positive about oneself and life. Low scorers feel negative about things and are often disappointed by life.	*Item 104: "Life is beautiful."*
Impulsiveness (low) Measures unhealthy rather than healthy impulsivity. High scores are associated with the capacity to think before acting, making decisions after evaluating all the information available. Those who generate low scores have a tendency toward immediate gratification, giving in to impetuous urges.	*Item 100: "I tend to get carried away easily."*
Optimism The positive expectation that good things will happen in life. Low scorers have a tendency towards pessimism and are risk averse.	*Item 98: "I expect most of my life will be enjoyable."*
Relationships The capacity to develop and maintain personal relationships particularly with partners, family or friends. Often associated with socially-oriented careers. Those who generate low scores often feel undervalued in their relationship finding it difficult to listen and respond to those close to them.	*Item 44; "Those close to me often complain that I don't treat them right."*
Self-esteem The view of one's self and achievements. High scorers are generally satisfied with life and feel confident and positive, while those generating low scores do not value themselves highly.	*Item 88: "I believe I am full of personal strengths."*
Self-motivation Determined and persevering those who score highly do not need external reward and are intrinsically motivated. In contrast, those who generate scores require encouragement and reward in order to keep going and are more likely to give up in the face of difficulty.	*Item 146: "Generally, I need a lot of incentives in order to do my best."*
Social awareness The capacity to adapt socially, perceptive with good social skills and the ability to negotiate with others. Confident in diverse social contexts, able to network easily and comfortably. Individuals with low scores have limited interpersonal skills, often appear socially awkward and feel anxious in unfamiliar social environments.	*Item 108: "Generally I am good at social chit-chat".*

Stress management The aptitude for a calm response under pressure using a range of effective coping strategies. Those with low scores have fewer established or unhealthy coping mechanisms and are less able to respond well to time specific projects with a tendency towards avoidance.	*Item 48: "I get stressed by situations that others find comfortable."*

4.7.4.3 Descriptions of TEIQue factors

The TEIQue facets are incorporated into four factors; Emotionality, Sociability, Wellbeing and Self-control. Each of these factors include three or four facets. Two facets are auxiliary and as such do not sit within the four factors (Petrides, 2009a).

Factor Emotionality

Incorporating facet empathy, emotion perception, emotion expression and relationships, this factor is positively associated with socially-oriented careers, job motivation and extraversion. Representing an individual's capacity to appreciate their own feelings and those of others. Those who generate low scores for this facet find it difficult to identify and express emotion limiting their potential for satisfying personal relationships (Petrides, 2009a).

Factor Self-control

Self-control includes three facets, emotion regulation, impulsiveness and stress management. Able to maintain a healthy level of control over their own impulses and desires, those who achieve a high factor score for self-control are able to respond well in pressurised situations. They have the capacity to regulate stress, are not prone to impulsive behaviour and express feelings appropriately (Petrides, 2009a).

Factor Sociability

Assimilating facets of emotion management, assertiveness and social awareness, this factor relates to social influence, the ability to communicate effectively with people from diverse backgrounds and confidently negotiate. The focus is on social interaction rather than the development of personal relationships. A low score for this facet is associated with reserved behaviour in social contexts limiting the individual's capacity for networking (Petrides, 2009a).

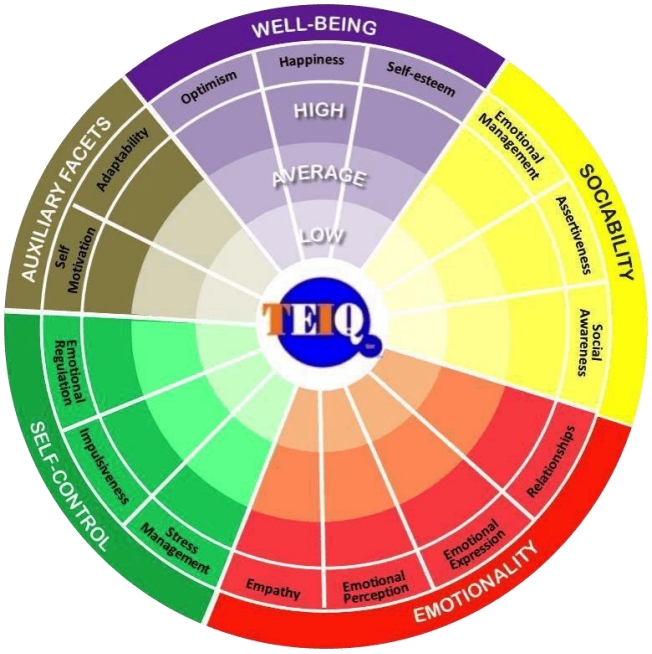
Factor Well-being

The three facets associated with the well-being factor are optimism, happiness and self-esteem. High scores for this factor suggest a high degree of satisfaction with life, individuals

feel happy, fulfilled and positive about the future. Conversely, a low score indicates feeling disappointed with life and a tendency for low self-regard (Petrides, 2009a).

The interaction between facets, factors and global TEI are represented visually in Figure 3.

Figure 3: The TEIQue structure



Petrides, K. V. (2009) Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue) 1st edition, 4th printing. London: London Psychometric Laboratory pp. 63.

4.7.4.4 Generating scores for the TEIQue

The TEIQue follows a 'hierarchical structure' providing overall TEI scores at a global level (total TEI), subdivided into factor scores and again into more specific facet scores (Petrides, 2009a). It was not designed for scoring at an item level. The measure delivers scores for fifteen facets, four factors and global trait EI. Scoring of the full version of the TEIQue can only be undertaken by the London Psychometric Laboratory (LPL) via its website. According to the terms of their copyright, they do not provide details of the scoring key for the TEIQue. Subsequently it was not possible to provide a description of how the scores were generated in this thesis as the scoring key is not publicly available (LPL, 2021).

4.7.4.5 Managing the data

Students' personal details provided as part of the demographic information, submitted when they completed the questionnaire on the first occasion, were used to create a subject generated identification code to protect their anonymity (Lippe, et. al. 2019). These were recorded in a code book and stored separately from the completed paper questionnaires in

line with the university data protection guidelines. Access to this information was limited to the researcher and supervisory team to ensure confidentiality. Data management throughout reflected good practice according to the Data Protection Act (Gov.uk, 2018).

Prior to storage, the TEIQue scores were transferred from the paper questionnaires and added to a Statistical Package for the Social Sciences (SPSS) spreadsheet using the subject generated identification codes. The terms and conditions of use of the TEIQue long version requires scoring via the LPL (LPL, 2021). The format for the spreadsheet was downloaded from the LPL website and populated with the subjects' scores. Once completed these were uploaded to the LPL website and results obtained following analysis according to their protocol. Scores were provided for each respondent at global, factor and facet TEI levels.

Participant responses from the second application of the TEIQue were matched to the scores from the first data set using student identification codes. These were added to a second SPSS spreadsheet and the process outlined above repeated. The whole process was repeated once more for the third application of the TEIQue. The three sets of results provided by LPL were then added to a single SPSS spreadsheet so that all three scores were visible. By following this process, the data were presented in the correct format for analysis in preparation for hypothesis testing.

4.7.5 Procedure

Informed consent is an integral part of research and nursing practice (Dimond, 2015: Astedt-Kurki and Kaunonen, 2018). Students joining the BSc(Hons) Nursing programme were potentially unfamiliar with research methods and their right to choose, to agree or decline, to take part in the study. This was particularly true for those at the beginning of their university experience who were unaccustomed to the context and may have been particularly vulnerable to perceived power imbalance (Lippe, et. at. 2019). It was imperative therefore that a full and detailed explanation of the process was provided in order to gain informed consent prior to participation, adhering to ethical approval.

Students within the identified cohort were invited to take part in the study during the introductory weeks of the programme. A brief verbal introduction to the research took place during one of the students' field induction sessions onsite at the university, presented on five separate occasions within the same week, in two separate groups for the adult field due to the large student numbers, and once each for the child, mental health and learning disability groups. Following the introduction, students who were interested in taking part were provided with participant information leaflets as they left the venue (Appendix C). These

clearly identified each stage of the quantitative study including the student's right to withdraw their data within a four-week period of providing it if they changed their mind. They were also advised that they were free to disengage from the study at year 2 and 3 data collection points if they no longer wanted to take part, without any impact on their nurse education. The information provided also outlined the terms of confidentiality, the potential benefits of contributing to the study and what to do if they had any concerns, thus enabling students to make a fully informed decision.

Two days later, in the same way and in the same groups, at the end of a subsequent field session timed for student convenience, those who wished to participate signed and returned consent forms for the quantitative aspect of the study (Appendix D). Students who did not wish to participate were invited to leave the room. The consent forms also included the opportunity for students to provide an early indication of their willingness to consider participating in the qualitative element of the study. Students who did not wish to participate in either the quantitative or qualitative aspect of the study were invited to leave the room. Paper copies of the questionnaire with the demographic data form attached were subsequently distributed to those who remained. Basic instructions were provided requesting individual completion of the questionnaires, including an example of how one question might be completed to illustrate the direction of the Likert scale. Students were encouraged to answer each question quickly and intuitively in line with guidance from the LPL. The researcher remained present to supervise the process and facilitate a quiet atmosphere. Completion of the questionnaire took between 25-40 minutes. Once finished, the students placed the forms in a box at the front of the classroom and left. This first application of the TEIQue took place during the students' induction week at the beginning of the first year and was labelled T1. Analysis of this entry point data provided the baseline TEI scores for the cohort.

In fulfilment of the longitudinal design, participants at T1 were requested to complete the TEIQue for a second time (T2) during their year 2 induction sessions on site at the same campus. Once again they were approached at the end of their field sessions, in two groups for adult students and as whole field groups for child, mental health and learning disability students. Those who no longer wished to participate and those who had not been present or provided consent on the first occasion left the room. Paper copies of the questionnaire were distributed to those who remained and completed under the same conditions outlined on the first occasion. Once again they were deposited in a box at the front of the classroom and students left following completion.

Participants were asked to complete the third and final application of the TEIQue at the end of one of their final field sessions at the end of year 3 (T3), once again on campus. By this stage the field groups were much smaller due to attrition within the cohort, the withdrawal of a number of students who no longer wished to participate and student non-attendance due to a variety of factors. However, the process remained unaltered. The questionnaires were distributed with a reminder about the direction of the Likert scale using an example. Students subsequently completed the forms under the researcher's supervision. However, the students were excitable on this third occasion, perhaps in anticipation of the end of their course and maintaining a quiet atmosphere required more frequent intervention. Following completion, the questionnaires were once again placed in a box at the front of the classroom as the students left.

4.7.6 Ethics

Minimising risk to participants is an important element of research practice and one of the main functions of institutional ethical review boards (Dimond, 2015; Astedt-Kurki and Kaunonen, 2018). It is the requirement of the university ethics committee that all researchers submit an application for research approval before being granted permission to pursue the study. This included an outline of the research objectives, proposed participants, the process for data collection and analysis, the maintenance of confidentiality, safe storage and destruction of data, and the minimising of risk of harm to participants. This process was completed separately for the quantitative and qualitative elements of the study in recognition of a mixed method approach. Following a successful application and review process, ethical approval was granted (Appendix E). In addition, formal permission was required and granted by the Associate Dean for Research, Enterprise and Business Engagement to access the student group identified as potential participants. This was an additional safeguarding measure utilised within the faculty to prevent students from becoming overwhelmed by multiple requests for research participation with the potential to become detrimental to their studies.

4.8 QUALITATIVE METHOD

The following section explains the qualitative research method chosen to explore the impact of nurse education on the development of undergraduate nurses' TEI by gaining insight into students' lived experiences. A phenomenological approach was chosen, focusing on individuals to gain specific insight into their unique lived experiences, in line with the aim of the study. While using an ethnographical approach, achieved through sustained immersion into the context, may have led to helpful collective insights into student culture (Hammond

and Wellington, 2021), it was neither practical nor desirable for the qualitative element inasmuch as it did not answer the research question. Similarly, the use of grounded theory was excluded as the avoidance of theoretical preconceptions was impossible given the nature of this mixed method study based on established TEI theory (Noble and Mitchell, 2016). Subsequently, the choice was made to pursue a phenomenological approach.

4.8.1 Design

Phenomenology is an inductive, qualitative method based on the philosophical study of experience and consciousness (Rehman, 2018). The qualitative element of this mixed method study was undertaken using Interpretative Phenomenological Analysis (IPA). This specific phenomenological method was utilised in order to explore the student's verbalisation of their thoughts based on their experience of nurse education and their understanding of TEI. Using a dialectic approach is most effective when the two methods used diverge substantially from each other, increasing the variance and enhancing the validity of findings (Betzner, 2008). IPA specifically was chosen due to its significant divergence from the positivist paradigm, which supports the notion of objective measurement and negates the subjectivity of human interaction (Reiners, 2012). Using the phenomenological approach of IPA provided the opportunity to explore the 'particular', examining the ideographic lived experience, in contrast to the nomothetic generalising research perspective provided by the quantitative element of this study (Amos, 2016).

4.8.2 Interpretative Phenomenological Analysis (IPA)

IPA is an approach based on principles developed over time throughout the twenty first century. It evolved from key phenomenological philosophical positions that developed in the twentieth century emanating from the work of Husserl, followed by Heidegger and Merleau-Ponty. Each of these philosophers developed divergent ideas about the way in which individuals view and experience the world. Despite their differences they shared a fundamental belief that *'the world is nothing other than the world itself'*, and retained a core focus on the way in which individuals experience that world (Jacobs, 2018 p. 2).

Challenging the idea that the world exists as it appears to us, Husserl's descriptive phenomenology focused on consciousness arguing that the *'real world'* exists in a different format, understood through its representation in us. He proposed that by *'bracketing'* everyday convictions about ourselves, including scientific and philosophical ideas about ourselves in the world, it is possible to suspend these suppositions in order to bring the world of experience into view (Jacobs, 2018). Through the process of '*intentionality',* directing one's awareness to explore perceptions, emotion, thought, memory and imagination it is

possible to experience an event or object free from preconceived ideas (Reiners, 2012). Husserl's work helped to create a central focus for the process of reflection (Smith, et. al. 2009). Subsequently a school of descriptive phenomenology developed, within which pre-conceived ideas are set aside (bracketed) in order to describe everyday experiences without prejudice (Reiners, 2012).

Heidegger, originally a student of Husserl, challenged the notion that it was possible to bracket out and separate the object from the subject. Heidegger's interpretive phenomenology provided a departure from Husserl through the central premise of intersubjectivity, which proposed a relatedness through which individuals make sense of, or interpret, the world and each other (Zahavi, 2018). Finding significance in everyday occurrences beyond Husserl's description of core concepts, Heidegger viewed the world as essentially relational (Jacobs, 2018): viewed in context of place, bounded by situation making it implausible that human beings are able to act as spectators of objects within the world without acknowledging themselves as subjects embedded within that world (Malpas, 2012; Horrigan-Kelly, et. al. 2016). According to Heidegger it would be impossible not to interpret our experiences (Zahavi, 2018). Heidegger used the phrase Dasein defining it as the experience of *'being-in-the-world'* arguing that despite the fact that the world is accessible to consciousness, that experience may not reflect the actual world (Jacobs, 2018). Leading to developments in hermeneutical phenomenology to include interpretation and understanding through the exploration of lived experience (Horrigan-Kelly, et. al. 2016), interpretive phenomenology does not require the researcher to bracket their own perceptions and biases, instead they are used to inform the sense-making process of the phenomenon (Reiners, 2012).

IPA theory also rejects the suggestion that 'bracketing' enables the researcher to separate personal pre-conceptions and perspectives from that of the subject. IPA incorporates this idea through the recognition that humans make meaning of the world through their connectedness to it, through objects, language and relationships, their experiences are temporal, always in relation to something else and thus subject to interpretation through their meaning making activities (Smith, et. al. 2009). Drawing on the work of Merleau-Ponty, who asserted that it is never possible to entirely comprehend the lived life, IPA acknowledges that the experience of living as a body in the world inevitably shapes an individual's view of their world (Amos, 2016). The goal of IPA is not to achieve transcendent knowledge from an abstract perspective in the way Husserl suggested (Larkin and Thompson, 2012; Jacobs, 2018). Instead IPA shares in the sense making process with the participant, to act as witness to its expression and derive meaning from it (Smith, 2018). While it may be possible

to empathise with another and have a sense 'about' another's experience this is not the same as the 'mineness' of a personal lived experience (Smith, et. al. 2009).

The hermeneutic circle of IPA provides a heuristic device, a means for discovery within which the meanings of the whole and the part can be explored through the researcher's dynamic interaction with data (Amos, 2016). Following a cyclical process in which text, context and reader form the hermeneutic circle, IPA is an iterative activity including line by line analysis of the text. Using interview transcripts, the researcher acknowledges the influence of both the individual's context and the researcher's context in the interpretation, as reader repeating the cycle to form meaning (Smith, et.al. 2009). Inspired by the work of Schleiermacher, IPA recognises that interpretation is not mechanical but involves a degree of intuition in addition to a range of skills. This does not mean that the researcher's interpretation provides a 'true' perspective of the participant's view, nonetheless it adds value through detailed analysis of the text and combined conscious and unconscious communication, which take place between the two during the process of interaction (Smith, et. al. 2009).

The acknowledgement that phenomenology is an interpretative activity is an essential component of IPA theory. Anyone attempting to fully understand text is always projecting, making it impossible to wholly separate preconceptions from the process of interpretation (Smith, et. al. 2009). The reader's interpretation is unique depending on their individual life world experience. It becomes vitally important therefore that the IPA researcher has the ability to reflect and make sense of their own preconceptions, experiences and assumptions (Larkin and Thompson, 2012). This forms the double hermeneutic of the IPA approach as the researcher attempts to make sense of the participant's sense making of their experiences. The shared humanity of this endeavour aligns researcher and participant, albeit the researcher uses a more systematic and self-conscious process (Smith, et. al. 2009).

Using IPA provided the opportunity for participants sharing the same experience of nurse education, to explore TEI and its personal meaning for them. By using this approach, it was possible to gain an understanding of the students' experiences situated within their socio-cultural context (Larkin and Thompson, 2012). Engaging in reflexivity throughout (see section 4.6) and recognising that all experiences in research are inevitably interpreted by the researcher, using IPA provided an analytical framework within which to make sense of that process (Rettie and Emiliussen, 2018).

4.8.3 Ethical considerations

Participants' interests were protected and safety ensured throughout the research process by adherence to the ethical principles of respect for autonomy, non-maleficence (doing no harm), beneficence (doing good) and justice (Holloway and Galvin, 2016). This section outlines the application of these principles to the qualitative aspect of this study.

4.8.3.1 Approval

It was important when planning this second phase of the research to recognise that the risks involved for participants were different to those engaging in the quantitative element of study. While students provided some indication of their willingness to take part in the qualitative element at the same time as consenting to participate in the quantitative element this was not sufficient to fulfil safeguarding obligations. To ensure the robustness of the qualitative aspect of this study, a separate and detailed ethical approval and permissions process was subsequently undertaken. In line with the previously articulated protocol (section 4.7.6) an application to the University Ethics Committee was submitted and approved (Appendix F).

4.8.3.2 Participant safety and wellbeing

The focus for this aspect of the study was on personal meaning and sense making of TEI in the context of nurse education for students. Recognising the potential for discussion of sensitive issues in the more intimate interview environment, it was essential to ensure that attention to participant safety was carefully considered.

Participant safety remained a priority throughout this study. Confidence in the ability to notice and respond appropriately to any student distress during interviews and familiarity with the NMC code (2018b) underpinned the process. Contact details for the university wellbeing and counselling services were also available to provide further support for participants if necessary.

As the students had already participated in two data gathering exercises related to the wider study, to compensate them for their time and support their wellbeing a £10 voucher for onsite refreshments was provided at the end of the interview, funded by the School of Nursing and Midwifery research budget.

4.8.3.3 Researcher and participant relationships

As previously stated (see section 4.5) there was a power imbalance for student participants associated with the researcher's role as a senior lecturer within the faculty. In order to

maximise the potential for students to respond freely, avoiding the risk of them saying what they believed the researcher wanted them to say, involvement with this cohort was minimised. This included exemption from acting as personal tutor for anyone involved in the study. Additional measures were also employed during the interviews including the careful use of language appropriate to the participants' capabilities (Few, et. al. 2003). Remaining continually aware of the power dynamics within the relationship, open communication was maintained throughout, providing opportunities for the participants to challenge or object to the research or method (Karnieli-Miller, et. al. 2009).

4.8.3.4 Informed consent

Informed consent requires respect for autonomy and an adherence to the principles of non-maleficence as articulated within the NMC code (2015). All students were deemed competent to consent given their enrolment on a degree programme. However, it was not acceptable to unintentionally breach these principles through inadequate attention to detail (Jacobsen, 2020). In order to ensure fully informed consent was achieved, a clearly worded participant information sheet was developed (Appendix G). Those expressing an interest in participating in this qualitative study were emailed a copy of the information sheet and consent form a minimum of 48 hours before establishing contact to arrange a suitable time for the interview. This email provided potential participants with the researcher's email address advising them to make contact if they had any questions or required further information before making their decision. A copy of the signed consent form (Appendix H) was returned at the beginning of each individual's interview. Consent was confirmed verbally and participants were also reminded of their right to withdraw even after the interview. The five requirements for informed consent were all fulfilled: the provision of clear information, the opportunity to check participants' understanding, the freedom for students to volunteer or refrain from participation without coercion and obtaining written consent (Jacobsen, 2020).

4.8.3.5 Anonymity

Participants were made aware of the limits to confidentiality in this study which would include personal accounts of their experiences, with an explanation that extracts from the transcription of their interviews would be used in the research findings. While this made complete confidentiality impossible, identifying names were removed and pseudonyms used in their place, ensuring that anonymity was maintained and individuals should be unrecognisable in the text (LoBiondo-Wood and Haber, 2017).

4.8.3.6 Withdrawal

The consent forms provided to participants (appendix 8) clearly outlined their right to withdraw consent and decline participation in the study within one month of the interview taking place. None of the students requested to withdraw their data at any stage of the study.

4.8.3.7 Data storage

Participants consented to the recording of their interview. These were recorded on a digital recorder owned by the university and subsequently downloaded onto a university laptop protected by a password known only to the researcher. Recorded data was deleted from the laptop following transcription, although an anonymised backup was retained in an encrypted file within the university's digital storage system, according to data protection guidelines. All transcripts were stored on the laptop using pseudonyms. Written information including demographic details, consent forms and contact details were stored separately from the data in a locked cabinet in the designated storage space within the research department in accordance with university policy. Participants were made aware that the anonymised transcripts, audio recordings and analysis of the process may be reviewed by a member of the supervisory team to ensure the interpretation was plausible and coherent (Smith, et.al. 2009); furthermore, that all data would remain securely stored for a period of not less than five years after the research was completed at which point it would be destroyed in accordance with the Data Protection Act (Gov.UK, 2018).

4.8.3.8 Selecting cases

Decisions regarding case selection were informed by the research question and conceptual framework (Farrugia, 2019). For this qualitative element of the study, participants were purposively selected on the basis that they share a common experience which provided a particular perspective (Smith, et. al. 2009). The aim was not to create a representative sample but to invite participants whose life experiences had enabled them to develop a level of expertise associated with the phenomena studied (Larkin and Thompson, 2012; Wagstaff and Williams, 2014), in this instance the impact of nurse education on TEI.

IPA is firmly idiographic focusing on a detailed analysis of the individual before developing a comparative analysis across the group. However, due to the depth of analysis this can be complex; for this reason, sample sizes remain small (Eatough and Smith, 2017). Basing the study on a small number of participants provided the potential for a detailed in-depth case by case analysis (Smith, et. al. 2009). Homogeneity within the group is a fundamental principle of IPA and is recognised as a particularly useful strategy for exploring phenomena with

implications for practice (Pietkiewicz and Smith, 2014; Patton, 2002; Suri, 2011). In light of the evidence to suggest TEI increases with age (see section 3.3.1.1.), selecting participants in early adulthood provided the potential to explore those most likely to experience changes in TEI as a result of nurse education. Reducing the likelihood of differences associated with the ageing process and to some degree life experience, volunteers were sought from within the youngest age group, 18-20 years, at the beginning of the programme. This represented the biggest single age group of students within the cohort, with 38 percent of students aged between 18-20 years.

The second criteria applied limited the sample group to female cases. The rationale was based on evidence suggesting that some facets of TEI may vary according to gender (Petrides, 2009a) and in recognition that 90 percent of the cohort were female. Recruiting participants from the most commonly occurring age and gender groups provided the opportunity to identify 'typical' students from within the cohort. Selecting 'average like' cases is particularly useful when analysing data generated from previous similarly designed studies or those based on comparable populations (Suri, 2011; Farrugia, 2019). Using this strategy for case selection provided greater opportunity for in depth analysis, comparison with findings from previous TEI studies and close alignment with the principles of IPA. Subsequently, the inclusion criteria for participants were:

- Pre-registration nurse students participating in the quantitative element of this study.
- Aged between 18-20 years at the outset of nurse education.
- Female

4.8.3.9 Recruitment of cases

Participants for the IPA study were recruited from the group of students already taking part in the quantitative element of this mixed method study. There were 62 potential participants who had previously expressed an interest and met the inclusion criteria (see section 4.8.3.8). These candidates were emailed via their university accounts, provided with a participant information sheet, consent form and invited to respond (Appendices 7 and 8).

Four students volunteered to participate in the qualitative aspect of the research and arrangements were made to attend a daytime interview on the university premises at a convenient time for each participant. Although single person case studies are used in IPA demonstrating the commitment to the idiographic, the use of small homogeneous samples occurs more often (Charlick et. al. 2016; Eatough and Smith, 2017). Smith, el. al. (2009) suggest between four and ten interviews should be undertaken as part of an IPA doctoral study (Shanahan, 2018; Smethurst, and Kuss, 2018). Although there were a limited number

of responses, four cases were deemed acceptable for the IPA element of this mixed method study. There was therefore no attempt made to recruit additional participants.

Basic demographic information had already been collected as part of the quantitative study. While all of the students identified their ethnicity as white British this was coincidental rather than part of the selection criteria. Similarly, there was no specification of the need for participants to be representative of the four fields. There were two learning disability, one adult and one child field students who responded; no mental health nursing students volunteered to take part in the study.

The lack of representation from Black and Asian minority ethnic (BAME) and mental health student groups was disappointing. However, recruitment of participants from unrepresented groups would require targeting these specific groups of students with a second request for volunteers. In light of the previously discussed power dynamics (section 4.6.3.3) this may have been perceived as coercive, contravening the ethical approval gained. Given the unacceptable risk to student wellbeing and the identification of an acceptable number of cases, the decision was made not to attempt to recruit additional participants from these groups.

Table 8: Qualitative data collection summary

Pre-registration nursing students within the original study cohort	Aged between 18-20 at the commencement of the study	Signed consent form for quantitative study expressing an interest in qualitative element	Must have completed quantitative questionnaire at points 1 and 2	62 Students eligible to participate
62 Individual students expressing an interest emailed directly using university email addresses to establish continued interest and provide explanation of qualitative study with participant information leaflet and consent form.	4 students replied and a second email was sent to arrange a suitable time for a single interview	4 participants responded, returned signed consent forms and attended one single individual interview each at the end of year two of their BSc Nursing course	End of qualitative data collection	

4.8.4 Interviews as a data collection method

A phenomenological approach was required in order to provide a methodological fit with the research question. One of the most common forms of data collection in qualitative research is through interviews (Holloway and Galvin, 2016). By getting closer to people's real life

experiences, the use of interviews allows the researcher to take a less dominant role providing an approximation of a more 'normal' conversation, although good conversational skills do not necessarily equate to effective interview skills (Brannen, 2016; Howitt, 2019). Qualitative interviews require the researcher to engage in active listening, providing responses to enable the interviewee to say more, creating opportunities to explore wider thinking from an individual perspective (Howitt, 2019). However, there are limitations associated with this approach, including neglecting the social context by focusing on the individual, and avoiding behaviours, actions and interactions while focusing almost entirely on thoughts and feelings. However, while it could be argued that interviews provide an incomplete perspective this does not reduce the value of the data (Holloway and Galvin, 2016).

One to one, face to face interviews are the most frequently used in IPA studies, providing the opportunity to explore an individual's perspective of their lived experience, enabling the inquirer to collect powerful 'meaning making' data (Frels, et. al. 2013; Tod, 2015; Flick, 2018). Although IPA studies occasionally include the use of focus groups, the choice was made to conduct a single face to face interview with each participant due to a need to explore and understand each participant's perspective of an abstract concept in great depth and detail. Directly addressing the research question during one to one interviews led to the development of a layered interpretation of all the data available, providing detailed analysis of each individual participant's verbal, non-verbal and paralinguistic communication in line with the aims of IPA (Smith, et. al. 2009).

The interview process is similar to the counselling process inasmuch as it relies on the development of a form of therapeutic alliance (Frels, et. al. 2013). Counselling skills can also be useful for managing silences, sensing when participants are avoiding the question, feeling uncomfortable or when they become emotional during the interview and are particularly useful for novice researchers (Pietkiewicz and Smith, 2014). Counselling skills developed and internalised through many years of practice as a nurse, therapist and educator made the decision to use interviews for the qualitative element of this study a logical choice and essential for IPA. However, while counselling skills were of considerable benefit, vigilance in maintaining clear role boundaries was required throughout the interview process. Rigorously maintaining the role of researcher avoided any potential regression into the functions of teacher or counsellor (Tod, 2015).

4.8.5 Rationale for semi-structured interviews

Unstructured interviews have the potential to elicit the richest data as they facilitate the opportunity for participants to follow their own thoughts and interests (Holloway and Galvin, 2016). A lack of structure may not provide sufficient information for interviewees leading to lengthy silences or conversely can elicit a huge volume of data which bears no relation to the research topic (Holloway and Galvin, 2016). Conversely, structured interviews follow a detailed schedule and may contain closed questions. Highly structured interviews are not ordinarily used in qualitative research as they are considered too directive, lacking the flexibility to enable participants to express their lived experience, conflicting with the aims of the research (Tod, 2015; Holloway and Galvin, 2016). Subsequently, the potential use of both unstructured and highly structured interview approaches was eliminated for the purpose of this study.

Semi-structured interviews provide a more focused approach enabling the interviewer to collect data of a similar kind from each participant; those with the least structure likely generate more detailed accounts relating to areas of general interest (Holloway and Galvin, 2016). Generating open-ended questions around a number of pre-determined topics provided flexibility while at the same time enabling the researcher to retain some capacity to direct the discussion towards research topics (Tod, 2015). Following these principles, it was possible to take part in real time dialogue with participants, engaging in a defined form of conversation with clear purpose and boundaries (Smith, et. al. 2009; Pietkiewicz and Smith, 2014; Holloway and Galvin, 2016). Using a semi-structured interview guide to inform interactions with participants maximised the potential to explore experiences of EI based on trait theory.

4.8.6 Developing the interview guide

According to Frels, et. al (2013), developing open ended questions to be used in interviews based on a psychometric tool can increase the rigor of qualitative studies, providing the tool has been shown to be psychometrically sound. The TEIQue tool (Petrides, 2009a) is lengthy and detailed incorporating fifteen facets, thirteen of which are incorporated into four factors with two auxiliary facets (see section 4.5.4). Attempting to formulate questions relating to each facet would have led to a lengthy, detailed and highly structured schedule. The questions formulated for inclusion in the guide were consequently developed aligned to the four TEI factors and two auxiliary facets of adaptability and self-motivation (figure 4). All of the questions were open but not ambiguous and care was taken to ensure they were not leading, based on assumption, over empathic or manipulative (Smith, et. al. 2009; Holloway and Galvin, 2016). While numbered in the guide in an order which appeared logical, and in

a way which might align with the natural flow of discussion, the flexibility to ask questions in whichever order they emerged in the discussion was retained (Pietkiewicz and Smith, 2014). The questions were designed with relevant prompts (see appendix 9) to enable participants to explore their feelings, experiences and knowledge (Holloway and Galvin, 2016), increasing the potential to gain an appreciation of the depth of participants' lived experience rather than a superficial exploration of its breadth (Todres, and Galvin, 2005).

On the continuum between a structured schedule and semi-structured guide, the final guide was more structured than initially envisaged, partly due to the need for alignment with the TEIQue. However, it was also necessary to provide a detailed interview schedule in order to meet the requirements of the ethics committee approval process, an experience not uncommon in health research (Holloway and Galvin, 2016). Nonetheless, the identification of specific questions provided the opportunity to ask relevant questions and a flexible approach used to make adjustments depending on the dynamics of each individual interview (Pietkiewicz and Smith, 2014).

The first question was general, a form of preamble designed to establish rapport and put the participant at ease, gaining trust before moving on to more personal issues (Pietkiewicz, and Smith, 2014). While the second created the opportunity to get a sense of the participants' understanding of emotional intelligence from the outset of the interview. The NMC (2017) definition of EI (Figure 4) was available in case any of the participants had no prior knowledge or appreciation of the topic. Providing a definition was useful as a potential means of avoiding silence or long pauses during interviews if students felt uncertain about the concept, which could feel daunting and lead to significant discomfort given the power issues involved. This definition was used for the purpose of consistency in anticipation of its use in the NMC Future Nurse standards (2018a) and incorporation into nurse education programmes. It was subsequently eliminated from the final version of the standards, nevertheless it remains a reasonable explanation of EI in everyday language.

Figure 4: NMC (2017) definition of EI

> *"Emotional Intelligence: to be aware of the feelings and emotions of others, and to control and express your own emotions. To handle interpersonal relationships thoughtfully and with regard for the other person's feelings."*
>
> NMC Draft Standards of proficiency for registered nurses – May 17 pp.41
> (Subsequently withdrawn from the final version of the standards)

Ultimately, this definition was not required at the beginning of any interview as all participants were able to articulate ideas relevant to the construct. However, the same definition was used later in the interviews to provide a lens through which the students could view the final questions which focused on their perceptions of changes in TEI. The aim of this was to enable them to reflect on their earlier definitions, to explore any ideas which had emerged during the course of the interview and to provide a common foundation upon which to describe any potential changes including factors which they felt may have influenced the development or inhibition of their TEI.

The interview guide (figure 5) outlines the questions formulated aligned to the four TEIQue (Petrides, 2009a) factors of emotionality, self-control, sociability and well-being. Additional questions were connected to the two auxiliary facets of self-motivation and adaptability. Although there are numerous prompts identified, these were planned for use only in the event of participants losing their way during the interview or if it seemed helpful to provide a clearer focus when discussing broad topics (Tod, 2015). The final questions were aimed to indicate the interview was coming to an end, to allow the participant to summarise their thoughts, provide any final observations and to create opportunity to ask questions (Tod, 2015).

4.8.7 Preparation and trial interviews

Reflexivity requires the researcher to engage in self-appraisal, recognising and taking responsibility for one's position in the research and the impact it may have on individuals involved and the setting within which it takes place (Berger, 2013; Palaganas, et. al. 2017). It is essential therefore to establish the impact of the researcher's own position at every stage of the process from design to implementation and analysis (Berger, 2013). Subsequently, a reflexive interview was undertaken with a peer during the early stages of developing the interview schedule in order to identify any personal views about EI. This was an important quality measure which reduced the potential for previously unacknowledged beliefs, biases or assumptions to affect the way in which student responses were perceived or interpreted, and to ensure personal experiences did not unconsciously or inadvertently replace that of the participants.

In addition to undertaking a practice interview with a peer a pilot interview was conducted with a 3rd year student volunteer from a different cohort undertaking the same BSc Nursing programme at the same institution. The volunteer consented following a clear explanation regarding the purpose of the pilot with the knowledge in advance that her data would not be incorporated into the study and the recording, once reviewed, would be destroyed within one month of the interview. The interview took place on university premises and lasted 65

minutes during which the participant relaxed and spoke freely. The recording was clear and there were no issue with equipment, and it was deleted from all devices within one month as agreed. As the volunteer was from a cohort other than the one participating in the quantitative aspect of this mixed method study, she did not fulfil the inclusion criteria for the qualitative element.

Table 9. Reflexive example 2: Problematising the data and methods used (Alvesson and Skolberg, 2009)

Excerpt from research diary May 2017

"The pilot interview with X (3rd year student nurse volunteer) went really well today. She talked so openly about the challenges she has faced managing her own emotions, changing her behaviour and appearance to fit her perceptions of what is appropriate for practice. The interviewed flowed well covering all the areas identified in the interview guide with minimal prompting. I felt relaxed and confident, able to explore areas of interest with the student. At the same time acutely aware of the need to maintain clear boundaries avoiding 'counsellor' responses, particularly during moments when she became visibly distressed. At the end of the interview X reflected on the cathartic nature of the experience expressing thoughts and feelings she was previously unaware of. Such a confidence boosting experience for me and I hoped, helpful for the student.

While this felt like a great outcome, I was aware of the enthusiasm of the student and her desire to please. I pondered the impact of my status and her apparent pre-existing interest in EI. I realised the interview guide was too structured and had the potential with a less relaxed/interested participant to feel very formal. As I reflected on the experience I thought about the possibility of interview participants being intimidated or ingratiating, maybe less talkative or even silent. As a result, I decided to simplify the interview schedule and made a mental note to maintain an even more flexible approach, committed to developing rapport and following the participant's flow of thought wherever it leads. I also wondered about future volunteer's possible motivation to engage because of pre-existing interest and the likelihood of their responses being influenced unconsciously by the fact I am an 'insider researcher'. I will need to be very aware of this when it comes to interpreting the data."

The student volunteer reported a positive impact following the interview having gained personal insight and an interest in EI which she hoped to explore in the future. Piloting the interview was equally helpful for the interviewer as part of the preparation process by increasing familiarity with the interview guide. It also created the opportunity to gain experience, to practice a more flexible approach and use prompts to encourage the participant to talk freely (Tod, 2015). As a result, the original interview schedule (Appendix I) was simplified and a less formal approach adopted in the revised version (Figure 5).

Figure 5: Revised interview guide

1. Can you tell me what you know about emotional intelligence?
2. Tell me something about the way in which you talk about your emotions? What changes have you noticed since you started nursing? How has it affected your relationships?
3. What do you do to help you to manage your emotions? Tell me something about a time when you felt overwhelmed?
4. Would you describe yourself as sociable, what kind of social activities do you enjoy? Have there been times when you have supported other people who were feeling emotional, can you tell me something about one of those times? How easy do you find it to be assertive in emotional situations?
5. How do you feel about the future? Would you describe yourself as optimistic, happy, anxious or something else? What changes have you noticed in yourself since you started nursing?
6. What motivated you to become a nurse? Has anything affected your motivation since then, can you tell me a little about that?
7. When something unexpected happens how do you respond?
The NMC (2017) definition of EI was provided to read before moving on to the final questions.
8. Thinking about that definition, do you think your EI has increased, decreased or stayed the same since you started the course? Have a think for a minute and then, if you can, tell me about something that has happened that might have affected your EI? What do you think the university could do to help you improve your EI? And practice?
9. Thank you so much it's been great to hear your thoughts, is there anything else you would like to say or ask?

Based on this experience and following recommendations made by Holloway and Galvin (2016), arrangements were made to commence the interviews with participants whose data would inform the qualitative study. Interviews with each participant were arranged at a time to suit them. These took place at the university in a pre-booked neutral room with a window, which was quiet and free from disturbance. A do not disturb sign was posted on the door ensuring all interviews were carried out without interruption. Refreshments were provided, the seating was comfortable and there were no physical barriers between us with the potential to impair communication (McEwen and Harris, 2010; Tod, 2015). The interviewer was dressed in similarly casual clothes for each interview and seats were of equal height.

Interviews took place over a three-week period, at a time chosen by the participant between10.00-16.30. During this time the building was occupied and independent support was available via the university wellbeing service in the unlikely event it would be required. The risk of emotional distress to the participant was judged to be minimal, and the interviewer's counselling experience mitigated the risk.

Before each interview began, confirmation was provided that the participants had read the participant information leaflet and were happy to continue. Written and verbal consent was gained. Before asking any questions, the aim of the study to explore participants' perceptions of EI and to gain an appreciation of how they felt nurse education had affected its development were reiterated. A brief description of the semi-structured framework was provided, including the expectation that this would be a conversation between participant and interviewer with questions used to direct the discussion. Each participant was reassured that there were no wrong answers and any questions used were to simply facilitate discussion based on their experiences (Smith, et. al. 2009). Students were advised that the interviews would take between 60-90 minutes as stated in the participant information leaflet, depending on the amount of information the participant wished to share. The longest interview took 76 minutes while the shortest lasted 51 minutes, as some participants expanded more readily and appeared more naturally talkative than others. The time of day had no apparent impact on the length of interviews.

Permission was granted by participants to record their interviews in order to accurately preserve the process for transcription and subsequent analysis (Holloway and Galvin, 2016). This was facilitated through the use of a university owned, secure digital device. No physical notes were taken to minimise the potential for distraction away from the subject during the interview process (Tod, 2015). Signalling focused attention on the participant, allowing the interviewer to enter the participant's world, fully absorbed in their words and the experience of being with them (Smith, 2009). Each recording was obtained in a single sitting with no technology related issues requiring the interviewer's attention. The recordings were stored according to previously articulated ethical principles and later used for the purpose of transcription. No insurmountable difficulties were experienced during the transcription process as the recordings were clear although particular attention was required for sections where participants lowered their tone, speaking more quietly when expressing feelings of sadness or inadequacy. One of the interviews was slightly more challenging to transcribe as the subject, although not unwell, had partially lost her voice and spoke quietly throughout.

Participants were offered the opportunity to ask questions at any stage. Specifically, at the beginning of the interview to request further information about the process and at the end.

Following a brief summary of key points, participants were asked if they would like to add anything further or ask any questions which may have emerged during the course of conversation. This generated some questions about EI suggesting an interest in exploring the topic in more detail and two participants asked when the study would be completed. Contact details in the form of university email addresses, initially exchanged during the recruitment process, were confirmed and participants were encouraged to make further contact if they had any questions or concerns they wished to discuss after the interview. Participants were also reminded that the university wellbeing service offered independent counselling if they felt distressed following the interview and they were encouraged to access support to help them process the impact of anything they had talked about or that had been brought to mind. None of the participants made any further contact with the researcher.

4.8.8 Guiding the interviews

Having planned and organised the interviews thoroughly it was possible to facilitate the interviews with confidence, conveying professionalism and credibility, which provided the opportunity to focus on each participant with genuine interest in their views; displaying also a relaxed and composed attitude and being fully responsive to participants' verbal and non-verbal communication (Tod, 2015). Establishing rapport was the essential first step of each interview. In an effort to convey full attention to participants, evidence-based principles for non-verbal communication were adopted throughout (McEwen and Harris, 2010) primarily in the form of Stickley's (2011) SURETY model, a later development of Egan's SOLER principles (2014). SURETY encourages **S**itting at an angle, **U**ncrossing arms and legs, **R**elaxing, sensitive and culturally appropriate **E**ye contact, appropriate therapeutic **T**ouch and the use of **Y**our intuition to inform the interaction. As part of the preamble to each interview, participants were asked if they were well and assurance gained that they were happy to continue. The first exploratory question created the opportunity to convey genuine interest in the student's experiences of the course and to become attuned to their body language and style of communication (Holloway and Galvin, 2016). Subsequently, the discussion followed the broad outline of the interview guide although shaped by the flow of conversation allowing the participant to speak freely. Participants were encouraged periodically to provide examples, eliciting more detailed accounts of their experiences and to inspire fluency (Holloway and Galvin, 2016).

The pace and length of each interview depended on the participant's responses. Prompts and probes were used to gain greater insight and meaning when questions led to responses involving broad statements (Tod, 2015). A flexible approach was maintained in order to

remain responsive to the individual, while providing enough time for participants to reflect on their personal experience. Comfortable silences were used during the interviews to create reflective opportunities (Pietkiewicz and Smith, 2014). Similarly, other aspects of active listening were utilised, including the ability to summarise and the sensitive use of eye contact, which created a safe and comfortable environment within which participants spoke freely (Tod, 2015). This approach maximised participant empowerment while the interviewer remained cognisant of the reality that the potential for complete equality between participant and interviewer was illusory (Holloway and Galvin, 2016), retaining an awareness that, in contrast to the therapeutic relationship, the interviewer was an active participant in the process rather than providing the blank screen of a therapist (Holloway and Galvin, 2016). Listening to the participant's experience, the interviewer avoided the temptation to attempt to interpret information during the interview, aware of its potential to distract attention from the immediacy of the interaction (Smith, et. al. 2009).

All of the interviews came to a natural end, the use of the final 'wind down' questions providing the opportunity to move away from the existential and subsequently more emotionally intense questions contained in the body of the interview (Pietkiewicz and Smith, 2014). At the end participants reflected on the interview process, which some described as cathartic, suggesting commonality between aspects of therapeutic and qualitative interviews. However, any potentially positive therapeutics were secondary to the primary aim of the interviews and were only achieved through the maintenance of appropriate boundaries (Holloway and Galvin, 2016).

4.8.9 Transcribing the interviews

Brief notes were added to the researcher's journal following each interview to capture key observations (see section 4.5 and 4.6). The need to relax during interviews and learn to trust the process in order for participants to freely express their views quickly became apparent to the novice interviewer. Journal observations were used to enhance the researcher's technique leading to a more confident and relaxed approach as the interviews progressed. This had little apparent impact on the length of the interviews or the participant's level of disclosure as the final interview was one of the shortest and the fourth student to be interviewed appeared the most guarded in her responses (see results section 7.1).

The principles of IPA required a verbatim line by line numbered transcription of interviews for analysis. This included a semantic record of words with notes on significant non-verbal responses such as laughter and hesitations (Smith, et. al. 2009). Although there was potential to use computer software or a transcription service, the choice was made to personally transcribe the interviews in order to become fully immersed and familiar with the

data, gaining insight into the subtle nuances within the interaction, using the process as an interpretative act (Smith et. al. 2009; Bryman, 2016). Narrating personal experience and listening to the narratives of others is the most basic way of understanding (Lindseth and Norberg, 2004). Listening carefully to participants' exploration of their past, present and anticipated future experiences through the process of transcription had the advantage of creating the opportunity to gain a better appreciation of their stories as they emerged from audio recording into text.

While transcribing each interview personally was slow and painstaking, it proved a useful aid to the reflective process and highlighted occasions when the researcher, with the benefit of hindsight, would have chosen to explore specific elements of each interview in more detail. It became apparent that the researcher was acutely aware of the need to avoid slipping into the role of therapist, resulting in missed opportunities to investigate the meaning of students' lived experiences in more depth. Similarly, the first transcript suggested some anxiety surrounding the need to cover all of the areas identified in the interview guide reflected in the pace of the first part of the interview which slowed towards the end. These reflections subsequently became part of the interpretive process.

4.8.10 Quality measures

It is important to adhere to principles for ensuring the quality and validity of any study. However, it can be challenging when the interpretation of qualitative studies is developed by an individual investigator. In contrast to the quantitative element of this work, it was not possible to use conventional criteria for replicability or reliability when exploring individual experience (Yardley, 2000). Subsequently, in line with the recommendations made by Smith et. al. (2009) for IPA studies, Yardley's (2000) principles to ensure the validity and quality of qualitative studies were used. The four principles of this framework are; sensitivity to context, commitment to rigour, transparency and coherence, and impact and importance.

4.8.10.1 Sensitivity to context

A clear appreciation of previous research undertaken in the field and the context within which the research took place was established prior to the commencement of the study (see chapters 1, 2, and 3). It was also necessary to maintain a critical awareness of personal positionality in order to provide plausible explanations and avoid making assumptions about participants' experiences (Clancy, 2013). As a senior nurse lecturer in the faculty, reinforced by the high degree of self-containment developed as a psychodynamic counsellor, there was the potential for the researcher to appear formidable to participants. This also generated the potential for the researcher to establish a therapeutic rapport and engage in psychoanalytical

interpretation. Mindful of this, a reflexive stance was maintained throughout and was used to identify preconceptions and areas of bias with the potential to impact the design, implementation and analytical processes undertaken.

Similarly, understanding the socio-cultural contexts within which the study took place was important (Yardley, 2000). This included the potential power imbalance between students and investigator, with freedom from the responsibility of acting as personal tutor for students in this cohort partially mitigating the risk. However, it was also important to maintain an awareness of factors influencing the nursing profession, particularly when interpreting participants' experiences. Significant changes taking place in nurse education at the time contributed to the rationale for this study, affecting participants and researcher. A clear explanation of these and an appreciation of their impact were essential in the introduction to this study to ensure student experiences were adequately contextualised.

4.8.10.2 Commitment to rigour

A commitment to maximise the potential of IPA to provide an in-depth exploration of participants' lived experiences was demonstrated by engagement in a range of workshops. These included short courses run by Aston University ('An introduction to IPA', November 2015) and Derby University ('Getting Great Data: IPA', July 2017). The rigour of the work was maintained through robust supervision throughout the process and engagement in regular discussions with a peer also undertaking IPA research.

In order to move beyond a simple descriptive account of participants' experiences, this IPA study required a systematic and rigorous approach (Smith, et. al. 2009). Providing a coherent description of the process from participant recruitment and selection through to analysis aligned to IPA recommendations has been essential in order to ensure the quality of the process. Facilitated by insights gained through the use of a reflexive journal, excerpts are used as illustrations throughout this work.

4.8.10.3 Transparency and coherence

Transparency of the process has been demonstrated throughout the study by the inclusion of tables outlining the process from individual participants to convergent themes shared by the participants. In line with the recommendations made in the IPA quality guide (Smith, 2011) the density of evidence shown through the inclusion of quotes from every participant during the identification of individual themes and from at least three participants for each superordinate theme led to a plausible and coherent analysis clearly aligned to IPA's double hermeneutic (Smith, et. al. 2009).

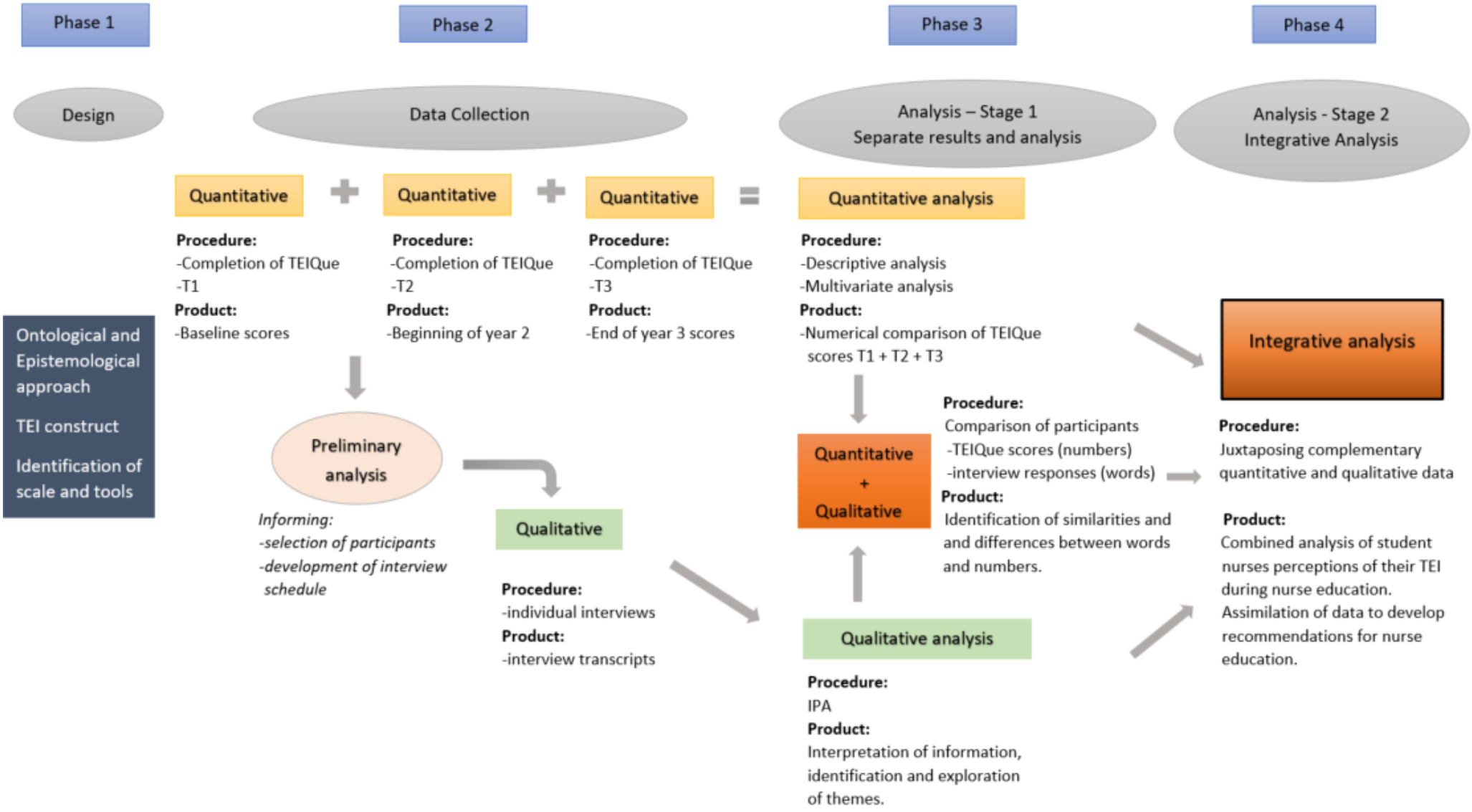
4.8.10.4 Impact and importance

This research is highly significant in light of the NMC's publication of the Future Nurse: Standards for Proficiency for registered nurses (2018a), which for the first time specifically stated the requirement for all nurses to be emotionally intelligent. However, there were no studies available to determine what happens to student nurses' TEI throughout pre-registration education from the students' perspective. In order to cultivate an emotionally intelligent nursing workforce it was important to learn from the lived experience of students in order to inform future education and support students to prepare them for the emotional impact of their work. This study will be of interest to nurse educators seeking to develop emotionally intelligent curricula and students who are required to develop these attributes and apply them to practice. The findings will also be of interest to placement providers and registered nurses who act as role models with responsibility for the assessment of these qualities and their application to practice.

4.8.11 An overview of the research design and activities

The following diagram (figure 6) outlines the research approach and the subsequent data collection and analysis strategy. TEI theory underpins the quantitative and qualitative data by using the same TEI construct and associated TEIQue tool (a full description is provided in section 4.5.4). The tool was applied to measure students' TEI at three points during nurse education to ascertain if there were any changes to overall TEI or in any of its subscales. Within the same timeframe, at the end of the second year of the undergraduate programme, student experiences were explored via interpretative phenomenological analysis (IPA) using semi-structured interviews, based on the TEIQue questionnaire, to investigate individual perceptions of TEI during nurse education.

Figure 6: Overview of research design and activities



CHAPTER 5: ANALYTICAL APPROACH

5.1 Quantitative data

The quantitative element of this study followed an exploratory design to ascertain what happened to student nurse TEI at global, factor and facet levels during pre-registration education. The exploratory design identified differences between scores over time rather than attempting to provide explanation or causal correlation. The aim was to provide a more detailed exploration of TEI in the context of pre-registration nurse education than previously available. Using this exploratory approach helped to define the characteristics of this experience although may limit the generalisability of the findings (Curtis and Drennan, 2013).

5.1.1 Organising and checking the data in SPSS

All data analysis was undertaken using the Statistical Package for the Social Sciences (SPSS). Statistical tests were identified to measure the data according to the questions articulated in the hypotheses. Initial checks to determine the accuracy of data coding and distribution were carried out before further tests were applied in order to ensure subsequent tests were apposite to the research questions (Pallant, 2013; Field, 2017).

Table 10. Reflexive example 3: Problematising the data and methods used (Alvesson and Skoldberg, 2009)

Extract from research journal August 2017

"Having attended a one-day research ethics workshop I realised that I hadn't included a quality measure to check the accuracy of hundreds of thousands of numbers I had entered by hand into the quantitative data spreadsheets. This was a major threat to the accuracy of the subsequent analysis. Having asked for support to check the integrity of my data entry, one of the research admin team agreed to check the data for accuracy. She kindly checked every 10th entry to ensure the numbers entered into the spreadsheets matched those on the completed TEIQue questionnaires. I was extremely grateful and relieved to discover the data entered was accurate, enabling me to move onto the next stage of data analysis. I was reminded once again how easy, without reflecting on the process involved in gathering data, it would be to make errors which would have a profound effect on the results."

5.1.2 Data coding

All data were entered into SPSS Version 24 and a range of accuracy checks undertaken (Pallant, 2013; Field, 2017). These included ensuring all data entered were consistent with the range of responses generated by the TEIQue questionnaire between minimum and maximum values (1-7) prior to scoring via the LPL website.

5.1.3 Missing data

The TEIQue has 153 items and takes approximately 30 minutes to complete (Petrides, 2009a). It was essential to use this long version of the TEIQue questionnaire in order to explore data at facet level; however, the potential for missing answers and inaccuracies in response were increased as a result of this choice (Edwards and Edelen, 2009). The scoring engine developed by the London Psychometric Laboratory (LPL) does not handle missing values. Therefore, in line with their recommendation the middle value of 4 was substituted for missing values unless the number exceeded 15% of the total (22 questions) which resulted in the case being excluded from the study (LPL, 2019). There were no missing cases in data sets T1, T2 or T3 due to the application of the inclusion criteria outlined in the quantitative method.

5.1.4 Performing statistical checks for each hypothesis

All of the hypotheses generated related to potential statistical differences between groups. Before the application of individual tests, it was important to consider descriptive statistics, including checks for normality and identification of outliers (Pallant, 2013). The choice of inferential procedure was determined by the normal probability distribution of random continuous variables. Consideration of skewness, kurtosis and violations of assumptions of normality were necessary in order to decide if parametric or non-parametric testing was appropriate (Curtis and Drennan, 2013). Comparison of the distribution of all variables was performed to check for normal distribution. If normal distribution is within recognised limits for each comparison between independent variables (IV) and dependent variables (DV) then parametric testing is usually indicated. If these limits are violated, non-parametric testing is recommended (Field, 2017). However, parametric tests may be used when there is near normal distribution and the sample size is large (Curtis and Drennan, 2013).

Initial information regarding the distribution of scores was obtained through observation of skewness and kurtosis for each continuous variable which were all found to be within acceptable limits. While examination of the symmetry and peakedness provide some indication of the distribution, using a histogram is useful for assessing the shape of distribution (Pallant, 2013). Histograms were subsequently generated for visual assessment. However, a more detailed exploration of distribution symmetry was required before parametric tests were considered. Shapiro-Wilk tests for normality were executed to obtain p-values for each independent variable to test the study's hypotheses. The null hypothesis for the Shapiro-Wilk test assumes that data are normally distributed, rejection of this hypothesis is indicated by a non-significant result (value of >.05) (Field, 2017). According to Petrides (2009a), the distribution of TEIQue scores generally shows a slight negative skew

for happiness, optimism and relationships in line with most scores for positive emotion. This was reflected in the data generated for these facets and their associated factors outlined in the results sections (6.3). Significant results for the Shapiro-Wilk test were also generated by four other facets; self-esteem, emotional expression, self-motivation and stress management. However, this was anticipated as larger sample sizes commonly demonstrate violations of assumptions of normality (Pallant, 2013; Field, 2017). While some of the results for the Shapiro-Wilk test were significant, decisions regarding ongoing analysis were made following a more holistic assessment of distribution by combining these findings with values of skewness and kurtosis and by visually reviewing histograms (Field, 2017) (See appendices 10 and 11).

5.1.5 Identification of extreme outliers

Statistical tests are often sensitive to outliers. Reporting that includes a transparent process for the removal of outliers was therefore important (Bakker and Wicherts, 2014). Boxplots were generated for each dependent variable and extreme outliers defined as those which extend beyond the box by more than three box-lengths (Pallant, 2013). The implications of removing outliers were carefully considered as this had the potential to generate unrepresentative scores leading to type I and type II errors. Subsequently, a general policy of retaining outliers was adopted for this study (Leys, et. al. 2018).

Consideration of factors which were likely to distort TEIQue scores was borne in mind as extreme high or low scores may be considered maladaptive. Despite the fact that this was a low stakes assessment, the guidelines for the use of the tool recommend that extreme scores should be evaluated at global, factor and facet levels and consideration given to exclusion from the final interpretation (Petrides, 2009a). However, there were no extremely high or low scores identified in overall TEI at T1, T2 or T3. There was a single case identified as an extreme outlier at T1 in the happiness facet and the associated wellbeing facet. However, at T2 and T3 there were no extreme outliers at facet, factor or global levels suggesting resolution of the issue identified in the data at T1. The decision was therefore made to retain all cases within the final data set in line with the general policy adopted.

5.1.6 Rationale for parametric testing

The subtle nuances of data provide the potential to pursue a range of analytical strategies, none of which can be defined as categorically right or wrong (Harpe, 2015). The following choices were made following analysis of the data in relation to the research questions and the confines of the study, which led to the use of a combination of parametric and non-parametric tests.

The use of a previously developed and validated psychometric tool appropriate to the population was an important element in the research design and implementation (Harpe, 2015). Using the TEIQue tool was advantageous as the strength of evidence regarding its reliability and validity supported the use of a range of statistical methods. Likert scores (1-7) on the TEIQue are scaled to provide a theoretical average of 3.5 based on a standardised sample of participants. During the development of the tool, participants of both genders were demonstrated to score above the theoretical mean, with emotion regulation providing the lowest facet mean at 4.39 and happiness at 5.55 the highest. Global and factor level distributions were fully normal with only mild negative skew apparent for Happiness, Optimism and Relationships at facet level. Satisfactory internal consistencies were demonstrated for all TEIQue variables and robust alphas occurred even in small samples (n=<50). During development, test-retest correlations were significant, demonstrating high temporal stability of all components with the exception of the empathy facet. Overall, the TEIQue attenuated stability coefficient was .78 (<.01) with factor analysis of the tool identifying TEI as a distinct, compound construct (Petrides, 2009a). A range of subsequent studies including meta-analysis provided further evidence of construct validity (Siegling, et. al. 2015a, Andrei et. al. 2016).

Adopting the 'intervalist' view, the scores generated by the TEIQue, using an aggregated rating scale of more than five rating responses, were viewed as continuous data (Mircioiu and Atkinson, 2013; Harpe, 2015). Evidence suggested there are often no differences between findings resulting from parametic and non-parametric testing when data is generated via a Likert scale, providing the test is appropriate to the research question and the two methods are comparable (Murray, 2013; Mircioiu and Atkinson, 2017). In agreement with this view, the choice was made to pursue parametric testing where possible. However, it was important not to disregard any violations of assumptions as this may result in a loss of statistical power, particularly when considering deviations from normality (Harpe, 2015; Field and Wilcox, 2017). Nonetheless, it has been argued that large sample sizes overcome the potential difficulties associated with violations of assumptions unless a severe skew is observed (Curtis and Drennan, 2013; Mircioiu and Atkinson, 2017). It is unusual to find perfect normal distribution when using psychometric tests in practice and decisions are often based on whether distribution is 'normal enough'. While there were a few violations of normality for some facets/factors of TEI, there was no evidence of severe skewness or kurtosis and the majority demonstrated a non-significant p-value for Shapiro-Wilks. The choice to pursue parametric testing of hypothesis 4 was supported by evidence suggesting most parametric methods are fairly robust to some violations of equality of variance and

normality, providing the within groups sample sizes are similar (Norman, 2010; Harpe, 2015).

5.1.7 Rationale for non-parametric testing

Before deciding on the analytical approach to explore data associated with hypotheses 1-3 which focus on gender, age and field of nursing, it was important to consider the descriptive findings given the wide variation in group sizes. The potential for inaccurate results is particularly high when parametric tests are applied to analysis involving unequal group sizes (Norman, 2010; Harpe, 2015). There is a high risk of critical Type 1 errors occurring when attempting multivariate analysis of variance (MANOVA) when cell sizes are unequal as this leads to a serious lack of homogeneity in the covariance matrix (Xu, 2015). It was apparent from the outset that the group sizes in relation to gender, age and field of nursing were unequal (results section 6.2). Using a more elaborate paradigm such as multiple regression analysis may have potentially overcome these limitations (Neuman and Neuman, 2013). However, despite some contradictory findings the weight of evidence suggested there would be no significant differences in TEI between genders (Petrides and Furnham, 2000; Fernandez-Berrocal, et. al. 2004; Saklofske et. al. 2007; Whitman, et. al. 2009; Sanchez-Ruiz, et.al 2010; Nwabuebo, 2013). Similarly, there was limited evidence to suggest that TEI increased with age (Petrides, 2009a; Snowden, et. al. 2015a) and there were no studies available to compare TEI across the four fields of nursing. A pragmatic approach was used to consider the implications of generating large volumes of data using a more complex analytical strategy. Subsequently, the decision was made to pursue non-parametric methods to explore TEI in relation to gender, age and field of nursing, retaining the option to engage in complex investigation of significant findings at a later date and outside of the confines of this study.

5.1.7.1 Hypothesis 1

The Mann-Whitney U test was used to identify differences between female and male students' TEI at global, factor and facet levels. Although students were given the option to identify with alternative gender descriptors, all respondents indicated gender as either male or female, creating two clear groups. A significant difference between two groups using this test is indicated by a p-value of less than or equal to .05. The direction of difference was identified by reporting the median value for each group (Pallant, 2013). The Mann-Whitney test was repeated for all 20 DV's for year 1 (T1) and year 3 (T3) data (see section 6.2.1)

5.1.7.2 Hypotheses 2 and 3

Hypotheses 2 and 3 generated more than three groups. The Kruskal-Wallis test was applied to year 1 (T1) and year 3 (T3) data in relation to age and field of nursing. A non-parametric alternative to the one-way between groups analysis of variance (ANOVA) allowed comparison between three or more groups (Pallant, 2013). Kruskall-Wallis tests with follow up pairwise comparisons were performed with Bonferroni adjustments applied to control Type-1 error rates (Field, 2018). The significance level for these tests was reported according to the adjusted p-value of equal to or less than .05 (Field, 2018) (See sections 6.2.2 and 6.2.3).

5.1.7.3 Hypothesis 4

The primary aim of this quantitative study was to ascertain if there were any differences in TEI at global, factor or facet levels for this cohort of students between T1, T2 and T3. This involved testing data for the same group of participants at three points of study, the sample size was therefore equal and parametric tests applied, supported by the validity and reliability of the TEIQue tool. A series of one way repeated measure ANOVA was performed for each DV. However, these rely on assumptions of sphericity, as these assumptions were violated according to Maunchly's test, demonstrated by significance values of less than the critical value or 0.05. The results were reported using Pillai's trace from the multivariate tests (Field, 2018).

Post hoc pairwise comparisons were obtained to identify significant differences in each DV between T1, T2 and T3 (Field, 2018). As this was an exploratory study, with a reasonably large sample size the criteria for using multiplicity corrections were contentious (Nakagawa, 2004; Ranstam, 2016). Application of the overly conservative Bonferroni or Tukey tests risked reducing the power of the analysis, while reducing the risk of Type 1 errors also had the potential to increase the risk of Type 2 errors (Nakagawa, 2004; Sedgwick, 2014; Field, 2015). Subsequently, no multiplicity corrections were used in the analysis or reporting of the data. The direction of change in TEI was identified by comparison of means and the effect size reported using partial eta squared (Pallant, 2013).

5.2 IPA DATA ANALYSIS STRATEGY

Analysing data in an IPA study cannot be done through the pursuit of a single prescribed method. On the contrary, analysis should be based on the commonly agreed IPA processes applied flexibly and imaginatively while retaining the central focus on the participants' attempts to make sense of their experiences (Smith, et. al. 2009; Eatough and Smith, 2017). Through immersion in the data, layers of interpretation emerged. However, in order to be effective and remain grounded in the participant's experience an orderly, detailed and transparent approach was required (Shaw 2015; Eatough and Smith, 2017).

Table 11. Reflexive example 4: Engaging with the interpretative activity (Alvesson and Skoldberg, 2009)

Excerpt from research diary March 2019

"After reviewing more recent IPA literature I can see the 12 step process I followed after participating in the latest workshops is unnecessarily complicated and have replaced it with the more traditional 6 step process suggested by Smith. Going forward I am going to engage in discussion with other researchers using IPA to ensure interpretations are clearly based on the evidence and the process and content don't become confused. With this in mind I have arranged to meet periodically with another PhD student using this method to check the analytical process and tentative interpretations"

5.2.1 Stages of IPA analysis

The strategy for analysis was guided by the stages of the IPA process described by Smith, et. al. (2009), influenced by participation in workshops at Aston University (Shaw, 2015) and Derby University (Holland and Bussell, 2017), through engagement in supervision and peer discussion.

Table 12: Stages of IPA analysis (Smith, et. al. 2009)

Step	Stages of IPA analysis
1	Reading and re-reading
2	Initial noting
3	Developing emergent themes
4	Searching for connections across emergent themes
5	Moving to the next case
6	Looking for patterns across cases

5.2.1.1 Stage 1: Reading and re-reading

This first stage of analysis involved becoming fully immersed in the text case by case. The advantage of transcribing the text personally was quickly apparent having already become attuned to the sound of the participant's voice and having an appreciation of their style of speech and use of language. By re-reading the already familiar transcript it was possible to slow down the activity of reading and reflect on the interview process. This provided the opportunity to shift from the generic to the particular; identifying contradictions in the text, observing rhythm, flow and the rapport established (Smith, et. al. 2009). Having read and re-read the text thoroughly, a short summary of the interview was compiled and a reflexive journal used to note personal thoughts and feelings (Shaw, 2015).

Table 13. Reflexive example 5: Engaging with interpretative activity (Alvesson and Skoldberg, 2009)

Excerpt from research journal – December 2017

"Through transcribing the interviews I felt my pre-existing ideas about student willingness to seek support are being reinforced. I need to be aware of this as I continue with the interpretation to make sure there is direct evidence in the transcripts rather than inference based on my own conscious or unconscious bias. Participants all expressed the idea that they ought to be able to manage their own emotions without needing significant support from others and when asked didn't appear to know what that support would look like even if they allowed themselves to have it. It appears suppression is the most commonly used defence or is it just part of what human beings need to do to survive when working in environments that are so full of sadness and loss? I hope by the end of this study I am able to make use of the findings to formulate something that translates into a meaningful way of helping students to own their vulnerability as an intrinsic part of their humanity, without risking their ability to manage the demands of practice."

5.2.1.2 Stage 2: Initial noting

The second stage involved a detailed line by line analysis of each interview in order to make sense of the participant's experience, a simultaneously inductive and cyclical process (Smith, 2007). In order to facilitate this the transcript was numbered line by line, double spaced and with wide margins to provide the opportunity to add commentary to the text. The first set of notes was described as phenomenological coding while the second more in depth comments defined as interpretative coding (Shaw, 2015).

5.2.1.2.1 Descriptive (phenomenological) coding

Initial analysis examined the content via the exploration of language, identifying specific ways in which each participant communicated. Taking the form of free textual analysis, it

was largely descriptive with a phenomenological focus (Smith, et. al. 2009). Asking what it was like to be the participant, what was important to them about this experience, and providing descriptions of their approach (Shaw, 2015), these comments remained close to the explicit meaning derived from the text. Although these included elements of personal reflection through the analysis of comments, the analysis remained predominantly descriptive (Smith, et. al. 2009).

5.2.1.2.2 Interpretative coding

The process of line by line analysis was repeated a second time based on a more detailed exploration of language, tone, pauses, repetition, fluency etc. to begin the process of interpreting what the meaning might be for the participant. Patterns, conflicts and the use of metaphor and imagery were noted in the transcript and labelled interpretative coding (Shaw, 2015). The descriptive coding was available for reference throughout this second stage. This was a lengthy and detailed activity focusing on the process of engaging with the transcript at a deeper level, drawing on information gained through the descriptive coding, summaries and reflexive journal entries. By engaging in free association based on the participant's words, and the experience of being with them, while at the same time noting the linguistics employed in the text, it was possible to develop conceptual comments incorporating aspects of personal experience and professional knowledge through reflexive engagement (Smith, et. al. 2009). Maintaining clear role boundaries during this process was essential in recognition of the potential to read into the data from a psychodynamic counselling perspective. The use of a reflexive diary and supervision were invaluable during this phase of analysis. Although slow and time consuming, after multiple attempts eventually the progression from descriptive to interpretative coding was completed.

5.2.1.3 Stage 3: Developing emergent themes

Stage 3 of the process involved looking at the phenomenological and interpretative coding to identify key phrases and repeating patterns. Noteworthy quotes were highlighted on the transcript, including those using meaningful imagery and emphasising areas of conflict or agreement. These thoughts and observations were used to develop early emergent themes, reducing the level of detail while retaining the complexity between descriptive and interpretative comments (Smith, et. al. 2009).

5.2.1.4 Stage 4: Searching for connections across emergent themes

In stages one to three, themes were noted in chronological order based on the flow of the transcript. However, the next phase of the process necessitated the fragmentation of the highlighted text in order to reorganise the data. Key quotes and phrases identified in the

previous stage were transcribed to removable sticky post notes and displayed on the wall, providing the opportunity to visualise connections between phrases used by the participant. These notes were organised and reorganised until their grouping made sense of the participant's experience (Appendix 12). Each group of extracts was considered in turn, a summary of each theme constructed and a decision made about what to call them (Shaw, 2015).

5.2.1.5 Stage 5: Moving to the next case

On completion of steps one to four for the first participant, the process was repeated individually for the three other participants. It was important to try to put to one side the ideas emerging from analysis of previous cases in order to move onto subsequent cases with a fresh perspective. Although this inevitably involved some changes to fore-understanding (presuppositions) which influenced analysis of subsequent cases, the rigour of the approach and effective use of reflexive journaling enabled new themes to emerge with each case (Smith, et al, 2009, Shaw, 2015).

5.2.1.6 Stage 6: Looking for patterns across cases

The final stage of the IPA process involved looking for patterns across cases. These were identified by laying out the themes developed from individual cases and exploring potential connections between them. Different coloured sticky post notes were used for each participant to transcribe key points, quotes and themes developed from individual cases. These were posted across a large open surface, organised, re-organised and labelled to develop higher order concepts shared by participants. Incorporating the uniqueness of the particular within the superordinate theme, provided the opportunity for multiple layers of analysis (Smith, et. al. 2009).

The identification of emergent themes included the dialogue between researcher and participant completed first individually and then across subjects. This process led to emergent, divergent and convergent themes which, through interpretation of the relationship between them, facilitated the creation of a framework within which data were organised (Smith, et. al. 2009).

It was important during this process to continually check the emerging analysis against the data by asking a series of questions; does the analysis answer the original research question? Is there sufficient interpretation? Is there an accurate representation of participants' experiences? How might this relate to theory and what implications could this have in the real world? (Shaw, 2015). Supervision during this process tested the plausibility of the interpretation and the coherence of the frame. The process was both multi-directional

and fluid, requiring a creative approach to reorganise themes imaginatively in order to develop super-ordinate themes. Facilitated by the use of a variety of processes including abstraction, subsumption, polarisation, contextualisation, numeration and function used in combination to develop a higher level of analysis (Smith, et. al. 2009), final headings were created for superordinate themes including documentation of the contribution made by individual participants (Table 15). Superordinate and subordinate themes generated via this process formed the framework for the discussion outlined in section 7.2.

5.3 DATA ANALYSIS STRATEGY FOR COMPARING AND COMBINING QUANTITATIVE AND QUALITATIVE FINDINGS

A good mixed method study generates understanding and insights unobtainable through the pursuit of a single method or methodology (Greene, 2008). The aim of this study was to generate a deep understanding and create fresh insight through the combination of different methods and data sets (Greene and Hall, 2010). This complex process involved exploring juxtaposing data sets to create new ideas. The final picture emerged over time following preliminary analysis of the different methods then compared through a multidimensional, iterative process (Bazeley, 2018). Meaningful engagement with both data sets provided the opportunity to explore differences and similarities that mattered (Green and Hall, 2010). However, this was a lengthy and at times frustrating process.

Table 14. Reflexive example 6: Engaging with interpretative activity (Alvesson and Skoldberg, 2009)

Excerpt from research journal – September 2019

Why on earth did I decide to use mixed methods?! It seemed much more straightforward at the design and data collection points. I remember defending the notion of mixed methods and the way the data would complement each other so passionately in the PhD approval process but now I realise just how naïve I was!

Excerpt from research journal - January 2021

Having attempted several unsuccessful approaches to interpreting the data as a whole I have decided to try again. I must find a way of representing the quantitative and qualitative data more coherently to develop a deeper understanding of students' TEI and the impact of the educational process. Reading Bazeley's (2018) work I am persuaded by the need to find an effective way of 'juxtaposing sources to create an elaborate description' (p.4). Having tried several times already I am constructing another matrix in an attempt to find a way to give voice to the students interviewed and clarify the differences and similarities between their views expressed in words and numbers. It's so complicated!! But it's important to make sure the participants' data are accurately interpreted, trends observed and their voices heard. At the same time, I need to develop an approach to the analysis of the data that is persuasive and engaging to readers who come from diverse research communities. Here's to another matrix!

5.3.1 Rationale for juxtaposing complementary data sources

It was important within this mixed method study to provide a rationale which included: accurately labelled results, a consistent approach to design and integration, and clear identification of the insights developed (Guetterman, Fetters and Cresswell, 2015). Based on principles suggested by Bazeley (2018), the following process for data integration was subsequently adopted.

1. A list of themes was generated relating to the research question using both sets of data.
2. A matrix was developed to display and compare the meaning of each data set in relation to the research question (Table 16: Data Analysis Matrix, section 7.4)
3. Differences and similarities between data sets were identified and assessed to determine if the results related to the nature of the data, the process by which they were obtained and subsequently if aspects of convergence / divergence were authentic. Data was categorised according to the following criteria:
    - Silenced – data was not represented in both data sets, therefore silent in one.
    - Confirm – both data sets were in agreement.

- Contradict – results were different

4. Key differences in the scope and nature of the data sets were appraised noting omissions, confirmations or contradictions within the data including possible explanations.
5. Finally, the information was combined to create a unified concept for each theme and used to develop a merged discussion of the whole (chapter 7).

CHAPTER 6: QUANTITATIVE RESULTS

The previous chapter outlined the strategies used to analyse the quantitative and qualitative data. This chapter reports the quantitative results generated from that process.

6.1 Survey distribution and return

The aim of the questionnaire distribution and return was to obtain completed questionnaires from the same cohort during each of their three years of study; at the beginning of years 1 (T1) and 2 (T2) and at the end of year 3 (T3). The TEIQue full length version was distributed on the first occasion to participants from one cohort of BSc(Hons) Nursing students (N=467) in September 2015. N = 398 questionnaires were completed and returned representing a return rate of 85%. Questionnaires were screened by removing incomplete and corrupted copies. Incomplete questionnaires were defined as those with more than 15% of the 153 questions unanswered in line with the recommendations made by the London Psychometric Laboratory (LPL, 2019), the same criteria applied at each collection point. Two participants for whom there was no record of consent were also eliminated from the analysis. The final number of usable questionnaires at the first distribution point was N = 375. These students formed the sample for the study. Participants' raw data were then entered and uploaded to an initial SPSS spreadsheet. This spreadsheet was submitted to the LPL for scoring according to the protocol for analysis mandated by the owners of the TEIQue tool.

The 2nd phase of data collection was undertaken during the second year induction phase of the BSc Nursing which took place in September 2017 with the same students. The TEIQue tool was once again distributed to the participants (N = 375) of which N = 282 completed questionnaires, representing a return rate of 75%. Responses were eliminated from the study if they were not identifiable as participants from the original group.

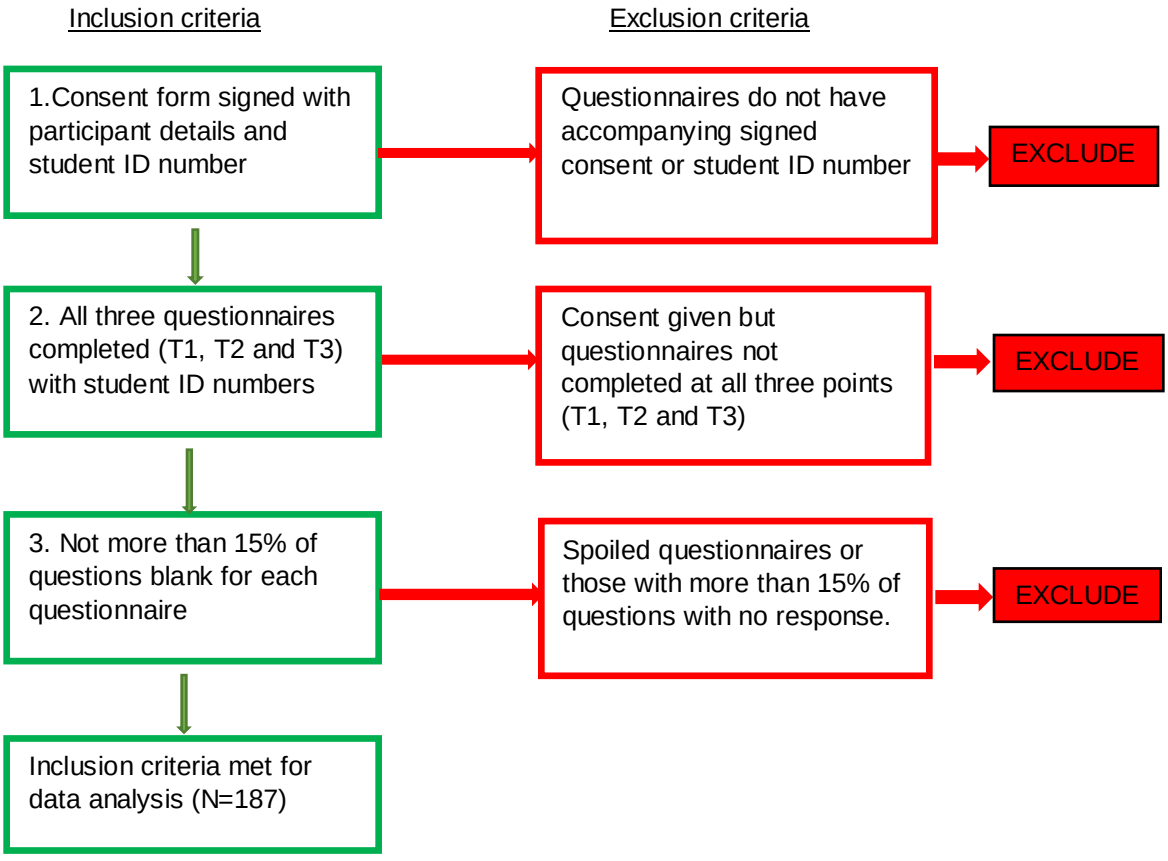
The final number of usable responses was N = 258. Significantly fewer respondents completed this second phase of the research which is not uncommon in longitudinal studies (Yiting Deng, et. al. 2013). This was compounded by fluctuations in the cohorts due to interruptions and returning students from earlier cohorts joining the original group. There was also a notable drop in enthusiasm for research participation which may relate to the phase of their nurse education, and students possibly experiencing a 'slump' in their motivation during their second year as they struggle with the need for greater self-navigation in their studies with less support (Tower, et. al. 2015).

The third application of the TEIQue took place in the cohort's last field sessions at the end of their third year in May 2018. At this point, the majority of the students' coursework had been

submitted and they were part way through their final placements. There were N = 246 completed TEIQue questionnaires returned, however a significant number were eliminated from the study as there was no record of respondents having been part of the original consented participant group. Despite clear instruction and explanation to those present in the session, 60 additional students partially or fully completed the questionnaire all of which were eliminated from the final sample group.

One hundred and eighty-seven students who provided usable responses at all three data collection points formed the final participant group (N=187). The following protocol (figure 7) informed the decision to include or exclude participants from the final quantitative data analysis:

Figure 7: Inclusion and exclusion protocol for quantitative data



Results provided are based on participants who completed and returned usable questionnaires at all three data collection points (N=187), representing a return rate of 40% from the cohort overall. This level of attrition is a commonly occurring limitation of longitudinal studies, which restricts the ability to discover and analyse trends in behaviour

over time and limits the capacity to generalise (Yiting Deng, et. al. 2013). Although the high level of attrition was disappointing, a sample of 187 was considered large enough to generate findings of interest in this exploratory study.

6.2 Demographic statistics

Demographic data were examined for this sample group relating to gender, age and field of nursing.

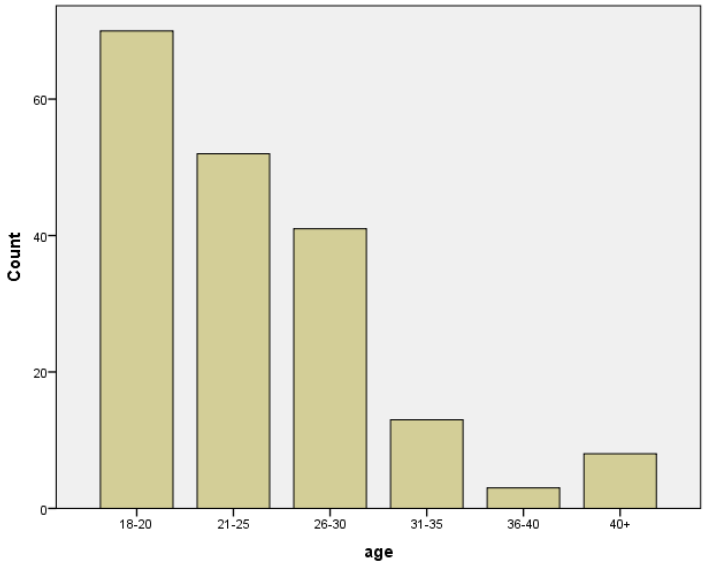
6.2.1 Gender

Of the 187 participants, 90.4% (N=169) were female and 9.6% (N=18) were male. This aligned to the proportion of male students within the cohort overall as 45 out of 467 were male (9.6%). This also concurs with national statistics which identified approximately 10% of registered nurses as male (Williams, 2017).

6.2.2 Age

The age of respondents is presented in Figure 8 below.

Figure 8: Quantitative participants' age range

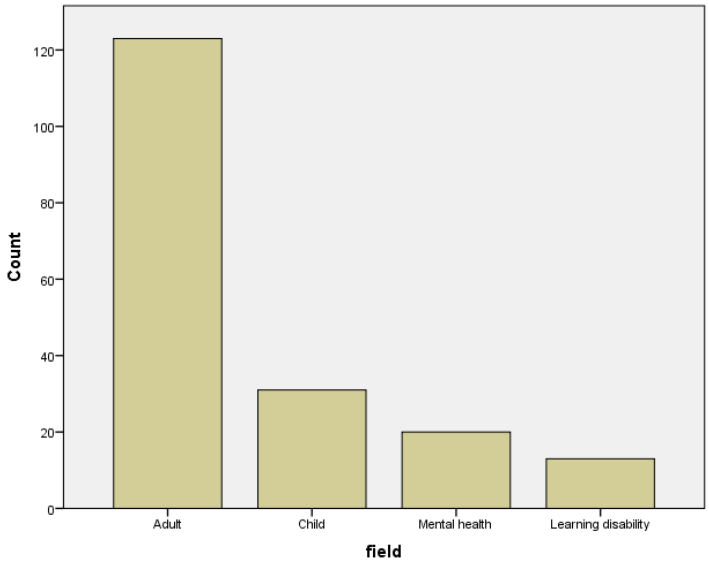


The average age of participants (28yrs) was the same as that of the overall cohort (28yrs) and was an accurate reflection of the average age at which students enrol in pre-registration nursing programmes nationally (29yrs) (RCN, 2016). The highest proportion of participants were aged between 18-20 years, joining the programme following the completion of 'A' levels or other access to healthcare courses. There were relatively few participants aged over 31 years, which once again is representative of the overall cohort; the least represented age group was 36-40 years.

6.2.3 Field of nursing

The respondents' field of nursing is represented in Figure 9 below.

Figure 9: Quantitative participants' field of nursing



The largest proportion of respondents were student nurses from the adult field (n=123, 66%) which represented the proportion of adult nursing students in the cohort overall (n=313, 67%). There were slightly more child field students represented in the participant group (n=31, 16%) although this proportion was not unrepresentative of the total number within the cohort (n=67, 14%). The number of mental health students who participated (n=20, 11%) was directly proportionate to the overall number of students in the mental health field (n=51, 11%). Similarly, the proportion of learning disability students taking part in the study (n=13, 7%) aligned to the number of students studying learning disability nursing in the cohort overall (n=36, 8%). Despite the substantial attrition of participants during the study, the final group remained representative of the overall cohort in relation to gender, age and field of nursing.

6.3 Parametric assumptions

A range of tests were undertaken to check the parametric assumptions of the data in concordance with the process outlined in the analytical approach. All levels of skewness and kurtosis were within the acceptable limit of +/-2 (Pallant, 2013), for total TEI and at factor and facet levels for data gathered at all three collection points T1, T2 and T3 (Appendix J). Histograms were viewed and the output from the Shapiro-Wilks test considered (Appendix K). Subsequently, the decision to pursue non-parametric testing for IV's gender, age and field of nursing and the use of parametric testing for changes in TEI over time was confirmed (see sections 5.1.6 and 5.1.7)

6.4 Scoping hypothesis 1: There will be no significant differences in TEI scores at global, factor or facet levels between genders.

In order to ascertain if there were any differences in TEI scores at global, factor or facet levels a series of Mann-Whitney tests were performed which confirmed there were no differences between genders at global or factor level TEI. However, there were significant differences identified between female and male participants at facet level for self-esteem, empathy, stress management, emotion management and relationships.

Table 15: Summary of differences between female and male students' TEI during nurse education (Mann-Whitney U Test)

	Gender			
	Female (n=169)	**Male** (n=18)		
TEI facets:	Mean rank	Mean rank	Z-value	Significance
Self-esteem				
T1	91.24	119.92	2.14	0.032*
T2	92.28	110.17	1.33	0.182
T3	92.38	109.25	1.26	0.208
Empathy				
T1	96.23	73.06	-1.73	0.084
T2	97.16	64.36	-2.45	0.014*
T3	97.25	63.50	-2.52	0.012*
Stress Management				
T1	91.77	114.92	1.73	0.084
T2	91.96	113.17	1.68	0.093
T3	90.26	129.08	2.89	0.004*
Emotion Management				
T1	91.51	117.36	1.93	0.054
T2	91.83	114.36	1.68	0.093
T3	91.19	120.36	2.18	0.029*
Relationships				
T1	96.04	74.81	-1.59	0.113
T2	96.94	66.39	-2.28	0.023*
T3	96.02	75.06	-1.56	0.118

Significant differences were found at TEI facet level (Table 15) between females and males' self-esteem, empathy, stress management, emotion management and relationships.

6.4.1 Self-esteem

A significant difference was found between female and male students' self-esteem scores at T1 ($z = 2.14$, $p = .032$). Females had lower self-esteem scores than males. However, by T2 there were no significant differences between female and male participants' scores for self-esteem ($z = 1.33$, $p = .182$); similarly, there were none at T3 ($z = 1.26$, $p = .208$). Initial differences between female and male students' self-esteem were no longer apparent by the end of the nursing programme.

6.4.2 Empathy

Empathy scores for female participants were not significantly different to male participants at T1 ($z = -1.73$, $p = .084$). However, by T2 female empathy scores were significantly higher than male scores ($z = -2.45$, $p = .014$) and again at T3 ($z = -2.52$, $p = .012$). Females had greater empathy at T2 and T3 than males.

6.4.3 Stress management

There was no significant difference in stress management scores between female and male participants at T1 ($z = 1.73$, $p = .084$). Similarly, there was no difference between female and male scores at T2 ($z = 1.58$, $p = .114$). However, by T3 a significant difference was noted ($z = 2.89$, $p = .004$) at which point male students were more able to manage stress than female students.

6.4.4 Emotion management

Emotion management levels did not differ significantly between female and male students at T1 ($z = 1.93$, $p = .054$). Neither were there any differences associated with gender at T2 ($z = 1.68$, $p = .093$). However, by T3 a difference between female and male emotion management scores became apparent ($z = 2.18$, $p = .029$). Male students were more able to manage emotion than their female colleagues by the end of their nursing education.

6.4.5 Relationships

There were no significant differences in relationship scores between female and male participants at T1 ($z = -1.59$, $p = .113$). By T2, there was a small significant difference between women and men in the relationship facet ($z = -2.28$, $p = .023$) with women scoring more highly than men. However, this difference was no longer significant by T3 ($z = -1.56$, $p = .118$).

Results relating to the gender of participants should be treated cautiously as the effect sizes are small and the limited number of male participants reduces their generalisability.

6.5 Scoping hypothesis 2: TEI scores will increase with age at global, factor and facet levels

In order to ascertain if there were any differences in TEI at T1, T2 or T3 according to age, a series of Kruskall-Wallis tests were performed. There were no significant differences identified for global TEI or at factor level. Neither were there any differences for the majority of facets; there were, however, some differences identified in self-esteem and stress management.

Table 16: Summary of differences in TEI during nurse education according to students' age (Kruskall-Wallis Test)

	Age								
	18-20 (n=70)	**21-25** (n=52)	**26-30** (n=41)	**31-35** (n=13)	**36-40** (n=3)	**40+** (n=8)			
TEI facets:	MR	MR	MR	MR	MR	MR	H	df	Asymp. Sig.
Self-esteem									
T1	81.51	83.31	121.78	118.58	112.33	83.56	19.91	5	0.001*
T2	85.29	84.07	110.80	122.42	117.00	93.88	11.66	5	0.040*
T3	88.61	86.16	109.13	104.15	118.67	88.75	6.15	5	0.292
Stress management									
T1	84.80	86.08	108.65	128.42	127.33	82.50	12.91	5	0.024*
T2	83.69	100.36	98.85	103.46	127.17	90.25	5.16	5	0.397
T3	87.55	96.48	104.34	95.31	84.83	82.62	3.05	5	0.692

MR = Mean Rank
Asymp. Sig. = Asymptotic Significance (2-sided test)

Significant differences were found at TEI facet level between some age groups in relation to self-esteem and stress management.

6.5.1 Self-esteem

There was a significant difference in self-esteem between age groups at T1 ($H(5)= 19.91$, $p = 0.001$). Pairwise comparisons with adjusted p-values showed that there were significant differences between students in the 18-20 and 26-30 year age groups ($p = .002$) and between students in the 21-25 and 26-30 year age groups ($p = .010$). Students aged 18-20

had lower self-esteem than their peers. There were no significant differences between any other age groups for self-esteem at T1.

Despite the identification of further significant differences in self-esteem between age groups at T2 (H(5)= 11.66, p = .040), pairwise comparisons were non-significant and by T3 there were no significant differences in self-esteem scores between age groups (H(5)= 6.15, p = .292). Students in the youngest age group generated scores for self-esteem which were comparable with their peers by the end of the nursing programme.

6.5.2 Stress management

A significant difference in stress management scores according to age was identified at T1 (H (5)= 12.91, p = .024). However, when pairwise comparisons were performed there was no significant difference between any age groups. Neither were there any significant differences between age groups at T2 (H (5)= 5.16, p = .397) or at T3 (H(5)= 3.05, p = .692). Stress management did not differ significantly during nurse education according to student's age.

6.6 Scoping hypothesis 3: There will be significant differences in TEI scores at global, factor and facet levels between students across the four fields of nursing

In order to test for significant differences in TEI between students studying adult, child, mental health and learning disability fields of nursing a second series of Kruskall-Wallis tests was performed. There were multiple differences observed between student groups at facet, factor and global TEI levels. A summary of these differences in TEI during nursing education, at T1, T2 and T3 according to students' field of practice, can be found in Table 17.

Table 17: Summary of differences in TEI during nurse education according to students' field of practice (Kruskall-Wallis Test) with pairwise comparisons

	Field							
	AD (n=123)	**CH** (n=31)	**MH** (n=20)	**LD** (n=13)				
	MR	**MR**	**MR**	**MR**	**H**	**df**	**Asymp. Sig.**	**Pairwise comparisons**
TEI facets:								***p***
Emotional expression								
T1	98.12	87.53	71.45	105.12	5.18	3	.159	
T2	95.72	105.97	62.58	97.50	8.44	3	.038*	.031* (MH/CH)
T3	96.95	93.77	74.78	96.23	2.91	3	.405	
Self-motivation								
T1	100.37	87.65	69.08	87.27	6.59	3	.086	
T2	96.43	90.82	64.47	124.00	10.33	3	.016*	.012* (MH/LD)
T3	98.82	88.87	73.75	91.77	4.08	3	.253	
Impulsivity								
T1	100.04	88.26	65.62	94.19	7.40	3	.060	
T2	101.28	90.35	46.15	107.38	18.83	3	.000*	.026* (MH/CH) .001* (MH/AD) .009* (MH/LD)
T3	99.18	98.85	71.58	67.88	7.85	3	.049*	
Emotion perception								
T1	101.88	83.35	61.55	94.77	11.02	3	.012*	
T2	97.78	100.63	58.83	96.54	9.56	3	.023*	.017* (MH/AD) .042* (MH/CH)
T3	97.83	92.76	77.78	85.73	2.74	3	.434	
Adaptability								
T1	98.02	91.16	73.00	95.08	3.79	3	.285	
T2	100.35	86.65	58.77	105.62	11.37	3	.010*	.009* (MH/AD)
T3	97.91	87.74	76.33	99.08	3.32	3	.345	

TEI Factors:									
Self-control									
T1	98.87	78.10	83.60	101.85	4.68	3	.196		
T2	99.55	89.31	61.25	103.08	9.21	3	.027*	.02* (MH/AD)	
T3	97.91	86.98	88.08	82.88	1.95	3	.583		
Emotionality									
T1	99.04	89.73	63.02	104.15	8.27	3	.041*	.035* (MH/AD)	
T2	95.95	102.82	60.12	106.62	9.52	3	.023*	.036* (MH/AD)	.036* (MH/CH)
T3	97.35	93.23	72.20	97.69	3.78	3	.286		
Total TEI									
T1	98.57	85.13	70.25	108.46	6.49	3	.090		
T2	97.74	94.65	59.90	109.54	9.60	3	.022*	.022* (MH/AD)	
T3	97.18	90.19	81.15	92.77	1.71	3	.634		

AD = Adult CH = Child MH = Mental Health LD = Learning Disability
Asymp. Sig. = Asymptotic Significance
*p = < .05.

6.6.1 Facet level

6.6.1.1 Emotional expression

There were no differences in emotional expression scores between fields at T1. However, at T2 there were some significant differences between fields (H (3) = 8.44, p = .038). Pairwise comparisons established there was a significant difference between mental health and child field students (p = .031). There were no other significant differences between groups at T2 and by T3 there were no differences observed between any groups. Students in the mental health field generated significantly lower scores for emotional expression at T2 compared to the child field. However, these differences were not significant at T1 and were not present at the end of the programme.

6.6.1.2 Self-motivation

Self- motivation scores were not significantly different between any of the four fields at T1. At T2 however a significant difference was observed between fields (H(3)= 10.32, p = .016). Pairwise comparisons identified a significant difference between mental health and learning disability students (p = .012). By T3 there were no significant differences between any of the groups. While mental health students' scores for self-motivation were significantly lower than their peers at T2, these appeared resolved as there were no significant differences observed by the end of the programme.

6.6.1.3 Impulsivity

There were no significant differences between groups in impulsivity scores at T1. By T2 however there were differences in scores between groups (H (3) = 18.83, p = .001). Pairwise comparisons highlighted significant differences between three groups; mental health and child (p = .026); mental health and adult (p = .001); and mental health and learning disability students (p = .009). Mental health students' scores for impulsivity were much lower than all of their peers at T2. There was also a significant difference observed at T3 (H (3) = 7.85, p = .049). When pairwise comparisons were performed there were no significant differences between any age groups.

6.6.1.4 Emotion perception

Differences in scores for emotion perception were identified between groups at T1 (H (3) = 11.02, p = .012). Pairwise comparisons identified a significant difference between mental health and adult students (p = .012). There were also significant differences in scores for emotion perception between groups at T2 (H (3) = 9.52, p = .023). Pairwise comparisons demonstrated differences between two groups: mental health and adult students (p = .017);

and mental health and child students (p = .042). However, at T3 there were no significant differences observed between any groups. Mental health students had consistently lower levels of emotion perception at the beginning and midway through the programme although any significant differences were resolved by the end.

6.6.1.5 Adaptability

At T1 there were no significant differences in adaptability scores between students across the four fields of nursing. However, some differences emerged at T2 (H (3) = 11.37, p = .010). Pairwise comparisons reported a significant difference between mental health and adult students (p = .009). MH students generated lower adaptability scores at T2, although by T3 there were no significant differences observed between any groups.

6.6.2 Factor level

6.6.2.1 Self-control

There were no significant differences observed in factor self-control scores between any groups at T1. Nonetheless, at T2 there was a significant difference between groups (H (3) = 9.21, p = .027). A significant difference between mental health and adult groups (p = .02) was noted following pairwise comparisons. No significant differences between any groups were observed at T3. Mental health students had lower levels of self-control than their adult peers in year 2 although their scores were comparable with their peers by the end of the course.

6.6.2.2 Emotionality

Significant differences were observed for emotionality scores at T1 (H (3) = 8.27, p = .041), with pairwise comparisons identifying a single significant difference between mental health and adult students' scores (p = .035). Mental health students' scores were lower than adult students. There were no significant differences between any other groups at T1. However, at T2 further differences were observed between groups (H (3) = 9.52, p = .023). Pairwise comparisons identified differences between mental health and adult students (p = .036) and mental health and child students (p =.036). Mental health students generated lower scores for factor emotionality than their adult and child peers at T2, although by T3 there were no longer any significant differences between groups.

6.6.3 Global TEI

There were no differences identified in global TEI between fields at T1, although a significant difference was observed at T2 (H (3) = 9.60, p =.022). Following pairwise comparison,

mental health students were found to have generated significantly lower scores than adult students ($p = .022$). However, once again these differences were no longer apparent by T3.

6.7 Scoping hypothesis 4: There will be significant differences in students' TEI scores, at global, factor and facet levels between year 1, year 2 and year 3 of study

A series of one-way repeated measures ANOVA was undertaken at facet, factor and global TEI levels in order to determine if there were any significant differences between student scores generated at the beginning of year 1 (T1), the beginning of year 2 (T2) and the end of year 3 (T3), and if TEI increased or decreased during the course of nurse education. For continuity, multivariate tests were reported throughout using Pillai's trace. A summary of the significant results, which identify widespread reductions in students' TEI, has been outlined in table 18.

Table 18: Summary of differences demonstrating a reduction in students' TEI during nurse education (One way repeated measure ANOVA)

Variable	T1		T2		T3		*F*(2,185)	η^2	Pairwise Comparisons (*p*)		
	M	SD	M	SD	M	SD			T1-T2	T2-T3	T1-T3
Facet level											
Self-esteem	4.63	0.89	4.51	0.95	4.50	0.91	5.43**	.06	.008**	1.000	.026*
Self-motivation	4.94	0.71	4.60	0.69	4.39	0.79	49.68**	.35	.001**	.001**	.001**
Emotion regulation	4.50	0.86	4.25	0.77	4.25	0.74	16.14***	.15	.001**	1.000	.001 **
Happiness	5.86	0.91	5.67	0.99	5.51	1.03	17.70***	.16	.001**	.011*	.001 **
Empathy	5.34	0.73	5.19	0.79	5.12	0.70	10.09***	.10	.007**	.235	.001 **
Social awareness	4.90	0.78	4.82	0.77	4.71	0.71	9.06***	.09	.055	.018	.001 **
Impulse control	4.81	0.85	4.55	0.84	4.45	0.81	21.91***	.19	.000***	.050	.000***
Stress management	4.47	0.92	4.28	0.88	4.26	0.91	6.92**	.07	.003**	1.000	.003**
Optimism	5.33	0.94	5.18	1.02	5.08	0.96	10.34***	.10	.019*	.170	.000***
Relationships	5.86	0.65	5.68	0.70	5.52	0.72	21.38***	.19	.000***	.001**	.000***
Adaptability	4.63	0.77	4.47	0.70	4.51	0.71	4.94**	.05	.007**	1.000	.059
Factor level											
Wellbeing	5.27	0.79	5.12	0.86	5.03	0.85	16.40***	.15	.000***	.090	.000***
Self-control	4.59	0.69	4.36	0.66	4.32	0.63	25.29***	.22	.000***	.766	.000***
Emotionality	5.23	0.66	5.12	0.67	5.03	0.60	12.19***	.12	.003**	.091	.003**
Sociability	4.62	0.68	4.54	0.63	4.53	0.59	3.53*	.04	.057	1.000	.054
Total TEI	4.93	0.52	4.77	0.52	4.71	0.50	28.17***	.23	.000***	.057	.000***

Note: N = 187; T = time; *$p < .05$. **$p < .01$. ***$p < .001$
PC = pairwise comparisons

6.7.1 Facet level

6.7.1.1 Self-esteem

Levels of self-esteem were significantly affected by time on the nursing programme ($F(2, 185) = 5.43$, $p = .005$). Pairwise comparisons between T1 and T2 demonstrated a significant reduction ($p = .008$). While there was no difference between T2 and T3, there was a significant reduction in scores identified between T1 and T3 ($p = .026$). Self-esteem scores decreased during the course of nurse education, the most significant reduction occurring during year 1 of the programme.

6.7.1.2 Self-motivation

There were significant differences between self-motivation scores at T1, T2 and T3, ($F(2, 185) = 49.76$, $p = .001$). Pairwise comparisons identified a significant difference between scores at T1 and T2 ($p = .001$), T2 and T3 ($p = .001$) and between T1 and T3 ($p = .001$). Self-motivation scores significantly and progressively decreased throughout the three years of nurse education.

6.7.1.3 Emotion regulation

Significant differences were found between emotion regulation scores over time ($F(2, 185) = 16.14$, $p = .001$). Differences between T1 and T2 were noted following pairwise comparisons ($p = .001$); although there were no significant differences between T2 and T3, there was a difference observed between T1 and T3 ($p = .001$). Students' scores for emotion regulation decreased over time, the most substantial decrease occurring between T1 and T2.

6.7.1.4 Happiness

Students' scores for happiness were significantly different between the three time points T1, T2 and T3 ($F(2,185) = 17.70$, $p = .001$). Pairwise comparisons between T1 and T2 demonstrated a significant difference ($p = .001$). Similarly, there were significant differences between T2 and T3 ($p = .011$) and T1 and T3 ($p = .001$). The steady reduction in means demonstrated a decrease in happiness scores throughout nurse education.

6.7.1.5 Empathy

There were significant differences between empathy scores at T1, T2 and T3 ($F(2, 185) = 10.09$, $p = .001$). A significant difference was observed through pairwise comparisons of T1 and T2 ($p = .007$). Although differences between T2 and T3 were not significant, there was a further reduction in empathy scores demonstrated between T1 and T3 ($p = .001$). Mean

empathy levels decreased with time, the greatest decrease occurring during the first year of nurse education.

6.7.1.6 Social awareness

Social awareness scores were significantly different over time ($F(2, 185) = 9.06$, $p = .001$). Pairwise comparisons did not identify any significant differences between T1 and T2, although there was a significant difference between scores at T2 and T3 ($p = .018$), and T1 and T3 ($p = .001$). There was no reduction in social awareness in year 1, however there was an overall reduction associated with time, the most significant decrease occurring between T2 and T3.

6.7.1.7 Impulse control

There was a significant difference in impulsivity scores associated with time ($F(2, 185) = 21.91$, $p = .001$). Following pairwise comparisons, there was a significant difference observed between T1 and T2 ($p = .001$) although no differences were noted between T2 and T3. There was a further significant reduction between T1 and T3, $p = .001$. Impulsivity scores showed the greatest decrease between T1 and T2. Despite the fact there was only a small reduction between T2 and T3, overall there was a significant decline in impulse control during the course of nurse education.

6.7.1.8 Stress management

Students' stress management scores were significantly different between T1, T2 and T3, ($F(2,185) = 6.92$, $p = .001$). Pairwise comparisons identified a significant difference between T1 and T2 ($p = .003$). Although the difference between T2 and T3 was not significant, there was a further difference identified between T1 and T3 ($p = .003$). An overall decrease in stress management scores was observed over time, the greatest reduction occurring in the first year.

6.7.1.9 Optimism

Time had an effect on students' optimism scores ($F(2, 185) = 10.34$, $p = .001$). Pairwise comparisons identified a significant difference between T1 and T2 ($p = .019$). While there was no significant difference between T2 and T3, there was a significant decline between T1 and T3 ($p = .001$). A gradual reduction in optimism scores was observed during the course of nurse education with the most significant decline noted between T1 and T2.

6.7.1.10 Relationships

Relationship scores were significantly affected by time ($F(2, 185) = 21.38$, $p = .001$). Significant differences were observed in all pairwise comparisons; T1and T2 ($p = .001$); T2 and T3 ($p = .001$) and T1 and T3 ($p = .001$). The results showed a significant steady reduction in relationship scores throughout nurse education.

6.7.1.11 Adaptability

There was a significant difference in students' adaptability scores associated with time ($F(2, 185) = 4.94$, $p = .008$). Following pairwise comparisons, a significant difference was observed between T1 and T2 ($p = .007$). However, there were no significant differences between T2 and T3 ($p = 1.0$) or T1 and T3 ($p = .059$). While there was a small reduction in adaptability between T1 and T2, this was not replicated between T2 and T3. Nonetheless, although not significant, there was an overall decrease in mean scores between T1 and T3.

6.7.2 Factor level

6.7.2.1 Wellbeing

Wellbeing scores were significantly different between T1, T2 and T3, ($F(2, 185) = 16.40$, $p = .001$). Pairwise comparisons identified a significant difference between T1 and T2 ($p = .001$). Nonetheless, there was no evidence of a significant reduction in wellbeing between T2 and T3 although there was a significant difference between T1 and T3 ($p = .001$). Wellbeing scores reduced significantly during the first year of the programme and continued to decline throughout nurse education.

6.7.2.2 Self-control

There were differences in factor self-control scores associated with time ($F(2, 185) = 25.29$, $p = .001$). Following pairwise comparison, a significant reduction in scores was observed between T1 and T2 ($p = .001$). This was not replicated between T2 and T3. However, there was a further significant difference noted between T1 and T3 ($p = .001$). Self-control scores decreased throughout the programme with the greatest reduction occurring between T1 and T2.

6.7.2.3 Emotionality

Emotionality scores were affected by time ($F(2, 185) = 12.19$, $p = .001$). Pairwise comparisons once again found a significant reduction between T1 and T2 ($p = .003$). While there was no significant difference between T2 and T3, there was between T1 and T3 ($p =$

.001). Emotionality scores gradually reduced during the course of nurse education, the decrease most apparent between T1 and T2.

6.7.2.4 Sociability

There was a small but significant difference between sociability scores over time ($F(2, 185) = 3.53$, $p = .031$). While pairwise comparisons failed to identify any significant differences between groups, there was a small overall reduction in mean sociability scores over time.

6.7.3 Global TEI

There was a significant difference in global TEI scores during the course of nurse education, ($F(2,185) = 28.17$, $p = .001$). Pairwise comparisons identified a reduction between T1 and T2 ($p = .001$). Although there was no significant difference between T2 and T3 ($p = .057$), there was a significant difference observed between T1 and T3 ($p = .001$). There was an overall reduction in global TEI scores during the course of nurse education, the most significant decrease occurring during the first year although the decline in TEI continued between year 2 and the end of the programme.

Table 19. Reflexive example 7: Engaging with the interpretative activity; Recognising ethical and political factors (Alvesson and Skoldberg, 2009)

Excerpt from research journal - December 2019

These were not the results originally anticipated at the outset of the study. Most of the previously scant research suggested TEI was likely to remain reasonably stable, the purpose of using the TEIQue to identify subtle changes at factor and facet level. There is nothing subtle about these results! I need to be very confident about my analytical approach as these findings suggest a worrying decline in TEI in almost every aspect, which may have significant implications. I discussed the strategy for analysis at length with my supervisory team exploring multiple options drawn from nursing and health psychology perspectives. However, I am reminded that the challenges are not simply those of accuracy but also potential palatability of the findings. I need to be equally carefully in my consideration of their communication as I have been in their analysis.

6.8 Summary of quantitative results

Demographic data

Participants in the study were 90.4% female, the highest proportion aged 18-20 years and most were studying adult nursing. The participants' demographics were representative of the cohort overall at the beginning and at the end of the study despite considerable attrition.

Gender and TEI

There were no significant differences between genders in TTEI or at factor level. There was some small difference at facet level. Women had lower self-esteem than men did at T1 and higher relationship scores at T2, which were no longer apparent by T3. Women also generated higher empathy scores at T2 and T3 than men, while men had higher scores for stress management at T3. These results are not generalizable due to the small number of male participants and very weak correlation coefficients.

Age and TEI

No significant differences between age groups were apparent in TTEI, factor level and the majority of facet level TEI scores. There was a difference between groups at facet level for self-esteem. Students aged 18-20 and 21-25 had lower self-esteem than their colleagues aged 26-30 at T1. However, the correlation coefficients were weak and differences were no longer apparent by T2.

Field of Nursing and TEI

There were multiple differences in TTEI and at factor and facet levels at T2. Mental health students had lower TTEI than adult students at T2. They also scored significantly lower than adult and child students for factor level self-control and emotionality at T2. There were also a number of statistically significant facet level differences between groups at T2.

Mental health students had lower scores than child students for emotional expression and lower scores than learning disability students for self-motivation. Their scores for impulse control were also significantly lower than students in every other field. Mental health students also scored lower than adult students did for adaptability at T2. Nevertheless, these all had weak correlation coefficients and all differences were resolved by T3.

Changes in TEI at facet level

There was a reduction in scores for the majority of facets. Several facets demonstrated reductions with a large effect size, self-motivation ($\eta p2=.35$), emotion regulation ($\eta p2=.15$), happiness ($\eta p2=.16$), impulse control ($\eta p2=.19$) and relationships ($\eta p2=.19$). Moderate effect sizes were generated for self-esteem ($\eta p2=.06$), social awareness ($\eta p2=.09$), stress management ($\eta p2=.07$) and optimism ($\eta p2=.10$). While there were small effect sizes noted for reductions in empathy ($\eta p2=.01$), adaptability ($\eta p2=.05$). The greatest reductions occurred between T1 and T2. The only facet scores that did not decrease significantly during the programme were emotion perception, emotion expression, emotion management and assertiveness.

Changes in TEI at factor level

Reductions occurred at factor level TEI in all four factors. A large reduction according to Cohen's effect size was noted in wellbeing (ηp2=.15) and self-control (ηp2=.22). Medium effect sizes were observed in the reduction of emotionality scores (ηp2=.116) and a smaller reduction in sociability (ηp2=.04) during the course.

Changes in global TEI

There was a significant reduction in TTEI by the end of the programme. The effect size was large (ηp2 = .23). The largest reduction occurred between T1 and T2 although there was a further reduction by T3.

CHAPTER 7: QUALITATIVE RESULTS

The following section explores the qualitative results generated via an IPA study designed to gain insight into student nurses' perceptions of their TEI and how they experienced its development or inhibition during nurse education. This provided an in-depth exploration of four students' lived experiences, based on single individual interviews conducted at the beginning of their third year in the autumn of 2017. The choice to conduct the interviews at this stage of nurse education was made in order to avoid the end of the academic year and practice placements which students frequently experience as stressful. For the purpose of transparency and to contextualise the interviews, the section begins with a brief introduction to the four participants from the researcher's perspective. This is followed by an explanation of the theme generation process in line with the six stages of IPA and finally the results presented according to superordinate and subordinate themes (Smith, et.al. 2009).

7.1 An introduction to the participants

Before exploring the results generated by this IPA study it is important to provide some context by introducing the four students who volunteered to take part, beginning with a summary of participant characteristics (Table 20).

Table 20: An overview of the participants' characteristics

Participant Pseudonyms	Gender	Age in years	Ethnicity	Field of nursing
Paige	Female	19 years	White British	Child
Anna	Female	19 years	White British	Learning disability
Carly	Female	18 years	White British	Adult
Sarah	Female	20 years	White British	Learning disability

The process for recruitment of cases has been outlined previously in section 4.6.3.9. Participants had already completed the TEIQue questionnaire on two occasions before the research interviews, the second application taking place more than 12 months earlier. It is important to acknowledge that this may have increased their awareness of EI. Volunteers may also have read about EI prior to the interview in order to feel more prepared, perhaps in response to power issues or a desire to please the researcher who they knew to be a senior lecturer within the faculty (see section 4.6.3.3.). A brief introduction to each participant based on the researcher's journal entries is provided in Table 21, to contextualise the interviews and aid transparency.

Table 21: An introduction to the participants from the researcher's perspective

Paige *This was the first interview conducted, which took place at 10.00 on a weekday morning and lasted for 75 minutes. I felt really nervous at the beginning and a little guilty as Paige was rather hoarse but insisted she wanted to continue as she didn't feel unwell. I felt like I was trying too hard to be engaging at the outset although relaxed a little once we got going. Paige maintained good eye contact, her body language was relaxed although she leant forward towards the recording device initially as she was anxious that her voice might not be detected.* *Paige began studying to become a children's nurse at the age of 19 and was now 21 years old. The oldest child of a single mum she described looking after her siblings as she grew up, helping them to manage their mum's emotions and keeping out of the way when things were tense. She described having few friends but enjoyed close supportive relationships with family members. She avoided the use of social media and described maintaining strict professional boundaries which resonated with my view of the world and led me to wonder if we had similar personality types.* *I was aware of feeling less engaged part way through as Paige provided a detailed outline of the way in which each of her mentors provided support. It all seemed overwhelmingly positive and I wondered where she puts the 'bad' or 'challenging' stuff. The answer emerged later when she talked about the need to keep things down. Although she described herself as a 'cryer' she was more prone to laughter in the interview. It all felt a little sterile. I unconsciously started to use some of her speech mannerisms part way through for example 'really, really…' which I think must have been in an effort to deepen rapport and demonstrate empathy as it's not how I would usually speak.* *Paige spoke most clearly and animatedly about needing to make a good impression on everyone from the cleaners to the doctors. I wondered if this was what had been happening in the room but didn't mention it as I recognised it as a psychodynamic interpretation. When she described a Dr knowing her name on her last placement as shocking it reminded me of being a student and I felt surprised this dated practice was still 'a thing'.* *The interview ended with her statement that she was able to make sense of EI for herself although she felt she had made further headway by discussing it in the interview. Once again her comment felt rather sterile as though she imagined she had been talking by herself. Although I recognised this reflection was influenced by my innate tendency to assess the extent of connection from a psychodynamic counsellor's perspective, the role of researcher and counsellor distinct from one another, nonetheless I was left hoping the next interview would feel more engaging.*
Anna *Anna was 21 years old at the time of the interview having begun her studies to become a learning disabilities nurse at 19. The interview felt quite 'stilted' at the beginning as she responded to questions with short sentences, it occurred to me at the time that as the interview was taking place at 15.30 on a Friday afternoon Anna may be keen to keep it short. In the end the interview took 51 minutes. As the interview progressed however it*

became apparent that Anna was anxious to get the interview 'right' and was concerned she might go 'off brief'. In response I encouraged her to talk freely in whatever direction her thoughts took her using active listening skills to summarising periodically, quickly establishing rapport and she noticeably relaxed.

Anna seemed rather vulnerable, laughing often and crying periodically as she talked about her experiences in practice. When asked how she managed her feelings she described being able to keep them under control and apologised for crying in the interview. I reassured her that it was ok to cry in response to the situations she described, careful to maintain appropriate boundaries and avoid any probing questions which could create the impression of a therapeutic interest. Similarly, at one point Anna was talking about assertiveness which she didn't feel had anything to do with EI. I found myself really wanting to go into teacher mode to explain the connection to her but avoided doing so as I thought this would reinforce her fear of 'getting it wrong'. On reflection I think perhaps this was overly cautious, it would have been helpful to explore some of the examples she described more fully.

Anna described her approach to life as optimistic and positive which was reflected in the interview. While her emotions were accessible she didn't linger on difficult feelings recovering quickly, moving on to other topics easily. I needed to provide more prompts during this interview to develop a deeper discussion. Nonetheless, there were some moments of rich insight as we reflected on her description of herself as lacking assertiveness having just described an incident during which she was highly assertive on behalf of a service user.

By the end of the interview we had both gained confidence. Despite the fact Anna really struggled to articulate ways in which she felt EI could be enhanced, I chose not to change the subject allowing her more time to think. She in turn became more talkative providing examples of how EI relates to people with learning disabilities particularly those on the autistic spectrum who may find it difficult to perceive and manage emotion. She left the session thanking me for the opportunity to think about the topics we had discussed and felt it had been useful to reflect on the way she managed emotion.

Carly

Carly was the youngest of the four participants, 18 years old at the beginning of her adult nurse education and 20 at the time of the interview. This interview took place at 12.00 on a Monday and was the longest undertaken, lasting 76 minutes. From the outset the interview felt different from the previous two. Carly spoke freely and openly at length about the way she felt, starting with an explanation of how challenging the course has been and how different to her expectations.

A high level of emotion was present throughout as Carly talked about not being able to do what she wants to in practice and finding writing about it difficult in Uni. There was no artificial laughter but real sadness and happiness were evident throughout. She laughed as she said they shouldn't accept anyone onto the course under 21 as the content was way too grown up.

I was curious when she talked about people with EI being a blank canvas, emotionally detached in order to be an object for projection. It sounded as if she had an insight into psychodynamic principles and I wondered if this was related to previous therapy she might

have had. I didn't ask as I was concerned that this was outside of the boundaries of the interview although I did wonder if that's how she was experiencing me during the interview. I was aware that I was much less light hearted than in previous interviews. She talked about a very close rapport quickly formed with one of her mentors which has developed into a friendship which made me wonder if boundaries get blurred for her on occasion and what the impact of this had been.

Despite stating how difficult she found it to say how she felt it seemed she had no difficulty during the interview. Talking freely about the challenges of working with someone she didn't like and outlining a really difficult experience with a patient. Crying as she explained what happened to the patient despite her intervention she described feeling guilty and felt there were some issues she had been unable to resolve.

The interview felt emotionally charged and it seemed Carly was struggling to manage the course and all of her other commitments, but on reflection she appeared the most self-aware. She said on multiple occasions that people don't listen to her and I wondered if she was using the interview as an opportunity to be heard. At the end Carly said that this was the most she had spoken about her feelings for a long time and thanked me for the opportunity to talk, stating how helpful she had found it. It felt like such a powerful interview, full of connections and disconnections, I left hoping Carly felt she had been heard.

Sarah

Sarah was the oldest participant, 20 years old at the beginning of the course. At the time of the interview she was now 22 with mixed feelings about completing the course and becoming a registered learning disability nurse. This interview was the shortest lasting 50 minutes.

Sarah's preference for being chirpy and optimistic was present throughout. Although rapport was quickly established it was clear that she did not want to feel vulnerable or discuss anything which might be distressing. Nonetheless during the interview, she talked about some really upsetting events including the death by suicide of a close friend shortly before Sarah began her nurse education. Despite these distressing events Sarah displayed no emotion as she talked about them and was adamant that it was better if she just kept her feelings inside as talking about them only makes it worse. I couldn't help but feel concerned for Sarah as it seemed to me that this was likely to be an inadequate strategy going forward.

I couldn't help but wonder about her weight lifting hobby and what it meant to her. The ability to carry heavy loads without buckling, receiving praise for her efforts?! I was left feeling as though we had talked about some really significant issues including some powerful examples of EI in practice but like the weights she lifted these were experiences she managed alone.

At the end of the interview Sarah commented that it had made her think a lot about herself which is something she doesn't generally do. She also said she had learned a lot about herself but didn't say what specifically. I was left feeling as though I had somehow undergone an assessment but wasn't sure if I had passed.

Acknowledging the way in which the researcher experienced the interview process and interactions with participants provided the opportunity to reflect on the potential impact of personal positionality (see section 4.5). This was considered an essential element in reporting the results to ensure the development of themes and their subsequent analysis included the researcher's awareness of personal preconceptions, which inevitably influenced the process.

7.2. Theme generation

Each theme was individually developed identifying subthemes and incorporating key quotes from participants, to represent their contribution to the theme development (Shaw, 2015). Direct quotes were referenced according to their line numbers as they appeared in the interview transcript; an example of a theme development table using participants' words is provided in Appendix M (Theme 1: EI is important for nurses).

The resulting analysis is a collaboration of the sense participants make of their experience and the author's attempt to make sense of their sense making through a double hermeneutic (Smith, et.al. 2009). The identification of emergent themes including the dialogue between researcher and participant is completed first through interpretations with each student individually and then across participants. The interpretation of the relationship between these themes leads to the creation of the final structure. A continual commitment to reflexivity and supervision during this process tested the plausibility of the interpretation and the coherence of the structure developed.

Table 22. Reflexive example 8: Engaging with the interpretative activity (Alvesson and Skoldberg, 2009)

Extract from research diary – September 2019

"Reflecting on my personal disappointment with a work related situation I wondered how student nurses learn to contain their own emotions and manage them in a way that adds to, rather than subtracts from, patient care without compromising their own personal wellbeing. For me acknowledging the truth of how I feel has been important. Despite participating in reflection and writing my thoughts and feelings down it hasn't meant they are bracketed off, as Husserl might suggest, rather they remain with me as part of my lived experience. Similarly, in conjunction with the participant's perspectives, my own thoughts, ideas, preconceptions and previous experiences will influence this work. Even when based on participants' words, clearly identifiable in the text, the interpretation will inevitably include aspects of a combination of our experiences as I engage in trying to make sense of their sense making. Remaining as transparent as possible in the process, engaging with my supervisory team and maintaining an ongoing commitment to reflexivity are essential in order to avoid consciously or unconsciously superimposing my personal experiences on theirs."

While the process was both multi-directional and fluid, it remained aligned to the principles outlined in the six step IPA guidance offered by Smith, et al. (2009). Four superordinate themes emerged from the analysis of the qualitative data. The first theme was entitled *conceptualisations of EI*, the second *emotional expression versus suppression*, the penultimate theme was labelled *sensing 'the vibe'* and the final one *relationships*. Table 23 introduces the participants and identifies examples of their individual contributions to the superordinate themes.

Table 23: Superordinate themes across participants

Theme / Participant	Conceptualisations of EI	Emotional expression vs suppression	Sensing the vibe	Relationships
Paige	-Learning to reflect helps -EI as 'a thing'	- Learning to manage feelings is complicated	- Being able to read people and situations makes a difference	-Conflict avoidance vs assertiveness -Emotional support comes from my family -It's hard to stay motivated, competition and assessment help
Anna	-Being aware of yourself and others helps you to make connections -Developing EI is important but is hard to teach	-It's ok to tell people when you're happy but it's not ok to cry -It's helpful to develop strategies to manage emotions	-Being aware of yourself and others helps you to make connections	-Finding / developing supportive relationships is difficult -Assertiveness is easier on behalf of other people -Staying motivated is hard
Carly	-Becoming a nurse is much harder than anticipated -Reflection is a personal process which happens automatically -EI is an important pre-existing trait for student nurses	-Managing your emotions as a nurse is difficult	-Being able to sense the 'vibe' helps you to manage your response	-Supportive relationships are really important -Nurses need to learn how to be assertive -Some stress can be enjoyable and develops your ability to adapt
Sarah	-EI especially the ability to adapt is important for nurses -EI helps you to pick up on other people's emotions -Reflection is helpful but can be unhelpful	-The problems with empathy, too much vs not enough -Expressing emotion is difficult	-EI helps you to pick up on other people's emotions	-Forming relationships is easy despite the fact people can be frustrating -Being assertive without causing offence is important for nurses -EI especially the ability to adapt is important for nurses -Being a student nurse is difficult, remembering why you're doing it helps you to stay motivated

Within these four superordinate themes, a series of subordinate themes emerged labelled to incorporate expressions used by participants as they described their experiences (Table 24).

Table 24: Superordinate and subordinate themes

Superordinate themes	**Subordinate themes**
7.2.1 Theme One: Conceptualisations of EI	7.2.1.1 EI as ' a thing'
	7.2.1.2 'I've been like it most of my life…'
	7.2.1.3 Family and cultural messages
	7.2.1.4 EI begins with self-awareness
7.2.2 Theme Two: Emotional expression vs suppression	7.2.2.1 Feelings are 'dragged' out
	7.2.2.2 'Buried, buried, buried…'
	7.2.2.3 Coping strategies
7.2.3 Theme Three: Sensing the 'vibe'	7.2.3.1 Places
	7.2.3.2 People
	7.2.3.3 Implications
7.2.4 Theme Four: Relationships	7.2.4.1 Supportive relationships
	7.2.4.2 'I was a bit scared…'
	7.2.4.3 The power of shared experience

It is important to note there was considerable overlap between themes, so distinctions between them were made to improve the clarity of their presentation. The choice was made to present the findings based on the interpretative analysis of the data from the students, thus conveying students' experiences as a whole, incorporating aspects of each individual's narrative as listened to and heard by the researcher without the clutter of theoretical discussion. This chapter will be followed by a rich discussion of the findings incorporating other literature including nursing and psychological theory.

7.2.1 Theme One – Conceptualisations of EI

Conceptualisations of EI is the first superordinate theme, incorporating four subordinate themes. The first was entitled *EI as 'a thing'*; the second explored the idea that EI is an inherent trait *'I've been like it most of my life'* and the third the influence of f*amily and cultural messages*. The final subordinate theme pondered the idea that *EI begins with self-awareness.*

7.2.1.1 Theme one, subordinate theme one: EI as 'a thing'

There were some shared ideas in the definitions of EI provided by the participants, which when combined provided a broad description of EI as a construct. However, despite the

possibility that they had undertaken some reading about EI prior to the interview as previously discussed (see section 6.2.1), all of the participants found it difficult to provide a clear, easily articulated explanation of EI. Paige, Carly and Sarah focused predominantly on the capacity to identify feelings and know how to respond. Carly described it as;

> *"I think I kind of see it as almost being able to sort of pick up on sort of like emotions in a room, like yourself, patients, relatives, other members of staff everyone really and I don't know maybe being able to sort of read social cues and sort of know what to do with them." (142-146)*

While Paige's description focused more specifically on the ability to control her emotions and interact with others.

> *"To me that means being aware of your own emotions and um… not controlling them but like oh I guess a little bit of that but also like being aware of other people's and how you like interact with that" (57-60)*

Although Paige struggled to find the specific phrase to convey her meaning, it was clear that the capacity to be able to manage emotion was viewed as an essential element of EI. Sarah appeared to agree with Paige's view that this was an important aspect of EI. It appeared Sarah used a more cognitive process to manage her negative feelings when it may not be acceptable to express them freely.

> *"Being able to manage your emotions and how you logically react to them. So like… I might be in a situation where someone's really, really doing my head in and it makes me really made me angry, the emotional intelligence part is how I deal with that anger like... If I was I don't really know that much about it but if I perceive that if I had low emotional intelligence that anger would just come out whereas if I'm emotionally intelligent about I think ok so that's made me really angry but think about the context that you're in. Ok I can't express how I feel but I can tell someone I feel this way to deal with it in a more appropriate kind of way." (44-54)*

Anna also found it difficult to define and while she included the capacity to be able to identify emotion in self and others her motivation to do so focused on the desire to understand rather than the need to manage difficult emotions.

> *"Oh that's hard to answer I think how um… your ability to regulate emotions and pick up other people's emotions um… like to understand how you're feeling yourself um… and to be able to understand how other people are feeling as well. I think that's what I'd say. (26-30)*

She viewed EI as a means to meet the needs of others, as a method of understanding other people's emotions, supporting the notion of EI as important to facilitating effective communication, flexible thinking and compassionate care. Paige expressed the desire to be able to use EI to help manage situations more effectively:

> *"To kind of control other people. Use it for your advantage to get the best from other people is something that I don't really feel like I have much skill" (805-808)*

As she spoke about the need to become an effective nurse leader in the NHS, Paige used the word control to express her desire to be able to manage the demands of practice once qualified.

> *"I think that will be increasingly important in the fact that don't they all want us to become leaders in the NHS… and I think that's something that a good leader needs to be able to do so I'm going to have to develop that at some point." (809-812)*

Students felt there had been few references to EI during the course, either in practice or university contexts, which they found difficult to understand given their belief that it is important for nurses and other healthcare professionals; although it is important to acknowledge that this cohort, having participated in the quantitative aspect of this study, may have had a greater awareness of EI as a topic of interest to nurse education as a result. Recognising it may be difficult to teach; participants recalled oblique references to some aspects of EI in taught sessions, particularly those based on communication skills and end of life care. Students felt these would need to be developed considerably if they were to achieve a more comprehensive understanding of EI. Anna wondered if simulation might help:

> *"Maybe something like simulations because I think it's not really something you can be taught. I think like you learn it from I don't know… I don't think you can, there could be like a lecture about how to be… it could tell you how to be emotionally intelligence but whether it would actually help anyone develop their emotional intelligence I don't know if it would" (648-654)*

Despite feeling it may be difficult to develop strategies to enhance EI, students felt its importance should lead to more attempts to do so, both in education and practice environments, with the potential to benefit students and others working in the NHS:

> *"EI Training… I think it probably is something that the NHS could benefit from". Paige (815)*

Although difficult to define, EI was most noticeable when it was absent. Anna described an incident while on placement when she became distressed and another healthcare professional *"just left me crying"* (193). Similarly, Carly described feeling unable to make a connection with one of her mentors who in her view lacked EI;

> *"that was just really difficult, I was trying so hard to impress someone who just didn't care at all…" 619-20*

While students recounted some examples of emotionally intelligent practice, generally in their experience it appeared poorly understood and modelled. In their opinion, interventions proven to enhance EI should not be reserved for pre-registration nurse education but would be beneficial if made available across the NHS workforce.

Anna suggested that immersion in care settings would facilitate its growth:

> *"I think just being, being on the placement just in general should really help you I don't think there's a specific thing that you could do on your placement to help develop it" (664)*

Despite spending fifty percent of the course in practice environments, participants felt their EI had not improved. One of the key factors influencing the development of EI was identified as the availability of emotionally intelligent role models. Placement experiences had a major impact, positively and negatively on students' EI, an idea explored in greater detail as part of themes 3 and 4.

Overall EI was strongly associated with the capacity to respond to people in a way that demonstrated compassion, but necessitated the suppression of one's own feelings. An idea articulated most powerfully by Carly:

> *"You need to be a bit just sort of blank almost like a blank canvas and people can sort of project it on to you and you sort of see what's happening and then like help" (215-220)*

Suppressing aspects of personal identity with the aim of being fully present, focused on the other, enabled students to become psychologically available as a conduit for the patient's use: creating the impression that good nurses must engage in extensive emotional self-denial as a matter of routine; subduing oneself, becoming blank in order to be helpful to others. An idea juxtaposed to humanistic principles, this prioritises empathic engagement including a degree of self-disclosure.

The need to prioritise emotional self-control as part of EI was expressed earlier in Sarah's description of someone with EI as '*level headed and in control'* (58); although she noted this was not a benign process, there were challenges associated with continuous self-denial in pursuit of self-control.

> *"I guess there's ups and downs to being emotionally intelligent. If you're constantly managing an emotion, so like if I was upset all the time but then came across like this then no-one would know that I was upset so the problem wouldn't get solved. In some ways maybe it's better to be, to not be so in control of it because then you're going to have to get help…" Sarah (92-98)*

Wrestling with the implications of maintaining a degree of self-control necessary for nursing practice, Sarah understood this limited the likelihood of people recognising her own emotional needs and offering help.

Although aware of EI, participants were unable to articulate clear definitions; their lack of clarity reflecting one of the most commonly reported challenges associated with the numerous definitions, conceptualisations and measures of EI. Developing a better understanding of EI, including the relevance of specific facets, has the potential to contribute to maintaining students' emotional wellbeing and may positively influence nursing practice

and wider NHS culture. Understanding, appreciating and managing emotion are important aspects of TEI for nurses. Prioritising the care of others was viewed as an important part of practice, which required students to act as 'blank screens' for patient use, involving a degree of self-denial and considerable self-control. The need to suppress emotion as part of the student nurses' role emerged as a belief held by all of the participants, explored in detail within the second theme.

7.2.1.2 Theme one, subordinate theme two: "I've been like it most of my life…"

Students perceived EI as an inherent trait, expressing the belief that while there is the potential to enhance what already exists it is not possible to create if not already part of an individual's personality. All of the students felt they were emotionally intelligent before joining the programme and agreed that this was an important pre-requisite for nurse education. In Anna's words:

> *"I'd say I don't know if my emotional intelligence has changed but, I'd say I've been like it most of my life I'd say but, I think it shows how important it is to be like that to be a nurse. So I think it's like reassurance that you've got the right mind set and that's really how you should be if you're caring for people and their families" (585-589)*

Although having limited EI would not prevent someone from becoming a good nurse, students agreed it would be difficult to manage the emotional demands of the role without the capacity to perceive and manage emotion instinctively.

> *"If somebody comes in here and they don't really have any existing emotional intelligence that would be, I think they're really going to struggle… I think if you didn't have it you wouldn't get it um… I think you'd still be able to be a nurse but I think it would just be exhausting (947 and 961)*

Anna identified that this might be particularly difficult for people who live with an autistic spectrum disorder (ASD):

> *I think you can probably develop emotional intelligence but I think you have to have it to a certain extent to be able to develop it. I think it can be quite hard if you don't have the… obviously autistic people and people with Asperger's and things like that can really struggle with empathising and I don't know if that can be changed for a lot of people (700-705)*

Students' perceptions were that their overall EI had not changed during the course of nurse education although there may be an element of enhanced awareness of its importance as part of nursing practice. Existing characteristics were 'moulded' through exposure to teaching and practice experience, improving self-confidence. However, there was no sense of EI having changed significantly. Carly said:

> *"I think maybe it has improved slightly but only because it was already there I feel like it's not something you can teach somebody" (947)*

Although nurse education has the potential to enhance EI, students maintained the view that it is unlikely to change significantly through teaching alone, although there may be aspects of the experience that may lead to some development. Only Sarah identified a specific facet of EI as having improved slightly as she noticed an increase in her capacity to perceive other people's emotions. Despite the lack of taught EI theory, students' perceptions clearly align to TEI principles as a set of characteristics existing within the personality, which have the potential for adjustment rather than substantial development in response to formal teaching. Nonetheless, there was the desire for more taught content in order to provide a clearer conceptual understanding.

7.2.1.3 Theme one, subordinate theme three: Family and cultural messages

Accompanying the perception that many aspects of EI were inherent, participants felt these traits were adopted and reinforced by family and cultural messages, before nurse education began. It became apparent that the most powerful role models came from within participants' families. Paige described her experience of primary socialisation as the oldest sibling in her family,

> *"My mum is a very emotional person and her emotions change very quickly. I'm the oldest child so I think I had to kind of pick up very early on what emotion she had, to prepare the siblings." (154-158)*

She learned to interpret and mediate for her siblings in light of her mum's changeable emotional state. Similarly, Sarah described her mum as highly emotional.

> *"My mum's very open with her emotions like… every minute of every day I know what she's feeling like because she'll tell me. Whereas my Dad's very like… like he'll say I'm here if you need a moan but he himself, I've only ever seen him cry once." (277-281)*

Her parents provided a contrast between Mum who is emotionally expressive and Dad who appears to suppress his emotions. Preferring to emulate her Dad, Sarah described her mum as,

> *"the annoying woman who always tells me what she's feeling and my Dad's the like level headed, calm guy that I like to think I'm more like." (284-285)*

The potential to be '*level headed'* and able to manage the emotional environment for self and others is viewed as a desirable attribute for nurses and perhaps in society generally. Paige considered the impact of culture on emotional expression;

> *"Culturally I don't think people who express their emotions really freely are often looked at in a very positive light in society. I think people are still trying to pretend that everyone's chill and yeah… people aren't very forgiving I don't think, if people have emotional outbursts happy or sad or anything in between." (160-165)*

Expressing feelings of sadness according to Paige may require forgiveness in response to a perceived breach in etiquette. While to a lesser degree, social forgiveness may be necessary in response to the expression of positive emotion. Ideally this should also only take place in the presence of friends.

> *"In a kind of more positive emotional way, I obviously like to let that out a bit more because people are like more socially forgiving for that but even still if I'm happy and with something on placement I don't fist pump the air, I do that in my head. Then I'll go home and actually that is something I do share with my friends a lot more" (370-376)*

Anna agreed that expressing positive emotions was easier, identifying a strong cultural message not to cry, beginning at home;

> *"I guess like I don't know growing up you're always kind of told to 'come on and stop crying, let's move on, come on…' yeah so I think just from what your parents have said. Not in a horrible way not just don't cry but it's probably more just like they don't want you to be sad so they get you to try and move on more quickly" (111-114)*

While not attributed to a lack of care, parental responses perhaps indicated unconscious attempts to avoid personal distress evoked by the tears of their children. Learning to manage emotion is also part of developing resilience in preparation for other early social contexts that encourage the ability to contain feelings of sadness. This was reinforced by early educational experiences;

> *"probably culturally I think they don't even like in school they say 'come on stop crying' move on, you're not really told to express yourself I guess." Anna (119-121).*

These pre-conceived ideas about what is desirable in family contexts, acceptable in learning environments and in need of forgiveness from wider society, contributed to participants' expectations of appropriate behavioural responses to emotion from self and others during nurse education.

7.2.1.4 Theme one, subordinate theme four: EI begins with self-awareness

According to students, in order to be able to appreciate how other people might be feeling you have to have some awareness of your own emotions.

> *"I would argue that emotional intelligence needs to come from you first being able to recognise your own emotions. You can't recognise other people's until you are aware of your own and its impact on your behaviour" Paige (721-724)*

Attempting to understand others without a clear appreciation of the self, leads to a flawed or merged perspective. EI begins with looking inward before attempting to connect with others in a meaningful way. Gaining an understanding of what is happening within, at a personal level, is essential before it is possible to clearly assess and respond at an interpersonal

level. An inability to identify your own emotions and reactions almost inevitably limits the capacity to understand or respond to others. In Sarah's words:

> *"I think if you're not aware of your own emotions how can you control yourself, how can you be aware of others?" Sarah (633-635)*

Despite the fact that all participants felt it was important, not all of them felt confident in their own self-awareness.

Carly appeared conflicted; she believed self-awareness was essential and yet at the same time admitted finding it really difficult to know how she felt.

> *"Definitely you need to be able to identify your emotions and that's something I'm really, really awful at… I can identify that I'm not ok but why? I can't seem to get my head around that one" (167-180)*

Reinforced by the repetition of the word 'really' Carly recognised her lack of awareness limited her capacity to accurately identify her own emotions. Frustrated by this she described how difficult she found it to resolve at a cognitive level, demonstrating that being aware of the need to be self-aware does not necessarily guarantee its development.

While students felt the capacity to reflect in a meaningful way was important, there was a lack of consensus about the process. Paige, Carly and Sarah all recognised that a degree of introspection was helpful but there were contradictory thoughts about the role of reflection as a means to enhance self-awareness. Written reflection is a compulsory element of their pre-registration programme and although Paige and Sarah both characterised themselves as 'reflective people' they described this as predominantly an internal cognitive process. Nonetheless, Paige recounted coming to terms with a traumatic incident in practice when she participated in an academic simulation;

> *"it was a learning disability simulation and all of a sudden it just unlocked something in me… then after everyone had left there was one of the lecturers there and I started crying and I was like I don't even know why I'm crying and I spoke to her about it" (416-418, 420-422)*

In order to gain a greater degree of self-awareness she engaged in a more formal reflective process resulting in a clearer appreciation of what had taken place.

> *"I actually went home and did a formal piece of reflection. I felt like after doing that I was more like much better able to process my feelings about what had happened because I thought what I did in my head and I thought about it for a couple of days, it wasn't a light reflection in my I head but I thought that was enough but when I came to it, it completely broke again" (423-428)*

The use of the expression 'broke again' suggested the fragmentation of a fragile psychological defence achieved by following her usual process of internal reflection. Talking about the event with a lecturer led to engaging in the process of written reflection which enabled her to reframe her experience:

> *"I often think back to but in much more of an emotionally neutral way and it's actually led me to think oh so it's actually made me think about practice and how we can improve things" (469-472)*

In contrast, while Carly described sometimes writing for her own benefit, she felt reflection was predominantly an unconscious, almost automatic process:

> *"I don't think you need a written reflection I think you take things from a situation without realising. I do feel like you almost don't need to put that sort of effort or emphasis on it cos if you act like a sponge you're going to be a sponge and just kind of draw from the experiences and work out what's happening" (512-520)*

Nonetheless, this appeared to conflict with ideas expressed in Carly's own words earlier in the text. Describing it as difficult to establish what emotions she was experiencing or why they had emerged, suggested the absorption process Carly outlined may not function as effectively as she imagined. Similarly, Sarah described herself as not being good at written reflection. Although she felt the capacity to reflect was mostly helpful, she experienced other challenges associated with introspection, in particular the tendency to ruminate:

> *"I think I'm a very reflective person, so sometimes I'll over reflect say, say even like a debate in a class like… you're just putting across a point that you've been told to put across but I'll over analyse it and think, oh God have I really upset them. I over analyse everything, and I think it's helpful and unhelpful" Sarah (210-214)*

Reflection can be helpful but without the support of someone, to help identify areas in need of more or less attention, it can be difficult to gain the full benefit from the process. Sarah suggested:

> *"Reflection with input. So I don't know if that's like the actual format for supervision, I'm sure there's different types aren't there but… Talking through what happened how you dealt with it, how you felt about it, having someone there to challenge it." (704-707)*

In order to improve self-awareness, self-reflection through introspection requires both the individual's willingness to learn and the support of a skilled guide. In the absence of self-motivation and/or appropriate guidance, the effectiveness of written reflection in the way it is currently defined within nurse education may remain limited.

All of the participants stated that they did not feel as if their EI had changed during the course of nurse education although some aspects may have improved slightly. This highlighted disparity between the students' expectations that their EI would be enhanced via an automatic unconscious process, facilitated by emersion in the work, and the belief that participation in the programme in itself ought to generate opportunities to maximise the potential for this to happen.

7.2.2 Theme two – Emotional expression vs suppression

Being a nurse involves interacting with people who are experiencing a range of emotions; this process often evokes strong feelings in response. Learning how to manage the emotions experienced by others and within oneself are important aspects of nurse education explored in this second theme. Three subordinate themes emerged; the first observing the way in which feelings are often 'dragged' out rather than freely expressed. The second explores the need to suppress emotion. Finally, the third theme examined the use of coping strategies.

7.2.2.1 Theme two, subordinate theme one: Feelings are 'dragged' out…

Expressing feelings of sadness or those which felt more negative was particularly difficult. Carly described talking about her feelings with her parents or partner commenting on the fact that this was

> *"Usually because they've dragged it out of me…" (557)*

Although it felt more acceptable to express positive, happy emotions. In Anna's words:

> *"I'm good at expressing when I'm happy and excited" (92)*

Working with people in practice settings led to deeper insight into emotion and the way in which people express or suppress their emotions. Paige described her experience as a student nurse in the child field,

> *"It's more parents that have kind of influenced me in the fact that parents can be very angry but that might be because they're frightened" (126-128)*

She reflected on a growing awareness that people sometimes express their feelings in ways that do not accurately represent what is happening for them at an emotional level, leading to the realisation, through exposure to people in practice settings, that sometimes there is a disparity between underlying feelings and behavioural responses. However, according to Anna this does not automatically lead to an increase in students' confidence in their own ability to express emotion.

> *"I'm probably not as good at expressing my own emotions as I am at being aware of people's feelings" (610)*

Expressing feelings of sadness became more acceptable when part of an empathic response. Sarah described being exposed to 'heart breaking' experiences which led to tears on behalf of others as she supported them through their grief.

> *"I've had patients have me in tears because my heart is just broken for them" Sarah (311)*

Anna described her experience of supporting someone with a learning disability following a phone call informing her of her father's death. Understandably distressed the service user fell into Anna's arms sobbing.

> *"Her Dad had died… and like I was the person there sorry… it was just quite sad so I cried with her for quite a while… it's very sad…" (285)*

Anna cried as she spoke, her use of the current tense demonstrating the sadness that remained with her as she recounted the event, recreating the tenderness of the moment as she described it in the interview room. Apologising for crying, she explained;

> *"but I think it just shows that you're human and that I think especially in that situation with her like I think it showed that there's not such a divide between staff and service users, everyone's a person you're on a level and it's not like… yeah we can't just not feel sad about something because it's a service user…" (286 - 289)*

As student nurses enter into patients' worlds, they share the feelings of sadness associated with painful human experiences. While notionally participants felt it was acceptable to express some feeling as part of good nursing practice, it appeared crying required an apology. Three of the four students were visibly distressed and cried during their interviews. None of them when recounting personal difficulty, all of them when talking about experiences with patients and the way it had 'broken' their hearts. The capacity to empathise, to demonstrate human connectedness in the shared experience of grief may be costly at a personal level, but makes it possible to span the 'divide' between the person requiring care and the provider of that care. It was a price students were willing to pay for the sake of supporting those in their care.

However, participants described finding it difficult to find safe spaces in practice areas to express their feelings. With little time or opportunity for emotional expression while on placement, they found it difficult to imagine that it might be acceptable and visualised places where this might take place. As Paige observed;

> *"I knew it wasn't an appropriate time to get upset about it because anybody could walk in, you can't be sitting there sobbing, maybe you can actually but I wouldn't feel comfortable sitting there sobbing in the middle of the break room" (452-456)*

Despite the strength of emotion leading to the desire to 'sob', nowhere felt safe enough to do so for fear of discovery and embarrassment. In contrast, Anna felt that her experience of exposure to other people's pain and sadness had helped her to express her emotions more freely.

> *"I think I find it easier to cry I guess because I didn't really cry a lot and then when things like that happen I don't know when you cry in front of other people… sorry..." (tearful) (Anna 271-273)*

The contexts within which emotional expression felt appropriate were however extremely limited and the consensus was that this should be in private and preferably outside of practice environments. This was particularly important when expressing feelings of sadness or anger whether they were in response to patient experiences or the student's own.

> *"in like a negative emotion I'm quite good at leaving the hospital getting to the bus stop and then crying" (Paige 365-367)*

The powerful image of a student nurse standing at a bus stop with a pocket full of her own and other people's sadness, anger and other hard to manage emotions created a stark image. Student nurses continued to find it difficult to either access or make use of opportunities to express their emotions in supportive environments, leaving them to cry at bus stops.

Table 25. Reflexive example 9: Engaging with the interpretative activity (Alvesson and Skoldberg, 2009)

Excerpt from research journal – April 2018

"Why do we (nurses) put up with so much and fail to act as advocates for ourselves? Why do all the participants report the need to keep their sadness to themselves? Joy can be expressed but sorrow is kept in your bag, pocket or somewhere else inside of you. I recognise myself as bound by a similar internal set of rules. There have been moments when I have wanted to tell people how frustrated, sad or overwhelmed I have felt by work, life etc. instead I have used caring for others as a means of avoiding my own emotions. Where and how do we learn this behaviour as nurses? Does it pre-exist nurse education? Is it part of our personality reinforced through life experience which attracts us to the profession because it fits so well? Either way it is clear that there is a parallel process taking place between myself and the students, evoked through the interviews and interpretation of the transcripts. This is impossible to eliminate unless I too engage in suppression. Hopefully, having acknowledged the existence of this parallel process and by using this opportunity to thoughtfully engage in the participants' material, despite noting its resonance with my own, my interpretation will more accurately represent their experiences."

Every participant described an encounter during which they attempted to express their feelings, or saw others attempting to do so, which were experienced negatively. Anna described an incident in practice she was unable to resolve.

> *"I was quite upset about it and anyway I ended up crying and then she didn't know what to do so it was just quite awkward. So then she just told me to help clean up the room so I like just grabbed some things and then had to walk up the stairs like past everyone crying and she didn't even say are you ok, is everything alright. I apologised for crying because it just felt really awkward" Anna (183-189, 213)*

Other health professionals did not seem to know how to respond to emotional expression by student nurses, or patients and relatives at times. Constant immersion in an environment

can lead to a reduced ability to recognise and respond to distress as Sarah noticed while supporting a bereaved family.

> *"I think people that work there get so into this system, but they were amazing don't get me wrong everyone's very different. But the woman that did the paperwork after the death was very much like this, this, this, this, this questions. And the woman like… his daughter was saying things and she was kind of dismissing it" (169-174)*

Sarah remained non-judgmental but was aware of the difficulty associated with maintaining a compassionate response to the expression of emotion in environments where it is a feature of everyday interaction. It was more comfortable for students to be in the position of helper rather than the one receiving help. Despite being committed to providing support to others on a daily basis, the capacity to talk about feelings and become the recipient of care remained a challenge for students. Sarah described the experience of attempting to express her emotions through counselling;

> *"I tried talking about it but what the hell was that about…it's made me think that there's no point because a problem shared is a problem doubled kind of thing." (427-430)*

The paraphrasing of the common adage 'a problem shared is a problem halved' described the experience of attempting to express emotion as much worse than remaining silent. Carly recognised that this was a significant issue for student nurses although their inability to talk about it together led her to wonder if she was alone in her experience of struggling to make sense of and manage her emotions;

> *"I feel like this is almost a degree that needs counselling running alongside it. But then I really don't know if that's just me, I really don't know. That's what I mean I don't I know do all students feel like this, do only nursing students feel like this, is it just me, I really don't know" (Carly,1000-1004)*

The potential for all student nurses to benefit from counselling remains unclear as some participants were clearly opposed to the notion that it may be helpful to articulate their feelings. The more pertinent need identified was the importance of removing the barriers that prevented students from becoming recipients of help, enabling them to accept support, creating opportunities within which they are able to talk about their feelings while managing the demands of the role in environments saturated with emotion.

7.2.2.2 Theme two, subordinate theme two: "Buried, buried, buried…"

Difficult emotions are private, pretending is better and involves less risk than 'letting people in'. The ability to suppress feelings becomes stronger with experience; repeated exposure to difficult situations leads to the development of a greater capacity to subdue feelings.

> *"I probably used to express it more but the more things that upset me the more I probably try to hide it. So as events have gone on like ok it's buried, buried, buried, buried…" Sarah (270-272).*

There is the perception that being a nurse means being able to be positive all the time.

> *"I think as a nurse you're meant to be ok, all the time and it's kinda hard cos you're not. But you have to be more ok than your patients so, you just have to be." Carly (427-430)*

It helps if you are a naturally positive person although even people who have an optimistic outlook are upset sometimes, although it is preferable to keep difficult feelings to oneself. This was a common experience, in Sarah's words;

> *"When like there's something upsetting or distressing that's happened I don't want to let people in. I don't, I don't like to tell people my business" Sarah (222-223)*

Crying in front of other people can make them feel uncomfortable, as they do not know how to respond, this in turn makes the person expressing the emotion feel uncomfortable. The desire to protect self and others from this discomfort contributed to the decision not to disclose feelings of sadness.

> *"Kind of I try and keep pretty mellow in front of people who don't know me because I don't think it always helps to be emotional" (147-149)*

The question of who finds it helpful or unhelpful and at what point it was acceptable to choose to express rather than suppress feelings appeared straightforward as students identified the patient's needs as taking priority.

> *"I do understand that you do have feelings at work and it's gonna be hard but… like in a situation like that you need to forget it and get on with it because you can deal with yourself later but the patient needs help now" Carly (463-466)*

Nonetheless, it was a source of considerable frustration when students could see their friends or peers struggling with emotions they refused to disclose.

> *"I intuitively care about people so because I want to help them, because I want to care for them, I want to know what they're feeling because if I don't know how they're feeling how can I help? And I find it really frustrating if I know that something's wrong and that person won't say yeah I'm feeling really crap, or feeling really upset and it comes out in like anger, really frustrates me. Because all I want to do is know what's going on in their head so I can say ok that might feel like this but then we can do this. I do struggle with that" Sarah (116-125)*

Carly described the experience from the inside out:

> *"They're like I'm not talking to you if you don't tell me what's wrong and I'm like I don't know what's wrong. Then I have to work out what's wrong, oh it's exhausting but they do force it out of me eventually and… I almost feel like*

there's too much wrong, not necessarily wrong but there's just a lot going on" (557-563)

Expressing emotion led to feelings of uncertainty, partial or temporary loss of control and the recognition of the need for help. The need to accept and express vulnerability felt somehow foreign to those who have committed themselves to the support of others, despite the ability to recognise that this contradicted their own personal belief systems. Sarah described the experience for her;

"I like to make people feel better. I've always like all through my life been that person that people come to if something's the matter, if they just want an ear, or just a laugh or just to chill and not say anything I'm that kind of person to be around. So for me to show other people that I feel down I feel like it kind of contradicts everything that… I know it's ok to feel sad because I tell people all the time, it's ok to be upset like. I guess it's just what people think of you isn't it? Oh… I don't know, this is really deep isn't it? (Laughing). I understand that it's really difficult to break… to let, allow someone to break down that barrier. If I'm used to supporting them and being their shoulder to cry on then I don't want them to… I don't want people to have to deal with my shit basically. Like everyone's got their own problems to deal with so why should they have to deal with mine" (251-265)

Difficult or painful emotions, described as 'shit', or the personal rubbish that no one else should have to be exposed to, are in real and metaphorical terms the daily experience of nurses. Nevertheless, student nurses did not feel adequately equipped to manage the experience emotionally,

"They give lectures and they kind of know this is what you do, it's going to be emotional it's going to be hard and that's it they just sort of leave you and you're like you have no idea" Carly (384-386)

This act of omission, combined with inadequate role modelling of emotional expression within appropriate boundaries, reinforced students' perceptions that the routine suppression of their emotions for the sake of others was the preferred option. It is a view maintained despite the realisation that over time it was likely to have a significant negative impact on their mental health. In Paige's words;

"I'm not convinced that my own methods of controlling my emotions are entirely healthy so that's something that it would be important for me to work on if I want to stay sane for the rest of my career" (771-774)

Feelings of sadness and anger can be suppressed to such an extent that it is hard for others to see what is happening on the inside, mirroring Paige's earlier observation that the patient's 'words and faces don't always match'. Carly described the feeling of suppressing her emotions so effectively that no-one noticed;

"I don't outwardly get angry or upset or anything like I'm very… well inside there will be like a fire burning inside me but you won't see it outside I do stay

very, very calm almost too calm. I think sometimes that I… there are definitely times when I should have said something…" (635-639)

Quenching an internal fire required considerable effort, which may have provided temporary relief but may not effectively manage distress and had the potential to increase difficulty later. Sarah described a situation when the strength of her feelings surpassed her capacity to suppress them.

"It just exploded and that kind of said to me look you haven't managed your emotions here you've just dampened them down. I imagine it would be the same with a lot of things I've felt through life…" (330-383)

Dampening down as though putting out a fire, Sarah was conscious of her inability to manage her difficult feelings although attempting to do so under the guise of self-control she remained uncertain about how to deal with issues that would not go away.

"At face value I'm controlling my emotions because I'm not showing them but I'm not controlling them I'm just trying to get rid of them which isn't emotionally intelligent because I'm never going to deal with it." Sarah (397-400)

Repeated denial and the inability to express emotion were not synonymous with effective emotional control. The illusion of self-control masked the reality of inhibited development. Difficulties associated with finding and making use of people and processes to facilitate personal growth resulted in denial and delay.

Paige, Carly and Sarah all agreed that while being able to control their emotions via suppression or avoidance is a helpful skill, as a nurse it would not be good for them personally if they continued to do so for a long time.

"I can just forget it; it helps me as a nurse. It doesn't help me as a person. It's a very bad trait that I've got but as a nurse it works perfectly." Carly (473-475)

The extreme contrast expressed in Carly's words as 'very bad' and 'perfect', articulated her conflicting thoughts about the desirability of the capacity to suppress emotion. Although students felt this would enable them to function effectively as nurses, they were simultaneously aware of the potentially negative consequences for their long-term health.

Furthermore, the prioritisation of the patient's needs and the requirement to suppress personal emotion was not entirely altruistic, it also represented a defensive position.

"I worry about people judging me if I went to a person." Sarah (405)

Sarah feared being judged by others for seeking support as if demonstrating weakness or pursuing a course of action viewed negatively by other nurses. Dualistic thinking was apparent inasmuch as it was helpful for patients and relatives to talk but not for nurses, demonstrating a lack of congruence between students' expectations of managing their own emotions and the mechanisms employed by those they cared for.

7.2.2.3 Theme two, subordinate theme three: Coping strategies

Students employed a range of strategies which enabled them to manage their emotions while in practice. Taking deep breaths and adopting an encouraging internal dialogue were two commonly employed self-soothing strategies. According to Paige,

> *"On placement it's not appropriate to say "It's ok, you can do this". So I say it in my head a lot so when I come across a challenging situation or a situation I'm not confident in I find myself in my head going, take a deep breath, breathe, ok what have you got to do, you're ok you've done it before blah, blah, blah…" (359-364)*

Ignoring difficult feelings or pretending that there was nothing wrong were other ways students described coping with difficult situations and the feelings they evoked. Paige and Sarah both relied on trying to forget and keeping busy to enable them to block out their feelings, despite recognising it was often ineffective.

> *"I think when I'm upset I'd rather pretend not to be I just deal with it myself later." (Paige, 94-95)*

> *"When something's the matter I just pretend it hasn't happened I don't say anything and I block things off" (Sarah, 224-226)*

Focusing on the patient appeared a particularly useful strategy for temporarily managing feelings of personal sadness. As Carly observed;

> *"When you're on placement you can just throw yourself into it. Well you can just empathise with someone else and it might still feel terrible but you're feeling terrible for someone else." (Carly, 1051-1053)*

By prioritising the needs of the patient, it became possible to manage personal emotional responses when working in practice areas. For Carly, focusing on the other person helped to support the process of sublimation, channelling personal feelings which felt unacceptable into more socially acceptable behaviour associated with empathy. Providing care for others can be a source of distraction from personal difficulties and facilitate vicarious care of self. When there is no alternative to feeling terrible it is at least tolerable when repurposed for the benefit of others.

Distraction was also a very useful technique, which all participants agreed helped them to cope with the emotional challenges. Carly described a simple process, which despite being ineffectual she continued to rely on.

> *"I think I just try to forget about it, try and think about something else… I find it easier to just not deal with it I know that's not going to work but I find it easier" (656 and 1049)*

This strategy acted as a temporary measure until the end of the day at which point some participants allowed themselves to gain comfort from talking to someone they trusted, usually Mum. Details of distressing events were often not disclosed as participants felt their

parents did not really understand their experiences during the course, although most of the time they did at least listen which provided some comfort. Anna described talking to her mum as her first choice;

> *"If I've had a stressful day or something has upset me in the day I tend to probably ring my mum in the evening and just like vent, just tell her what's upset me. Even though sometimes she doesn't really know, I don't know she may not know what to say but it just feels good to tell someone. Yeah speaking about it probably just makes me feel better then distraction I quite like things, I guess I'd maybe talk about it then and then maybe distract myself so that I don't feel sad." (146-154)*

Paige also described talking to her family as a source of support but only after processing her thoughts internally;

> *"So immediately my way of coping with that situation was talking to myself in my head, then it was keeping busy, then it was having a cry about it and talking through with my family, my friends" (449-461)*

A range of strategies were described to enable students to manage their emotions. Despite recognising crying as one of them this remained a source of considerable difficulty for participants, all of whom felt this was only ever appropriate in private.

It was clear that rather than unconscious reactions, mechanisms employed to manage participants' emotions were conscious processes, purposefully employed. Students recognised that some of these had the potential to become unhelpful if used indefinitely; acknowledging that while they experienced their use as effective short-term strategies, others may struggle to understand the resultant behaviour. Remaining optimistic was particularly important when unexpected difficulties occurred. Sarah described being in an accident during which her car rolled on its roof. When she escaped from the vehicle she felt her positivity seemed strange to those around her;

> *"I just don't look at the negative I always aim to look on the positive side which I think is true but I think at the same time he must have thought what a weirdo, like what's she doing. And then it kind of came out later on when I was like petrified to do anything, whereas if I would have just gone through the emotion when it happened that wouldn't have been the case which I do with a lot of things" Sarah (237-244)*

Unfortunately, Sarah's way of coping had a negative effect on her mental health longer term, which she was only able to acknowledge much later. Excessive positivity led to her feeling like 'a weirdo' outside of practice settings. However, these normalised behavioural responses were used by students frequently exposed to challenging emotional situations while on placement.

Students used powerfully descriptive language throughout this theme, particularly associated with the consequences of getting it wrong, including ideas of judgement and the need for

forgiveness. Optimism and happiness were perceived as mitigating factors against feelings of sadness and anger, described as pre-existing coping strategies by students. It remained unclear if these related to aspects of personality or developed as adaptive mechanisms in response to life experiences.

7.2.3 Theme three: Sensing the 'vibe'

The 'sensing the vibe' theme used participants' words to explore the interaction between the capacity to sense the emotions of individuals and groups, with the ability to adapt social behaviour in response. Emotion perception and social awareness, were TEI traits identified by students as key qualities required in order to thrive and perhaps more importantly to survive as a nurse. Three subordinate themes were developed; these were places, people and implications. The first focused on the importance of being able to perceive the relevance to groups of people in specific environments, the second the emotions of individuals and the third considered the implications for practice.

7.2.3.1 Theme three, subordinate theme one: Places

The place referred to most often, which appeared to preoccupy participants and which they considered to have had the most impact on the development of their EI, was practice placements. Specifically, the capacity to perceive emotion in practice contexts had distinct advantages, making the difference between surviving and thriving as a student nurse.

Paige described the importance of being able to read and respond to negative atmospheres in placement contexts,

> *"On placement a negative vibe, that's to do with reading the room and that, so if everybody comes on shift and they're like oh I don't want to be here. You're already like oh my gosh, like oh let's just get through today (Paige 693-696)*

Surviving the shift relied on being able to accurately assess and respond to the 'vibe'. Anna went further, describing the way in which these assessments provided an early indication of how the whole placement experience was likely to progress;

> *"I think when you start a placement it's quite interesting to go into somewhere and you can, I think I can quite quickly tell if there's problems or if staff don't like each other um… or like a vibe. Yes, I feel I can normally tell if it's going to be relaxed or if it's going to be quite a difficult placement or situation" (329-333)*

There was an inevitability associated with these early perceptions, according to Carly;

> *"you can go on to a shift and you can go into handover and everyone is miserable and you're gonna have a bad shift and you know that from the start because you've gone into that room and everyone's on one, everyone's in a mood and it does, that's how your day goes" (156-160)*

Placement dynamics felt inexorable with limited potential for students to have a positive impact even if motivated to do so. This may be associated with student perceptions of their status within placement teams. As Paige observed,

> *"well I've kind of recognised that I think as students we have quite a low position in the rankings and maybe that's something I picked up from my first placement" (599-602)*

This early perception of status encourages early adaptation to the situation. In Sarah's words;

> *"You can always tell a mood as soon as you walk in the room I feel and I'm normally pretty spot on with it, if it's really… if something feels awkward I'll pick up on it straight away and I'll just sit there … whereas if someone's having a laugh and a joke I'm like straight in kind of thing. I don't know why you sense it I just feel… but I do I can pick up on a group of people" (450-456)*

Accurately assessing the situation led to changes in behaviour, 'just sitting there' perhaps to minimise the risk of getting it wrong avoided potentially negative consequences. According to Paige,

> *"Whether they'd like me to say it or not there's politics and in a ward there's groups and um… maybe not in every ward but in some wards more than others. So depending who's on shift really changes the mood of the shift before you start they'll be aware of that… I think it's very important when you're a new student to be able to read that, not all places are very forgiving to new students" (522-528)*

Confiding that 'people' would prefer her not to articulate the reality that there were politics at work in practice settings, Paige used the language of forgiveness suggesting the need for pardon or clemency; not necessarily forthcoming if the student misreads or reacts to the situation in a way considered unacceptable to the established team. Learning how to 'read the room' and respond in a socially acceptable way took place in situ.

> *"I think just being, being on the placement just in general should really help you I don't think there's a specific thing that you could do on your placement to help develop it" Paige (665-667)*

If immersion in practice placements is the best way to improve emotion perception and social awareness, these environments need to create the possibility of learning from positive and negative experiences facilitated by teams who have the capacity to 'forgive'.

Table 26. Reflexive example 10: Recognising ethical and political factors (Alvesson and Skoldberg, 2009)

Excerpt from research journal – August 2018

"As a nurse educator I'm committed to supporting students to effect change and lead within their sphere of influence. At the same time, I am acutely aware that teams in practice areas are fraught with complex social dynamics, shaped in part by local and national policies, which have left most healthcare settings under resourced and nurses demoralised. I am challenged by my own rhetoric encouraging students to become the difference they want to see in practice, when in reality the enormity of the cultural change required in healthcare requires so much more. It appears from some of the interviews that teaching students to 'keep their heads down', to stay small and avoid conflict may be more helpful! How frustrating it must be for students to be encouraged to effect change in contexts with embedded behaviours, powerful characters and political influences which continually limit that possibility. As educators we need to do so much more to equip students to manage this tension, enabling them to remain motivated so they are not already exhausted by the effort or enculturated into unhealthy healthcare contexts by the time they qualify."

7.2.3.2 Theme three, subordinate theme two: People

The ability to provide sensitive nursing care to meet the spoken and unspoken needs of people was identified as a vitally important skill for nurses. All participants identified the need to perceive the emotions of others accurately as an essential skill for nurses. Anna described her motivation to develop this skill.

> *"I'm fairly in tune to when someone's upset, anxious maybe distressed. I don't like seeing other people feeling uncomfortable so I think I've always been quite good at picking up on things like that. So yeah I'd say I was quite good at it, I hope, I think I am, I think you need to be in nursing" (45-50)*

Alleviating the discomfort of others and at the same time her own distress, Anna recognised this as essential to her role. This was particularly important in practice environments in order to respond to patient and families with sensitivity. Paige described the same capacity as crucial when learning to live and work with peers;

> *"Uni itself you live in very close quarters with other people for all of your time and I think that even though you do that with your family it's different with people from different backgrounds and ways of doing things. So I think like non-clinically that's been a massive impact. I think with other people living with them going to placement with them you need to be aware of when to leave people alone" (118-124)*

Emotional perception helped student nurses to know when to move towards or away from individuals. Nonetheless, self-awareness was also required to facilitate the development of this trait as initial perceptions were not always reliable:

> *"I'd say I'm quite good at picking up on other people's emotions. Like especially in our field, communication's a massive, massive thing so you've just got to get into that. But then, I know that I've been around people that are going through something that I just haven't clicked on at all. I think it depends on the other person in a way. But overall I'd say yeah I can pick up on people's emotions quite quickly" (Sarah, 102-108)*

Sarah described her experience of working in the learning disability field where many of the service users relied on a variety of verbal and non-verbal communication techniques in order to express their feelings. Her reflective approach demonstrated a confident and yet flexible way of using her innate capacity to sense emotion, combined with the humility to recognise that this might not always be entirely accurate. Paige similarly reflected on her appreciation gained from exposure to nursing practice in the child field.

> *"I think it's more parents for me really in practice that have made me kind of consider that… people's faces and people's words are different" (133-135)*

Learning to look beyond the spoken word to sense what remained unspoken was vitally important to gain an accurate perception of the emotional needs of individuals. However, there was always the risk of personal perceptions leading to the development of premature assumptions;

> *"one of my first placements actually all of the residents I was aware of were non-verbal and just trying to interact with them in the day I think you had to be able to … Like you could tell as soon as they woke up if it was going to be a good day or not" Anna (67-71)*

While Anna's confidence in her ability to 'tune in' to other people's emotional states felt helpful when planning her response to those in her care, a lack of self-awareness relating to the potential impact of her own mood and the formation of assumptions based on instantaneous assessment had the potential to lead to increased risk of inaccuracy. Foretelling the outcome of a day articulated the potential to rely on early conjectures without reflection or corroboration. Maintaining a flexible approach to the interpretation of these perceptions remains important as early indications may not always be accurate. Nevertheless, Sarah shared Anna's confidence regarding her ability to perceive others' emotional states, developing her point to hypothesise that it may be possible to ascertain an individual's level of EI through observation alone in certain circumstances.

> *"I've never really thought about it much in order to be able to verbalise it but I think you, if you approach someone in a certain situation… their response, you'd be able to tell if they had emotional intelligence or a lower level of it" Sarah (69-72)*

It remained unclear what these particular circumstances might be, what specific aspect of EI is being referred to, or whether this was reflected in the accuracy of Sarah's personal perceptions of her own EI. However, Sarah and Anna both working in the LD field appeared confident in their capacity to perceive and interpret unspoken cues and behaviour,

expressing the belief that they may be able to assess service users' EI with a high degree of accuracy. In contrast, Carly working in the adult field and Paige in the child field, who were undoubtedly exposed to patients who lacked capacity, did not express any confidence in their ability to objectively assess EI. The experience of working with people who have learning disabilities is perhaps more heavily reliant on interpreting behaviour rather than verbal communication, and this contributed to Sarah and Anna's increased confidence in 'reading' emotion.

7.2.3.3 Theme three, subordinate theme three: Implications

The implications associated with an inability to accurately perceive individuals' emotional states or read the unwritten social rules of practice environments were significant. A lack of capacity to notice when patients or relatives found it difficult to ask for what they need had an impact on the nursing care provided.

> *"It means sometimes as nurses you can overlook what they need. And that's an important part of nursing um… and I think that that is a part that we miss a lot through kind of ignorance really I guess "(Paige, 181-185)*

It also influenced the student experience. Carly described the need to adapt to her mentor's mood in order to ensure placements go well;

> *"It's almost as if you just get vibes, it's not a very scientific word but you can just tell if… how someone's feeling and I dunno if someone isn't ok you do just know and I think on placement I do make an effort to do something about that. Like I was saying if your mentor's stressed you're going to have a bad day, if your mentor's having a bad day you're having a bad day so just do something about it." (253-260)*

The ability to adapt in response to your mentor's mood was a highly valued skill, which enabled students to survive in practice environments. It also maximised the potential to thrive as Paige observed;

> *"I'm very aware on placement whether your mentors know it or whether you are aware you are being assessed all of the time by everyone" (660-662)*

Under constant observation, it was essential to be able to respond appropriately to the emotions of individuals and the team dynamics in order to pass the placement assessment and maximise the potential to gain employment in the future. This required the ability to blend in rather than to stand out, perceived as equally helpful in practice and in university settings. As Carly observed,

> *"People who see me in social situations always say you know you're a bit of a chameleon cos they mean I can just… I do just adapt like if I'm in a lecture and like if I'm sat with one group of people I can just be a completely different person then if I go and sit with someone else" (539-544)*

Sarah described an example of how this contributed to the development of a healthy group dynamic when undertaking a joint project in university;

> *"Getting to know each other at the same time as trying to do all this work and like half the group really got it and half the group didn't and I think it really helped me being able to pick up on if they didn't understand it and that they felt awkward. To be able to say this is ok or let's go back to this. Cos if I wouldn't have picked up on that then they would have just been completely lost and probably disliked the fact that other people were just carrying on" (463-470)*

However, students also commented on the importance of being able to express concerns in a purposeful and controlled way particularly when there were significant implications for patient safety even if it risked becoming unpopular or breaching unspoken social protocols. Assertiveness on behalf of others in particular was viewed as an acceptable way of utilising feelings in response to unmet needs or perceived injustice often leading to positive outcomes. Sarah described an incident when she used her feelings of frustration to act assertively on a patient's behalf even when it 'broke the rules'.

> *"I didn't realise that we weren't meant to talk to the commissioners directly but I was very assertive. I went in and said did you know this was happening blah, blah, blah… maybe it's not the proper way to go about things but it worked and that didn't then happen because it wasn't right for him. I think in that case I was quite assertive I'm quite proud of it and happy for him." (509-516)*

The idea that assertiveness might be associated with EI was unfamiliar. Viewed as an important but difficult skill to acquire in practice, it is often made harder by a lack of consideration of students' views, creating feelings of powerlessness. Carly felt frustrated when she tried to find and use her voice on behalf of a patient in her care.

> *"Nobody listens, so it's hard to be assertive when nobody listens anyway. Every time you do try to be assertive you just get ignored and then it's like, is it me?" (789-791)*

For Carly, feeling invisible led to wondering if there was something wrong with her or the things she was saying; even when she had a degree of internal conviction that she was right the experience felt wrong, leading to internal questioning and reduced self-confidence. Others experienced the ability to assert themselves as a more natural, inherent trait:

> *"I think I've always been fairly pragmatic. Able to say what I think without being offensive. That's probably why I don't really get into arguments because I try and find a way to manage it that's not going to upset anyone." Sarah (361-364)*

Although it was unclear if she was able to differentiate between acting assertively and avoiding conflict, Sarah's social awareness enabled her to maintain relationships, assert herself and make compromises when necessary. Others felt they needed more structured support to enable them to develop this skill.

> *"I almost wish they'd teach us like how to be assertive. I mean like we've had a couple of sessions but it's not… you need to know how to just deal with the frustration of not being listened to." (Carly, 797-800)*

The challenge associated with assertiveness related less to knowledge about the process, and more about the implications of breaching unspoken social rules or managing frustration when concerns were ignored. Participants found developing the confidence to use their voices challenging. Attempting to express their thoughts and feelings in environments where people were too busy, or unable/unwilling to hear, left students feeling invisible and vulnerable unless they had the confidence to express their views in ways which may not be 'the proper way to go about things'.

Participants described the ability to 'read the room' as an essential precursor to successful social awareness, sensing the emotional atmosphere as an unconscious intuitive process. Gaining an appreciation of relational dynamics in groups is described as a cognitive activity developed by participants predominantly through exposure to practice environments. Students felt there were a variety of personal and professional benefits associated with the ability to adapt their behaviour in response to 'sensing the vibe' in a room. Articulating the view that this also makes a significant difference to patients and relatives in terms of the quality of care provided, they agreed this was also an asset in university contexts as it enabled them to respond sensitively to their peers. Participants felt that although the capacity to sense how others are feeling was a pre-existing trait, there was the potential for its development during nurse education, specifically through exposure to emotionally challenging experiences during placements. By developing and combining three facets of EI; emotion perception, social awareness and the capacity to adapt behaviour in response, students were able to meet the needs of patient/service users and their families while also facilitating relationships with mentors and peers.

7.2.4 Theme four: Relationships

All of the participants noted the significance of relationships and their impact on the experience of nurse education. Within this theme, three subordinate themes were identified: first supportive relationships, second those experienced as limiting or in some instances damaging as students described 'feeling a bit scared' and finally the impact of shared experience on the quality of relationships.

7.2.4.1 Theme four, subordinate theme one: Supportive relationships

Students described family relationships as the most reliable and frequently accessed sources of emotional support. Despite some participants feeling that their mothers were, as

previously discussed in section 7.2.1.3, 'over emotional' this did not prevent them from confiding in them as their primary source of encouragement rather than their friends;

> *"I think I get a lot of what I need from my family and even though friends are very important I know I really understand that I don't need that many" Paige (240-243)*

These primary relationships created safe containers to deposit difficult feelings. Answers were not required as acceptance and the willingness to listen were the primary requisites. Developing and maintaining supportive relationships is facilitated by emotional expression, although it was difficult for even close family members to help if students were unable or unwilling to talk about how they felt. However, when family were able to fulfil this emotional need, fewer deep friendships were necessary.

> *"I wouldn't purposely turn on my friends for support um… no I think the only kind of time that they know that I kind of need something is when they pick it up themselves" Paige (246-249)*

While family were an integral part of Paige, Anna and Carly's emotional support system, Sarah did not specifically refer to the importance of her family relationships.

In the absence of family, friends were a secondary source of support for Paige who did not feel the need to rely on friends in this way and only acknowledged her needs if friends noticed them first. Everyone agreed that they felt it was important to be able to provide emotional support and understanding to their peers on the programme. Anna described an incident when she became aware another student was struggling.

> *"I tried to make her feel comfortable because I knew a lot of people… I think some people don't pick up on it when other people feel awkward" (77-80)*

Substituting 'a lot of people' for 'some' people, Anna rephrased her observation, cognisant perhaps that the majority of her peers had a degree of sensitivity towards others while she recognised that this was not universal.

Friendships were important for support although at a more superficial level.

> *"I'll happily form a relationship with anybody and maintenance is just as it goes along. If I enjoy talking to someone or they enjoy talking to me then I'll carry on talking to them. If they're not, if I do something that upsets or offends them, then I'll apologise I'm not going to make a big deal of it… none of that it is just what it is go with the flow kind of thing, just relaxed." Sarah (305-310)*

Friendships were more closely associated with enjoyment and for gaining perspective when engaged in reflection following specific incidents.

> *"I think I'm like oh I did something really stupid and stuff but I don't think I actually share how I feel about it, but I actually think it kind of helps you bond a little bit, to know that… And it's helpful to me to hear that somebody else has done something cos I'm like oh my gosh I actually did that the other week it's fine. And I actually think you need that in all of your life to know that people mess up and do things that they're embarrassed about or that they*

think they could have done better. So yeah I do, do that but I don't think I do that with my emotions with them." Paige (387-396)

The opportunity to process significant events and experiences with peers created environments marked by acceptance and understanding within which it was possible to develop supportive relationships. These friendships were substantial enough to withstand some frustration, with humour used as a mechanism to manage uncomfortable feelings.

"It wouldn't even stop me getting on with them, the people that I get frustrated with are some of my best friends on the course, I love them to bits, I find them hilarious but sometimes I'm just like come on…" Sarah (354-357)

Nonetheless, Anna noted the limitations of her relationships with her peers;

"I'd say I'm quite good at forming relationships and um… and I think I try I don't know I always try and make people feel comfortable. I tend to be friendly quite early on but then maintaining I don't know I think that's quite hard because sometimes like, sometimes I feel like I've got quite a lot of friends and then other days I think actually who do I talk to regularly. It's just like quite fleeting like my friendships, I think I'm quite eager to be friends like be friendly with someone I'm good at but to be like form solid friendships" (131-139)

Forging and maintaining deep relationships, which provided the potential for emotional support in contrast to surface level friendships, could be challenging and involved the need to risk vulnerability and overcome concerns about boundaries.

"I guess without that (family) I would probably have used my friends but wow… it seems like I go round my friends a lot" Paige (267).

The fear that friends may be exhausted or unwilling to provide significant emotional support acted as a barrier to the development of more in-depth relationships. In part due to the need to be experienced as the source of support rather than the recipient of care.

"I've never really thought about getting support for anything it's like nothing that… I'd tell other people to get help but I just wouldn't do it myself. It's a bit of a pride thing probably" (Sarah, 416-418)

Relationships with other healthcare professionals were the exception. Students all agreed that the quality of the relationship with mentors specifically made a difference between not coping, coping and flourishing in practice areas.

"I think I really connected with her really, really well and that was the placement when I actually got a pass plus" Paige (290-292)

Outcomes were determined by the quality of relationship between mentor and student. According to Carly;

"I've had mentors that I've got on really, really well with and I'll be like ok tell me what you want me to do? What's going to make your life easier? I'll go and make you a cup of tea just sit down and do that and I'll do that, and you do that and I think that's also quite nice. I've had horrible placements, and I've had good placements and they've been down to my mentors. Really, completely down to them" (149-156)

The repetition of 'really' emphasised her perception of the strength of their relationship. While Carly attributed the quality of the relationship as being 'completely down to them', nonetheless she felt the need to make their lives easier in order to foster that connection.

The distinction between being available to provide support on request and being consistently supportive led to a better quality of relationship in practice. Sarah highlighted the contrast following a placement in palliative care.

> *"I think I keep going back to it because it's a really emotional place, but the placement on palliative care although it was only three weeks long the nurse that was with was really, well the whole team really was really supportive. I think that on all my other placements it's kind of been there if you need them, but you don't really need them. There it was really significant in that every time you did something it was if you want to do that that's fine but if you're uncomfortable finish… I just felt like I'd built up a really good rapport with everyone in a short amount of time. And I think it was the best ran trust and open… so maybe if I was more open I'd have better relationships" (317-328)*

Immersion in a culture of care rather than exposure to a single relationship led to personal reflection, challenging self-reliance, which prompted her to consider developing more transparent and meaningful connections. Creating environments where students are able to trust their mentors to provide consistent support and actively communicate their intention may enable them to achieve their full potential, alongside encouraging students to become more confident and helping them to recognise areas of personal growth. These were exceptional moments for students;

> *"that one particular one I would definitely say that if I could have that bond every time it would be perfect, I'd be running the show" Paige (306-308)*

The development of a 'bond' goes beyond the notion of temporary connection, which Paige felt made the difference between having the potential to 'run the show' and feeling terrified of placement experiences. The strength of connection between student and mentor, the quality of communication within practice teams and the capacity to create cultures where students were accepted as part of the team enabled them to achieve their goals more easily. One indication of the culture within practice settings was provided by Paige who recounted the value of simple communication.

> *"It's terrifying… I actually think it's the thing I get most nervous about. Um… on my last placement I had a very, very good experience so as soon as I was sat there in the break room a nurse came in and spoke to me immediately. Hi, are you new, what's your name, what year are you in? It really set the tone for the rest of my placement I really appreciated that" Paige (543-548)*

She described this incident as unusual in her experience, which often included feeling ignored by other staff. Paige emphasised that this was a 'very, very' good encounter, while it might be reasonable to anticipate that being acknowledged perhaps should be the most basic of courtesies. The power of a clear introduction, the use of a name

personalising the initial interaction, subsequently 'set the tone' for a positive placement experience.

7.2.4.2 Theme four, subordinate theme two: 'I was a bit scared…'

Participants often experienced unsupportive interactions with colleagues, particularly in practice settings. Joining established placement teams was recounted as a particularly difficult experience for students. Although attempting to understand how other people were feeling and knowing something about them provided helpful insight.

> *"If you get along with someone if you have respect and stuff for them you get to know them on a personal level and you identify easily if there's something wrong. It's a lot more difficult to identify with someone when you don't know how they're feeling." Carly (301-305)*

Carly made the link between being willing to express emotion and the quality of the relationship although as previously noted she found this difficult on a personal level. Developing relationships takes time and requires a degree of vulnerability. As Paige observed, nurses working under pressure establish strong team dynamics to enable them to manage their stress, which can be difficult for a series of students on short-term placements to appreciate.

> *"Because they're really close teams they have to rely on each other so coming into that environment when they're already stressed is much more difficult. I don't really know what anyone can do about that I think that's something that's up to us to recognise and be like aware of." Paige (569-573)*

Understanding the competing demands for teams delivering patient care in environments where resources were limited led to a reduction in the capacity to form relationships with students who are temporary members of the team. This appeared to students to be outside of anyone's control, an immutable environmental limitation.

It was frightening for students when exposed to conflict in placement teams. Anna recounted an experience when there was conflict between two qualified nurses during one of her placements. She realised that she was being drawn into the argument and that becoming embroiled in this relationship could have a negative impact on the outcome of her placement.

> *"I was a bit scared and I thought, I didn't know I just didn't want to get myself in trouble so I just felt very wary of what I said and what I did um… and yeah… just really kept quite quiet" Anna (355-358).*

Learning when not to engage in unhelpful or unhealthy relationships was as important as knowing how to establish relationships in practice. While the capacity to establish rapport quickly was viewed as a useful quality, knowing when to speak and when not to speak became crucial in order to stay out of 'trouble'.

Initially under the misapprehension that healthcare professionals were all consistently kind and compassionate, each participant described situations when they became disabused of this belief. Some of the experiences they described appeared to relate to their colleagues' lack of understanding or knowledge about what might be helpful to students:

> *"I think mentors often think that the best way for students to deal with a difficult situation is to let them go home a little earlier when maybe in fact talking… When actually taking the time at the end of the shift to actually talk it through would probably be more beneficial, but maybe I wouldn't be a very popular student for saying that." Paige (431-436)*

The feeling that it was important to stay popular with mentors suggested there were consequences to making observations that had the potential to be perceived as critical or might require a change in behaviour. Requesting alternative forms of emotional support, including time to talk, carried the risk of becoming unpopular, potentially detrimental to the relationship. The inability to express emotion within a safe mentor relationship subsequently limited students' capacity to reflect and ultimately learn.

Anna described an incident when another health professional, who was supervising her for a short period, incorrectly interpreted Anna's behaviour and responded harshly. The contrast between Anna's expectation and her experience left her shocked and confused:

> *"I didn't know what to make of it… I don't know for ages I just thought she was quite evil (laughing) I thought she doesn't seem very nice. I thought like she's meant to be in the caring professions but didn't seem very caring" Anna (225-228)*

Despite laughing while using the expression 'she was evil' the use of such powerful and evocative language made it clear this experience had not been funny and the memory remained painful. The contrast stretched beyond good and bad to 'evil' with the suggestion of purposeful intention rather than ineptitude. While Anna attempted to resolve the issue, the impact of this encounter led to a loss of confidence in her ability to develop effective working relationships. An experience echoed in other students' accounts where the expectation of kindness and support frequently led to disappointment.

Furthermore, while all of the students understood the importance of supportive relationships and were motivated to develop and sustain healthy interactions while in practice, they were surprised and disappointed by some of the negativity expressed by qualified staff about the nursing profession. Anna recalled an early encounter with one of her mentors;

> *"She was saying how everything's rubbish and what's the point you should just get out why are you bothering?" Anna (347-348)*

This was an unhelpful experience for Anna who expected to have some challenging interactions with patients and relatives but did not anticipate other nurses would be unsupportive. Similarly, Carly described the impact of realising that while she was working

hard to establish a good relationship with her mentor there was no evidence that her mentor was willing or able to engage in the process.

> *"I was trying so hard to impress someone who just didn't care at all and I was like why am I trying so hard?" Carly (619-620)*

The difficulty associated with attempting to develop supportive relationships with people who feel part of the established team was not limited to practice contexts; students also found it difficult in academic environments.

> *"I don't feel like I'm particularly close to anyone at Uni in terms of like the staff or anything, there's not anyone I would really go to." Carly (580-582).*

While all participants recognised the capacity to form and maintain relationships was important, it had not always been easy for them in nursing contexts. Learning how to access support, and from whom, was difficult and at times disappointing as relationships which were anticipated to be supportive felt destructive, particularly, although not uniquely, in practice contexts.

7.2.4.3 Theme four, subordinate theme three: The power of shared experience

Relationships with other nurses who understand the demands and challenges of the role are important. These relationships have the potential to help or hinder student nurses' development and have an important role in maintaining wellbeing. As Paige described earlier, the ability to talk about incidents in practice with other students provided the opportunity to 'bond'. Learning from each other's minor mistakes and overcoming feelings of embarrassment harnessed the power of shared experience. However, there were conflicting views about the merits of sharing feelings about those experiences. Carly agreed with Paige that relationships within which it was possible to talk about practice experiences were important but felt that this went beyond describing events to include emotions.

> *"I don't think emotions are something that you can handle on your own. I don't think we were made to feel this many things I think, I don't know, I think if there was just… I don't know I think you do just need to talk" Carly (1040-1044)*

The volume and complexity of emotions associated with being a student nurse were at times overwhelming. Carly suggested that it is a role which often demands more than it is reasonable to expect from human beings. Relationships within which it is safe to talk about these feelings are therefore necessary for survival. In contrast to this view, Anna chose to keep her feelings to herself, declining the opportunity to share difficult experiences with others;

> *"I don't like other people feeling upset for me, if that makes sense I'd rather just get on with it myself" (95-96)*

While Carly felt it was important for survival, Anna expressed it as a matter of preference, a choice to 'get on with it' alone. Sarah agreed with Carly that the complexity and extent of her emotions felt overwhelming at times. However, she felt the experience of sharing them would be unhelpful;

> *"I don't want to, I don't… it's like that that happened it was a massive thing and it was so complex that I can't ask for anyone to understand it. Like there was a lot of different things, it wasn't like I'm a depressed… so I want to die kind of thing. It was a whole plethora of things and it's like if I want someone to understand why I'm upset I've got to explain that again. I don't want to re-live that for them to understand so it's easier for me to not think about being upset and to avoid it" Sarah (388-395)*

Talking about events involved to a greater or lesser extent 'reliving' them; while for some this felt therapeutic, for others it held the potential to re-traumatise. Healthy relationships provided the possibility of learning and growing from shared experiences even those with powerful emotional content. However, this was not perceived as an emotionally neutral activity; it involved the choice to be vulnerable with others and inevitably a degree of risk. Students made conscious and unconscious choices throughout nurse education to share or not to share their experiences based on subtle risk assessments, weighing up the potential for gain or loss for themselves and others in the process.

Overall, while friendships were considered important, emotional support was more often sought from family members. All of the students experienced a lack of sensitivity or understanding from other healthcare professionals, including a lack of support when they needed it most. Forming relationships when joining new teams during practice exposure was particularly difficult as attempting to integrate into established teams led to a range of feelings from mild anxiety to 'terror'. The quality of relationships with mentors was influential both in terms of the experience and outcomes of practice placements. The power of shared experience inevitably involved a degree of vulnerability, which for the majority of participants led to increased intimacy and the ability to access comfort from others. Conversely, this also held the potential for students to retreat from relational closeness.

7.3 Summary of qualitative results

In summary, the analysis has presented four superordinate themes; *conceptualisations of EI*, the challenges associated with *emotional expression vs suppression*, the usefulness of being able to *'sense the vibe'* and the significance of *relationships*. Within these themes a diverse range of issues emerged. The first theme identified challenges associated with defining EI mirrored those found in the literature as participants struggled with the lack of semantic clarity. Although EI was clearly articulated as an inherent trait, influenced by family and cultural messages, students believed it could be enhanced through nurse education with

more focused teaching interventions. While participants agreed that EI was important for nurses, the need for self-awareness was highlighted as an important pre-requisite for its development.

The second theme explored the struggle associated with expressing vs suppressing emotion; finding suitable contexts to talk about their feelings created a moving narrative as students described burying their emotions following 'heart breaking' experiences. Identifying a range of coping strategies, students recognised many of these were helpful as student nurses but may prove detrimental to their wellbeing over time.

The third superordinate theme, 'sensing the vibe' highlighted the need for an almost instinctive capacity to combine emotion perception and social awareness. Students' ability to accurately perceive and respond appropriately to emotion was essential in order to thrive or indeed survive in practice settings. Its relevance was considered in relation to places and people as students explained the need to keep on the 'right side' of people and 'read the room', which enabled them to pass placements and avoid the negative implications of becoming embroiled in 'ward politics'. Nonetheless, students were willing to risk potentially negative outcomes to advocate on behalf of patients and service users, recognising the need to be assertive as an intrinsic part of nursing practice.

The final theme explored the impact of relationships, their capacity to be supportive and the potential for them to evoke fear and limit professional development. A facet of TEI, the ability to form and maintain relationships was considered essential to every aspect of nurse education. Students described examples of supportive mentors who had helped them to succeed. However, these were overshadowed by examples of relationships in practice settings which had a negative impact on their emerging professional confidence. The opportunity to share emotionally laden experiences with peers evoked conflicting responses as some described it as creating helpful 'bonds' while others felt it unnecessarily burdened others.

The overarching theme could be described as the relevance of TEI to nurse education and its impact on students' emerging professional identities. Exploring students' experiences of particular facets of TEI highlighted the absence of specific teaching interventions and emphasised the impact of exposure to care settings, identifying the need for emotionally intelligent role models and environments. Neither academic nor practice elements of nurse education provided opportunity to guarantee the development of TEI. While exposure to care contexts may lead to growth in some areas, it was serendipitous rather than by design.

7.4 Complementary data analysis

In light of the increasing emphasis on the capacity for nurses to be 'emotionally intelligent', the aim of this study was to establish what impact nurse education had on the development of undergraduate nurses' emotional intelligence. Four research objectives were identified:

i. To identify how EI relates to nurse education
ii. To determine how to evaluate EI during nurse education.
iii. To examine what happens to students' EI during nurse education
iv. To provide new perspectives to support the development of EI during nurse education

Different methods were used to generate insight into EI and in the next chapter the complementary data will be used to explore the knowledge generated in respect of the research question posed. The development of a data analysis matrix provided the opportunity to compare and combine the contribution of the data in relation to the research question and objectives (Table 27). Based on principles described by Bazeley (2018), the table states the research objectives in the left hand column, with key findings from the quantitative and qualitative data outlined and compared in subsequent columns. Areas of confirmation and contradiction were explored as a means to understanding impact. Following the principles outlined in section 5.3., analysis of the complementary data and the interpretation of the results, led to the development of two themes; *academic impact* and the *economic and societal impact*. A detailed discussion based on the knowledge gained as a result of exploring the contribution of both quantitative and qualitative data can be found in chapter 8.

Table 27: Data Analysis Matrix (Based on principles outlined by Bazeley, 2018)

Research Question: What is the impact of nurse education on the development of undergraduate nurses' EI?						
Research objective	**Quantitative Survey**	**Qualitative Theme**	**Comparison**	**Completeness**	**Label**	**Theme within combined analysis**
i to identify how EI relates to nurse education iii to examine the development of students' EI during nurse education	*Hypothesis 1: There will be no significant differences in TEI scores at global, factor or facet levels between genders.* No statistically significant differences between genders in TEI at global or factor level. Females had lower self-esteem at T1. Females had higher empathy than males at T2 and again at T3. Males had higher stress management and emotion management scores at T3.	No direct association with main qualitative themes. Anecdotally based on students' parental experiences, men were less likely to express emotion and better able to manage stress than women. Some students equated this to higher overall TEI.	Generally silenced within IPA study, minor anecdotal convergence.	Omission from qual. data set due to nature of the research question. No focus on gender in IPA study. Findings concur with Snowden, et. al. 2018, Stiglic, et. al. 2018	Minor anecdotal confirmation Confirms existing evidence.	**ACADEMIC IMPACT** ***TEI in relation to key demographics*** Confirms existing evidence re: -gender and TEI -gender and empathy -gender and stress

	Limited generalisability due to low number of male participants.					
i to identify how EI relates to nurse education iii to examine the development of students' EI during nurse education	*Hypothesis 2: TEI scores will increase with age at global, factor and facet levels* No statistically significant differences in TEI associated with age at global or factor levels. Students aged 18-20 had lower self-esteem than their older peers at T1.	No direct association with main qualitative themes. Carly felt EI may increase with age and access to nursing programmes should be limited to more mature students.	Generally silenced with minor anecdotal divergence.	Omission from qual. data set due to nature of the research question. No focus on age in the IPA study. Findings contrast with those of Snowden, et. al. 2015 despite using the same age categories in the analysis.	Minor contradiction Contradicts existing evidence.	**ACADEMIC IMPACT** ***TEI in relation to key demographics*** Contradicts existing evidence with the exception of self-esteem which was lower amongst those aged 18-20 at the beginning of the programme.
i to identify how EI relates to nurse education iii to examine the development of students' EI during nurse education	*Hypothesis 3: There will be significant differences in TEI scores at global, factor and facet levels between students across the four fields of nursing.*	No association with qualitative themes. Participants interviewed did not refer to students in other fields.	Silenced	Omission from qual. data set due to nature of the research question. No focus on field in IPA study. No previous studies exploring	Silenced	**ACADEMIC IMPACT** ***TEI in relation to key demographics*** Unique issues associated with MH students TEI in year 2 requires further investigation and intervention

	MH students had lower global TEI, factor self-control at T2. MH students had lower factor emotionality at T1. MH students had lower facet emotion expression, self-motivation, impulse control, emotion perception and adaptability at T2. All differences resolved by T3.			relevance of field to contrast. No MH students interviewed. Some limitations to the strength of evidence for questions 1-3 due to unequal sample sizes. Non-parametric tests used to mitigate risk.	Additional research required.	
i To identify how EI relates to nurse education ii. To determine how EI should be evaluated during nursing education iii. To examine the development of students' EI	*Hypothesis 4: There will be significant differences in students' TEI scores at global, factor and facet levels between T1, T2 and T3.* Total TEI scores consistently decreased between T1, T2 and T3.	*What are student nurses' perceptions of their TEI and how have they experienced its development or inhibition during nurse education?* 1.Conceptualisations of EI - EI as 'a thing' - 'I've been like it most of my life…' -Family and cultural messages	Dissonant TEI should remain the same or increase during nurse education. Difficulty describing TEI as a concept. Family and cultural messages – silenced in quant. Self-esteem – enhances data noting reduction.	Same question using numbers in quant. and words in qual. What are students' perceptions of their TEI during nurse education? Qual. element involves only 4 participants with no representative from MH field, findings are relevant / novel	Contradiction Partial confirmation Confirmation	**ACADEMIC IMPACT:** ***Students' journey towards emotional intelligence*** Nurse education reduces TEI at every level. Lack of conceptual clarity. Lack of emotionally intelligent role models. ***The potential to improve TEI through self-awareness, supervision and simulation***.

during nurse education iv. To provide new perspectives to support the development of students' EI during nurse education	Significant reductions in scores for all four TEI factors observed. Reductions at facet level: self-motivation, emotion regulation, happiness, impulse control and relationships with large effect size. Self-esteem, social awareness, stress management and optimism with moderate effect size. Empathy and adaptability with small effect. No significant differences over time for emotion perception, emotion expression, emotion management or assertiveness.	-EI begins with self- awareness 2. Expression vs suppression - feelings are 'dragged out' -'buried, buried buried…' - coping strategies 3. Sensing the vibe	Expressing emotion – confirm remains the same. More willing to express emotion on behalf of others, less likely for personal benefit. Assertiveness – partial convergence. Impulse control – predominant divergence, partial convergence some unable to control responses on behalf of others aligned to reduction in quant scores. Empathy – dissonance as students describe their hearts breaking, identifying easily with patients and service users. Suppressing emotion – Viewed as a positive nursing attribute. Partial convergence emotion regulation, students describe this as a positive coping strategy although some recognise it as contributing to personal unhappiness. Coping strategies – partial convergence with emotion regulation, dissonant adaptability Importance of remaining optimistic – dissonant with optimism scores Sensing the vibe – dissonant with reduction in social awareness,	although may not be transferable. No previous qual. research to compare in rel. to TEI overall. Both convergence / dissonance at facet level. Quant. data decrease in TTEI contradicts findings of: Benson, et. al. 2010 –increase Duygulu, et. al. 2011 – no change McHugh Rappold, 2017 – no change Benson, et. al. 2012 – no change Also contradicts TEIQue author who proposed limited adaptation. Quant. data decrease in relationships and stress management contradicts findings of Benson,	Confirmation Contradiction Contradiction Contradiction Partial confirmation Partial confirmation Contradiction Contradiction	Evidence based strategies are required in order to enhance TEI during nurse education ***Conceptual differences*** Combining social awareness and emotion perception for placement survival. Separation of emotion perception on behalf of others and self. Emotional expression remains stable despite exposure to emotion laden activity. Examples of healthcare professionals who do not appear to be emotionally intelligent, kind or caring. TEI does not increase automatically through immersion into care settings **ECONOMIC AND SOCIETAL IMPACT** ***Well-being*** Low self-esteem lowered further influenced by pay and conditions ***Reduced self-motivation and the impact on attrition*** Inadequate emotional preparation has the potential

		- places - people - implications	partial convergence with unchanged emotion perception. Divergent in relation to practice where students felt emotion perception and adaptability improved. Implication of lack of social awareness particularly negative in practice settings although also challenging in university contexts – perceived individual improvement dissonant to cohort scores.	et. al. 2010 reporting increase. Decrease in adaptability contradicts increase reported by Benson, et. al. 2012.	Contradiction Contradiction	to lead to attrition and burnout ***Lack of attention to personal wellbeing*** Lack of attention to wellbeing affects physical and mental health Impact of negative healthcare culture
		4. Relationships -supportive relationships - 'I was a bit scared…' -the power of shared experience	Maintaining relationships with family dissonant with reduced scores for relationship facet. Convergent with lack of increase in scores for emotion expression, the capacity for others to know how to encourage EE is important facet for relationship maintenance. Capacity to form relationships with patients, families and service users relies on empathy, emotion perception and emotion management – partial convergence apparent in words as emotion perception and management remain unchanged. Dissonance relates to reduction in empathy. Forging and maintaining deep relationships is challenging – convergent with reduction in relationship scores. Fear of		Confirmation Partial confirmation Contradiction Confirmation	**ECONOMIC AND SOCIETAL IMPACT** ***Reduced self-motivation and the impact on attrition*** Practice areas require guidance and resource to enhance TEI of overworked and demoralised healthcare workforce **ACADEMIC IMPACT** ***Relationships*** Supportive relationships and safe places required in practice and academic settings within which to develop TEI.

			exhausting the empathy of others convergent with observation of reduced scores. Quality relationships in practice lead to increased happiness, self-motivation, self-esteem, optimism, stress management, and emotion expression however these are hard to find. Poor relationships lead to the opposite outcomes confirming cohort scores.		Confirmation	

Table 28. Reflexive example 11: Authority and representation, acknowledging the influence of social contexts in the communication of the research (Alvesson and Skoldberg, 2018).

Excerpt from research journal – December 2020

"As I write my interpretation of the knowledge generated by the complementary data I am reminded again of the need to take the time to recognise the influence of my position and the context within which we are living. Nurse education is profoundly disrupted, placements cancelled or extended with minimal support, online teaching and limited opportunities for students to interact with teachers and peers, combining to exacerbate the emotional challenges of nurse education. Attempting to complete a PhD in the middle of a global pandemic in many ways feels irrelevant! Although at the same time I have been gripped by the need to ensure we do all we can to equip and support nurses to cope with emotional labour of the work they do. Surrounded by pictures of nurses at breaking point, listening to deployed students who are trying to help but feel overwhelmed, in some ways this research has never felt more meaningful. The reality of the inadequate number of registered nurses in the UK and the high rates of attrition from nurse education, in part due to the excessive demands of our health and social care systems, have never been more apparent. We need more nurses, emotionally intelligent nurses who have healthy strategies to manage the care of others and take care of themselves. We also need to keep the ones we have, to reduce the high rates of attrition during education and from practice. I hope I can find ways to use my voice, my authority limited though it may be, to accurately communicate the findings of this research. I need to highlight the pressing need to purposefully create opportunities during nurse education to enable students to develop these attributes. For the sake of their personal wellbeing and the society we seek to serve it cannot be left to chance. This is going to be difficult as the sheer volume of nurses required when combined with reduced finance and resource available for nurse education, risks short-term, quick fix solutions. In my opinion it is neither a cost effective nor morally defensible position to focus simply on the aim of producing as many registered nurses as quickly as possible, we also need to create healthier environments which enable them to survive and thrive.

CHAPTER 8: DISCUSSION

As a result of this study, a deeper understanding of Trait Emotional Intelligence and its application to nurse education has been gained including unique insights from student nurse perspectives. Both qualitative and quantitative data have added to the existing body of evidence. The unique design of this study provided the opportunity to compare the contribution of each data collection strategy from two significantly different paradigms juxtaposed to explore TEI in greater depth.

To address the research question: What is the impact of nurse education on the development of undergraduate nurses' emotional intelligence? data were synthesised following the process outlined in section 5.3. Two separate themes emerged; the first exploring findings with *academic impact*, advancing understanding of EI theory and its application to pre-registration education. The second theme examining findings with the potential for significant *economic and societal impact*, in particular the risks associated with diminished TEI at the point of registration. In each theme, quantitative and qualitative evidence has been explored and evaluated within the context of TEI.

8.1 Academic impact: understanding TEI and its application to nurse education

Academic impact refers to the way in which research advances understanding of theory and its application within disciplines (UKRI, 2021). The results of this study have both reinforced and challenged existing ideas about TEI as a construct and increased understanding about its application to nurse education. The following section begins by discussing TEI in relation to key demographics. Secondly, changes in TEI during nurse education are examined including proposed adaptations to educational provision and the need for behavioural modifications in practice and academic contexts. The third element explores conceptual differences associated with TEI and their relevance from student nurses' perspectives. Finally, proposals based on student suggestions are explored incorporating a range of capacity building activities, including simulation and supervision, to improve understanding and the development of specific TEI attributes.

8.1.1 TEI in relation to key demographics

8.1.1.1 Gender and TEI

It was important to establish if there were differences in TEI associated with gender as nursing remains a predominately female profession with the number of men entering the profession static at 11.5% (Williams, 2017). Adapting curricula content to acknowledge

specific differences in TEI between genders may have the potential to enhance understanding and generate new learning opportunities (see section 2.8.1).

Analysis of the quantitative data suggested there were no differences in total TEI associated with gender, concurring with findings generated by previous studies derived from alternative population groups (Petrides and Furnham, 2000; Fernandez-Berrocal, et. al. 2004; Saklofske, et. al. 2007; Whitman, et. al. 2009; Arteche, et. al. 2008; Sanchez-Ruiz, et. al. 2010) and research based on other student nurse populations (Snowden, et. al 2018; Stiglic, et. al. 2018). However, while in this study there were no differences observed between genders in overall TEI, this was not the case at facet level. Male students generated higher scores than female students for both emotion and stress management by the end of the programme. Previous studies suggested there may be gender differences associated with individual traits, specifically emotion regulation, stress management, empathy and sociability (Arteche, et. al. 2008; Petrides, 2009a; Siegling et. al. 2015b). While there was no evidence to support differences between genders for emotion regulation or sociability in this study, male students were found to manage stress better in their final year than their female peers. The small number of male participants limits the strength of these findings. Nonetheless, the results add value due to their consistency with students' perceptions and the existing evidence suggesting female students experience higher stress levels and generate lower scores for stress management than males (Garett, et. al. 2017; Petrides, 2009a).

Differences in TEI scores for self-esteem were also apparent although comments on this were not raised by respondents in the qualitative data. Female students initially had lower levels of self-esteem than male students at the beginning of the programme, although this difference was no longer significant by the end. While gender roles assume women are more communal and empathic, with lower self-esteem and men are more assertive, the evidence remains inconclusive (Magnusson and Nermo, 2018; Bleidorn, et. al. 2016).

Female participants in this study assessed themselves as more likely to form and maintain relationships in year two than their male colleagues. Similarly, the evidence suggested they were more empathic than male students in year two and at the end of year three. This supported the persistent although perhaps rather stereotypical view that women may be more empathic and community minded than men (Siegling, et. al. 2015b).

Gender comparisons were limited by the absence of male participants in the IPA study. Nonetheless, two interviewees observed the way in which their male and female parents appeared to model EI differently. Participants described their mothers as 'less emotionally intelligent' than their fathers, based predominantly on their interpretation of their father's reduced emotional expression. As Sarah observed when talking about her Dad;

> *"I've only ever seen him cry once, like just a tear in his eye at his Dad's funeral." (Sarah 280-281)*

Male parents were less likely to talk about the way they felt or respond emotionally to significant events, which students equated to higher EI. Although based on individual experience, which cannot be refuted or generalised, it is possible that students' perceptions were derived from a limited understanding of the multifaceted nature of TEI, identifying reduced emotional expression as the primary evidence upon which to base their assumptions. A lack of consideration to the significance of emotion regulation or management may contribute to the notion that in order to be emotionally intelligent suppression of emotion is required, leading to the development of maladaptive coping strategies and potentially a reduction in student nurses' wellbeing.

An appreciation of students' belief that emotion management and the suppression of emotion are synonymous provides fresh insight, highlighting the importance of changing the way in which the application of TEI is understood. Emotion expression and management are facets of TEI. The current trend of referring to EI as a broad construct within nurse education limits the opportunity to explore its multifaceted nature and develop focused interventions to enhance its development.

The results of this study, by concurring with the findings of previous studies, has provided further evidence to question the relationship between TEI and gender (Snowden, et. al. 2018; Stiglic, et. al. 2018). The differences identified between male and female student nurses at facet level for stress management and self-esteem may have implications for nurse education, including the need for gender specific interventions to support their development at key points. This is particularly relevant for personal tutors, academic assessors and practice assessors who are accountable for students as they work towards achieving their nursing proficiencies (NMC, 2018b). Further discussion exploring the potential economic and societal impact of low self-esteem amongst student nurses can be found in section 8.2.

8.1.1.2 TEI, age and life stage

Establishing if TEI increased with age was important given the significant proportion of students entering nurse education in early adulthood and the recent reduction in mature applicants (RCN, 2018). Although the evidence based on student nurse populations was equivocal, the most robust previously conducted study reported an increase in TEI associated with age (Snowden, et. al. 2015a). In an attempt to provide comparable data based on a similar student nurse population, the age groups formulated for this study were designated to match those utilised by Snowden, et. al. (2015a). However, while Snowden et.

al (2015a) found TEI increased with age, there were no significant differences between age groups for total TEI or at factor level in this study.

The qualitative study generated limited age related data as only one participant raised it as an issue. It is also important to note that only the youngest students (aged 18-20) were invited to participate in this aspect of the study to maximise homogeneity (see section 4.6.3.8). The student who referred to age as a significant factor began her nurse education aged 18 and expressed the view that pre-registration nursing programmes should not recruit those under 21. She described feeling too young, not ready to face the harsh realities of life and death she had witnessed in practice, ill prepared to cope with such 'grown-up' responsibilities.

> *"I know I keep going back to age and I don't think I ever realised that age was an issue but I do. I think I'm probably one of the youngest people here and… it's… it is difficult like even just leaving home is difficult." (Carly 1010-1014).*

However, while all the participants included in this element of the study were in the same age group, none of the others referred to their age. While students aged 18-20 generated significantly lower scores for self-esteem at the beginning of the programme than their older colleagues, these were no longer apparent by year 2. In light of the evidence to support an increase in self-esteem between late adolescence and middle adulthood (Bleidorn, et. al. 2016), this change may be attributed to the process of maturation rather than as a result of participating in nurse education.

According to the results of the quantitative data, TEI neither increases nor decreases with age in student nurse populations. This is significant as despite a systematic review concluding there were no age-related increases in EI, there was an absence of longitudinal studies spanning more than 12 months (Cleary, et. al. 2018). By measuring and analysing students' TEI throughout the three years of nurse education it became apparent that student nurses' TEI did not increase with age. This challenges the perception that younger people will inevitably have lower TEI than their older colleagues, a view commonly expressed in EI literature (Gardner and Qualter, 2011; Codier et. al. 2011; Zeidner et al, 2012; Stenhouse, et.al, 2016; McHugh Rappold, 2017).

The reduction in the number of mature candidates entering nurse education (RCN, 2018) has the potential to lower the average age of pre-registration students. Reassuringly, the lack of relationship between age and TEI reduces the possibility of a greater proportion of newly qualified registered nurses with lower levels of TEI. It has been important to test the notion that student nurses' TEI increases with age as misinformation and false assumptions may influence the attitude of healthcare staff in practice and educational settings, leading to

unrealistically high expectations of mature students (Keough, et. al. 2009; Spies, et. al. 2015).

8.1.1.3 TEI and the four fields of nursing

Prior to this research there was no evidence available testing the relationship between TEI and students in the field of nursing. Although not the primary focus of this study, the findings have created an opportunity to begin exploring potential differences in TEIQue scores between student groups. As a result of these findings it is necessary to re-examine the perception that nurse education has an equal impact on student nurses' TEI across the four fields of practice throughout the programme.

Cohort data at the beginning and at the end of this study demonstrated there were no significant differences in TEI between any of the four fields of nursing in total TEI or at factor or facet levels. However, there were multiple differences at global, factor and facet levels at the beginning of year 2, at which point mental health students reported lower TEI than their peers. Mental health students had significantly less global TEI than adult students and lower TEI than adult and child students for the factors self-control and emotionality. While at facet level they were less able to express emotion compared to child students, less self-motivated than learning disability students and less adaptable than adult students. Furthermore, mental health students reported being less able to control their impulses compared to all other student groups. This is an issue of particular concern given the nature of their work, which requires immersion in a population who themselves often struggle with self-control (Jones et. al. 2016).

Mental health nursing requires the therapeutic use of self and exposure to mental distress, which can be exhausting and may be psychologically damaging without adequate supervisory support. Indications of nurses' distress include emotional withdrawal and reduced motivation to engage in care (Jones, et. al. 2016). Reduced capacity for emotional expression, self-motivation and adaptability in this study may indicate increased distress amongst mental health students occurring during the first year of nurse education. Reconciliation in field scores by the end of the programme may indicate that mental health students developed skills or coping mechanisms that enabled them to manage the challenges of their role in their second and third years. In light of concerns regarding particularly high attrition rates and unhealthy coping mechanisms amongst mental health nursing students (Galvin and Smith, 2015; HEE, 2018), additional research is required to establish causation and to develop specific strategies to support mental health students during the first year of nurse education.

8.1.2 Students' journey towards emotional intelligence

In this study there was a substantial reduction in students' TEI by the end of the programme. These findings were in direct contrast to those of previous studies which suggested TEI was likely to remain stable during nurse education (Duygulu, et. al. 2011; Larin, et. al. 2011 and Benson, et. al. 2012; McHugh Rappold, 2017). A partial explanation for the difference in findings may relate to variability in design as all previous studies were either cross sectional or used a shortened version of a TEI tool (see section 3.3.3.1). Furthermore, despite the lack of clarity regarding terminology, according to those interviewed TEI is predominantly inherent and should therefore remain stable or increase during nurse education. Nonetheless, total TEI cohort scores consistently decreased, contradicting the views expressed in the qualitative data.

Lower levels of TEI at the end of the programme were neither the anticipated nor desired outcome. A reduction in total TEI during nurse education is a source of considerable concern given the requirement for programmes to produce emotionally intelligent nurses, and in light of the students' expressed views that it is vitally important for nursing practice. Nurse education is evenly divided between practice and academic settings (NMC, 2018c); these results confirmed the suggestion that improvement in total TEI does not occur automatically as a result of engaging in patient care (Stiglic, et. el. 2018). If, as several authors have proposed, TEI can be enhanced through concerted effort and targeted interventions (Petrides, 2009a; Larin, et. al. 2011; McHugh Rappold, 2017 and Stiglic, et. al. 2018) it appears there were insufficient measures included in this iteration of this BSc nursing programme.

Students interviewed described feeling ill-prepared for nurse education. Unlike other degree programmes, there were a range of physical, practical and emotional demands which they found difficult.

> *"It's just a lot more difficult than I thought it was going to be um… I don't know if that was me just going in naively. Like of course its university it's going to be fun, I've done my A levels I'll go straight there it'll be great, it'll be fun and it can be… but not all the time." (Carly, 53-57)*

Significant life changes such as leaving home, living on a limited income, and establishing new relationships are common experiences increasing students' vulnerability to mental health issues (Cilar, et. al. 2019). In this study, interview participants all articulated accounts of exposure to moral distress, occupational stress and traumatisation, echoing the views of qualified nurses expressed in the literature who have come to recognise this as part of their role (McGibbon, et. al. 2010). Student nurses are required to accommodate significant changes in their personal circumstances, exposed to the life changing experiences of others,

and a range of existential and practical challenges, which according to the results of this cohort appeared to have a deleterious effect on their TEI.

A significant reduction in total TEI within a cohort of students requires further exploration. Interpreting numerical data in isolation cannot provide an adequate explanation of the changes observed, particularly as the views of students interviewed contradicted the results generated by the cohort data. According to participant interviews, their TEI remained unchanged or increased slightly, concurring with the findings of earlier quantitative studies (Duygulu, et. al. 2011; Larin, et. al. 2011 and Benson, et. al. 2012; McHugh Rappold, 2017).

One explanation for the decrease in TEI seen in the cohort data may be an initial naivety by students regarding their capacity to perceive, express and manage emotions. Anticipating how you might respond in emotionally intense scenarios is not the same as the lived experience. Reality shock amongst newly qualified nurses during the first year of practice has been well documented in response to the realisation that they are unprepared for the role (Ortiz, 2016; Kim, 2020). Similarly, recent studies have identified a dissonance between the theory and practice of nursing during first practice placements (Papathanasiou, et. al. 2014; Salifu, et. al. 2019), negatively impacting on students' emerging professional self-concept (Kim, 2020). It is feasible that initially students were unaware of the intensity of emotion they would experience in practice settings, providing some explanation for the reduction in total TEI between the beginning of the programme and year two. However, the continued decline during year three suggests the curriculum design and delivery were insufficient to achieve the goal of maintaining or enhancing TEI in preparation for students' transition to qualified practice.

Students' TEI decreased at every level in this study, although two of those interviewed felt there had been minor improvements in some areas. Evidence suggests students transitioning to registration are confident about their clinical skills (Deasy et. al. 2011). However, feelings of self-doubt, fear and anxiety are common, particularly when considering the demands of taking responsibility for a heavy workload (Christensen, et. al. 2016; Jarvinen, et. al. 2018). Nurses negotiating the differences between their idealised perceptions and the actuality of becoming a registered nurse often experience reality shock (Duchscher, 2009; Feng and Tsai, 2012; Parker, et. al. 2012, Leong and Crossman, 2015). Anticipation of this challenge leads to a loss of confidence in skills and knowledge during students' final placements (Hart, 2019). The enormity of the challenge associated with the new level of accountability as a registered nurse is experienced by students as a sudden leap with limited hope of support during the transition (Hart, 2019). A reduction in TEI at the end of the course may be indicative of a similar loss of self-confidence in response to a more

comprehensive understanding of the role. Students move from a more confident although perhaps naïve assessment of their capacity at the beginning of nurse education to a more sober self-evaluation at the point of registration. This reinforces the need for well-structured preceptorship programmes adhering to NMC principles, good organisational culture, the prioritisation of wellbeing and access to effective professional role models (NMC, 2020).

The belief amongst nurses that EI is innate has limited attention to its development in nurse education (Jones-SHarper, 2014). Students interviewed agreed that TEI is predominantly inherent although evidence suggests it is developed through childhood experiences and influenced by significant role models (Jesson, 2017). Two students spoke about the way their mothers expressed 'too much' emotion; rather than viewing this as role modelling emotional expression, they described it as emotionally unintelligent behaviour.

> *"Like with her friends and in her job she's really good with it but when she's with me she's not very emotionally intelligent" (Sarah, 83-85)*

Identifying the value of emotional self-control in friendship groups and work contexts, students' reflections stated the need to suppress emotion for the sake of others. Their fathers and those who do not express their feelings were described as effective role models, indicating the transfer of family dynamics into students' nursing identities as part of their 'professional armour' (Walker and Mann, 2016).

Regardless of their view that TEI was innate, all those interviewed felt that certain aspects could be enhanced given some pre-existing capacity. Despite the suggestion from one participant that it should be possible to absorb experiences from practice like a 'sponge', a reduction in cohort data indicated that practice exposure had not achieved this aim. Some participants described individual mentors as positive role models who helped them to develop their emotional awareness. However, students' practice experiences focused predominantly on the absence of TEI, including some notable instances of healthcare staff acting as unhelpful role models in direct contravention to the NMC standards for student supervision and assessment (NMC, 2018b). These negative experiences affected students' capacity to cope with emotional elements of the work, reinforcing the need for mentors and academics to develop a better appreciation of EI (Jack and Wibberley, 2013; Jones-Schenk and Harper; 2014; Cleary, et. al. 2018). Negative role models combined with poor culture, inadequate staffing and low morale, recognised as endemic in NHS care settings (McIlroy, 2019), created environments within which students found it hard to imagine their TEI might flourish.

Echoing the findings of previous research, students rejected the notion that teaching EI would be effective (Jones-Schenk and Harper, 2014), although they proposed teaching

about EI as a construct would be useful, particularly in practice settings (Cleary, et. al. 2018), suggesting that students 'constructed' an understanding of EI through their practice experiences. Students' views reflected those found in the literature identifying the need for qualified staff in both academic and practice contexts to develop a better appreciation of EI, particularly the impact that a lack of it had on those around them (Jack and Wibberley, 2013; Lu and Shorey, 2021). Immersion in healthcare settings through practice exposure is not enough to maintain or enhance TEI particularly when practice contexts are fraught with challenges. Cohort data and participant interviews concurred that focused interventions are required to prevent the erosion of TEI during nurse education.

In the same way as a reduction was noted in total TEI, all four TEI factors decreased during nurse education. The largest effect sizes were observed in wellbeing and self-control although there were also significant reductions in emotionality and to a lesser extent sociability. The next section explores the data relating to TEI factors: self-control and emotionality, including discussion at facet level. Changes to sociability were minimal although social awareness diminished and the participants interviewed highlighted the challenge of developing assertiveness. Further discussion of these facets has been incorporated into the section exploring students' perceptions of conceptual differences.
A separate in-depth discussion of the wellbeing factor and its implications for students, the profession and society can be found in section 8.2.1.

8.1.2.1 Self-control

The most notable reduction at factor level was reported for self-control, including emotion regulation, impulse control and stress management facets. It is perhaps unsurprising that towards the end of an intense programme of study students' confidence to manage their stress felt compromised. Nonetheless, a reduction in self-control is a concern given that nurses are required to maintain personal control, while simultaneously taking responsibility for others, many of whom are experiencing their own temporary or permanent loss of control.

Cohort data and participant interviews converged. By the end of the programme, self-control was the lowest scoring factor indicating a significant reduction in students' ability to control their own emotional states. This was echoed in the words used by participants as they described events they found difficult to resolve, resulting in emotional setbacks.

8.1.2.1.1 Emotion regulation

Students' emotion regulation consistently decreased with each year of nurse education, generating the lowest score for any facet. Emotion regulation is a facet of self-control defined as the capacity to control personal feelings (Petrides, 2009a). Nurses' work in emotionally

charged environments and the capacity to control personal feelings while under pressure is essential in order to maintain professional boundaries and develop a kind, confidence-inspiring approach to patient centred care (Jones, et. al. 2015; Traynor, 2017).

A reduction in emotion regulation is perhaps surprising given extensive exposure to clinical practice, particularly as evidence suggests that learning how to resolve problems effectively increases emotional control (Liang, et. al. 2018). However, students may have had limited exposure to environments requiring a significant degree of emotional control prior to commencing nurse education. A lack of experience potentially influencing students' early self-assessments aligned to the 'not known to self' category according to Johari's window (Luft, 1969). Nurse education provides the opportunity for cooperative enquiry encouraging movement between 'not known to self' and 'known to self and others' categories (McKinnon, 2016). Before being exposed to highly emotional life experiences, it is perhaps easy to assume the capacity to meet those challenges. Confidence prior to an event is not the same as perceptions based on reflection after the event. The students interviewed reported feeling surprised by the intensity of the emotional challenges they experienced, feeling overwhelmed and ill equipped to manage their impact.

According to Benner, the movement from novice to advanced beginner enables students to reflect on real world situations to identify recurrent components leading to more accurate assessment of competence (Davis and Maisano, 2016). Students interviewed highlighted emotional regulation as a critical skill for nurses, recollecting its inclusion in the curriculum, particularly its association with maintaining appropriate boundaries.

> *"We have had quite a few lectures on it just saying like it's ok to be sad or cry with the family but just make sure there's a line that you don't there… like make sure the family aren't consoling you and things like that."*
> *(Anna, 285-288)*

However, they were not confident their capacity had improved during the programme. Students expressed the need for additional support to enable them to withstand and manage the emotions of others. Carly described how ill equipped she still felt;

> *"I'm like a child that's been thrown into the world and I'm trying to deal with it and I don't know…" (Carly, 376-377)*

According to cohort data and participant interviews, students' capacity to regulate their emotions did not improve, representing a source of serious concern. Irrespective of whether students' actual capacity or their confidence in this ability reduces, further assistance is required to improve student nurses' emotion regulation.

8.1.2.1.2 Impulse control and stress management

In addition to emotion regulation, impulse control and stress management also declined. A significant reduction in impulse control is concerning as it signifies an increased likelihood to give in to urges and a reduced capacity to reflect (Petrides, 2009a). The ability to reflect is necessary in order to learn from experience and maintain nurse registration (NMC, 2018). However, literature acknowledges that nurses frequently find it difficult to reflect, leading to the development of multiple interventions designed to develop this capacity (McKinnon, 2016). Learning to reflect has been part of nursing curricula for many years (NMC, 2010; NMC 2018a). Nonetheless, the students' verbal reports showed a marked contrast in their approaches to its development. Anna identified her ability to reflect as a helpful skill which had improved during nurse education;

> *"I feel like from my last placement I noticed my ability to reflect has really improved it just all of a sudden seemed to click" (Anna 88-89)*

While Carly struggled to see the benefit;

> *"…it's a nice idea but I feel like it's too, it's almost too structured. I feel like it's trying to make you get something out of something when there might not be anything" (Carly, 500-502)*

The ongoing challenge associated with developing student nurses' capacity to reflect contributed to a reduction in impulse control as the students found it difficult to review their behaviour and its impact.

Nursing students experience higher levels of stress than other students particularly in relation to academic demands and join a profession with well documented negative health consequences in response to work based stress (Pulido-Martos, et. al. 2012; Sarafis, et. al. 2016; Frogelli, et. al. 2020; Foster, et. al. 2021). Sharon and Grinberg (2018) reported a reduction in stress as student nurses gained a better understanding of the profession as pre-registration education progressed. However, these results were not replicated in the cohort data generated in this study which showed a significant reduction in stress management. While students interviewed felt they were coping with the demands of the programme, they reported experiencing more stress as it progressed, particularly associated with increased academic requirements in the final year of study. This is a situation potentially exacerbated by the inclusion of a range of additional skills and proficiencies in the revised NMC standards (2018a).

Students described feeling anxious about course completion and the need to assimilate knowledge into professional practice, their verbal reports reflecting those expressed in the literature highlighting the challenges associated with becoming a newly qualified nurse (Mussi, et, al. 2019). Participant interviews in this study took place as they prepared to begin

their final year, with students reporting increased anxiety associated with qualification, apparently insufficiently mitigated by the design of the curriculum. The findings concurred with existing literature highlighting the limited success of attempts to reduce the intensity of stressors through curriculum design and other means of preparing students for the emotional implications of nursing practice (Turner and McCarthy, 2017; Beanlands, et. al. 2019). As a result, poor levels of mental wellbeing and symptoms of burn out are prevalent amongst senior nursing students (Timmins, et.al. 2011; Rudman and Gustavsson, 2012).

A range of coping strategies were employed by interviewees including physical exercise, comfort eating and drinking with friends. Some were confirmed as having a positive impact on stress, for example exercise (Klaperski, et. al. 2019). While others used to alleviate stress, including the use of food, alcohol and tobacco are detrimental to health (Timmins, et. al. 2011). Student nurses' engagement in risky behaviours such as drinking too much alcohol, unsafe sex and eating an unhealthy diet have been associated with low EI (Lana, et. al. 2015; Enns, et. al. 2018). Giving in to these unhealthy urges leads to a range of poor physical and mental health outcomes for student nurses, including obesity and substance misuse issues (Kyle, et. al. 2016; Boulton and O'Connell, 2017).

The students interviewed experienced particularly high levels of stress as a result of forming close relationships with those they care for, which inevitably included exposure to suffering and death.

> *"I think you are going to be sad about things especially doing nursing and working with people you are… there's bound to be sad things I know, more if you work in hospital with patients dying as well." (Anna, 281-284)*

Occupational stress is exacerbated by the challenges of NHS culture, nursing shortages, under resourcing and political intervention (Traynor, 2017). Furthermore, healthcare students with low EI are more likely to perceive situations as stressful and engage in maladaptive coping strategies, including denial and self-blame (Enns, et. al. 2018).

Cohort data in this study demonstrated a decline in overall TEI and a reduction in students' capacity to manage stress. This was reinforced by students interviewed who articulated the need to find better ways to manage their stress. Evidence confirms that increased stress leads to a reduction in nurses' health related quality of life and caring behaviours (Sarafis, et. al. 2016). Participants in this study did not feel equipped to manage stress, leading to unhelpful thinking and behaviour when under pressure. Rather than developing this skill through nurse education, students experience it as diminished by the time they graduate, which suggests there were insufficient opportunities for supervised leadership in practice. The implications associated with this lack of confidence in their ability to manage stress are a source of considerable concern, as students enter complex and demanding healthcare

environments within which they are expected to lead and co-ordinate care (NMC, 2018a). The combination of reduced EI, elevated stress levels and reduced impulse control significantly increases the risk of mental and physical ill-health amongst student nurses and compromises the quality of care they are able to provide.

Developing a culture of compassion and a flexible approach to teaching and assessment are essential in order to mitigate the associated risks (Fitzgerald and Konrad, 2021), particularly as recent evidence suggests stress levels amongst student nurses have escalated during the COVID-19 pandemic as a result of transitioning to online teaching and fear of contracting the virus. An intentional approach is required to develop short and longer term strategies to enable student nurses to enhance their capacity to manage stress.

8.1.2.1.3 Adaptability

Adaptability is not a facet of self-control, it is an auxiliary facet of TEI and as such is not incorporated into any of the four factors (see section 4.5.4.3). However, the students interviewed appeared to associate it with the capacity to regulate emotion and manage stressful situations. Paige described the difference between her internal and external responses to unexpected events.

> *"I think alone I'm like oh my gosh, no what am I going to do but that's very much in my head so privately I might… it's terrifying but… I actually find that if there's a change announced to a group and everyone's like oh no…. then I'm actually very good at going no it's ok we'll just do this." (Paige, 716-720)*

Regulating her internal terror, she adapted her behaviour in order to lead her colleagues despite finding the situation stressful. Students interviewed recognised adaptability as an essential element of nursing practice, relating it to an individual's flexibility and willingness to change in response to alterations in environment or conditions.

In agreement with earlier literature, interview participants suggested career adaptability improves during pre-registration education (Ispir, et. al. 2019). Nonetheless, the cohort data indicated a reduction in adaptability. The positive association between adaptability and job satisfaction suggests low scores for this facet may indicate difficulty responding to change and modifying work (Petrides, 2009a). In light of the challenges associated with nurses' career abandonment and student attrition rates, a reduction in adaptability is worrying given the need to maintain career motivation, acquire new skills and adapt to constant changes in healthcare contexts (Fang, et. al. 2018; Pajic, et. al. 2018).

Registered nurses are required to work flexibly, provide patient centred care and maintain safety in a wide variety of settings, including different types of teams in community and primary care. Interview participants recounted the need to adapt constantly to changing

demands in practice settings. However, they also described feeling as if they were at the bottom of 'the hierarchy' as temporary members of the team. Examples of needing to 'fit in' were provided, often associated with the provision of personal care at the expense of other learning opportunities. While this demonstrated adaptability it simultaneously reduced the potential to engage in critical thinking with qualified staff. Critical thinking is an essential skill required when dilemmas emerge during the delivery of individualised patient care, which necessitate positive deviance from standard practice guidelines. Evidence suggests nurses are notoriously rule bound and generally secretive about bending the guidelines; exclusion from the process inevitably limits learning from experience (Gary, 2013). Participants in this study reported feeling excluded from established practice teams, with few opportunities to engage in critical thinking with other practitioners. The resulting lack of confidence prevented participation in the process of safe adaptation. Knowing and trusting each other are key factors determining the success of positive deviance in practice areas. By incorporating all staff, temporary or permanent, across grades and roles into discussions, barriers can be removed, leading to creative solutions (Baxter, et. al. 2019). The students interviewed clearly identified the environments where they felt accepted as part of the team were those which maximised their learning. The use of 'hub and spoke' placements is one intervention proposed to increase inclusion of students into practice teams by spending extended periods of time in a 'hub' (Millar, et. al. 2017). However, this system was not part of this cohort's experience; adopting this placement approach may be a helpful addition to facilitate more effective inclusion into practice teams.

A reduction in the cohort's scores for adaptability indicated a decline in this capacity as registration approached, at which point they would be required to take greater decision making responsibility. Targeted interventions during nurse education are necessary to develop the self-regulatory resources of curiosity and confidence. Once combined with entrepreneurial traits these qualities prepare students for the challenges of an evolving profession (Pajic, et. al. 2018; Ispir, et. al. 2019). The development of specific educational interventions, for example regular engagement in clinical supervision, is required to enable students to feel confident enough to make adaptations as registered nurses and reduce the potential for early career abandonment.

8.1.2.2 Emotionality

Emotionality incorporates four facets: emotion perception, emotion expression, empathy and relationships. A reduction in emotionality was identified in this study, mirrored by a significant reduction in empathy and relationship. However, two of the other four facets, emotion perception and emotion expression remained unchanged.

8.1.2.2.1 Emotion perception and emotion expression

The cohort data confirmed the views expressed by interview participants who felt confident in their pre-existing capacity to accurately perceive the feelings of others. In contrast, while there were no significant changes in emotion expression, students interviewed felt they needed to develop their capacity to express emotions. Only one participant felt her ability to say how she felt had marginally improved during the course,

"I think I've got a bit better at maybe letting it out a bit more…" (Anna, 277-278)

All of the students interviewed continued to find it difficult to express 'negative' emotions. Despite an awareness that suppressing these emotions may have a deleterious effect on their long term mental health, students viewed it as a useful coping strategy for nurses.

"I can just forget it; it helps me as a nurse." (Carly, 473)

Routine suppression or repression of difficult emotions with the aim of shielding patients, or protecting oneself, reduced students' willingness to access timely support. This was exacerbated by a fear of being judged by their peers for not being able to contain their emotions (see section 6.2.3.2). By 'cold shielding', or hiding behind a professional façade (Sandgren, et. al. 2006), students avoided becoming overwhelmed by their own emotions. Although willing to chat or vent on occasions, the idea of seeking help to express or process emotion was rejected. In Sarah's words she chooses to;

"Go for help in my own head I guess" (Sarah, 410)

According to Sandgren, et. al. (2006), both of these methods have merit. However, participants in this study continued to find it difficult to express emotion, feeling left to try and develop healthy coping strategies on their own without guidance (Phillips and Volker, 2019). While there was no reduction in the cohort data for emotion expression, neither was there any improvement. However, it is important to consider the design of the TEIQue tool as the questions are not specifically related to nursing. If the questions were context specific, there may have been differences observed. Interview participants did not feel comfortable or confident in their capacity to manage difficult emotions experienced as part of their nursing practice. This increased the risk of compassion fatigue and emotional exhaustion, with the potential for poor student health outcomes and a reduction in the quality of patient care (Tafjord, 2021).

A range of interventions suggested by students warrant further investigation, including opportunities to enhance self-awareness, more effective supervision and the use of simulation (see section 8.1.5). It is vitally important that nurse education provides contexts and interventions to enable students to develop confidence in their ability to express emotion without fear of detriment to their nursing practice. A failure to do so

risks student wellbeing, increases the potential for attrition and may lead to a reduction in the quality of care provided.

8.1.2.2.2 Empathy

At the outset of the programme, the cohort data indicated high levels of empathy, reinforced by the views expressed in participant interviews as students described themselves as empathic individuals. Every interview participant provided at least one example from practice where there had been a significant empathic connection with a patient or service user, identifying empathy as an important pre-requisite for nurses. There was no suggestion that students felt their empathy had diminished during the programme. Nonetheless, the cohort data indicated a significant decrease in empathy during the course.

A reduction in empathy contradicts evidence to suggest that empathy increases during nurse education (Hakansson Eklund, et. al. 2019). However, these improvements were associated with the inclusion of specific focused interventions as part of nurse education with the aim of developing empathic understanding (Cunico, et. al. 2012; Ward, 2016; Soderberg, et. al. 2017; Percy and Richardson, 2018). In contrast, a number of other studies demonstrate a reduction in empathy during nurse education (Hojat, 2007; Nunes, et.al. 2011; Ward, et. al. 2012; Ferri, et. al. 2015). Exposure to nursing practice is used as an explanation for both the enhancement (Soderberg, et.al. 2017) and decline (Ward, et. al. 2012) in empathy levels. Evidence suggests experiential learning through simulation has the potential to encourage reflection and increase empathy, enhancing nursing students' understanding of this complicated concept (Beest, 2018). A positive association between better interpersonal relationships, self-esteem and empathy has also been established (Kim, 2018). This is reinforced by the results of this study which demonstrated a reduction in empathy, lower self-esteem and a diminished capacity to form and maintain relationships by the end of the course.

The most significant reduction in empathy in this study occurred during the first year of nurse education, although according to the literature this was unremarkable (Ward, et. al. 2012; Ferri, et. al. 2015; Nunes, et.al. 2011; Hojat, 2007). Ward et. al. (2012) suggested that exposure to practice environments may be partially responsible as students learned to detach themselves from distressing experiences. Interview participants in this study described frequent empathic interactions in practice areas; these were easily recounted and often accompanied by tears as they communicated the emotions felt at the time. One student cried as she described an incident when a parent didn't ask for the help she needed to care for her child;

> *"She didn't want to ask them because she didn't want to bother them and that broke my heart because it's such an easy thing to fix." (Paige, 195-196)*

There were no examples used to describe situations where participants felt their empathy was limited or absent, although several recalled episodes involving other staff. Students were either unaware of, or unwilling to talk about, challenges to their own empathic response.

Students may have been unwilling to acknowledge times when they struggled to empathise with others due to the perception that this represents failure. Empathy exists somewhere between the ability to develop perspective from a distance and vicarious feeling incorporating cognitive and affective components (Hunt, et. al. 2017). Empathic attunement requires a myriad of skills and a commitment to interpersonal relationships developed over time through purposeful engagement. Finding the balance between a more detached clinical approach, which avoids sharing emotion despite attending to that emotion, and a more helpful relationship approach is a process fraught with a series of partial failures and successes (Campelia and Tate, 2019). Students' perspectives expressed in words may represent their successes, while the cohort data perhaps indicates a degree of awareness that there have been some failures. In response to the challenge of learning to regulate their own emotions while maintaining personal wellbeing, students may have begun the process of developing their own distanced-taking perspective.

Depersonalisation is used as a form of defence in order to reduce the risk of emotional exhaustion. However, depersonalisation is also associated with a reduction in empathy and increases the risk of burn out (Ferri, et. al. 2015). Similarly, while empathy can operate as a protective factor against burnout it has been linked to higher levels of compassion fatigue. Empathy-based guilt when combined with feelings of omnipotent responsibility increases the risk of both compassion fatigue and burnout (Duarte and Pinto-Gouveia, 2017).

Students may not have been able to identify or acknowledge a reduction in empathy; however, there were clear examples of empathy-based guilt in their accounts from practice. Carly cried as she recounted an experience when the depth of her empathy led to her becoming overwhelmed by emotion and unable to continue caring for her patient. She was left with feelings of guilt that she found difficult to reconcile.

> *"I feel so selfish cos I was upset, I think it had been a long day anyway, I think it was half nine before I finished my shift and my mentor said to me just go home. And I did and I never went in to help her brush her teeth and I feel so bad about that…" (Carly, 341-344)*

Unrealistic feelings of responsibility and depleted emotional resources have been identified as potentially contributing to intrusive or unprofessional care (Duarte and Pinto-Gouveia,

2017). Collaborative effort is required to create learning environments which include opportunities to engage in reflection following experiences when empathy felt overwhelming, reduced, or empathic failure led to feelings of guilt. This reduces unrealistic feelings of responsibility and minimises the risk of poor quality care (see section 8.1.5).

8.1.2.2.3 Relationships

This facet generated one of the highest mean cohort scores and a significant amount of discussion during participant interviews, leading to the generation of a distinct theme in the qualitative results. The relationship facet refers to the capacity to establish and maintain fulfilling relationships with family, partners and close friends; high scores are associated with extraversion and agreeableness (Petrides, 2009a). Interprofessional team work and the ability to establish rapport with patients and their families are important attributes for nurses (Price, 2017; NMC, 2018a), reliant on the capacity to form and maintain relationships. These attributes also enable nurses to access the support required to maintain personal wellbeing.

However, the cohort data showed a significant reduction in the relationship facet by the end of the programme. Shift work while on placement, academic study, the need to engage with additional employment to meet financial needs and the fact that friends may not appreciate or be subject to the same limitations all have an impact on the student's ability to stay connected. Nonetheless, supportive relationships are vitally important for mental wellbeing (Traynor, 2017; Palfrey, 2018). Close friendships outside of work contexts have been identified as vital sources of support for nurses, particularly long standing relationships where individuals meet regularly. Similarly, an extensive network of friendships at work have been shown to reduce levels of stress (Shin and Lee, 2016). A reduction in the relationship facet represents a risk to the student's mental wellbeing. Lack of opportunity or reduced capacity to form and maintain friendships potentially contributes to the high levels of depressive symptoms reported by more than one third of student nurses (Tung, et. al. 2018).

In contrast to the cohort data, students interviewed did not feel they were less able to form and maintain personal relationships by the end of the programme. They articulated their confidence in being able to develop friendships, manage relationships and end those which became problematic. Empathy combined with the ability to form trusting relationships with peers and mentors were identified as important factors influencing their learning (Rebeiro, et. al. 2015). Students agreed that the quality of relationships in practice areas was particularly important as they had the power to be supportive, while at the same time the potential to be profoundly destructive (see section 7.2.4.2).

Participants described finding it difficult to talk to family and close friends, particularly when attempting to explain the emotional impact of experiences they had not shared and may not understand.

> *"I have spoke about it to my girlfriend and she'll just be like come on you're being ridiculous of course it's not your fault, and I'm like you can say that but… I dunno…" (Carly, 360-363)*

Having identified family as the primary source of support, this was an area of considerable difficulty, becoming more challenging over time as student and family members' experiences diverged.

In the literature, relational barriers have been recognised as limiting student nurses' academic progression as they struggle with the need to prioritise family responsibilities, feelings of guilt, financial pressures and lack of support from partners (Andrew, et. al. 2015). The specific challenges associated with nurse education appear to have a deleterious effect on students' capacity to form and maintain close personal relationships. Finding the time and the inclination to form friendships and socialise is a considerable challenge during nurse education, as student nurses often feel too exhausted to engage in the type of social life experienced by most other students (Gibbons, et. al. 2008). However, supportive relationships within the student nurse population are particularly important, as according to students only those going through the same experience are able to appreciate its specific challenges, including the constraints associated with the ethical need for confidentiality (Clements, et. al. 2016; NMC, 2018b). Interview participants in this study reflected on the quality of their relationships, re-evaluating their close friendships and wondering why they did not feel comfortable talking about personal issues or asking for help, despite being happy to provide support.

> *"Even though I recognise for other people that talking's really helpful and really useful… it's just something I don't like to do." (Sarah, 427-432)*

A strong desire to be the helper rather than the helped was apparent, articulated as a positive quality for nurses who are required to be sources of emotional support. However, immersion in a community of student nurses, most of whom were predisposed to helping others, created environments within which it became difficult to imagine asking for help.

According to social identity theory, individuals are motivated towards group membership in order to develop a positive self-image. Students are already perceived by qualified colleagues as 'other', outside of professional status, leading to bias sometimes acted out through bullying behaviour in placement settings (Clements, et. al. 2016). Becoming the recipient of support is difficult as it places the person seeking help as an outsider to the nursing community, acting as a barrier to accessing the necessary care (Galbraith, et. al. 2014). The risk of becoming part of another 'out-group' within the student population is too

great, encouraging students to conform to the strong but silent emotional identity of nurses (Buresh and Gordon, 2013; Leonard, 2017). The disparity between participant interviews and the cohort data suggested that students may have the capacity to initiate friendships, however they were reluctant to become vulnerable to the extent required to develop deep relationships.

The challenge of developing supportive relationships has been exacerbated by the recent Covid-19 pandemic and its impact on nurse education. Changes have included the predominance of online teaching, minimal access to university campuses and other students, fewer placement opportunities for junior students, while many senior students have been in practice full time (HEE, 2020). The students report reduced access to supervision and coaching in practice with a negative impact on teamwork and communication in clinical areas (Ulenaers, et. al. 2021). Similarly, the repercussions outside of placement contexts have been profound, as many students experienced long periods of isolation from friends and family, with reduced opportunities to develop new friendships. This combination of factors has limited access to vital forms of support required to sustain students during nurse education (Swift, et. al. 2020).

The evidence suggests it is not enough to assume that a student's capacity to form and maintain relationships during nurse education will happen through participation in the programme alone. The pressures experienced by students during nurse education are now compromised further by the effects of the pandemic. In order to ensure students are encouraged to develop helpful, healthy relationships, intentional opportunities in combination with purposeful activity are required during nurse education.

8.1.3 Conceptual differences

During the process of exploring the data it became apparent that the descriptions provided by the author of the TEIQue (Petrides, 2009a) were not the same as students' perceptions of some of these facets. There were three main conceptual differences observed: first, the combination of social awareness and emotion perception. Second, the way students separated the capacity to act assertively on their own behalf and on behalf of others. Finally, the difference between being able to accurately identify and encourage others to express emotion in contrast to student nurses' perceptions of being less able to identify and express their own.

8.1.3.1 Combining social awareness and emotion perception

In Petrides' (2009a) model of TEI, social awareness and emotion perception are two distinctly different facets. However, as interview participants explored their views on the

attributes required to survive in practice, it became apparent they were describing a combination of the two facets.

According to Petrides (2009a), people who generate high scores for the social awareness facet report excellent social skills while those who produce low scores frequently feel anxious in social settings and believe they have limited interpersonal skills. The capacity to perceive and adapt behaviour to respond sensitively to people is an essential element of person-centred patient care (Mariano, et. al. 2018). Similarly, the professional enactment of interpersonal skills in healthcare contexts is vitally important for effective teamwork (Bach and Grant, 2015). Nonetheless, cohort data showed a reduction in social awareness as the course progressed, despite all the students interviewed identifying themselves as able to perceive and respond appropriately in social situations. In contrast to other facets, the most significant reduction in social awareness occurred in the final year of education, indicating students' loss of confidence in their ability to navigate social environments and the potential for unfamiliar settings to provoke anxiety.

Evidence suggests that while social activities are important, student nurses' opportunities to engage in social emotional learning are limited by a lack of time and finance (Ulupinar, et. al. 2019).

> *"I'm balancing like two jobs and like living away from home also and not having the time or money to go home" (Carly 45-46)*

Students' heightened awareness of the need to develop social skills when combined with limited confidence in their ability to influence situations may have contributed to diminished social awareness. Learning to negotiate and acknowledge difference without becoming embroiled in arguments can be difficult. According to Anna,

> *"I back down quite easily on things, I don't like confrontation really so I think if I can see it going that way I will try and avoid it." (Anna 413-414)*

Difficulty expressing personal views in social situations also has the potential to limit a student's confidence in their ability to effectively influence professional outcomes. In response, nurse educators should consider ways to improve social emotional learning for students. For example, the use of a 'hub and spoke' practice placement model instead of the traditional rotational approach has the potential to reduce students' insecurity and anxiety by reducing the number of new beginnings in unfamiliar environments which erode confidence (Millar, et. al. 2017).

Interview participants were confident in their ability to identify relational dynamics in a wide range of social and professional contexts, sensing atmospheres immediately and unconsciously. This was viewed as an essential quality, enabling them to thrive in placement

settings. Students described examples of adapting quickly to escalating situations with staff, patients and service users, which required accurate perception of the mood in the room and the ability to respond sensitively. Although this was perceived as a pre-existing trait, students felt this had developed throughout the course.

The need to 'sense the vibe' when in clinical and academic contexts was described in participant interviews as essential in order to survive. High levels of stress in practice settings are associated with negative mood and fatigue amongst nurses. Although mitigated by effective teamwork and supervision, the absence of these factors contributes to further deterioration in mood (Martinez-Zaragoza, et. al. 2020). Interview participants described needing to sense the mood of the team, identify the team dynamics and the leader's approach to managing demands at the beginning of each shift, recognising these would affect their experience.

Students were confident in their ability to perceive emotions in themselves and others from the outset of the course, mirrored by the cohort data for this facet which remained stable throughout. However, there was a reduction in social awareness over time despite interviewees rating their ability to 'read the room' as well developed. The students interviewed appeared to assimilated the two facets when applied to practice, describing the combination of being able to perceive emotion and social awareness as essential for nursing practice.

> *"I just kept myself quite closed I didn't really, I tried to stay out of the drama with the nurses. One of the nurses I don't know she er… she was I would say the more volatile one in the situation, she was trying to like drag me into the politics of it." (Anna 342-345)*

Failure to appreciate the social and political dynamics in practice areas could result in becoming embroiled in conflict, leading to feelings of frustration, anger and anxiety with the potential to negatively affect clinical performance (Labrague and McEnroe-Petitte, 2017). Accurately perceiving the emotional state of mentors to mitigate risks to the relationship was necessary to prevent inadvertently exacerbating situations.

Interview participants in this study described 'keeping a low profile' and 'keeping out of things' as essential behavioural responses. These findings concurred with those of Thomas et. al. (2015) who noted the requirement for students to enhance their resilience in response to incivility in practice areas, developing strategies to negotiate status and acquire the knowledge they need. Student nurses are often exposed to bullying, conflict and incivility in practice areas, with the most frequent perpetrators identified as nursing colleagues (Birks, et. al. 2017). The ability to fit in is an essential pre-requisite to being able to share ideas without repercussions (Paliadelis and Wood, 2015). Students developed their social

awareness from positive and negative experiences with mentors and colleagues in practice. Negative experiences were often difficult to overcome; nonetheless, students' ability to perceive emotions was useful in enabling them to use these experiences to inform the development of their own professional identities. However, the need to keep a low profile often exceeded their ability to advocate for themselves, perpetuating unhelpful behaviours and limiting the potential for them to develop assertiveness. Although participants were able to perceive what was happening, they described a lack of confidence in their capacity to influence the situation. Feeling disempowered and low down in the professional hierarchy, students remain silent. This leads to moral distress and potential burnout in response to professional conflict, poor practice, or when treated disrespectfully (Wros, et. al. 2021). The suggestion that students felt powerless to influence unhealthy practice cultures is deeply concerning given the need to equip future nurses to manage distressing situations with courage, enabling them to become effective agents of change.

8.1.3.2 Separating the capacity to act assertively on behalf of self and others

Interview participants all recounted incidents during which they were able to act assertively on behalf of others with mixed effect. While some felt they had achieved a good outcome in response to their verbal intervention, others felt ignored and in their opinion patients suffered as a result. The cohort data identified assertiveness as remaining stable throughout the course, in contrast to previous studies, which demonstrated a reduction in assertiveness by the end of nurse education (Ilhan, et. al. 2016). Interview participants agreed that it was an essential skill for nurses, although they had not previously made the connection between assertiveness and TEI. However, there was a difference between assertiveness on behalf of others and self, the former viewed as essential while the latter simply desirable.

Students were highly motivated to improve their ability to act assertively on behalf of others despite finding it difficult, recognising it as part of their professional practice. However, they were less willing to act assertively on their own behalf due to the risk of the interpretation of their behaviour as incivility (Rad, et. al. 2015). Challenging nursing colleagues can lead to exclusion, accompanied by feelings of disloyalty and helplessness. However, if successfully negotiated this can lead to increased confidence (Paliadelis and Wood, 2016). Although the cohort data for assertiveness remained stable over time there was a significant reduction in self-esteem and interview participants reported a lack of confidence in their ability assert themselves. A positive correlation between self-esteem and assertiveness made it more difficult for those with low self-esteem to act assertively (Ilhan, et. al. 2016) (see section 8.2.1.1 for further discussion of self-esteem).

In line with early literature, interview participants agreed they would value the opportunity to engage in educational strategies to enable them to develop confidence in their ability to act assertively on behalf of others and themselves (Begley and Glacken, 2004; Rad, et, al. 2015). Careful consideration of additional educational interventions is required at every stage of nurse education to enable students to develop strategies to manage confrontation and equip them to act as advocates for themselves and others.

8.1.3.3 Identifying and expressing emotion – the difference between self and others

Interview participants stated that despite being able to accurately perceive the emotions of others they found it more difficult to identify and express their own. Described as an intrinsic part of their personalities, students considered the capacity to understand and interpret how other people feel as a vital skill for nurses. This was experienced as a pre-existing capability unaffected by nurse education and supported by the cohort data which confirmed emotional expression remained stable throughout. Nonetheless, participants differentiated between their ability to perceive emotions in others and identify how they were feeling personally. While the definition for this facet provided by Petrides (2009a) does not allow for the separation of these two elements, there were distinct differences in students' experiences as they described feeling more adept at identifying the emotions of others. Although the TEI construct and the subsequently developed TEIQue tool provided the opportunity to helpfully explore a range of different facets of TEI, this did not generate the insight achieved through qualitative enquiry. Interview participants clearly separated the capacity to identify their own emotions from those of others; similarly, they highlighted a difference in their experience of expressing 'positive' and 'negative' emotions, finding it particularly difficult to express those they defined as 'negative' such as sadness and anger.

Hochschild (1983) proposed that socialisation develops emotion management, the process of managing emotion in itself generating new emotion. Wider social contexts heavily influence its transmutation into emotional labour through the organisation of work (Theodosius, 2006). Interpreting the rules of context about how emotion should be experienced and expressed in different settings is an important issue for nurses. Regardless of the fact that nurse education involves exposure to a wide range of experiences with emotional impact, nurse education appeared to have no effect on students' capacity to talk about the difficult feelings evoked. According to social theory, management of emotions and to some extent their development aligns to the perceived rules and expectations of the context (Theodosius, 2006). This is certainly true for nurses who according to Walker and Mann (2016) are required to develop their 'professional armour' so effectively it can result in difficulty recalling significant incidents and their emotional impact. An example of this was

provided by one student who articulated a powerful struggle to locate feelings associated with her experiences in practice.

> *"I'd be far better at identifying what someone else is feeling rather than like I'd say right I'm really not ok today. I genuinely don't know why… and um… I don't know if that's because I do just ignore it and I ignore it to the point that I've forgotten why I'm upset." (Carly, 170-173)*

Role models and the environments into which students are socialised also have a significant impact. The quality of interpersonal relationships within which students and qualified staff share thoughts, feelings and perspectives shape students' professional identities (Bryan, et. al. 2013). According to interview participants, learning to express emotion appropriately in practice settings remains problematic. While it felt more acceptable to express 'positive' emotion i.e. happiness, it was unacceptable to express unpleasant, or as students described them 'negative' feelings like sadness and anger. Influenced by role models within the family, participants explained the difficulty they experienced trying to talk to close friends and family about these feelings, preferring them to remain hidden. Despite the potential for increased social closeness, fear of negative reactions by the receiver and consequences for the sharer led to undisclosed 'secret' feelings (Jaffe and Douneva, 2020). The avoidance of vulnerability associated with sharing unpleasant feelings resulted in withheld emotion and increased relational distance.

Regulating emotional expression is an important coping strategy for students, related to self-efficacy (Moralez-Rodriguez, 2019). The struggle to find ways to express emotions 'appropriately' was most striking in relation to practice. The findings of this study concurred with earlier research, highlighting the need for students to adopt assumed rules demonstrated in practice, leading to dissonance between the emotion displayed and the feeling experienced (Van Zyl and Noonan, 2018). A need to suppress emotion in order to maintain professional integrity was articulated by all the students interviewed, who outlined a range of strategies they used to facilitate the process of balancing personal emotion, the emotions of others and the need to provide quality care.

> *"I needed to find a bit of a middle ground, taking on their emotions and putting myself in their shoes is really horrible, but remembering at the same time there's a job to do and you need to be professional. It's a bit of a tricky one to think about, you can't, you need to find a middle ground cos if you're too far one way and too far the other you're not going to give the care that's needed." (Sarah, 178-183)*

In the absence of specific guidance on how to regulate their emotions and manage those of others, students resort to looking for cues from qualified staff (McCloughen, et. al. 2020). Sadly, evidence suggests that placement experiences in particular can be challenging with examples of unsupportive, judgmental, disempowering and bullying behaviour (Jack, et. al.

2018). The students interviewed described a number of incidents perceived in this way. However, there were also interactions students attributed to a lack of knowledge and understanding by mentors concerning the need to support students' capacity to regulate and express emotion. This concurred with earlier research, which recognised mentors and academic staff were often limited in their ability to support students' capacity to cope with emotional aspects of the work (Hurley, 2008; Jack and Wibberley, 2013; Cleary, et. al. 2018).

Faced with their own anxieties and carrying their patients' distress, defence mechanisms become necessary (McCloughlen, et.al. 2020). Students described a range of strategies used to defend against unpleasant emotions including denial, suppression and reaction formation. Used to manage the gap between the expectation of how one should feel and the reality of the emotional labour experienced, most of the examples provided by students were categorised as 'surface acting' using emotional suppression, putting on a professional persona in order to avoid expressing difficult, uncomfortable or embarrassing feelings. There was less evidence of deep level acting during which emotions undergo modification and subsequent expression as genuine feelings (McCloughlen, et. al. 2020). While both surface and deep acting can be harmful to mental wellbeing (Hochschild, 1983), an extensive body of evidence supports lower performance linked with impaired psychological health specifically associated with surface level acting (Hulsheger and Schewe, 2011; McCloughlen, et, al. 2020). Concurring with the work of McCloughlen, et. al. (2020), students described emotional situations with a lack of education or guidance, the processing of emotion left to their own informal self-reflection. The impact of this reflected in the cohort's overall reduction in factor wellbeing as discussed later in this chapter (section 8.2.1).

While at one level, students were aware of the need to learn to express emotion they remained ambivalent about whether this was acceptable within the nursing profession. Carly appeared to support the belief that it was unacceptable, certainly on some occasions.

> *"The girl that ran off in tears I was like (sigh)… what are you doing that's… like you're qualified, you've been qualified a few years this isn't your first time why can't you just deal with it? (Carly, 465-469).*

The lack of clarity regarding the acceptability of expressing emotion as a nurse contributes to a reluctance to think about or engage in processes that might aid its development. This is perhaps unsurprising given the challenges of uncovering and working with difficult emotion in a profession obliged to exhibit emotional control (Edwards, 2014; Van Zyl and Noonan, 2018). Wilson (2016) observed that newly qualified nursing staff also wrongly assumed the expression of emotion and discussions about painful experiences were discouraged, when in reality more experienced staff engaged in both of these activities.

Interview participants outlined situations resonating with the literature, which suggested difficult feelings were replaced by the gratitude and love provided by patients, partially fulfilling unexpressed personal needs (Theodosius, 2006). Students' conscious reluctance to express emotion, reinforced at an unconscious level by an unwillingness to acknowledge their own emotional needs, created a cycle of emotional suppression. Experienced registered nurses in academic and clinical contexts have the capacity to influence students and newly qualified staff's emotional expression and management by sharing strategies as part of the socialisation process (Wilson, 2016). However, this requires intentional, purposeful interventions; as the findings of this study demonstrate, it does not occur automatically through participation in nurse education.

8.1.4 The potential to improve TEI through self-awareness, supervision and simulation

The academic impact of a reduction in TEI indicated by the cohort data is significant, with far reaching implications for the design and delivery of nurse education. Interview participants in this study provided a range of suggestions which they felt could support the development of TEI during nurse education; specifically, support to improve self-awareness, supervision 'with input' and the increased use of simulation.

According to the students interviewed, EI begins with self-awareness, perhaps unsurprising as some definitions suggest self-awareness is the process by which elements of EI are enhanced. According to Burnard (1986 in Rasheed et. al. 2019), self-awareness is the process of developing an awareness of personal thoughts and feelings, the capacity to experience and express those feelings within the context of relationships and to recognise traits with the potential to support self-discipline. Subsequent definitions provide a more practical conceptualisation of self-awareness, integrating ongoing intrapersonal, relational, extra-personal and contextual processes to enhance awareness of physical and emotional states, preconceived ideas and their meaning interpreted through life patterns and behaviour (Rasheed, et. al. 2019). TEI and self-awareness by definition incorporate similar facets, an association between the two concepts that was confirmed in this study. Participants commented that emotional intelligence begins with self-awareness. If you cannot identify your own emotions, you cannot identify them in others.

> *"I would argue that emotional intelligence starts with you and your own awareness." (Paige, 755-756)*

Self-awareness is not a facet of TEI, subsequently it is not directly referred to in the cohort data. Nevertheless, the emotion perception facet clearly relates to the capacity to recognise feelings in self and others and remained stable throughout the course. While some interview participants considered themselves emotionally intelligent, they also described finding it very

difficult to locate their own feelings. This suggested self-awareness may prove more challenging than the ability to perceive emotion in others. However, it is important to remember students' perceptions of other people's emotional states may not be accurate as their assessment may be influenced by a range of other factors including the strength of emotion expressed (Blanch-Hartigan and Ruben, 2013).

Reflection is an important aspect of nurse education which aims to improve self-awareness and enhance practice. However, reflection relies on a degree of pre-existing self-awareness and a commitment to the use of self in order to gain personal insight (McKinnon, 2016). Students interviewed were ambivalent about reflection. While some occasionally found it helpful to explore notable incidents, written reflection was a last resort. Mindfulness (Walker and Mann, 2016) and the use of story (Adamson and Dewer, 2015) have been suggested as means of enhancing reflection. However, there is limited evidence to support their effectiveness and engagement with reflection is problematic given students' reluctance to explore or express emotions, particularly difficult ones. This was confirmed by the cohort data, which reported a reduction in emotional expression and by interview participants who were reticent to talk about their feelings (see section 7.2.1.4).

According to Jung (1933), facing past injury, disappointment and rejection is essential in order to become an integrated individual. These elements are contained in our unconscious shadow; the antithesis of the persona we prefer to project. In order to develop an honest view of our real selves and move towards individuation, it is essential to acknowledge that humans are full of contradictions and paradoxes (Schellhammer, 2020). Nonetheless, reflecting on experiences past and present can be a challenging process as it inevitably evokes difficult thoughts and feelings. In response to the emergence of contradictions between the shadow and persona, a combination of conscious and unconscious defence mechanisms are utilised (Jacobs, 2017). Interview participants described using a range of mechanisms consciously and unconsciously as a form of defence including denial, projection, rationalisation and intellectualisation.

Despite the use of these strategies to avoid becoming emotionally overwhelmed, none of the participants felt able to resolve these issues alone; perhaps because becoming aware of internal contradictions involves a softening of the persona, often experienced as weakness and fragility. Nonetheless, the ability to experience previously unacknowledged aspects of the self are important prerequisites for growth (Schellhammer, 2020). One participant made a conscious decision to continue to deny her feelings, while another participant suggested counselling should be incorporated into the programme in recognition of the 'grown up' processes required. Acknowledging it can be difficult; to resolve internal contradictions in

isolation, others suggested some kind of reflection or supervision 'with input' would be useful.

Student participants expressed the need for a trusted 'other' to help them to become consciously aware of undesirable or unpleasant feelings in order to develop an honest view of themselves. While some had established a good rapport with their personal tutors they did not feel this was part of the role of a tutor or mentor.

> *"Just talking it through a bit rather than it be me just telling someone so maybe yeah a supervision style meeting with someone that you feel you can approach. Cos you're given your personal tutor, my personal tutor's brilliant, but there's certain things I wouldn't like to talk to her about." (Sarah, 680-684)*

Participants suggested a specific form of supervision designed to support students to become more self-aware and confident in their ability to regulate and express emotions. Regular clinical supervision is important for all nurses and for students specifically (Hart, 2019; Foster, et. al. 2015b), although there is no consensus about what constitutes 'good' clinical supervision in varying contexts and across fields of practice (Pront, et. al. 2016). The term supervision has also been complicated by the introduction of the practice supervisor role by the NMC in 2018. Practice supervisors are required to serve as role models, supporting learning and providing effective feedback. In order to do so, they are required to have current knowledge of the area of practice and a commitment to access ongoing support to facilitate the oversight of students (NMC, 2018c). However, the form of supervision proposed by students to enhance their TEI appears to relate more specifically to the creation of a safe space to express and explore feelings. Their description is more closely associated to clinical supervision than the role outlined by the NMC.

Additional research is required to assess the impact of the practice supervisor role and to determine specific components of clinical supervision necessary to enhance students' TEI. The absence of clinical supervision disappointed the LD students interviewed, with the quality a secondary issue. While adult and child field students had no expectation of receiving support, other than by mentors who provided general guidance about how to achieve clinical tasks in healthcare environments, both the availability and the quality of supervision were apparently insufficient to enhance TEI.

Directing behaviour is easy, while gaining an understanding of students with unique insight into their individual needs is a more complex and demanding process (Pront, et. al. 2016). Working in busy environments often inadequately staffed, participants recognised that the opportunity to explore emotional needs was extremely limited. Varying levels of commitment to the provision of clinical supervision with the potential to express and explore emotions were observed, depending on the practice setting. Evidence suggests organisational culture

has a direct impact on the effectiveness of reducing burnout in response to emotional labour (MacLaren, et. al. 2016).

While a lack of resources may prohibit the provision of regular clinical supervision, the potential costs incurred through attrition, burn out and early loss to the profession are substantial. Developing academic and practice cultures that value clinical supervision, including opportunities to enhance emotional processing are important interventions to enhance TEI and improve student wellbeing.

Interview participants suggested simulation may also be a useful conduit for developing EI.

> *"Maybe like getting an actor to pretend there's… I don't know talk about something… but have like an underlying problem and see if you could pick up on the something else." (Anna, 644-646)*

Simulation can provide opportunities to practice a range of skills in less threatening environments (Campbell and Daley, 2009). Although there are few published strategies to improve the affective domain of student learning, evidence suggests role-play simulation can evoke the emotions associated with real life experiences and effective debriefing promotes helpful conversation about professional behaviours (McArthur, et. al. 2015; Ulrich, et.al. 2017). Furthermore, role-play improves therapeutic communication while simulated experiences enhance student understanding of mental health concepts and reduce placement anxiety (Alexander, et. al. 2018). Using simulation to enhance self-awareness through a combination of role-play and written reflection, provides the opportunity to enhance self-awareness, communication skills and overall self-efficacy relating to specific tasks undertaken by nursing students (Hayes, et. al. 2018). This supports the suggestion by students that increasing the amount of role-play in nurse education would be beneficial as part of a strategy to enhance TEI. However, the student's reluctance to engage in reflection has the potential to limit the efficacy of this type of intervention, which requires full commitment to every aspect of the simulated experience (Campbell and Daley, 2009).

Interview participants reported a lack of opportunity to engage in both supervision and simulation despite the availability of evidence to support its inclusion in pre-registration nursing courses. These activities are labour intensive, perhaps contributing to their absence in courses recruiting large intakes of students. Participants at this academic institution were part of a single cohort of 438 students; increasing the amount of small group work would require significantly more staff time and possibly expertise. The perceived benefits of economies of scale limit opportunities for students to develop their emotional intelligence.

While previous studies (Jones-Schenk and Harper, 2014; Cleary, et. al. 2018) were unable to determine which specific constructs required development, in this study participants

identified a range of facets they would like to improve via simulation and supervision. Their priorities were learning to regulate personal emotions, express emotion in a healthy way and enhance assertiveness. In addition to these facets identified by students, the findings of this study also support the inclusion of input to enable students to enhance personal wellbeing, develop their self-control and improve self-motivation.

8.2 Economic and societal impact

The second theme considers the potential economic and societal impact of student nurses' TEI. It became apparent during the analysis of the participant interviews that students paid very little attention to their own emotional health and the cohort data indicated a significant reduction in students' wellbeing at the point of registration. The failure to provide educational opportunities to maintain or enhance student nurses' wellbeing, when combined with the student's reluctance to consider their own emotional health, has implications which extend beyond the effect on the individual. The economic and societal impact is far reaching with potential ramifications for higher education, the nursing profession, health and social care organisations and the communities they serve.

8.2.1 Well-being

This section explores the data relating to students' wellbeing, considering the potential social and economic impacts of the study. Each facet of the TEI wellbeing factor is examined in turn beginning with self-esteem, followed by optimism and finally happiness.

8.2.1.1 Self-esteem

Self-esteem is a challenging concept for nurses; constant exposure to the kind of workplace stress associated with the profession affects mental health, which can lead to feelings of inadequacy and reduced self-esteem (Sarafis, et. al. 2016). Belief in one's competence, significance and worthiness are expressions of self-esteem, its reduction negatively impacting both the individual and the quality of care one is able to provide. Reduced self-esteem is associated with increased stress, with insufficient resources available to mitigate the challenges associated with completion of the course, contributing to mental ill health and increased student attrition (Edwards, et. al. 2010).

Cohort data identified low levels of self-esteem from the outset of this study, confirming the results of earlier studies which concluded that self-esteem amongst student nurses is at best only average (Begley and Glacken, 2004). People raised in environments where criticism is prevalent and emotional warmth limited may be attracted to nursing in order to meet their own emotional needs. For them, self-awareness is problematic due to excessive inner

criticism and difficulty acknowledging personal strengths, subsequently reducing self-esteem (McKinnon, 2016). While none of the students interviewed described themselves as having low self-esteem, Anna said;

> *"Sometimes I think I'm hopeless" (Anna, 451-452)*

While another commented on her negative self-talk as she approached a placement in elderly care;

> *"Old people don't like me, they don't, they're going to hate me I'm going to hate this." (Carly, 864-865)*

According to the cohort data, self-esteem continued to decline throughout the programme, concurring with evidence identifying a general reduction in self-esteem during nurse education (Lees and Ellis, 1990; Randle, 2001, Edwards, et. al. 2010). Potential explanations for this trend include professional prejudice, reinforced by negative and stereotypical media portrayal. Nurses are often depicted as background characters in interdisciplinary teams with limited involvement in decision making (Kress, et. al. 2018; Glerean, et. al. 2019). The perception of nursing as a low status profession is reinforced by successive government policies maintaining poor remuneration, persistent low staffing levels and unsatisfactory working environments (Perron and Rudge, 2015). Nurses' self-esteem forms an essential element in their role based self-concept and heavily influences their perceptions of their professional worth. This in turn has a significant impact on their mental wellbeing and contributes to high levels of burn out (Karanikola, et. al. 2018). A devaluation of their professional worth makes it very difficult for nurses to improve their self-esteem.

Nonetheless, encouragement, praise and warmth from trusted others can nurture those affected by negative influences and raise self-esteem (McKinnon, 2016). Effective support from teachers, mentors and clinical supervision is vitally important in order to enable students to manage the stress they experience and make sense of their emotions (Por et. al. 2011). However, students interviewed felt there were few opportunities to access emotional support, especially while on placement, leaving them to identify and attempt to resolve emotional responses alone. The sense of isolation and failure associated with being unable to do so potentially contributes to a further reduction in their self-esteem.

8.2.1.2 Optimism

Cohort data and participant interviews indicated a reduction in optimism as the course progressed. Students were hopeful and enthusiastic at the beginning, but felt less positive about the future by the end. Interview participants reported feeling anxious about the workload and their capacity as academic requirements accelerated. The correlation between optimism, career motivation and adaptability (Fang, et. al. 2018) suggesting a decline in

students' optimism may indicate a lack of confidence to pursue new opportunities by the end of the programme.

One student interviewed expressed concerns about her desire and ability to become a registered nurse within the next year. Carly talked about a growing disillusionment associated with the reality of working within the profession.

> *"Is it going to be like placement, am I going to come home in tears every day or am I going to learn how to do it? Am I even going to want to do it?" (Carly, 843-846)*

Although Sarah was more optimistic,

> *"Now I can kind of see the end of 3rd year and I think ok in as many months I'll be able to actually do stuff and if I get my head down and work hard I'll be able to get a job in an area I enjoy where I really want to make a difference." (Sarah, 580-583)*

Evidence supports a relationship between optimism, motivation towards professional learning and satisfaction with career choice (McIlveen, et. al. 2013; Fang, et. al. 2018). However, cohort scores also recorded a reduction in self-motivation. Despite students' desire to care for the sick and vulnerable, the challenges increased while their confidence in their ability to make a difference decreased (see section 8.2.3). The reduction in optimism experienced by students was compounded by lowered motivation and diminished capacity to develop and sustain relationships (see section 8.1.2.2.3). Nevertheless, evidence suggests increasing the amount of psychosocial support provided by an individual's developmental network has the potential to increase optimism over time with lasting effect (Higgins, et. al. 2010). Generating targeted interventions to enhance psychosocial support for students may sustain optimism and enhance a student's capacity to maintain healthy relationships. This is particularly pertinent at the time of writing as students continue to struggle with social isolation, online learning, reduced practice opportunities and the negative rhetoric associated with the ongoing COVID-19 pandemic (Swift, et. al. 2020; Starosta, et. al. 2020; Ulenaers, et. al. 2021).

8.2.1.3 Happiness

According to the cohort data, students' happiness also diminished during nurse education, although there were no specific comments made during interviews to suggest participants were either happy or unhappy. Nursing discourse frequently excludes the concept of happiness, communicating that it is of limited value in nursing practice, education or research. Talking about experiences of happiness in providing care for others then becomes limited as nurses feel unable to speak about it (Cottrell, 2016). Similarly, giving voice to optimism can feel difficult (Rook and Coombs, 2016). Subsequently, nursing dialogue often provides a negative and unbalanced view of professional practice (Cottrell, 2016; Rook and

Coombs, 2016). However, this does not account for the decline in student happiness reported in the cohort data, or the way in which students interviewed attempted to maintain a happy persona even when crying. Given the opportunity to talk about experiences which evoked feeling, students described events in terms of professional development, while minimising the personal emotional impact. The need to suppress difficult emotions was perhaps more powerful than obstacles associated with expressing positive feelings of happiness and optimism.

8.2.2 Lack of attention to personal wellbeing

The implications associated with a lack of attention to personal wellbeing in the participant interviews and reduced wellbeing in the cohort data only became apparent following combined data analysis. Maturation does not provide an adequate explanation for this reduction as previous research dismissed any association between age and wellbeing (Burns, 2020) and age and TEI (see section 8.1.2). It appears that a lack of attention to wellbeing may contribute to its reduction, a particularly unhelpful outcome as nursing students are required to promote the wellbeing of others. It is of primary importance that students are first able to maintain their own emotional wellbeing in order to be able to support others (Cilar, et. al. 2019).

While there are no comparable studies of student nurses' TEI with which to compare the reduction in the wellbeing facet, students' vulnerability to mental ill health is well documented (Aldiabat, et. al. 2014; Auerbach, et. al. 2016; Bruffaerts, et. al. 2018). Students generally are more likely to rate their mental health poorly in the final year of study (Timmins, et. al. 2011). Student nurses in particular report considerable stress in response to the completion of final assessments, while attempting to assimilate practice and academic experiences. Simultaneously, they mourn the loss of student status as they prepare to leave the security of university and experience the anticipatory anxiety associated with impending registration (Ousey, 2009; Timmins, et. al. 2011; Foster, et. al. 2015a; Thomson, et. al. 2017; Liang et. al. 2018). Stress, self-esteem, financial security and academic success are all closely associated with students' happiness (Ruiz-Aranda, et. al. 2014; Flynn and MacLeod, 2015). The anticipated transition into practice with registered nurse status generates excitement and anxiety as students recognise the complexity and demands of the role (Paliadelis and Wood, 2016). A reduction in happiness at the end of pre-registration education is perhaps understandable as students near completion of this challenging three-year programme. Nonetheless, a simultaneous reduction in self-esteem and optimism has the potential to exacerbate the challenges associated with the transition process (see section 8.2.3).

One of the most striking observations to emerge from the participant interviews was the limited attention to factors associated with personal wellbeing. Multiple connections were identified between TEI facets and the dominant qualitative themes, particularly relating to emotionality and sociability factors. For example, students acknowledged the challenge of maintaining control during intense emotional experiences. Similarly, participants recognised that some behaviours associated with their capacity to regulate emotion and the desire to avoid the expression of emotion were detrimental to their wellbeing.

> *"I just don't talk about it and I do, like I'll talk about it another time or… push it away and you do sort of forget… but then you don't and then it does just build up into something that's just too much… and you don't know what to do with it." (Carly, 423-427)*

Nonetheless, there were few connections between the qualitative themes and factor wellbeing. Despite incorporating questions in the interview schedule aimed to promote discussion focusing on students' wellbeing, responses were brief, as participants quickly returned to topics connected to professional development and the care of others.

Despite an overall reduction in wellbeing and a significant reduction in self-esteem, optimism and happiness, during the course only one participant described feeling less than optimistic about her long-term future as a registered nurse. Personal wellbeing is frequently overlooked in the nursing profession: personal development takes second place to professional development (Cooper, 2014). While the separation of personal and professional development may be notional, facets associated with factor wellbeing were dismissed during interviews as though unimportant. Acknowledging that personal development is professional development (Cooper, 2014), it is important to create opportunities to engage in practices to enhance happiness in order to counterbalance the demands of the profession.

A reduction in happiness and optimism during nurse education concurred with the results of earlier research (Edwards, et. al. 2010). Students' diminished happiness and optimism is exacerbated by lowered self-esteem at the point of registration. Despite significant changes to nurse education in recent years, student nurses' wellbeing, including their happiness, optimism and self-esteem, decreased by the end of the BSc Nursing programme. This is an issue of serious concern for a profession with high levels of sickness, absence and a record number of vacancies, magnified by the effects of the COVID-19 pandemic (West, et. al. 2020).

The negative rhetoric surrounding nursing, often adopted by those within the profession, combined with the stress associated with the programme, plays a part in reducing wellbeing and has a detrimental impact on student nurses' emerging professional identities. When combined with difficulty expressing negative emotions (see section 8.1.2.2.1) and a reduced

capacity to develop and maintain supportive relationships (see section 8.1.2.2.3) there is the potential for students to become silent and isolated, increasing the risk of mental ill health and the likelihood of leaving the programme before completion. The revised NMC (2018a) standards acknowledge the need for registered nurses to be "emotionally intelligent and resilient individuals, who are able to manage their own personal health and wellbeing, and know when and how to access support." (pp. 3). There is the potential for this goal to be continually frustrated by student nurses' reluctance to pay attention to their personal wellbeing. This is compounded by the negativity expressed by registered nurses and employers' inability to reduce the high levels of stress currently associated with working in health and social care contexts.

8.2.3 Reduced self-motivation and the impact on attrition

Persistently high levels of student nurse attrition are a source of concern. The reasons for students leaving before completion are complex (Chan et. al. 2019; Hamshire, et. al. 2019) and the rates, currently 33.4%, are alarming (Lovegrove, 2018). Evidence suggests a lack of emotional support, unrealistic expectations and inadequate supervision contribute to high levels of attrition (Chan, et. al. 2019). Students need to be highly motivated in order to achieve academic success (Yardimici, et. al. 2017) and yet the greatest reduction in cohort data for any aspect of TEI in this study was recorded for self-motivation, reinforced by students' verbal accounts. In particular, interview participants struggled to motivate themselves to complete academic assignments.

> *"I know I really, really need to but I just can't bring myself to do it I… I don't know what I need to make me do it…" (Carly, 878-880)*

While others became distracted by alternative interests which generated more immediate rewards.

> *"I was doing really well and in competitions and things so I got really oh… really motivated there and then I was like oh I've got to do a degree… I kind of forgot about that." (Sarah, 558-561)*

According to the RePAIR report (Lovegrove, 2018), negative placement experiences, high levels of disorganisation, poor standards of lecturing in university and a lack of support contribute to reduced motivation amongst student nurses. Students predominantly attribute their loss of motivation to extrinsic factors. Extrinsic motivation derives satisfaction from gaining awards following the performance of an action, in contrast to intrinsic motivation based on the satisfaction derived from completing a task (Yardimici et. al. 2017). This form of motivation does not support the development of reflective learning, or the use of deep cognitive strategies generated by the alternative autonomous form of motivation based on the satisfaction gained from the task (Messineo, et. al. 2019; Fernet, et. al. 2021). In

conclusion, internalised and intrinsic motivations are required to prevent academic disengagement and facilitate deep-learning approaches (Yardimici, et. al. 2017; Messineo, et. al. 2019).

A reduction in self-motivation identified in this study increased the risk of attrition. Intrinsic motivation facilitates development of the persistence required to accomplish academic tasks. Creating social, rather than controlling, environments and activities provides opportunities for more autonomous learning, improving academic success and reducing attrition (Messineo, et. al. 2019). The transformation of teaching environments, which often exhibit high control, to more autonomous social contexts offers the potential to enhance student self-motivation and reduce attrition. This is evidenced by students' responses to the recent RePAIR (HEE, 2018) project aimed to improve retention, which identified a preference for interaction and debate in small groups.

Nonetheless, it could be argued that a decrease in motivation towards academic learning at the end of year three also relates to the stress experienced in response to increasingly rigorous academic assessment and the topics explored. Research suggests motivation to learn depends on the level of interest in the specific topic and students' ideas about how it applies to practice (Vandergoot, S. et. al. 2018; Sanaie, et. al. 2019). Interview participants commented specifically about their lack of motivation towards some modules during their final year, as they did not appear relevant to practice.

> *"If I don't see the point in something then I'm going to really, really struggle to do it." (Carly, 898-899)*

Students cited modules based on research methods, healthcare policy and politics, which in their view were irrelevant to practice. Interestingly these modules also delivered content predominantly in lecture format, supporting the findings of earlier studies which highlighted the importance of cooperative learning approaches to enhance academic motivation (Sanaie, et. al. 2019).

Autonomous motivation leads to deep learning, improved study and academic performance. Described as either fully intrinsic or a combination of extrinsic and intrinsic motivations, autonomous motivation must be engaging, have personal value and align to an individual's values (Visser, et. al. 2018). Students' loss of self-motivation indicated a reduction in intrinsic motivation, increasing the risk of giving up when things became difficult unless accompanied by considerable external motivation in the form of encouragement or reward (Petrides, 2009a). As if to illustrate this point, one interview participant left the course before completing her final year having described feeling demotivated towards nursing, which she associated with limited extrinsic reward.

The threat associated with a loss of self-motivation is not isolated to academic achievement. Persistent reductions in self-motivation as the course progressed had the potential to increase attrition pre and post registration, contributing to the 'flaky bridge' identified by Lovegrove (2018), as a descriptor for the fragile process of transition to qualified practice. Newly qualified nurses often feel overwhelmed during the progression from student to registered nurse; lack of confidence and poor transitions mean without support many fail to reach their potential or quickly leave the profession (Edwards, et. al. 2015). High levels of extrinsic motivation are required in order to mitigate this risk. Unfortunately, these are often insufficient with common reasons for leaving nursing posts cited as poor working conditions, an unhealthy work life balance and low levels of pay (Beech, et. al. 2019). The failure of successive governments to address these issues, exacerbated by the impact of the Covid-19 pandemic, has led to a sharp rise in the number of registered nurses on the brink of resignation (Ford, 2020). The promotion of autonomous motivation and the development of more supportive working environments are recommended to increase occupational commitment and reduce post registration attrition (Fernet, 2021). Nonetheless, it is difficult to imagine that this will be enough to prevent student and registered nurses from continuing to leave the profession if pay and conditions do not improve.

Fortunately, the desire to help people and provide compassionate care remain strong intrinsic motivational factors for nurses even when emotional demands are high (Newton, et. al. 2009). Nurses with the ability to regulate their emotions effectively use emotional demands to enhance their motivation at home and work. In effect, emotion regulation boosts motivation and wellbeing (Donose, et. al. 2015). Unfortunately, cohort scores for emotion regulation also decreased during the course and interview participants described it as a serious challenge.

The combination of a significant reduction in self-motivation, emotion regulation and optimism in this study is particularly concerning as it may indicate an increased risk of these students leaving the profession prematurely. Nurses are the largest professional healthcare group; nonetheless, a significant increase in the nursing workforce is required to meet the growing demands of the population (Brownie, 2018). By 2030 it is estimated that there will be a global shortage of nine million nurses and midwives (World Health Organisation (WHO), 2020). In the UK, NHS trusts reported a vacancy rate equivalent to 43,590 full time nurses (National Audit Office, 2020). An insufficient number of registered nurses results in increased hospital admissions and poor health outcomes (Aiken, et. al. 2014; Manojlovich, 2015). The economic contribution nurses make to the provision of affordable healthcare is difficult to quantify. There is no doubt that investment in nursing empowers local communities and strengthens healthcare and broader economies (Brownie, 2018).

The UK government acknowledges there are not enough registered nurses and has expressed its commitment to developing the workforce in The NHS Long Term Plan (2019). However, there is a three-year lag before new policies aimed to increase the number of nurses through degree programmes begin to make a difference and the expansion of alternative apprenticeship routes into nursing remain limited by bureaucratic and financial disincentives (National Audit Office, 2020). The failure of a third of student nurses to complete their pre-registration education within the anticipated time frame cannot continue without cost to patients, service users, the profession and the economy. Enhancing TEI during nurse education will not eliminate delayed completion or attrition; however, the evidence presented indicates that it has the potential to become part of the solution. Supported by the NMC's decision to include the requirement for registered nurses to be emotionally intelligent in the 2018 standards (NMC,2018a), nurse educators have the opportunity to incorporate specific interventions towards achieving that aim. Enhancing students' self-motivation, capacity to manage their emotions and increase their understanding of others, has the potential to improve wellbeing, provide timely resources to the community and make a substantial contribution to the economy.

The academic impact of this study increases the potential for nurse educators to create environments and targeted teaching interventions to develop the emotional intelligence of 'Future Nurses'. However, it is also necessary for all those with an interest in nurse education to consider the potential economic and societal impact of students' TEI. Maintaining the mental wellbeing of nurses in health and social care contexts is essential in order to reduce attrition and burn out. It is vitally important, now more than ever, to maximise the potential to retain student nurses during pre-registration education and facilitate their successful transition to qualified practice; furthermore, to create healthy working environments within which nurses are encouraged and enabled to maintain their psychological and emotional wellbeing in order to facilitate long and productive careers.

CHAPTER 9: CONCLUSIONS AND RECOMMENDATIONS

The conclusion provides a brief summary of the contribution this thesis makes towards achieving the aim of understanding the impact of nurse education on undergraduate nurses' TEI. It begins with a synopsis of the findings associated with each research objective, including recommendations for future practice, followed by an evaluation of the study's limitations and areas in need of further research. The chapter ends with personal reflections about the process and the outcomes achieved.

9.1 How EI relates to nurse education

Discussion of the first research objective explores how EI relates to nurse education making a valuable contribution to the theoretical and empirical evidence previously available. The TEI construct has been demonstrated as an effective framework to examine the impact of pre-registration education on students' capacity to perceive, express and manage their emotions and those of others. However, the empirical findings of this study support the need for improved semantic clarity. The application of a clear and coherent construct of EI is particularly relevant to the NMC as the governing body responsible for the approval and regulation of nursing in the UK. Pre-registration courses are required to develop emotionally intelligent nurses. Providing an agreed definition and a more detailed alignment of EI to the Future Nurse Standards (2018a) may help to achieve this aim.

TEI has proved a particularly useful construct given its capacity for a more detailed exploration at facet level. This provided the opportunity to identify and explore areas of strength and vulnerability for groups and individuals, offering the potential to inform the design of teaching and learning strategies and support nurse educators to develop focused interventions to enhance specific facets of TEI. As a result of an enhanced understanding of TEI and its relevance to nursing practice, it is hoped the insights gained will help to motivate and equip all those interacting with student nurses to consider developing relationships which model and strengthen TEI.

Recommendations:

- The identification of a preferred definition of EI and specific attributes to be developed during nurse education.
- The adoption of TEI as a construct to support the development of distinct teaching and learning interventions.

9.2 How to evaluate EI during nurse education

The second research objective sought to determine how EI should be evaluated during nurse education, focusing on measuring changes to TEI during nurse education rather than the identification of participants with 'suitable' levels of TEI. Empirical evidence was obtained in the quantitative element through application of the TEIQue and questions during the IPA study based on the same TEI construct.

Measurement of TEI during nurse education has been dominated by quantitative methods, predominantly reporting scores for overall TEI. The measurement of total TEI has been an important aspect of this study. However, unique insights were gained as a result of the exploration of TEI at factor and facet levels. Furthermore, the use of qualitative inquiry provided rich data, leading to the identification of specific areas where students lacked confidence or experienced diminished capacity.

Using the TEIQue to measure TEI particularly at facet level, and at strategic points during pre-registration education, has the potential to improve self-awareness and support progress towards the development of specific goals; while engaging in dialogue with students provides the opportunity to gain an appreciation of their lived experiences. The combination of cohort scores and students' verbal accounts maximises the potential for educators to develop specific teaching and learning opportunities with the aim of enhancing TEI during nurse education.

Recommendations:

- Use of the TEIQue tool, particularly at sub-factor levels, to improve self-awareness and measure progress towards developing TEI during nurse education.
- Additional qualitative enquiry is required to gain insight into student nurses' lived experiences of TEI.

9.3 The development of students' EI during nurse education

The third research objective stated the intention to examine the development of EI during nurse education. The only significant demographic differences at the point of registration related to gender (8.1.1.1). Male students reported managing emotion and stress better than their female colleagues, while female students were more empathic than their male peers. These gender differences all concurred with the findings of earlier research. Despite some differences in TEI between groups in year two, there was no evidence of significant or lasting change in TEI relating to age or field of nursing during the course, although cohort data relating to mental health nursing students at the beginning of year two may warrant further

enquiry (8.1.1.3). No original findings were observed at the end of pre-registration education associated with either gender, age or field of nursing.

In contrast to the initial expectation that TEI would remain stable or perhaps increase slightly, reductions were reported in total TEI and in all four factors, contradicting the findings of earlier research (8.1.2). In addition, unique evidence was generated indicating significant reductions in the majority of TEI facets. These findings are a cause for concern with potentially serious implications for UK universities and practice settings mandated to develop emotionally intelligent nurses.

Analysis of the data suggested the student's journey towards becoming more emotionally intelligent was impeded rather than enhanced by nurse education. This reduction in TEI may be partially explained by the transition from a naïve idealised perspective to a more realistic assessment following exposure to nursing practice. Nonetheless, it appears the development of 'professional armour' (Walker and Mann, 2016), negative role models and poor culture continue to limit the potential for its development.

In addition to a reduction in total TEI, data supported a significant decline in factor self-control (8.1.2.1). Students found it more difficult to regulate their emotions as the course progressed and described feeling ill-equipped to cope with the impact of the emotional challenges faced in practice. A reduction in impulse control highlighted the need for students to increase their capacity to reflect, although some students appeared reluctant to engage with activities designed to achieve this aim. Stress management, the third facet of self-control, also declined as the course progressed. Students associated increased stress with additional academic requirements and exposure to distressing events leading to unhelpful coping strategies. The need to adapt to changing demands and environmental pressures caused considerable concern for students. In contrast to the expectation that students' adaptability might improve as they approached registration, the challenges associated with emotion regulation, stress management and limited opportunities to engage in critical thinking contributed to its inhibition. The combination of a reduction in self-control and adaptability has implications for the quality of care provided and early career abandonment.

Cohort data also demonstrated a reduction in the emotionality factor including a decline in empathy and the capacity to form and maintain relationships (8.1.2.2). However, there was a contrast between the cohort data and participant interviews associated with these facets. While students interviewed felt their empathy had not diminished, the quantitative evidence demonstrated a reduction across the cohort. Finding the balance between clinical detachment and empathic attunement was a challenging process for students. Examples of

empathy based guilt suggested they experienced unrealistic levels of responsibility causing emotional depletion (Duarte and Pinto-Gouveia, 2017).

There was also a significant decline in students' capacity to form and maintain relationships in the cohort data as participants reported struggling to feel heard in practice contexts and finding it difficult to confide in family and friends. Recognising the importance of supportive relationships, all of those interviewed were highly motivated to listen to others. Although willing to be the helper, students were reluctant to access support for themselves. Their perception of nurses' professional identity as emotionally contained providers rather than recipients of support.

The two remaining facets of the emotionality factor, emotion perception and emotion expression remained stable throughout nurse education. The students interviewed felt confident in these abilities, interpreting the capacity to suppress/repress their emotions as a positive attribute for nursing practice; although participants were aware this may have a negative impact on their own mental health. Relying on emotional suppression and hiding behind a professional façade were identified as useful forms of defence. The need to help students to develop healthier coping strategies and improve their capacity to express difficult emotions became apparent.

Cohort data also supported a reduction in sociability, the fourth factor of TEI. Comprised of emotional management, assertiveness and social awareness, the first two of these facets appeared unchanged according to the cohort data. However, the students interviewed articulated the challenges associated with acting assertively, stating the need for additional support to enable them to learn how to be more assertive and to develop effective strategies to positively influence the emotions of others (8.1.3.2). Social awareness also declined over time with the potential to become challenging for students as they identified the necessity of this attribute, in combination with emotion perception, to survive in practice (8.1.3.1).

In the same way as reductions in self-control, emotionality and sociability were observed, a significant decrease in wellbeing was evidenced by the cohort data. Every wellbeing facet: self-esteem, optimism and happiness all declined during the course (8.2.1). Immersion in a devalued profession with low pay and poor working conditions challenged students' self-esteem and contributed to a reduction in optimism and happiness.

Recommendations:

- The impact of pre-registration nurse education on mental health student nurses' TEI requires monitoring, particularly during the first year.

- Exposure to care contexts does not enhance TEI during nurse education. Development and application of evidence based teaching interventions to enhance specific facets of TEI are required.
- In order to improve understanding and application of EI in care and educational contexts, it is necessary to develop specific teaching and learning opportunities for qualified staff.
- Supportive relationships within safe environments are necessary to enable students to learn how to express difficult emotions and develop healthy coping strategies. Supervisory roles in nurse education require further exploration to determine their effectiveness in pursuit of this aim.
- Better financial support for student nurses, fair pay and improved working conditions are crucial to enhance the value of nurses and nursing, promoting self-esteem, contributing to the development of more emotionally intelligent role models and subsequently improving the culture of care.

9.4 New perspectives to support the development of EI during nurse education

The fourth research objective sought to understand how to support the development of students' EI during nurse education. A range of new perspectives about the way students develop, or in this instance did not develop TEI emerged from this study. These included the existence of conceptual differences and the suggestion that TEI could be enhanced through simulation and specific forms of supervision (8.1.4). It also became apparent that students' lack of attention to personal wellbeing and reduced motivation had significant personal, economic and societal impacts.

Social awareness and emotion perception, separate facets associated with different factors of TEI, were combined by students to explain attributes required to survive placements (8.1.3.1). Participants recognised the need for well-developed social skills but were unable to access the opportunity to develop these due to their busy schedules. Adept at distinguishing relational dynamics but feeling ill-prepared to manage conflict, students felt powerless to effect change, particularly in practice areas. Choosing to remain silent in order to 'keep out of trouble' interview participants recounted incidents of feeling unable to stand up for themselves. However, they differentiated between acting assertively on their own behalf and on behalf of others. Despite a lack of confidence when advocating for patients, students were highly motivated to do so and were willing to risk disapproval by qualified staff if they felt it was in the patient's best interest. Fear of negative consequences and lowered self-

esteem by the end of nurse education partially explained students' reticence to act as self-advocates.

Similarly, a difference was observed between encouraging others to express emotion and students' own capacity to do so (8.1.3.2). Identifying as those in whom others could confide, interview participants described withholding their own difficult feelings in order to avoid burdening others. The absence of effective role models and mentors contributed to the development of a range of coping strategies. Some of these strategies, in particular the routine use of suppression, were acknowledged as potentially detrimental to students' mental wellbeing.

Interview participants identified a range of interventions with the potential to enhance TEI during nurse education (8.1.4). In agreement with the literature, two of the students interviewed indicated that they found reflection difficult and periodically lacked emotional awareness as a result (Campbell and Daley, 2009). They identified the need for an alternative form of supervision, with a focus on the provision of a safe space providing the opportunity to confide in trusted others and explore potential strategies to manage the emotional aspects of nursing. Additionally, students suggested an increase in the use of simulation, including role-play to enact commonly occurring emotionally charged elements of nursing practice. Despite the availability of evidence to support the value of these interventions as part of the educational process, participants reported few opportunities. The challenges associated with increased cohort sizes, and the amount of time and content required contributed to their limited use (Huggins, et. al. 2019). For HEI providers facilitating large cohorts of students, the benefits associated with the economies of scale may lead to compromising the student experience. The complexities associated with facilitating small group teaching and learning opportunities reduced their availability and subsequently the possibility of enhancing TEI. The economic impact of introducing some of the recommendations proposed may appear cost prohibitive. However, the findings of this research also highlight the potential cost to the economy and society in response to a reduction in TEI during nurse education.

The requirement for student and registered nurses to maintain their own emotional wellbeing in order to effectively support others is clear (NMCa, 2018; Cilar, et. al. 2019). A reduction in student wellbeing, combined with a lack of attention to personal needs are issues of particular concern (8.2.1). The detrimental impact this has on students' emerging professional identities combined with the stress associated with working in health and social care contexts increases the risk of delayed or non-completion. A significant reduction in self-motivation has the potential to exacerbate pre and post registration attrition (8.2.3).

Encouraging autonomous motivation in nurse education by increasing engagement and closer alignment to an individual's values has the potential to partially mitigate that risk. However, these adjustments have cost implications and the lack of extrinsic motivation associated with low pay and poor working conditions continue to threaten the integrity of the nursing workforce. Fortunately, students' intrinsic motivation expressed through their desire to help people despite the emotional cost, sustains many of them to the point of registration. However, the longer term economic and societal implications of reduced mental wellbeing and self-motivation cannot be ignored.

There is a massive shortage of registered nurses, demonstrated by 43,950 nursing vacancies in England and a projected global shortfall of 9 million nurses by 2030 (West, et. al. 2020; WHO, 2020). A third of students do not complete nurse education, with significant consequences for the economy and society. Enhancing TEI, in particular student wellbeing and self-motivation, has the potential to reduce attrition, release timely resources to the community, decrease the cost to the economy associated with non-completion and make a substantial fiscal contribution to society by supporting the health of the nation.

Recommendations:

- Clear strategy and effective leadership to address poor culture in health and social care contexts.
- Additional opportunities for students to learn and practice assertiveness in response to conflict, bullying and incivility in practice areas.
- Purposeful interventions to enable students to develop healthy coping strategies to manage the emotional demands of the role. These should include improved opportunities for socialisation in nursing practice and positive examples of emotionally supportive teams.
- Regular access to a form of clinical supervision with greater emphasis on how to recognise, express and manage difficult emotions.
- Increased use of simulation and role play to provide opportunities to practice communication and management of emotion.
- Adjustments to staff to student ratios in academic settings to facilitate increased use of simulation and enhanced supervision.
- Increased financial investment in pre-registration nurse education to facilitate small group teaching and develop interventions to enhance student nurse wellbeing.

9.5 Limitations and suggestions for further research

Limitations identified include those inherent within EI theory and others associated with methodological issues. A range of conceptually different constructs have been identified in EI theory, reclassified on multiple occasions, leading to an array of labels and measures (Hellwig, et. al. 2020). By using Petrides' (2009a) model of TEI and the associated TEIQue tool, construct clarity has been established. Consequently, the results are interpreted through the lens of one specific theoretical perspective of EI.

Methodological issues included the application of a single TEI measurement tool. It was necessary to use the long version of the TEIQue (Petrides, 2009a) in order to capture data at facet level and avoid the difficulties with factor level design associated with the short version of the tool (Snowden, et. al. 2015b). However, completing the 153 questions was time consuming, taking participants between 30-40 minutes, restricting the application of additional tools to determine the influence of other potentially significant elements. Ideally, including an alternative self-assessment measure of EI for example Bar-On's Emotional Quotient inventory (EQ-i) would have provided a helpful comparison. Similarly, the application of a battery of tests to examine specific TEI facets, for example the Coopersmith Self-esteem Inventory (CSI) (1987), the Gerry (1989) tool of Assertive behaviour in nurses and/or Nursing Empathy Scale (Reynolds, 2000) may have provided additional insight across the cohort (Groth-Marnat, 2009). However, in addition to increasing the risk of participant attrition, the volume of data generated in response to these changes would have exceeded the capacity of a single researcher undertaking a mixed method PhD study. Subsequent studies should consider mobilising a team of researchers.

It was not within the remit of this study to consider cultural background however there is a general absence of literature examining the relationship between culture, TEI and nursing. Additional research focusing on student nurses from a minimum of two HEI's using the full version of the TEIQue tool, an alternative TEI measure and concurrent application of a cultural orientation scale, for example the Triandis, and Gelfand (1998) abbreviated individualism-collectivism (I-C) scale, is necessary to establish the potential for relationships between individualism, collectivism and TEI.

The volume of quantitative data generated from the longitudinal element of this study was extensive and the analysis complex (Howitt and Cramer, 2016). Subsequently, there was a degree of pragmatism employed to inform the analytical process. Using multiple regression analysis to explore the demographic data may have provided a more complete appreciation of their relationship to students' TEI. However, as age, gender and field of nursing generated very few statistical differences a less complex approach was chosen. Nevertheless, future

research may benefit from a more detailed exploration of these elements, specifically differences between fields. Despite the fact that there were no sustained differences observed in this study, future research might consider the comparisons between mental health students and those from other fields in response to the temporary disparity noted between student groups at the beginning of year two.

The qualitative data generated via the IPA study explored the lived experience of four students from a homogenous group, adhering to the theoretical recommendations (Smith, et. al. 2009). The demographics selected were females aged 18-20, as this was representative of the largest subgroup within the cohort. Students from three of the four fields of nursing were included in the group, however there were no volunteers from the mental health field. Given the differences observed between mental health students and those from other fields at the beginning of year two, future research would benefit from the inclusion of students from this field. Similarly, given the nature of IPA's focus on gaining an in-depth understanding of personal experience it would be helpful to gain different perspectives through replication of this element of the study with small homogenous groups representing different age, gender, and cultural groups. If additional resources were available, further insight could be gained through follow up interviews with participants at the end of the course or during their first year as a registered nurse.

The results of this study support the view that TEI and its various sub-factors are subject to change during nurse education. However, it is also clear that these are unlikely to develop or improve without purposeful and intentional activity involving nurse educators, supervisors and assessors in academia and in practice. Recommendations have been made to increase TEI by incorporating more simulation, role-play and enhanced supervision. However, these were based on the views of a very small sample of students. While these findings concur with those of earlier studies (Gribble, et. al. 2017), further research is required to ascertain the potential benefit of these interventions based on the evidence produced by a wider range of nursing students and academics. Similarly, the argument is made for the inclusion of a range of evidence-based activities to enhance specific aspects of TEI. Although there are some interventions outlined in the literature, the body of evidence is sparse and further research is required.

9.6 Final reflections

Undertaking this study challenged my understanding of research practice; the use of a mixed method approach proved ambitious, rewarding and frustrating. Improving my appreciation of qualitative and quantitative approaches was just the beginning, quickly followed by the

challenge of understanding the added complexities associated with mixed methods including the appropriate application of research ethics, robust quality measures and reflective practice in each element. Nonetheless, the process has enhanced my knowledge, improved my academic skills, provided a better appreciation of the student journey and a more sympathetic approach to those I supervise. In agreement with Veblen, “the outcomes of any serious research can only be to make two questions grow where only one grew before” (Veblen, 1919: 1990, p33). This research has raised multiple questions and a recognition that all designs have limitations, creating many opportunities for further research.

The finding that students’ TEI scores diminished during the course of nurse education was disappointing. Despite having no personal investment in this cohort, as a nurse educator I hoped that some aspects of students’ TEI might have improved. Similarly, I felt grieved as students recounted their sadness during interviews as they described their struggle to find safe places to express difficult feelings and people skilled enough to coach them through the process of learning how to regulate and manage emotion. Their accounts of negative clinical experiences indicative of a stressed and disheartened nursing workforce will remain with me.

The inclusion of EI in the nursing standards for proficiency (2018) was undoubtedly a positive step for nurse education, with the potential to facilitate the development of a more emotionally intelligent nursing workforce. However, if this aspiration is to be realised there is much work to be done. Gaining a theoretical appreciation of TEI without the opportunity for individuals to explore specific areas for development is unlikely to generate significant growth. Academic and practice settings need to create protected environments within which students are enabled to explore their experiences of nursing practice and, through facilitated reflection, develop their capacity to express, regulate and manage emotion. A failure to do so risks eroding students’ TEI before they gain nurse registration, threatening their wellbeing and the quality of care they are able to provide.

Initially stirred by the limited attention paid to developing student nurses’ emotional capacity, it was hard to believe that before the completion of this thesis these issues would be exacerbated by a global pandemic. The human cost has been enormous, more than one hundred and sixty thousand lives have been lost, a significant proportion of those who hoped to care for others feel unable to continue and many of those needing care go without (West, et. al. 2020; Gov.uk, 2021; British Medical Association (BMA), 2021). Pre-existing vulnerabilities in our health and social care systems have been laid bare. It is more important than ever that future nurses are supported and equipped to manage the emotional challenges of their role. The social and economic impacts of a failure to do so are profound. The results of this research, predating the pandemic, support widespread changes to pre-

registration nurse education and healthcare culture. They are perhaps now more pertinent than ever; time, energy and innovation are required to meet the challenge. However, without considerable financial input to address low pay, poor working conditions and unhealthy cultures, the next generation of nurses risk the continued depletion of their emotional intelligence.

REFERENCES

Adamson, E. Dewar, B. (2015) Compassionate Care: Student nurses' learning through reflection and the use of story. Nurse Education in Practice,15(3), pp. 155-161.

Aiken, L.H. Sloane, D.M. Bruyneel, L. Van den Heede, K. Griffiths, P. Busse, R. Diomidous, M. Kinnunen, J. Kozka, M. Lesaff, E. McHugh, M.D. Moreno-Casbas, M. T. Rafferty, A.M. Schwendimann, Scott, P. A. Tishelman, C. Van Achterberg, T. Sermeus, W. (2014) Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. Lancet, 383, pp.1824–1830.

Aldiabat, K. M. Matani, M. A. and Le Navenac, C. L. (2014) Mental health among undergraduate university students: A background paper for administrators, educators and healthcare providers. Universal Journal of Public Health, 2(8), pp. 209-214.

Alexander, L. Sheen, J. Rinehart, N. Hay, M. and Boyd, L. (2018) Mental health simulation with student nurses: A qualitative Review. Clinical Simulation in Nursing, 14, pp. 8-14.

Alvesson, M. Hardy, C. and Harley, B. (2008) Reflecting on reflexivity: Reflexive Textual Practices in Organization and Management Theory. Journal of Management Studies,45(3), pp. 480 – 501.

Alvesson, M. and Sköldberg, K. (2018) *Reflexive methodology: New vistas for qualitative research* (3rd Ed.) London: Sage.

Amos, I. (2016) Interpretative phenomenological analysis and embodied interpretation: Integrating methods to find the 'words that work'. Counselling and Psychotherapy Research, 16(4), pp. 307–317.

Andrei F., Siegling A. B., Aloe, A. M., Baldaro, B., & Petrides, K. V. (2016). The incremental validity of the Trait Emotional Intelligence Questionnaire (TEIQue): A systematic review and meta-analysis. Journal of Personality Assessment, 98, pp. 261-276.

Andrew, L. Maslin-Prothero, S. E. Costello, L. Dare, J. and Robinson, K. (2015) The influence of intimate partnerships on student nurse progression: An integrative literature review. Nurse Education Today, 35, pp. 1212-1220.

Angelidis, J. and Ibrahim, N.A. (2011) The Impact of Emotional Intelligence on the Ethical Judgment of Managers, Journal of business ethics, 99(1), pp. 111-119.
Antonakis, J. & Dietz, J. (2010). Emotional intelligence: On definitions, neuroscience, and marshmallows. Industrial and Organizational Psychology, 3(2), pp. 165-170.

Aradilla-Herrero, A. Tomas-Sabado, J. and Gomez-Benito, J. (2012) Death attitudes and emotional intelligence in nursing students. OMEGA, 66(1), pp. 39-55.

Aradilla-Herrero, A. Tomas-Sabado, J. and Gomez-Benito, J. (2013) Perceived emotional intelligence in nursing: psychometric properties of the Trait Meta-Mood Scale. Journal of Clinical Nursing, 23, pp. 955-966.

Arteche, A. Chamorro-Premuzic, T. Furnham, A. and Crump, J. (2008) The relationship of trait EI with personality, IQ and sex in a UK sample of employees. International Journal of Selection and Assessment, 16, pp. 421-426.

Asendorpf, J.B., Conner, M., De Fruyt, F., De Houwer, J., Denissen, J.J.A., Fiedler, K., Fiedler, S., Funder, D.C., Kliegl, R., Nosek, B.A., Perugini, M., Roberts, B.W., Schmitt, M., van Aken, Marcel A. G, Weber, H. & Wicherts, J.M. (2013) Recommendations for Increasing Replicability in Psychology. European journal of personality, 27(2), pp. 108-119.

Ashkanasy, N.M. & Daus, C. S. (2005) Rumors of the death of emotional intelligence in organizational behaviour are vastly exaggerated. Journal of Organisational Behaviour, 26, pp. 441-452.

Astedt-Kurki, P. and Kaunonen, M. (2018) Ethics in nursing research and research publications. Scandinavian Journal of Caring Sciences, 32(2): pp 449-450

Auerbach, R. P. Alonso, J. Axinn, W. G. Cuijpers, P. Ebert, D. D. Green, J. G. and Bruffaerts, R. (2016) Mental disorders among college students in the World Health Organization World Mental Health Surveys. Psychological Medicine, 46(14), pp. 2955–2970.

Augusto Landa, J. M. Martos, M. P. and Lopez-Zafra, E. (2010) Emotional Intelligence and Personality Traits as Predictors of Psychological Well-Being in Spanish Undergraduates. Social behavior and personality, 38(6), pp.783–793.

Aveyard, H. (2018) Doing a Literature Review in Health and Social Care: A Practical Guide. Maidenhead: McGraw-Hill Education.

Aveyard, H. and Bradbury-Jones, C. (2019) An analysis of current practices in undertaking literature reviews in nursing: findings from a focused mapping review and synthesis. BMC medical research methodology, Vol. 19 (1), pp. 105.

Bach, S. and Grant, A. (2015) Communication and Interpersonal skills in nursing. London: Sage.

Badolamenti, S. Sili, A. Caruso, R. and FidaFida, R. (2017) What do we know about emotional labour in nursing? A narrative review. British journal of nursing, 26(1), pp. 48-55.

Bakker, M. and Wicherts, J. (2014) Outlier removal and the relation with reporting errors and quality of psychological research. *PloS one*. [Online] 9 (7), e103360–e103360.

Ball, J. Pike, G. Griffith, P. Rafferty, A.M. and Murrells, T. (2012) *RN4CAST Nurse Survey in England*. National Nursing Research Unit. Available at: www.kcl.ac.uk/nursing/research/nnru/publications/Reports/RN4Cast-Nurse-survey-report-27-6-12-FINAL.pdf

Ballatt, J. and Campling, P. (2011) Intelligent Kindness: Reforming the culture of healthcare. London: RCPsych Publications.

Banks van Zyl, A. and Noonan, I. (2018) The Trojan War inside nursing: an exploration of compassion, emotional labour, coping and reflection. British Journal of Nursing, 27(20) pp. 1192-1196.

Bar-On, R. (1997) The Emotional Quotient Inventory (EQ-i) Technical manual. Toronto: Multi-Health Systems, Inc.

Bar-On, R. (2013) Description of the Bar-On EQ-I EQ-360 and EQ-i:YV. Available at: https://www.reuvenbaron.org/wp/description-of-the-eq-i-eq-360-and-eq-iyv/

Bates, A. (2014) Reflections from a tarnished mirror: An application of Alvesson and Sköldberg's 'reflexive interpretation' to a study of curriculum design in higher education. International Journal of Research & Method in Education, *37*(3), pp. 227-241.

Baxter, R. Taylor, N. Kellar, I. and Lawton, R. (2019) A qualitative positive deviance study to explore exceptionally safe care on medical wards for older people. BMJ Quality and Safety, 28, pp. 618-626.

Bazeley, P. (2018) Mixed Methods in Context. In: Integrating Analyses in Mixed Methods Research, London: SAGE Publications Ltd.

Beanlands, H. McCay, E. Fredericks, S. Newman, K. Rose, D. Santa Mina, E. Shindel Martin, L. Schwind, J. Sidani, S. and Aiello, A. (2019) Decreasing stress and supporting emotional well-being among senior nursing students: A pilot test of an evidence based intervention. Nurse Education Today, 76, pp. 222-227.

Beauvais, A. Brady, N.O. O'Shea, E. R. and Quinn Griffin, M.T. (2011) Emotional Intelligence and nursing performance among nursing students. Nurse Education Today, 31(2), pp. 396-401.

Beech, J. Bottery, S. McKenna, H. Murray, R. Charlesworth, A. Evans, H. Gershlick, B. Hemmings, N. Imison, C. Kahtan, P. and Palmer, B. (2019) Closing the Gap: Key areas for action on the health and care workforce. Available at: https://www.kingsfund.org.uk/sites/default/files/2019-06/closing-the-gap-full-report-2019.pdf

Beer, G. (Ed) (2013) Too Posh to Wash? Reflections on the future of Nursing. Available at: https://www.researchgate.net/publication/263619820_Too_posh_to_wash_Reflections_on_the_future_of_nursing

Beest, H. ter. Bemmel, M.E.C. van. And Aiaansen, M. J. M. (2018) Nursing student as a patient: experiential learning in a hospital simulation to improve empathy of nursing students. Scandinavian journal of caring sciences, 32 (4), pp. 1390–1397.

Begley, C. M. and Glacken, M. (2004) Irish nursing students changing levels of assertiveness during their pre-registration programme. Nurse Education Today, 24, pp. 501-510.

Benson, G. Martin, L. Ploeg, J. and Wessel, J. (2012) Longitudinal Study of Emotional Intelligence, Leadership, and Caring in Undergraduate Nursing Students. Journal of Nursing Education, 51(2), pp. 95-101.

Benson, G. Ploeg, J. and Brown, B. (2010) A cross-sectional study of emotional intelligence in baccalaureate nursing students. Nurse Education Today, 30, pp. 49-53.

Berger, R. (2013) Now I see it, now I don't: researchers position and reflexivity in qualitative research. Qualitative Research Vol. 0 (0) pp. 1-16. Available at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.839.4187&rep=rep1&type=pdf

Betzner, A. (2008) Pragmatic and Dialectic Mixed Method Approaches: An Empirical Comparison. PhD thesis. The University of Minnesota. Available at: https://conservancy.umn.edu/bitstream/handle/11299/46961/Betzner_umn_0130E_10139.pdf?sequence=3

Biesta, G. (2010) Pragmatism and the philosophical foundations of mixed methods research. In Eds: Tashakkori, A and Teddlie, C. (2010) Sage Handbook of Mixed Methods in Social and Behavioural Research (2nd Ed). London: Sage.

Birks, M. Cant, R.P. Budden, L. M. Russell-Westhead, M. Ozcetin, Y. S. U. and Tee, S. (2017) Uncovering workplace bullying: A comparison of baccalaureate nursing students' experiences during clinical placement in Australia and the UK. Nurse Education in Practice, 25, pp. 14-21.

Blanch-Hartigan, D. and Ruben, M. A. (2013) Training clinicians to accurately perceive their patients: Current state and future directions. Patient Education and Counselling, 92(3), pp. 328-336.

Bleidorn, W. Arslan R. C. Denissen , J.J.A. Rentfrow, P. J. Gebauer, J. E. Potter, J. and Gosling, S. D. (2016) Age and Gender Differences in Self-Esteem – A Cross-Cultural Window. Journal of personality and social psychology, 111(3), pp. 396-410.

Borneo, A. Dalrymple, A. Hadden, C. Johnson, A. Kiely, S. Knape, J. Oakley, P. Oorthuysen-Dunne, J. and Turnbull, L. (2020) Building a better future for nursing RCN members have their say. Available at: https://www.rcn.org.uk/professional-development/publications/rcn-builiding-a-better-future-covid-pub-009366

Boswell, C. and Cannon, S. (2018) Introduction to Nursing Research: Incorporating Evidence-Based Practice. Burlington: Jones & Bartlett Learning.

Boulton, M. and O'Connell, K. A. (2017) Nursing students' perceived faculty support, stress and substance misuse. Journal of Nursing Education, 56(7), pp. 404-411.

Bowling, A. (2014) Research Methods in Health: Investigating Health and Health Services, 4th Edn. Berkshire: Open University Press.

Boyatzis, R.E. Batista-Foguet, J.M. Fernández-I-Marín, X. and Truninger, M. (2015) EI competencies as a related but different characteristic than intelligence. Frontiers in psychology, 6, pp. 72-72.

Brannen, J.P. (2016) Mixing Methods: Qualitative and Quantitative Research. Florence: Taylor and Francis.

Bressan, V. Bagnasco, A. Aleo, G. Timmins, F. Barisone, M. Bianchi, M. Pellegrini, R. and Sasso, L. (2017) Mixed-methods research in nursing - a critical review. Journal of clinical nursing, 26(19), pp. 2878-2890.

British Medical Association (BMA) (2021) Pressure points in the NHS. Available at: https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/pressure-points-in-the-nhs

Brownie, S. M. (2018) The economic impact of nursing. Journal of clinical nursing, 27 (21-22), pp. 3825-3826.

Bruffaerts, R. Mortier, P. Kiekens, G. Auerbach, R. P. Cuijpers, P. Demyttenaere, K. and Kessler, R. C. (2018). Mental health problems in college freshmen: Prevalence and academic functioning. Journal of Affective Disorders, 225, pp. 97–103.

Brunetto, Y. Teo, S. T. T. Shacklock, K. and Farr-Wharton, R. (2012) Emotional intelligence, job satisfaction, wellbeing and engagement: explaining organisational commitment and turnover intentions in policing. Human Resource Management Journal, 22(4), pp. 428-441.

Bryan, V.D. Weaver, S. Anderson-Johnson, P. and Lindo, J.M.L. (2013) The effect of interpersonal relationships between nursing students and lecturers on learning outcomes at a Jamaican nursing school. Caribbean Journal of Nursing, 1(1), pp. 41–48.

Bryman, A. (2016) Social research methods. 5th edn. Oxford: Oxford University Press.

Bubb, S. (2014) Winterbourne View – Time for change. Transforming the commissioning of services for people with learning disabilities and/or autism. Available at: https://www.england.nhs.uk/wp-content/uploads/2014/11/transforming-commissioning-services.pdf

Bulmer-Smith, K. Profetto-McGrath, J. Cummings, G.C. (2009) Emotional intelligence and nursing: An integrative literature review. International Journal of Nursing Studies, 46, pp. 1624-1639.

Buresh, B. and Gordon, S. (2013) From Silence to Voice: What Nurses Know and Must Communicate to the Public. Ithaca: Cornell University Press.

Burns, R. A. (2020) Age-related differences in the factor structure of multiple wellbeing indicators in a large multinational European survey. Journal of Happiness studies, 21, pp. 37-52.

Butler, J. (2021) Emotional Intelligence in Nursing Leadership. Australian nursing and midwifery journal, 27 (5), pp. 18.

Callwood, A. Cooke, d. Bolger, S. Lemanska, A. Allan, H. (2018) The reliability and validity of multiple mini interviews (MMIs) in values based recruitment to nursing, midwifery and paramedic practice programmes: Findings from an evaluation study. International Journal of Nursing Studies, 77, pp. 138.

Campbell, S. and Daley, K. (2009) Simulation Scenarios for Nursing Educators: Making it Real, 2nd Edn. New York: Springer Publishing Company.

Campelia, G. and Tate, T. (2019) Empathetic Practice: The struggle and virtue of empathizing with a patient's suffering. Hastings Center Report, 49(2), pp.17-25.

Carragher, J. and Gormley, K. (2017) Leadership and emotional intelligence in nursing and midwifery education and practice: a discussion paper. Journal of Advanced Nursing, 73(1), pp. 85-96.

Carvalho, V. S. Guerrero, V. Chambel, M. C. (2018) Emotional intelligence and health students' well-being: A two-wave study with students of medicine, physiotherapy and nursing. Nurse Education Today, 62, pp. 35-42.

Caspi, A. Roberts, B. W. and Shiner, R.L. (2005) Personality development: Stability and Change. Annual Review Psychology 56; 453-484. Available at: http://academic.udayton.edu/jackbauer/Readings%20595/Caspi%2005%20per%20dev%20copy.pdf

Casson, R.J. and Farmer, L.D. (2014) Understanding and checking the assumptions of linear regression: A primer for medical researchers. Clinical & experimental ophthalmology, 42(6), pp. 590-596.

Cerit, E. and Beser, N. (2014) Levels of Emotional Intelligence of Nursing Students. International Journal of Caring Sciences, 7(3), pp. 936-942.

Chamberlain, K. (2015) Epistemology and qualitative research. In: Rohleder, P. and Lyons, A.C. E (Eds.) Qualitative research in clinical and health psychology. Basingstoke, Palgrave MacMillan.

Chan, Z. C. Cheng, W.Y. Fong, M. K. Fung, Y.S. Ki, Y. M. Li, Y.L. Wong, H. T. Wong, T. L. and Tsoi, W. F. (2019) Curriculum design and attrition among undergraduate nursing students: A systematic review. Nurse education today. 74, pp. 41-53.

Chapman, B. Hayslip, B. (2006) Emotional Intelligence in Young and Middle Adulthood: Cross-sectional analysis of latent structure and means. Psychology and Aging, 21(2), pp. 411-418.

Charlick SJ, Pincombe J, McKellar L, Fielder A. (2016) Making sense of participant experiences: interpretative phenomenological analysis in midwifery research. International Journal of Doctoral Studies, 11, pp. 205-16.

Checa, P. and Fernández-Berrocal, P. (2015) The Role of Intelligence Quotient and Emotional Intelligence in Cognitive Control Processes. Frontiers in psychology, 6, pp. 1853-1853.

Cheshire, M. H. Strickland, H. P. Ewell, P. J. (2020) measured Emotional Intelligence in Baccalaureate Nursing Education: A longitudinal study. Nursing Education Perspectives, 41(2), pp.103-105.

Christensen, M., Aubeeluck, A., Fergusson, D., Craft, J., Knight, J., Wirihana, L. & Stupple, E. (2016) Do student nurses experience Imposter Phenomenon? An international comparison of Final Year Undergraduate Nursing Students readiness for registration. Journal of advanced nursing, 72(11), pp. 2784-2793.

Cilar, L. Barr, O. Stiglic, G. and Pajnkihar, M. (2019) Mental well-being among nursing students in Slovenia and Northern Ireland: A survey. Nurse Education in Practice, 39, pp. 130-135.

Clancy, M. (2013) Is reflexivity the key to minimising problems of interpretation in phenomenological research? Nurse Researcher, 20(6), pp. 12-16.

Cleary, M. Visentin, D. West, S. Lopex, V. Kornhaber, R. (2018) Promoting emotional intelligence and resilience in undergraduate nursing students: An integrative review. Nurse Education Today, 68, pp. 112-120.

Clements, A. J. Kinman, G. , S. Teoh, K. and Guppy, A. (2016) Exploring commitment, professional identity and support for student nurses. Nurse Education in Practice, 16 (1), pp. 20-26.

Codier, E. and Codier, D. (2017) Could Emotional Intelligence Make Patients Safer? American Journal of Nursing, 117(7), pp. 58-62.

Codier, E. Freel, M. Kamikawa, C. and Morrison, P (2011) Emotional intelligence, caring and generational difference in nurses. International Journal for Human Caring, 5(1), pp. 49-55.

Codier, E. Muneno, L. Franey, K. and Matsuura, F. (2010) Is emotional intelligence an important concept for nursing practice? Journal of Psychiatry and Mental Health Nursing, 17(10), pp. 940–948.

Coetzee, M. and Harry, N. (2014). Emotional intelligence as a predictor of employees' career adaptability. Journal of Vocational Behavior, 84, pp.90–97.

Conte, J.M. (2005) A review and critique of emotional intelligence measures. Journal of Organizational Behavior, 26(4), pp. 433-440.

Cooke, A. Smith, D. and Booth, A. (2012) Beyond PICO: The SPIDER Tool for Qualitative Evidence Synthesis. Qualitative Health Research, 22(10), pp. 1435-1443.

Coolican, H. (2018) Research Methods and Statistics in Psychology. Oxon: Routledge.

Cooper, J. (2014) Personal development is professional development taking care of the wellbeing of our nurses. Australian Nursing and Midwifery Journal, Vol 22 (5), pp. 32.

Coopersmith, S. (1987) Self-esteem inventories. Palo Alto: Consulting Psychologists Press.

Costa, P. T. Jr. and McCrae, R. R. (1985) The NEO Personality Inventory manual. Florida: Psychological Assessment Resources.

Cottrell, L. (2016) Joy and happiness: a simultaneous and evolutionary concept analysis. Journal of Advanced Nursing, 72(7), pp. 1506-1517.

Creswell, J. W. (2010) Mapping the Developing Landscape of Mixed Methods Research. In: Tashakkori, A and Teddlie, C. (Eds.) Sage Handbook of Mixed Methods in Social and Behavioural Research, 2nd Edn. London: Sage.

Creswell, J. and Plano Clark, V.L. (2018) Designing and conducting mixed methods research, 3rd Edn. London: Sage.

Cummings, J. and Bennett, V. (2012) Compassion in Practice: Nursing, Midwifery and Care Staff Our Vision and Strategy. Available at: https://www.england.nhs.uk/wp-content/uploads/2012/12/compassion-in-practice.pdf

Cunico, L. Sartori, R. Marognolli, O. and Meneghini, A. M. (2012) Developing empathy in nursing students: a cohort longitudinal study. Journal of Clinical Nursing, 21, pp. 2016-2025.

Curtis, M.J. Alexander, S. Cirino, G. Docherty, J.R. George, C.H. Giembycz, M.A. Hoyer, D. Insel, P.A. Izzo, A.A. Ji, Y. MacEwan, D.J. Sobey, C.G. Stanford, S.C. Teixeira, M.M. Wonnacott, S. and Ahluwalia, A. (2018) Experimental design and analysis and their reporting II: updated and simplified guidance for authors and peer reviewers. British journal of pharmacology, 175(7), pp. 987-993

Curtis, E. and Drennan, J. (2013) Quantitative Health Research: Issues and Methods. Maidenhead: Open University Press.

Davies, S. Jenkins, E. and Mabbett, G. (2010) Emotional intelligence: District nurses' lived experiences. British Journal of Community Nursing, 15, pp.141-146.

Davis, A and Maisano, P. (2016) Patricia Benner: novice to expert – a concept whose time has come (again). Oklahoma Nurse, 61(3). Available at: https://go-gale-com.ezproxy.bcu.ac.uk/ps/i.do?p=AONE&u=uce&id=GALE|A463514607&v=2.1&it=r&sid=summon

Davis, D. (2020) Presenting research reflexivity in your PhD thesis. Nurse Researcher, 28(3), pp.37-43.

Dean, E. (2018) The old bias that won't go away. Nursing Standard, 33(6), pp. 28-30.

Deary, I. Watson, R. and Hogston, R. (2003) A longitudinal study of burnout and attrition in nursing students. Journal of Advanced Nursing, 43(1), pp. 71-81.

Deasy, C. Doody, O. and Tuohy, D. (2011) An exploratory study of role transition from student to registered nurse (general, mental health and intellectual disability) in Ireland. Nurse Education in Practice, 11 (2), pp. 109-113.

Department of Health and Social Care (DOHSC) (2017) Policy paper: NHS bursary reform. Available at: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf

Di Fabio, A. Saklofske, D. H. and Tremblay, P. F. (2016) Psychometric properties of the Italian trait emotional intelligence questionnaire (I-TEIQue). Personality and Individual Differences, 96, pp. 198-201.

Dimond, B. (2019) Legal Aspects of Nursing: A Definitive Guide to Law for Nurses, 8th Edn. Harlow: Pearson Education Limited.

Domínguez-García, E. and Fernández-Berrocal, P. (2018) The Association Between Emotional Intelligence and Suicidal Behavior: A Systematic Review. Frontiers in psychology, 9, pp. 2380-2380.

Donose, L. M. B. Demerouti, E. Hernandes. E. G. Moreno-Jimenez, B. and Cobo, I. C. (2015) Positive benefits of caring on nurses' motivation and well-being: a diary study about the role of emotional regulation abilities at work. International Journal of Nursing Studies, 52, pp. 804-816.

Doyle, L. (2016) Mixed methods. In: Henly, S. J. (Ed) Routledge International Handbook of Advanced Quantitative Methods in Nursing Research. Oxon: Routledge.

Duarte, J. and Pinto-Gouveia, J. (2017) Empathy and feelings of guilt experienced by nurses: A cross-sectional study of their role in burnout and compassion fatigue symptoms. Applied nursing research, 35, pp. 3542–47.

Duchscher, J.E.B., (2009) Transition shock: the initial stage of role adaptation for newly graduated registered nurses. Journal of Advanced Nursing ,65(5), pp. 1103–1113.

Durkin, M. Gurbutt, R. and Carson, J. (2018) Qualities, teaching, and measurement of compassion in nursing: A systematic review. Nurse Education Today, 63. pp. 50-58.

Duygulu, S. Hicdurmaz, D. and Akyar, I. (2011) Nursing Students' Leadership and emotional Intelligence in Turkey. Journal of Nurse Education, 50 (5), pp. 281- 285.

Eatough, V. and Smith, J. A. (2017) Interpretative phenomenological analysis. In: Willig, C. and Stainton-Rogers, W. (eds.) Handbook of Qualitative Psychology 2nd Edition. London, UK: Sage, pp. 193-211.

Edwards, D. Burnard, P. Bennett, K. and Hebden, U. (2010) a longitudinal study of stress and self-esteem in student nurses. Nurse Education Today, 30(1), pp. 78-84.

Edwards, M.C. and Edelen, M.O. (2009) Special topics in item response theory. In Eds: Millsap, R. E. and Maydeu-Olivares, A. The SAGE handbook of quantitative methods in psychology. Los Angeles: SAGE

Edwards, D. Hawker, C. Carrier J. and Rees, C. (2015) A systematic review of the effectiveness of strategies and interventions to improve the transition from student to newly qualified nurse. International Journal of Nursing Studies, 52(7), pp. 1254-1268.

Edwards, D. M. and Meagher, L. R. (2020) A framework to evaluate the impacts of research on policy and practice: A forestry pilot study. Forest Policy and Economics, 114, pp. 101975.

Edwards, S. (2014) Finding a place for story; looking beyond reflective practice. International Practice Development Journal, 4(2), pp. 1-14.

Egan, G. (2014) The Skilled Helper. A problem management and opportunity development approach to helping, 10th International Edn. USA: Cengage Learning.

Eley, D. Eley, R. Bertello, M and Rogers-Clark, C. (2012) Why did I become a nurse? Personality traits and reasons for entering nursing. Journal of Advanced Nursing, 68(7), pp. 1546-1555.

Engward, H. and Davis, G. (2015) Being reflexive in qualitative grounded theory: discussion and application of a model of reflexivity. Journal of advanced nursing, 71(7), pp. 1530-1538.

Enns, A. Eldridge, G. D. Montgomery, C. and Gonzalez, V. M. (2018) Perceived stress, coping strategies, and emotional intelligence: A cross-sectional study of university students in helping disciplines. Nurse Education Today, 68, pp. 226-231.

Evans, T.R. Hughes, D.J. and Steptoe-Warren, G. (2020) A Conceptual Replication of Emotional Intelligence as a Second-Stratum Factor of Intelligence. Emotion, 20(3), pp. 507-512.

Eysenck, H. J. (1970) The Structure of human personality, 3rd Edn. London: Methuen.

Fagerström, L. Bergbom, I. (2010) The Use of Hegelian Dialectics in Nursing Science. Nursing Science Quarterly, 23(1), pp. 79-84.

Fang, W. Zhang, Y. Mei, J. Chai, X and Fan. X (2018) Relationship between optimism, educational environment, career adaptability and career motivation in nursing undergraduates: A cross-sectional study. Nurse Education Today, 68, pp. 33-39.

Farrugia, B. (2019) WASP (Write a Scientific Paper): Sampling in qualitative research. Early Human Development, 133, pp.69-71.

Feng, R. and Tsai, Y. (2012) Socialisation of new graduate nurses to practising nurses. Journal of Clinical Nursing, 21(13/14), pp. 2064–2071.

Fernandez-Berrocal, P. Extremera, N and Ramos, N. (2004) Validity and reliability of the Spanish modified version of the Trait Meta-Mood Scale. Psychological Reports, 94, pp. 751-755.

Fernandez,R. Salamonson, Y. and Griffiths, R. (2012) Emotional intelligence as a predictor of academic performance in first year accelerated graduate entry nursing students. Journal of Clinical Nursing, 21, pp. 3485–3492.

Fernet, C. Gilet, N. Austin, S. Trpanier, S.G. and Drouin-Rousseau, S. (2021) Predicting Nurses' Occupational Commitment and Turnover Intention: The Role of Autonomous

Motivation and Supervisor and Coworker Behaviors. *Journal of nursing management*. Available at: https://hal.archives-ouvertes.fr/hal-03322598/document

Ferri, P. Guerra, E. Marcheselli, L. Cunico, L. and Di Lorenzo, R. (2015) Empathy and burnout: an analytic cross-sectional study among nurses and nursing students. Acta Biomed for Health Proffessions, 86(2), pp. 104-115.

Few, A. L. Stephens, D. P. and Rouse-Arnett, M. (2003) Sister-to-sister talk: Transcending boundaries and challenges in qualitative research with Black women. Family Relations, 52(3), pp. 205-215.

Field, A. P. (2017) Discovering statistics using IMB SPSS. Fifth edition. Los Angeles: SAGE.

Field, A. P. and Wilcox, R. R. (2017) Robust statistical methods: a primer for clinical psychology and experimental psychopathology researchers. Behaviour Research and Therapy, 98, pp. 19-38.

Fields, S. Mahan, P. Tillman, P. Harris, J. Maxwell, K. and Hojat, M. (2011) Measuring empathy in healthcare profession students using the Jefferson Scale of Physician Empathy: Health provider - student version. Journal of Interprofessional Care, 25, pp. 287–293.

Finfgeld-Connett, D. (2018) A Guide to Qualitative Meta-synthesis. (Online) Taylor and Francis.

Fiori, M., and Antonakis, J. (2011). The ability model of emotional intelligence: Searching for valid measures. Personality and Individual Differences*, 50* (3), pp. 329-334.

Fiori, M. Antonietti, J. Mikolajczak, M. Luminet,O. Hansenne,M. and Rossier, J. (2014) What Is the Ability Emotional Intelligence Test (MSCEIT) Good for? An Evaluation Using Item Response Theory. *PLoS ONE, 9(6*). Available at: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0098827&type=printable

Fitzgerald, A., & Konrad, S. (2021). Transition in learning during COVID-19: Student nurse anxiety, stress, and resource support. Nursing forum, *56*(2), pp. 298–304.

Flick, U. (2017) Mantras and Myths: The Disenchantment of Mixed-Methods Research and Revisiting Triangulation as a Perspective'. Qualitative Inquiry, 23(1), pp. 46–57.

Flick, U. (2018) Designing qualitative research. 2nd Edn. London: SAGE.

Flowers, L.K. Thomas-Squance, R. Brainin-Rodriguez, J.E. and Yancey, A.K. (2014) Interprofessional social and emotional intelligence skills training: study findings and key lessons. Journal of interprofessional care, 28(2), pp. 157-159.

Flynn, D.M. and MacLeod, S. (2015) Determinants of happiness in undergraduate university students. College student journal, 49(3), pp. 452.

Forbes-Rankin, R. (2009) Emotional Intelligence: Attrition and Attainment in Nursing and Midwifery Education. Ed.D. thesis. University of Sterling. Available at: https://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.567621

Ford, M. (2020) 'Even more' nurses considering quitting the profession, survey reveals. Nursing Times. Available at: https://www.nursingtimes.net/news/workforce/even-more-nurses-considering-quitting-the-profession-survey-reveals-17-07-2020/

Foster, K. Fethney, J. McKenzie, H. Fisher, M. Harkness, E. Kozlowski, D. (2017) Emotional intelligence increases over time: A longitudinal study of Australian pre-registration nursing students. Nurse Education Today, 55, pp. 65-70.

Foster, K. McCloughen, A. Delgado, C. Kefalas, C. and Harkness, E. (2015a) Emotional intelligence education in pre-registration nursing programmes: An integrative review. Nurse Education Today, 35(3), pp. 510-517.

Foster H, Ooms A, and Marks-Maran D (2015b) Nursing students' expectations and experiences of mentorship. Nurse Education Today, 35(1), pp. 18–24.

Foster, K. Roche, M. Giandinoto, J. A. Platania-Phung, C. and Furness, T. (2021) Mental health matters: A cross-sectional study of mental health nurses' health-related quality of life and work-related stressors. International journal of mental health nursing. [Online] 30 (3), pp. 624–634.

Francis, R. (2013) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry. Available at: https://webarchive.nationalarchives.gov.uk/20150407084231/http://www.midstaffspublicinquiry.com/report

Frels, R.K. and Onwuegbuzie, A.J. (2013) Administering Quantitative Instruments With Qualitative Interviews: A Mixed Research Approach. Journal of Counseling and Development, 91(2), pp. 184-194.

Freshwater, D. and Stickley, T. (2004) The Heart of the Art: emotional intelligence in nurse education. Nursing Inquiry, 11(2), pp. 91-98.

Freudenthaler, H. H. Neubauer, C. A. Gabler, P. Scherl, W. G. and Rindermann, H. (2008) Testing and validating the trait emotional intelligence questionnaire (TEIQue) in a German-speaking simple. Personality and Individual Differences, 45, pp. 673-678.

Frögéli, E. Rudman, A. Ljotsson, B. and Gustavsson, P. (2020) Preventing Stress-Related Ill Health Among New Registered Nurses by Supporting Engagement in Proactive Behaviors—A Randomized Controlled Trial. Worldviews on evidence-based nursing. [Online] 17 (3), pp. 202–212.

Funder, D.C. Levine, J.M. Mackie, D.M. Morf, C.C. Sansone, C. Vazire, S. and West, S.G. (2014) Improving the dependability of research in personality and social psychology: recommendations for research and educational practice. Personality and social psychology review, 18(1), pp. 3.

Gair, S. (2012) Feeling Their Stories: Contemplating Empathy, Insider/Outsider Positioning, and Enriching Qualitative Research. Qualitative health research, 22(1), pp. 134-143.

Galbraith, N. D. Brown, K. E. and Clifton, E. (2014) A Survey of Student Nurses' Attitudes Toward Help Seeking for Stress. Nursing Forum, 49(3), pp. 171–181.

Galvin, J. and Smith, A. P. (2015) Stress in UK Mental Health Training: a multi-dimensional comparison study. British Journal of Education, Society & Behavioural Science, 9, pp.161– 175.

Garett, R. Liu, S. and Young, S.D. (2017) A longitudinal analysis of stress among incoming college freshmen. Journal of American college health, 65(5), pp. 331-338.

Gary, J. (2013) Exploring the concept and use of positive deviance in nursing. American Journal of Nursing, 113(8), pp. 26-34.

Gerry, E. (1989) An investigation into the assertive behaviour of trained nurses in general hospital settings. Journal of Advanced Nursing, 14, pp. 1002-1008

Ghaye, T. and Lillyman, S. (2010) *Reflection: principles and practices for healthcare professionals*. 2nd Edn. London: Quay books.

Gibbons, C. Dempster, M. and Moutray, M. (2008) Stress and eustress in nursing students. Journal of Advanced Nursing. Vol, 61 (3), pp. 282-290.

Gibbs, N. (1995) The EQ Factor. Time, 68, pp.60-66.

Gilar-Corbi, R. Pozo-Rico, T. Sánchez, B. & Castejón, J. (2019) Can emotional intelligence be improved? A randomized experimental study of a business-oriented EI training program for senior managers. *PloS one,* 14(10), pp. e0224254. https://doi.org/10.1371/journal.pone.0224254

Glerean, N. Hupli, M. Talman, K. and Haavisto, E. (2019) Perception of nursing profession – focus group interview among applicants to nursing education. Scandinavian Journal of Caring Sciences, 33, pp. 390-399.

Gray, B. (2009) The emotional labour of nursing – Defining and managing emotions in nursing work. Nurse education today, 29(2), pp.168–175.

Greene, J. (2008) Is mixed methods social inquiry a distinctive methodology. Journal of mixed methods research, 2(1), pp. 7-22.

Greene, J and Hall, J. N. (2010) Dialectics and pragmatism; Being of consequence. In: Tashakkori, A and Teddlie, C. (Eds.) (2010) Sage Handbook of Mixed Methods in Social and Behavioural Research 2nd Ed. London: Sage.

Greene, M. (2014) On the Inside Looking In: Methodological Insights and Challenges in Conducting Qualitative Insider Research. Qualitative report, 19(15), pp. 1-13.

Greenhalgh, T. Thorne, S. and Malterud, K. (2018) Time to challenge the spurious hierarchy of systematic over narrative reviews? European Journal of Clinical Investigation, 48. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6001568/pdf/ECI-48-na.pdf

Gribble, N. Ladyshewsky, R. K. and Parsons, R. (2017) Fluctuations in the emotional intelligence of therapy students during clinical placements: Implication for educators, supervisors and students. Journal of Interprofessional Care, 31(1), pp. 8-17.

Gokcen, E. Petrides, K. V. Hudry, K. Frederickson, N. and Smillie, L. D. (2014) Sub-threshold autism traits: The role of trait emotional intelligence and cognitive flexibility. British Journal of Psychology, 105, pp. 187–199.

Goleman, D. (1996) Emotional Intelligence: Why It Can Matter More Than IQ. London: Bloomsbury Publishing.

Gov.uk (2018) Data Protection Act (Online) Available at: https://www.legislation.gov.uk/ukpga/2018/12/pdfs/ukpga_20180012_en.pdf

Gov.uk. (2019) Nursing students to receive £5,000 payment a year. Available at: https://www.gov.uk/government/news/nursing-students-to-receive-5-000-payment-a-year

Gov.uk. (2021) Deaths in the United Kingdom. Coronavirus (COVID-19) in the UK. Available at: https://coronavirus.data.gov.uk/details/deaths

Guetterman, T.C. Fetters, M. D. and Creswell, J.W. (2015) Integrating Quantitative and Qualitative Results in Health Science Mixed Methods Research Through Joint Displays. Annals of family medicine, 13(6), pp. 554-561.

Groth-Marnat, G. (2009) Handbook of Psychological Assessment 5th Edn. Hoboken: John Wiley & Sons, Incorporated, Hoboken.

Guo, M. Yin, X. Wang, C. Nie, L. Wang, G. (2019) Emotional intelligence and academic procrastination among junior college nursing students. Journal of Advanced Nursing, 75, pp. 2710-2718.

Guraya, S. Y. and Barr, H. (2018) The effectiveness of interprofessional education in healthcare: A systematic review and meta-analysis. The Kaohsiung Journal of Medical Sciences, 34(3), pp. 160-165.

Hakansson Eklund, J. H. Holmstrom, I. K. Lindqvist, A. O. Sundler, A. J. Hchwalder, J. and Hammar, L. M. (2019) Empathy levels among nursing students: A comparative cross-sectional study. Nursing Open pp.983-989. Available at: https://onlinelibrary.wiley.com/doi/epdf/10.1002/nop2.280

Halcomb, E. J. Andrew, S. and Brannen, J. (2009) Introduction to mixed methods research for nursing and the health sciences. In: Andrew, S, & Halcomb, E.J. (Eds.) Mixed Methods Research for Nursing and the Health Sciences. Hoboken: John Wiley & Sons.

Hammond, M. and Wellington, J. (2021) Research Methods: The Key Concepts, 2nd Edn. London: Routledge.

Hamshire, C. Jack, K. Forsyth, R. Langan, A. M. and Harris, E. W. (2019) The wicked problem of healthcare student attrition. Nursing inquiry, 26(3), e12294. Available at: https://doi.org/10.1111/nin.12294

Harpe, S. E. (2015) How to analyse Likert and other rating scale data. Currents in Pharmacy Teaching and Learning, 7, pp. 836-850.

Hart, E. (2019) The experience of preparing for and transitioning to registered practice. British Journal of Nursing, 28(6), pp. 362-368.

Hartley, J. (2014) Some thoughts on Likert-type scales International Journal of Clinical and Health Psychology, 14(1), pp. 83-86.

Hasanpour, M., Bagheri, M. and Ghaedi Heidari, F. (2018) The relationship between emotional intelligence and critical thinking skills in Iranian nursing students. Medical journal of the Islamic Republic of Iran, 32(1), pp. 40-234.

Hayes, C. Jackson, D. Davidson, P. M. and Daly J. (2018) Pondering practice: Enhancing the art of reflection. Journal of Clinical Nursing, 27(1-2), pp.345-353. Available at: https://doi.org/10.1111/jocn.13876

Heaslipa, V. Scammella, J. Mills, A. Spriggs, A. Addis, A. Bond, M. Latchford, C. Warren, A. Borwell, J. and Tee, S. (2018) Service user engagement in healthcare education as a mechanism for value based recruitment: An evaluation study. Nurse Education Today, 60, pp. 107-113.

Health Education England (HEE), Skills for Health and Skills for Care (2017) Person-Centred Approaches: Empowering people in their lives and communities to enable an upgrade in prevention, wellbeing, health, care and support. A core skills education and training framework. Available at: https://skillsforhealth.org.uk/wp-content/uploads/2021/01/Person-Centred-Approaches-Framework.pdf

Health Education England (HEE) (2018) RePAIR Reducing Pre-registration Attrition and Improving Retention Report. Available at: https://healtheducationengland.sharepoint.com/Comms/Digital/Shared%20Documents/Forms/AllItems.aspx?id=%2FComms%2FDigital%2FShared%20Documents%2Fhee%2Enhs%2Euk%20documents%2FWebsite%20files%2FRePAIR%202018%2FRePAIR%20Report%202018%5FFINAL%2Epdf&parent=%2FComms%2FDigital%2FShared%20Documents%2Fhee%2Enhs%2Euk%20documents%2FWebsite%20files%2FRePAIR%202018&p=true

Health Education England (HEE) (2020) Student Support Guidance during COVID-19 Outbreak. Available at: Student support guide master .pdf (hee.nhs.uk)

Health Foundation (2017) New data shows 96% drop in nurses from EU. Press release 12th June. Available at: http://www.health.org.uk/news/new-data-show-96-drop-nurses-eu-july-last-year

Health Foundation, Kings Fund and Nuffield Trust (2018) The Healthcare Workforce in England: Make or break? Available at: https://www.kingsfund.org.uk/sites/default/files/2018-11/The%20health%20care%20workforce%20in%20England.pdf

Hedlund, J. and Sternberg, R. J. (2000) Too Many Intelligences? Integrating Social, Emotional, and Practical Intelligence. In: Bar-On, R. and Parker, D.A. Eds. The Handbook of Emotional Intelligence. San Fransico: Jossey-Bass.

Hellwig, S. Roberts, R. D. and Schulze, R. (2020) A New Approach to Assessing Emotional Understanding. Psychological Assessment. American Psychological Association, 32(7), pp. 649-662.

Henry, D. (2018) Rediscovering the Art of Nursing to Enhance Nursing Practice. Nursing science quarterly, 31(1), pp. 47.

Herdman, E. (2004) Nursing in a postemotional society. Nursing Philosophy, 5, pp. 95-103.

Hesse-Biber, S. (2015) Mixed Methods Research: The “Thing-ness” Problem. Qualitative Health Research, 25(6), pp. 775-778.

Higgins, M. C. Dobrow, S. and Roloff. K. (2010) Optimism and the boundaryless career: The role of developmental relationships. New Directions for Boundaryless Careers. Journal of Organizational Behavior, 31(5) pp. 749–769.

Hochschild, A.R. (1983) The Managed Heart. Berkeley: University of California Press

Hoeve, Y. Castelein, S. Jansen, G and Roodbol, P. (2017) Dreams and disappointments regarding nursing: Student nurses' reasons for attrition and retention. A qualitative study design. Nurse Education Today, 54, pp. 28-36.

Hojat, M. (2007) Empathy in patient care; Antecedents, development, measurement and outcomes. New York: Springer.

Holland, F. and Bussell, C. (2017) Getting Great Data: Interpretative Phenomenological Analysis (IPA). University of Derby. Unpublished.

Holloway, I and Galvin, K. (2016) Qualitative Research in Nursing and Healthcare, 4th Edn. Chichester: John Wiley and Sons, Ltd.

Horrigan-Kelly, M., Millar, M. and Dowling, M. (2016) Understanding the Key Tenets of Heidegger's Philosophy for Interpretive Phenomenological Research. International Journal of Qualitative Methods. doi: 10.1177/1609406916680634.

Howitt, D. (2019) Introduction to Qualitative Research Methods in Psychology. 3rd Edn. Harlow, England: Pearson.

Howitt, D, and Cramer, D (2016) Research Methods in Psychology, 5th Edn. Harlow, England: Pearson.

Huggins, R. Mansel, B and Tait, S. (2019) Role play simulation in nurse education: applying the 'I AM A STAR' mnemonic. Mental health practice, 22(4), pp. 21-27.

Hülsheger, U. R. and Schewe, A. F. (2011) On the costs and benefits of emotional labor: A meta-analysis of three decades of research. Journal of Occupational Health Psychology, 16(*3*), pp. 361–389.

Hunt, J. (2021) Money alone will not fix the NHS. The New Statesman. Available at: https://www.newstatesman.com/spotlight/healthcare/2021/10/money-alone-will-not-fix-the-nhs

Hunt, P. A. Denieffe, S. Gooney, M. (2017) Burnout and its relationship to empathy in nursing: a review of the literature. Journal of Research in Nursing, 22(1–2), pp. 7–22.

Hurley, J. (2008) The necessity, barriers and ways forward to meet user-based needs for emotionally intelligent nurses. Journal of Psychiatric and Mental Health Nursing, 15, pp. 379–385.

Hurley, J. and Rankin, R. (2008) As mental health nursing roles expand, is education expanding mental health nurses? an emotionally intelligent view towards preparation for psychological therapies and relatedness. Nursing Inquiry, 15, pp. 199–205.

Ilhan, N. Sukut, O. Akhan. L. U. and Batmaz, M. (2016). The effect of nurse education on the self-esteem and assertiveness of nursing students: A four-year longitudinal study. Nurse Education Today, 39, pp 72-78.

Inoue, M. Chapman, R. Wynaden, D. (2006) Male nurses' experiences of providing intimate care for women clients. Journal of Advanced Nursing, 55(5), pp. 559-567.

International Council of Nurses (2015) Nursing Definitions. Available at: https://www.icn.ch/nursing-policy/nursing-definitions

Ispir, O. Elibol, E. and Sonmez, B. (2019) The relationship of personality traits and entrepreneurship tendencies with career adaptability of nursing students. Nurse Education Today, 79, pp. 41-47.

Jack ,K. Hamshire, C. Harris, W. E. Langan, M. Barrett, N. and Wibberley, C. (2018) My mentor didn't speak to me for the first four weeks. Perceived unfairness experienced by nursing students in clinical practice settings. Journal of Clinical Nursing, 27, pp. 929-938.

Jack, K. Wibberley, C. (2013) The meaning of emotion work to student nurses: A Heideggerian analysis. International Journal of Nursing Studies, 51, pp. 900–907.

Jacobs, H. (2016) Husserl on Reason, Reflection, and Attention. Research in Phenomenology, 46, pp. 257-276.

Jacobs, H. (2018) Husserl, Heidegger, and Merleau-Ponty on the World of Experience. In: Zahavi, G. Ed. The Oxford Handbook of the History of Phenomenology. Oxford: Oxford University Press.

Jacobs, M. (2017) Psychodynamic counselling in action (5th Ed.) London: Sage.

Jacobsen, K. H. (2020) Introduction to Health Research Methods: A Practical Guide. 3rd edition. Burlington: Jones & Bartlett Learning, LLC.

Jaffe, M.E. and Douneva, M. (2020) Secretive and close? How sharing secrets may impact perceptions of distance. PLoS ONE, 15(6). Available at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0233953

Järvinen, T., Eklöf, N. and Salminen, L. (2018) Factors related to nursing students' readiness to enter working life – A scoping literature review. Nurse education in practice, 29, pp. 191-199.

Jesson, J. L. (2017) Lived experiences and insight on development of emotional intelligence in professional nursing practice. PhD thesis, College of Saint Mary.

Joanna Briggs Institute (2020) Checklist for analytical cross sectional studies. Critical Appraisal tools for us in JBI systematic reviews. Available at: https://jbi.global/sites/default/files/2020-08/Checklist_for_Analytical_Cross_Sectional_Studies.pdf

Joanna Briggs Institute (2017) Critical Appraisal Tools. Available at: https://joannabriggs.org/ebp/critical_appraisal_tools

Johnson, B. and Gray, R. (2010) A history of philosophical and theoretical issues for mixed methods research. In: Tashakkori, A and Teddlie, C. (Eds.) Sage Handbook of Mixed Methods in Social and Behavioural Research, 2nd Ed. London: Sage.

Jolic-Marjanovic, Z. and Altaras-Dimitrijevic, A. (2014) Reliability, construct and criterion-related validity of the Serbian adaptation of the Trait Emotional Intelligence Questionnaire (TEIQue). Psihologija, 47(2), pp. 249-262.

Jones, J.S. Fitzpatrick, J.J. and Rogers, V. L. (Eds.) (2016) Psychiatric-Mental Health Nursing, 2nd Edn. An Interpersonal Approach. New York: Springer Publishing Company.

Jones-Schenk, J. and Harper, M. G. (2014) Emotional intelligence: An admission criterion alternative to cumulative grade point averages for prelicensure students. Nurse Education Today, 34, pp. 413-420.

Jones, K. Warren, A. Davies, A. (2015) Mind the Gap: Exploring the needs of early career nurses and midwives in the workplace. Summary report from Birmingham and Solihull Local Education and Training Council Every Student Counts Project. Available at: https://www.nhsemployers.org/-/media/Employers/Documents/Plan/Mind-the-Gap-Smaller.pdf

Jung, C. G. (1933). Die beziehungen zwischen dem ich und dem unbewussten (The relationship between I and the unconscious) 4th Edn. Zürich: Rascher.

Karanikola, M. Doulougeri, K. Koutrouba, A. Giannakopoulou, M. and Papathanassoglou, E. D. E. (2018) A Phenomenological investigation of the Interplay Among Professional Worth Appraisal, Self-Esteem and Self-Perception in Nurses: The Revelation of an Internal and External Criteria System. Frontiers in Psychology. Available at: https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01805/full

Karimi, L. Leggat, S.G. Donohue, L. Farrell, G. and Couper, G.E. (2014) Emotional rescue: the role of emotional intelligence and emotional labour on well-being and job stress among community nurses. Journal of Advanced Nursing, 70(1), pp. 176–186.

Karnieli-Miller, O. Strier, R. and Pessach, L. (2009) Power Relations in Qualitative Research. *Qualitative health research,* 19(2), pp. 279-289.

Kaya, H. Şenyuva, E. and Bodur, G. (2018) The relationship between critical thinking and emotional intelligence in nursing students: A longitudinal study. Nurse education today, 68, pp. 26-32.

Kaya, H. Şenyuva, E. and Bodur, G. (2017) Developing critical thinking disposition and emotional intelligence of nursing students: a longitudinal research. Nurse education today, 48, pp. 72-77.

Keefer, K. V. (2015) Self-report Assessments of Emotional Competencies: A Critical look at methods and meanings. Journal of Psychoeducational Assessment, 33(1), pp. 3-23.

Keough, B. O'Brien, F. and Neenan, K. (2009) The clinical experiences of mature mental health nursing students in Ireland. Nurse Education in Practice, 9(4), pp. 271-276.

Keough, B. (2013) Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report. Available at; https://www.nhs.uk/NHSEngland/bruce-keogh-review/Documents/outcomes/keogh-review-final-report.pdf

Kermode, S. (2006) Is nurse education sexist? An exploratory study. Contemporary Nurse, 22(1), pp. 66–74.

Kim, J. (2018) Factors influencing nursing students' empathy. Korean Journal of Medical Education, 30(3), pp. 229-236.

Kim, J. S. (2020) Relationships between reality shock, professional self-concept, and nursing students' perceived trust from nursing educators: A cross-sectional study. Nurse Education Today, 88. Available at: https://www-sciencedirect-com.ezproxy.bcu.ac.uk/science/article/pii/S0260691719314091

Kinman, G. and Grant, L. (2011) Exploring stress resilience in trainee social workers: The role of emotional and social competencies. British Journal of Social Work, 41, pp. 261-275.

Klaperski, S. Koch, E. Hewel, D. Schempp, A. and Muller, J. (2019) Optimizing mental health benefits of exercise: The influence of the exercise environment on acute stress levels and wellbeing. Mental Health and Prevention, 15. Available at: https://www.sciencedirect.com/science/article/abs/pii/S2212657018301041

Kotsou, I. Mikolajczak, M. Heeren, A. Gregoire, J. and Leys, C. (2018) Improving Emotional Intelligence: A systematic review of existing work and future challenges. Emotion Review, 11(2), pp. 1-15.

Kress, D. Godack, C. A. Berwanger, T. L. and Davidson, P.M. (2018) The new script of nursing: using social media and advances in communication – to create a contemporary image of nursing. Contemporary Nurse, 54(4), pp. 388-394.

Kun, B. and Demetrovics, Z. (2010) Emotional Intelligence and Addictions: A Systematic Review. Substance use and misuse, 45(7-8), pp. 1131-1160.

Kyle, R. G. Neall, R. A. and Atherton, I. M. (2016) Prevalence of overweight and obesity among nursing in Scotland: A cross-sectional study using the Scottish Health Survey. International Journal of Nursing Studies, 53, pp. 126-133.

Lana, A. Baizan, E. M. Faya-Ornia, G. and Lopez, M. L. (2015) Emotional intelligence and health risk behaviours in nursing students. Journal of Nursing Education, 54(8), pp. 464-467.

Labrague, L. J. and McEnroe – Petitte, D. M. (2017) An integrative review on conflict management styles among nursing students: Implications for nurse education. Nurse education today, 59, pp. 45-52.

Lambert, S. (2021) Role of emotional intelligence in effective nurse leadership. Nursing standard, 36 (12), pp. 45–49.

Larin, H. M. Benson, G. Martin, L. Wessel, J. Williams, R. and Ploeg, J. (2011) Examining Change in Emotional-Social Intelligence, Caring and Leadership in Health Professions Students. Journal of Allied Health, 40(2), pp. 96-102.

Larkin, M. and Thompson, A. (2012) Interpretative phenomenological analysis. In: Thompson, A. and Harper, D. (Eds) Research Methods in Mental Health and Psychotherapy: A Guide for Students. Oxford: John Wiley and Sons.

Laurence, L. (2017) Emotional displays: Nurse educators engaging and reflecting on their own emotional displays in preparing nursing students for the emotional complexities of nursing practice. Nurse Education in Practice, 26, pp. 21-26.

Lea, R.G. Davis, S.K. Mahoney, B. and Qualter, P. (2019) Does Emotional Intelligence Buffer the Effects of Acute Stress? A Systematic Review. Frontiers in psychology, 10, pp. 810-810.

Lear, H. Eboh, W. and Diack, L. (2018) A nurse researcher's guide to reflexive interviewing. Nurse researcher, 25(4), pp. 35–42.

Leavy, P. (2017) Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. New York: Guilford Publications.

Lees, S. and Ellis, N. (1990) The design of a stress-management programme for nursing personnel. Journal of Advanced Nursing, 15(8), pp. 946-961.

Leong, Y. M. J. and Crossman, J. (2015) New nurse transition: success through aligning multiple identities. Journal of Health Organisation and Management, 29(7), pp. 1089-1114.

Leonard, L. (2017) Emotional displays: Nurse educators engaging and reflecting on their own emotional displays in preparing nursing students for the emotional complexities of nursing practice. Nurse Education in Practice, 26, pp. 2621-2626.

Lewis, G. Neville, C. and Ashkanasy, N. M. (2017) Emotional intelligence and affective events in nurse education: a narrative review. Nurse Education Today, 53, pp. 34-40.

Leys, C. Klein, O. Dominicy, Y. and Ley, C. (2018) Detecting multivariate outliers: Use a robust variant of the Mahalanobis distance. Journal of Experimental Social Psychology, 74, pp. 150-156.

Liang, H.W., Lin, C. C. and Wu, K. M. (2018) Breaking through the dilemma of whether to continue nursing: Newly graduated nurses' experiences of work challenges. Nurse Education Today, Vol. 67 pp. 72-76.

Lindseth, A. and Norberg, A. (2004) A phenomenological hermeneutical method for researching the lived experience. Scandinavian Journal of Caring Science, 18, pp. 145-153.

Lippe, M. Johnson, B. and Carter. P. (2019) Protecting student identity in research using a subject generated research identification code. Journal of Professional Nursing, 35, pp. 120-123.

Llewellyn-Nash, I. (2015) From emotional intelligence to emotional wisdom: exploring stories of emotional growth in the lifeworlds of student nurses a qualitative study. PhD Thesis. University of Worcester. Available at: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.675517

Locke, R. (2019) Showcasing insider research. The Clinical Teacher, 16, pp. 175-176.

London Psychometric Laboratory (LPL), (2020) Obtaining the TEIQue. Available at: http://psychometriclab.com/obtaining-the-teique/

London Psychometric Laboratory (2021) TEIQue frequently asked questions. Available at: https://psychometriclab.com/faq/

LoBiondo-Wood, G. and Haber, J. (2017) Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice. Philadelphia: Mosby, Philadelphia.

Lopez-Zafra, E. Gartzia, L. (2014) Perceptions of gender differences in self-report measures of emotional intelligence. Sex Roles,70, pp. 479–495.

Lovan, S. and Wilson, M. (2012) Comparing empathy levels in students at the beginning and end of a nursing programme. International journal of human caring, 16(3), pp. 28-33.

Lovegrove, M. (2018) RePAIR; Reducing pre-registration attrition and improving retention report. Health Education England. Available at: https://healtheducationengland.sharepoint.com/Comms/Digital/Shared%20Documents/Forms/AllItems.aspx?id=%2FComms%2FDigital%2FShared%20Documents%2Fhee%2Enhs%2Euk%20documents%2FWebsite%20files%2FRePAIR%202018%2FRePAIR%20Report%202018%5FFINAL%2Epdf&parent=%2FComms%2FDigital%2FShared%20Documents%2Fhee%2Enhs%2Euk%20documents%2FWebsite%20files%2FRePAIR%202018&p=true&originalPath=aHR0cHM6Ly9oZWFsdGhlZHVjYXRpb25lbmdsYW5kLnNoYXJlcG9pbnQuY29tLzpiOi9nL0NvbW1zL0RpZ2l0YWwvRWVOTVY2eU1SbGxMZ2szekthVjhubE1CaTc4ZFQtOE1Vd3ZKWEo4dUFNeWZDZz9ydGltZT0xZ2Iyb09GODJVZw

Lowry, R. (2020) Concepts and Applications of Inferential Satistics. Available at: http://vassarstats.net/textbook/ch14a.html

Lu, Y. L. and Shorey, S. (2021) Nurses' perceptions of emotional intelligence in the clinical setting: A qualitative systematic review. Journal of nursing management, 29 (8), pp. 2453–2460.

Luft, J. (1969) *Of Human Interaction.* California: National Press.

MacLaren, J. Stenhouse, R. and Ritchie, D. (2016) Mental health nurses' experiences of managing work-related emotions through supervision. Journal of Advanced Nursing, 72(10), pp. 2423-2434.

Magnusson, C. and Nermo, M. (2018) From childhood to young adulthood: the importance of self-esteem during childhood for occupational achievements among young men and women, Journal of Youth Studies, 21(10), pp. 1392-1410.

Maltby, J. Day, L and Macaskill, A. (2013) Personality, Individual Differences and Intelligence. Harlow: Pearson Education Limited.

Maltby, J. Williams, G. McGarry, J. and Day, L. (2010) Research methods for Nursing and Healthcare. Essex: Pearson Education Limited.

Malpas, J. (2012) Heidegger and the Thinking of Place. Explorations in the Topology of Being. London: MIT Press.

Manara, D. F. Villa, G. and Moranda, D. (2014) In search of salience: phenomenological analysis of moral distress. Nursing philosophy, 15(3), pp. 171-182.

Manojlovich, M. (2015). Increasing nurse staffing levels and a higher proportion with bachelor's degrees could decrease patient mortality risk. Evidence Based Nursing, 18(2), pp. 62.

Mariano, M. C. O. Maniego, J. C. M. Manila, H. L. M. D. Mapanoo, R. C. C. Maquiran, K. M. A. Macino, J. R. B. Tejero, L. M. and Torres, G. C. S. (2018) Social media use profile, social skills, and nurse-patient interaction among registered nurses in tertiary hospitals: A structured equation model analysis. International Journal of Nursing Studies, 80, pp. 76-82.

Martinez-Zaragoza, F. Fernandez-Castro, J. Benavides-Gil, G. and Garcia-Sierra, R. (2020) How the Lagged and Accumulated Effects of Stress, Coping, and Tasks Affect Mood and Fatigue during Nurses' Shifts. International journal of environmental research and public health, 17(19), p1.

Martins, A. Ramalho, N. Morin, E. (2010) A comprehensive meta-analysis of the relationship between emotional intelligence and health. Personality and Individual Differences, 49, pp. 554-564.

Martskvishvili, K., Arutinovi, L. & Mestvirishvili, M. (2013). A Psychometric Investigation of the Georgian Version of the Trait Emotional Intelligence Questionnaire. European Journal of Psychological Assessment, *29*(2), pp. 84-88.

Matthews, G. Zeidner, M and Roberts, R.D. (2007) Measuring emotional intelligence: Promises, pitfalls, solutions? In: Ong, A. D. and Van Dulmen, M. (Eds.) Handbook of methods in positive psychology. Oxford: Oxford University Press.

Matthews, G. Zeidner, M. and Roberts, R. D. (2011) Emotional Intelligence: A promise unfulfilled? Japanese Psychological Research, 54(2), pp. 105-127.

Mayer, J. D. Caruso, D. R. and Salovey, P. (2000) Selecting a measure of emotional intelligence: The case for ability scales. In: Bar-On, R. and Parker, J. D. A. (Eds.) Handbook of emotional intelligence. San Francisco: Jossey-Bass.

Mayer, J. D. and Salovey, P. (1997) What is emotional intelligence? In: Salovey, P. and Sluyter, D. (Eds.) Emotional development and emotional intelligence: Educational implications. New York: Basic Books.

Mayer, J.D. Salovey, P. and Caruse, D. (2000) Models of Emotional Intelligence. In: Sternberg, R. (Ed.) Handbook of Intelligence, Cambridge: Cambridge University Press.

Mavroveli, S. Petrides, K. V. Shove, C. and Whitehead, A. (2008) Investigation of the construct of trait emotional intelligence in children. European Child and Adolescent Psychiatry, 17, pp. 516-526.

Mavroveli, S. and Siu, A.F.Y. (2012). The factor structure of trait emotional intelligence in Hong Kong. Journal of Psychoeducational Assessment, 30(6), pp. 567-576.

McArthur. P, Burch, L. Moore, K. and Hodges, M. S. (2015) Novel active learning experiences for students to identify barriers to independent living for people with disabilities. Rehabilitation Nursing, 41(4), pp. 202-206.

McCallin, A. and Bamford, A. (2007) Interdisciplinary teamwork: is the influence of emotional intelligence fully appreciated? Journal of nursing management,15(4), pp. 386-391.

McCloughen, A. Levy, D. Johnson, A. Nguyen, H. and Mckenzie, H. (2020) Nursing students' socialisation to emotion management during early clinical placement experiences. A qualitative study. Journal of Clinical Nursing, 29, pp. 2508-2520.

McEwen, A. and Harris, G. (2010) Communication: fundamental skills. In: Kraszewski, S. and McEwen, A. (Eds.) Communication Skills for Adult Nurses. Berkshire: McGraw-Hill Education.

McGibbon, E. Peter, E. and Gallop, R. (2010) An Institutional Ethnography of Nurses' Stress. Qualitative health research, 20(10), pp. 1353-1378.

McHugh-Rappold, S. (2017) The Effect of Nursing Education on Emotional Intelligence Scores. EdD thesis. University of Montana. Available at: https://scholarworks.umt.edu/etd/11114

McIlroy, R. (2019) RCN Employment Survey 2019. Available at: https://www.rcn.org.uk/professional-development/publications/pub-007927

McLoughlin, K. Muldoon, O. T. and Moutray, M. (2010) Gender, gender roles and completion of nursing education: A longitudinal study. Nurse Education Today, 30, pp. 303-307.

McCrae, R. R. Costa, P. T. de Lima, M. P. Simões, A. Ostendorf, F. Angleitner, A. Marusic, I. Bratko, D. Caprara, G. V. Barbaranelli, C. Chae, J. and Piedmont, R. L. (1999). Age differences in personality across the adult life span: Parallels in five cultures. Developmental Psychology, 35*(*2), pp. 466-477.

McIlveen, P. Beccaria, G. and Burton, L. J. (2013) Beyond conscientiousness: career optimism and satisfaction with academic major. Journal of Vocational Behaviour, 83 (3), pp. 229-236.

McKinnon, J. (2016) Reflection for Nursing Life: Principles, Process and Practice. London: Taylor and Francis.

Melissa-Halikiopoulou, C. Tsiga, E. Khachatryan, R. Papazisis, G. (2011). Suicidality and depressive symptoms among nursing students in northern Greece. Health Science Journal, 5, pp. 90–97.

Mencap (2012) Death by indifference: 74 deaths and counting. Available at: https://www.mencap.org.uk/sites/default/files/2016-08/Death%20by%20Indifference%20-%2074%20deaths%20and%20counting.pdf

Merida-Lopez, S. and Extremera, N. (2017) Emotional intelligence and teacher burnout: A systematic review. International Journal of Educational Research, 85, pp. 121-130.

Mercer, J. (2007) The challenges of insider research in educational institutions: Wielding a double-edged sword and resolving delicate dilemmas. *Oxford review of education,* 33(1), pp. 1-17.

Messineo, L. Allegra, M. and Seta, L. (2019) Self-reported motivation for choosing nursing studies: a self-determination theory perspective. BMC Medical Education,19(1). Available at: http://dx.doi.org.ezproxy.bcu.ac.uk/10.1186/s12909-019-1568-0

Michelangelo, L. (2015) The overall impact of emotional intelligence on nursing students and nursing. Asia-Pacific journal of oncology nursing, 2(2), pp. 118-124.

Mikolajczak, M. Avalosse, H. Vancorenland, S. Verniest, R. Callens, M. van Broeck, N. Fatini-Hauwel, Mierop, A. and DeSteno, D. (2015) A Nationally Representative Study of Emotional Competence and Health. Emotion (Washington, D.C.), 15 (5), pp. 653–667.

Mikolajczak, M. Luminet, O. Leroy, C. and Roy, E. (2007) Psychometric Properties of the Trait Emotional Intelligence Questionnaire: Factor Structure, Reliability, Construct, and Incremental Validity in a French-Speaking Population. Journal of personality assessment, 88(3), pp. 338–353.

Millar, L. Conlon, M. and McGirr, D. (2017) Students' perspectives of using the hub and spoke model of support and develop learning in practice. Nursing Standard, 32(9), pp. 41-49.

Mircioiu, C. and Atkinson, J. (2017) A Comparison of Parametric and Non-Parametric Methods Applied to a Likert Scale. Pharmacy, 5(2), pp.26.

Moher, D. Liberati, A. Tetzlaff, J. and Altman, D. G. (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. Available at: https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000097

Moorley, C. and Cathala, X. (2019) How to appraise mixed methods research. Evidence Based Nurse, 22(2), pp. 38-41.

Morgan, D. L. (2014) Integrating qualitative and quantitative methods; a pragmatic approach. London: Sage.

Morrell, B. L. M. Eukel, H. N. and Santurri, L. E. (2020) Soft skills and implications for future professional practice: Qualitative findings of a nursing education escape room. Nurse Education Today, 93, 104462. Available at: https://reader.elsevier.com/reader/sd/pii/S0260691719317629?token=8DE49EFE6D8DADD475130CCA6B450E6F220715F67A7AD668626BCC713C45951C15347078F62C721E08C90429F78FF522

Morse, J. (2013) The development of qualitative nursing research. In: Tatano Beck, C. (Ed) Routledge International Handbook of Qualitative Nursing Research. Oxon: Routledge.

Morse, J.M. Bottorff, J. and Anderson, G. (2006) Beyond empathy: Expanding expressions of caring. Journal of Advanced Nursing, 53(1), pp. 75–87.

Munhall, P. (2013) Interpretative Phenomenology. In: Tatano Beck, C. (Ed.) Routledge International Handbook of Qualitative Nursing Research. Oxon: Routledge

Mussi, F.C. Pires, C. G. Carneiro, L.S. Costa, A.L.S. Ribeiro, F. M. S. and Santos, A.F.D. (2019) Comparison of stress in freshman and senior nursing students. Revista da Escola de Enfermagem da U S P, 53, pp. e03431. Available at: https://www.scielo.br/j/reeusp/a/hqmb89YM85vP9v4xm6GHpSN/?lang=en

Nairn, S. Chambers, D. Thompson, S. McGarry, J. and Chambers, K. (2012) Reflexivity and Habitus: opportunities and constraints on transformative learning. Nursing Philosophy, 13, pp. 189-201.

Nakagawa, S. (2004) A farewell to Bonferroni: the problems of low statistical power and publication bias. Behavioral Ecology, 15(6), pp. 1044-045.

National Audit Office (NAO), (2020) The NHS nursing workforce. Available at: The NHS nursing workforce (nao.org.uk)

Nauheimer, E. (2015) Trait Emotional Intelligence: Evaluating the theoretical construct, its relationship to other psychological variables, and potential interventions to enhance it. Thesis PhD University of Wolverhampton. Available at: https://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.678755

Nelis, D. Kotsou, I. Quoidback, J. Hansenne, M. Weytens, F. Dupuis, P. and Miolajczak, M. (2011) Increasing Emotional Competence Improves Psychological and Physical Well-Being, Social Relationships, and Employability. Emotion, 11(2), pp. 354–366.

Nelis, D. Quoidback, J. Mikolajczak, M. Hansenne, M. (2009) Increasing emotional intelligence: (How) is it possible? Personality and Individual Differences, 47, pp. 36–41.

Neuman, W. L. and Neuman, L. (2013) Social Research Methods: Qualitative and Quantitative Approaches. Harlow: Pearson Education Limited.

Newton, J. M. Kelly, C.M. Kremser, A. K. Jolly, B. and Billetts, S. (2009) The motivations to nurse: an exploration of factors amongst undergraduate students, registered nurses and nurse managers. Journal of Nursing Management, 17, pp. 392–400.

NHS Digital (2021) NHS Vacancy Statistics England April 2015 – June 2021 Experimental Statistics. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/nhs-vacancies-survey/april-2015---june-2021-experimental-statistics

NHS (2019) The NHS Long Term Plan. Available at: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf

NHS Employers (2015) NHS Registered Nurse Supply and Demand Survey Findings: Report to inform the migration advisory committee (MAC) on the partial review of the shortage occupation list. Available at: https://www.nhsemployers.org/~/media/Employers/Publications/Workforce%20Supply/NHS%20registered%20nurse%20supply%20and%20demand%20survey%20findings%20Dec%202015%20FINAL.PDF

Nightingale, S. Spiby, H. Sheen, K. and Slade, P. (2018) The impact of emotional intelligence in health care professionals on caring behaviour towards patients in clinical and long-term care settings: Findings from an integrative review. International journal of nursing studies, 80, pp. 106-117.

NMC (2010) NMC Standards for pre-registration nurse education. Available at: https://www.nmc.org.uk/globalassets/sitedocuments/standards/nmc-standards-for-pre-registration-nursing-education.pdf

NMC (2016a) Revalidation. Available at: http://revalidation.nmc.org.uk/welcome-to-revalidation.1.html

NMC (2016b) Written reflective accounts. Available at: http://revalidation.nmc.org.uk/what-you-need-to-do/written-reflective-accounts/

NMC (2017a) Draft standards of proficiency for registered nurses. Unpublished.

NMC (2017b) New figures show an increase in numbers of nurses and midwives leaving the profession. Available at: https://www.nmc.org.uk/news/news-and-updates/new-figures-show-an-increase-in-numbers-of-nurses-and-midwives-leaving-the-professions/

NMC (2018a) Future Nurse: Standards of proficiency for registered nurses. Available at: future-nurse-proficiencies.pdf (nmc.org.uk)

NMC (2018b) Part 2: Standards for student supervision and assessment. Available at: student-supervision-assessment.pdf (nmc.org.uk)

NMC (2018c) Standards for pre-registration nursing programmes. Available at: https://www.nmc.org.uk/standards/standards-for-nurses/standards-for-pre-registration-nursing-programmes/

NMC (2018d) Standards framework for nursing and midwifery education. Available at: https://www.nmc.org.uk/standards-for-education-and-training/standards-framework-for-nursing-and-midwifery-education/

NMC (2018e) The Code. Available at: nmc-code.pdf

NMC (2020) Principles for preceptorship. Available at: https://www.nmc.org.uk/standards/guidance/preceptorship/

Noble, H. and Mitchell. G. (2016) What is grounded theory? Evidence Based Nursing, 19(6), pp. 34-35.

Norman, I. (2014) Nursing must be a graduate profession (Well, he would say that, wouldn't he!). International Journal of Nursing Studies, 51, pp. 523-525.

Nunes, P. Williams, S, Sa. B. and Stevernson, K. (2011). A study of empathy decline in students from five health disciplines during their first year of training. International Journal of Medical Education, 2, pp. 12-17.

Nwabuebo, E. (2013) Emotional Intelligence and academic achievement among senior black students enrolled in Baccalaureate nursing programs: Implications for nurse education. PhD Thesis. Capella University, Minnesota, USA.

O'Connor, P. J. Hill, A. Kaya, M. and Martin, B. (2019) The Measurement of Emotional Intelligence: a Critical Review of the Literature and Recommendations for Researchers and Practitioners. Frontiers in Psychology, 10, pp. 1116. Available at: https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01116/full#T2

Ortiz, J. (2016) New graduate nurses' experiences about lack of professional confidence. Nurse Education in Practice,19, pp. 19-24.

Ousey, K. (2009) Socialisation of student nurses: the role of the mentor. Learning in Health and Social Care, 8(3), pp. 175-84.

Pajic, S. Keszler, A. Kismihok, G. Mol, S. T. and Den Hartog, D. N. (2018) Antecedents and outcomes of Hungarian nurses' career adaptability. International Journal of Manpower, 39(8), pp.1096-1114.

Palaganas, E. Sanchez, M. Molintas, M.V. and Caricativo, R. (2017) Reflexivity in Qualitative Research: A Journey of Learning. Qualitative report, 22(2), pp. 426.

Palfrey, C (2018) The Future for Health Promotion. Bristol: Policy Press, Bristol.

Paliadelis, P. and Wood, P. (2016) Learning from clinical placement experience: Analysing nursing students' final reflections in a digital storytelling activity. Nurse Education in Practice, 20, pp. 39-44.

Pallant, J. (2013) SPSS survival manual: a step by step guide to data analysis using IBM SPSS, 5th Edn. Maidenhead: McGraw-Hill.

Papadogiannis, P.K. Logan, D and Sitarenios, G. (2009) An ability model of emotional intelligence: A rationale, description and application of the Mayer Salovery Cruso Emotional Intelligence Test (MSCEIT). In: Stough, C. Saklofske, D. H. and Parker, J. D. (2009) Assessing Emotional Intelligence; Theory, Research and Application. London: Springer.

Papathanasiou, I.V. Tsaras, K. and Sarafis, P. (2014) Views and perceptions of nursing students on their clinical learning environment: teaching and learning. Nurse Education Today, 34(1), pp. 57–60.

Parker, V. Giles, M. Lantry, G. and McMillan, M. (2012) New graduate nurses' experiences in their first year of practice. Nurse Education Today, 34(1), pp. 150-156. https://doi.org/10.1016/j.nedt.2012.07.003

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, California: Sage.

Passmore, J. Ed. (2012) Psychometrics in Coaching. Using psychological and psychometric tools for development (2nd Edn.). London: Kogan Page.

Percy, M. and Richardson, C. (2018) Introducing nursing practice to student nurses: How can we promote care compassion and empathy. Nurse Education in Practice, 29, pp. 200-205.

Perron, A. and Rudge, T. (2015) On the Politics of Ignorance in Nursing and Health Care: Knowing Ignorance. London: Taylor and Francis Group.

Petrides, K. V. (2009a). Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue) 1st Edn. London: London Psychometric Laboratory.

Petrides, K. V. (2009b). Psychometric properties of the Trait Emotional Intelligence Questionnaire. In: Stough, C. Saklofske, D. H. and Parker, J.D. Eds. Advances in the assessment of emotional intelligence. New York: Springer.

Petrides, K. V. (2010). Trait emotional intelligence theory. Industrial and Organizational Psychology, *3*(2), pp. 136–139.

Petrides, K. V. (2011). Ability and trait emotional intelligence. In: Chamorro-Premuzic, T. Furnham, A. and von Stumm, S. (Eds.) The Blackwell-Wiley Handbook of Individual Differences. New York: Wiley.

Petrides, K. V. and Furnham, A. (2000) Sex differences in measured and self-estimated trait emotional intelligence. Sex Roles, 42, pp. 449-461.

Petrides, K.V. and Mavroveli, S. (2018) Theory and applications of Trait Emotional Intelligence. Psychology, 23(1) pp. 24-36.

Petrides, K. V. Mikolajczak, M. Mavroveli, S. Sanchez-Ruiz, M. Furnham, A. and Perez-Gonzalez, J. (2016) Developments in Trait Emotional Intelligence Research. Emotion Review, 8(4), pp. 335–341.

Petrides, K. V. Pita, R. and Kokkinaki, F. (2007) The location of trait emotional intelligence in personality factor space. British Journal of Psychology. Vol. 98, pp. 273-289.

Petrides, K.V and Sevdalis, N. (2009) Emotional Intelligence and Nursing: Comment on Bulmer-Smith, Profestto-McGrath and Cummings (2009). International Journal of Nursing Studies, 47, pp. 526-528.

Petrides, K. V. Vernon, P. A. Schermer, J. A. Ligthart, L. Boomsma, D.I. and Veselka, L. (2010) Relationships between trait emotional intelligence and the Big Five in the Netherlands Personality and Individual Differences, 48, pp. 906–910.

Petrides, K. V. Vernon, P. A. Aitken Schermer, J. and Veselka, L. (2011). Trait emotional intelligence and the Dark Triad traits of personality. Twin Research and Human Genetics, 14, pp.35-41.

Petrucci, C. La Cerra, C. Aloisio, F. Montanari, P. and Lancia, L. (2016) Empathy in health professional students: A comparative cross-sectional study. Nurse Education Today, 41, pp. 1-5.

Phillips, C. S. and Volker, D. L. (2019). Riding the roller coaster. A qualitative study of oncology nurses' emotional experience in caring for patients and their families. Cancer Nursing, 43(5), pp. 283–290.

Pietkiewicz, L. and Smith. J. A. (2014) A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology. Psychological Journal, 18(2), pp. 361–369.

Pitt, V. Powis, D. Levett-Jones, T. and Hunter, S. (2014) Nursing students' personal qualities: a descriptive study. Nurse Education Today, 34, pp. 1196-1200.

Plano Clark, V.L. and Ivankova, N.V. (2016) Mixed methods Research: A Guide to the Field. London: Sage.

Por, J. Barriball, J. F. Roberts, J. (2011) Emotional intelligence: Its relationship to stress, coping, well-being and professional performance in nursing students. Nurse Education Today, 31, pp. 855–860.

Price, B. (2017) Developing patient rapport, trust and therapeutic relationships. Nursing standard, 31(50), pp. 52–63.

Pront, L. Gillham, D and Schuwirth, L. W. T. (2016) Competencies to enable learning-focused clinical supervision: a thematic analysis of literature. Medical Education in Review, 50, pp. 485-495.

Pulido-Martos, M. Augusto-Landa, J. M. and Lopez-Zafra, E. (2012) Sources of stress in nursing students: a systematic review of quantitative studies. International Nursing Review, 59, pp. 15-25.

Punshon, G. Maclaine, K. Trevatt, P. Radford, M. Shanley, O and Leary, A. (2019) Nursing pay by gender distribution in the UK – does the Glass Escalator still exist? International Journal of Nursing Studies, 93, pp. 21-29.

Qualter, P. Barlow, A. Stylianou, M.S. (2011) Investigating the relationship between trait and ability emotional intelligence and theory of mind. British Journal of Developmental Psychology, 29, pp. 437–454.

Rad, M. Mirhaghi, A. Shomoossi, N. (2015) Self-assertiveness interfacing incivility in student nurses: Possible outcomes. Nurse Education Today, 35(10), pp. 6.

Raghubir, A. E. (2018) Emotional intelligence in professional nursing practice: A concept review using Rodgers's evolutionary analysis approach. International Journal of Nursing Sciences, 5(2), pp. 126-130.

Randle, J. (2001) The effect of a 3-year pre-registration training course on students' self-esteem. Journal of Clinical Nursing, 10 (2), pp.293-300.

Rankin, B. (2013) Emotional intelligence: enhancing values-based practice and compassionate care in nursing. Journal of Advanced Nursing, 69(12), pp. 2717–2725.

Ranstam, J. (2016) Multiple P-values and Bonferroni correction. Osteoarthritis and cartilage, 24(5), pp. 763-764.

Rasheed, S. P. Younas, A. Sundus, A. (2018) Self-awareness in nursing: A scoping review. Journal of Clinical Nursing, 28, pp. 762-774.

RCN (2016) Royal College of Nursing Evidence to the NHS Pay Review Body 2017-18. Available at: https://www.evidence.nhs.uk/search?q=nursing+shortage

RCN (2017a) Royal College of Nursing employment survey 2017. London: Royal College of Nursing.

RCN (2017b) 9 out of 10 hospitals not staffed to planned levels. Available at: https://www.rcn.org.uk/news-and-events/news/nine-in-10-largest-nhs-hospitals-short-of-nurses

RCN (2018) Removing the student nurse bursary has been a disaster. Available at: https://www.rcn.org.uk/news-and-events/news/removing-the-student-nurse-bursary-has-been-a-disaster

RCN (2019) RCN responds to NHS Long Term Plan. Available at: https://www.rcn.org.uk/news-and-events/press-releases/rcn-responds-to-nhs-long-term-plan

Rebeiro, G. Edward, K. Chapman, R. and Evans, A. (2015) Interpersonal relationships between registered nurse and student nurses in the clinical setting – A systematic integrative review. Nurse Education Today, 35, pp. 1206-1211.

Rees, C. (2016) Rapid Research Methods for Nurses, Midwives and Health Professionals. Hoboken, USA: John Wiley and Sons Ltd.

Rees, K. (2013) The role of reflective practices in enabling final year nursing students to respond to the distressing emotional challenges of nursing work. Nurse Education in Practice, 13, pp. 48-52.

Rehman, T. (2018) Phenomenology, Symbolic Interactionism and Research: From Hegel to Dreyfus. Science and Philosophy, 6(2), pp. 197-209.

Reiners, G. M. (2012) Understanding the Differences between Husserl's (Descriptive) and Heidegger's (Interpretive) Phenomenological Research. Journal of Nursing Care, 1(5) pp. 1-3 Available at: file:///C:/Users/id108889/Downloads/understanding-the-differences-husserls-descriptive-and-heideggers-interpretive-phenomenological-research-2167-1168.1000119.pdf

Resnik, D. (2019) Ethical Issues in Conducting Psychological Research. In: Hackett, P. (Ed.) Quantitative Research Methods in Consumer Psychology: Contemporary and Data Driven Approaches. Oxon: Routledge.

Rettie. H. and Emiliussen, J. (2018) Practical impressions of interpretative phenomenological analysis from the novice's standpoint. Nurse Researcher, 26(2), pp. 46-49.

Reynolds, W. J. (2000) The measurement and development of empathy in nursing. Aldershot: Ashgate.

Reynolds, W. and Scott, B. (2000) Do nurses and other professional helpers normally display much empathy? Journal of Advanced Nursing, 31(1), pp. 226-234.

Rocco, T. S. Bliss, L. A. Gallagher, S. J. and Perez-Prado, A. (2003) the pragmatic and dialectical lenses: Two views of mixed methods use in education. In: Tashakkori, A. and Teddlie, C. (Eds.) Handbook of Mixed Methods in Social and Behavioral Research. London: Sage Publications.

Rohleder, P. and Lyons, A.C. Eds. (2015) Qualitative research in clinical and health psychology. Basingstoke, Palgrave MacMillan.

Rolewicz, L. and Palmer, B. (2019) The NHS workforce in numbers. Nuffield Trust. Available at: https://www.nuffieldtrust.org.uk/resource/the-nhs-workforce-in-numbers

Rook, H and Coombs, M. A. (2016) Giving voice to optimism and hope for the future of nursing. Colligian, 23(4), pp. 397-398.

Ross, L. E. (2017) An account from the inside: Examining the emotional impact of qualitative research through the lens of 'insider' research. Qualitative Psychology, 4(3), pp. 326-337.

Rowlinson, L. (2013) Lived experience of being a nurse from a male and female perspective. British Journal of Nursing, 22(4), pp. 218-224.

Rudman, A. Gustavsson, J. (2012). Burnout during nursing education predicts lower occupational preparedness and future clinical performance: a longitudinal study. International Journal of Nursing Studies, 49(8), pp. 988–1001.

Ruiz-Aranda, D. Extremera, N. and Pineda-Galan, C. (2014) Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: the mediating effect of perceived stress. Journal of Psychiatric and Mental Health Nursing, 21, pp.106-113.

Saarni, C. (1999) The development of emotional competence. New York, Guilford Press.

Saklofske, D. H. Austin, E, J. Galloway, J. and Davidson, K. (2007) Individual difference correlates of health-related behaviours: Preliminary evidence for links between emotional intelligence and coping. Personality and Individual Differences, 42, pp. 491-502.

Salifu, D.A. Gross, J. Salifu, M.A. Ninnoni, J.P. (2019) Experiences and perceptions of the theory-practice gap in nursing in a resource-constrained setting: a qualitative description study. Nursing Open, 6(1), pp. 72–83. Available at: https://doi.org/10.1002/nop2.188

Salisu, W.J. Dehghan Nayeri, N. Yakubu, I. and Ebrahimpour, F. (2019) Challenges and facilitators of professional socialization: A systematic review. Nursing open, 6(4), pp. 1289-1298.

Salovey, P and Mayer, J. D. (1990) Emotional intelligence. Imagination, Cognition and Personality, 9, pp. 185-211.

Sánchez-Ruiz, M. J. Pérez-González, J. C. and Petrides, K. V. (2010) Trait emotional intelligence profiles of students from different university faculties. Australian Journal of Psychology, 62, pp. 51-57.

Sanaie, N. Vasli, P. Sedighi, L. and Sadeghi, B. (2019) Comparing the effect of lecture and Jigsaw teaching strategies on the nursing students' self-regulated learning and academic motivation: A quasi-experimental study. Nurse Education Today, 79, pp. 35-40.

Sandgren, A. Thulesius, H. Fridlund, B. and Petersson, K. (2006). Striving for emotional survival in palliative cancer nursing. Qualitative Health Research, 16(1), pp. 79–96. Available at: https://doi-rg.ezproxy.bcu.ac.uk/10.1177/1049732305283930

Sarafis, P. Rousaki, E. Tsounis, A. Malliarou, M. Lahana, L. Bamidis, P. Niakas, D. and Papastavrou, E. (2016) The impact of occupational stress on nurses caring behaviours and their health related quality of life. BMC Nursing,15(56). Available at: https://doi.org/10.1186/s12912-016-0178-y

Schellhammer, B. A. (2020) The philosophy of self-care, individuation and psychodrama: exploring creative means to encountering the “unknown other” in self. British Journal of Guidance and Counselling, 48(1), pp. 114-124.

Schermer, J. A. Petrides, K. V. and Vernon, P. A. (2015) On the genetic and environmental correlations between Trait Emotional Intelligence and Vocational Interest Factors. Twin Research and Human Genetics, 18(2), pp. 134-137.

Schutte, N. S., and Loi, N. M. (2014). Connections between emotional intelligence and workplace flourishing. Personality and Individual Differences, 66, pp. 134–139.

Sedgwick, P. (2014) Cross sectional studies: advantages and disadvantages. British Medical Journal, 348 (26), pp. 2276.

Seligman, J. (2013) Dialectical Inquiry – Does It Deliver? A User Based Research Experience. The Qualitative Report, 18, pp. 1-23.

Shanahan, D. J. (2018) The experience of registered nurses in delivering end-of-life care for vulnerable older adults: an interpretative phenomenological analysis. PhD Thesis. Cardiff University. Available at: https://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.761375

Shanta, L. and Garguilo, L (2014). A study of the influence of nurse education on development of emotional intelligence. Journal of Professional Nursing, 30(6), pp. 511-520.

Sharon, D. and Grinberg, K. (2018) Does the level of emotional intelligence affect the degree of success in nursing studies? Nurse education today, 64, pp. 21-26.

Shaw, R. (2015) Introduction to interpretive phenomenological analysis: Theory and Analysis. Aston University. Unpublished.

Shin, S. Y. and Lee, S. G. (2016) Effects of Hospital Workers’ Friendship Networks on Job Stress. *PloS one*. [Online] 11 (2), e0149428–e0149428.

Siegling, A. B. Furnham, A. and Petrides, K. V. (2015a) Journal of psychoeducational assessment, 33(1), pp. 57-67.

Siegling, A. Furnham, A. and Petrides, K.V. (2015b) Trait Emotional Intelligence and Personality: Gender-Invariant Linkages Across Different Measures of the Big Five. Journal of Psychoeducational Assessment, 33(1), pp. 57–67.

Siegling, A. B., Saklofske, D. H., & Petrides, K. V. (2015c) Measures of ability and trait emotional intelligence. In: Boyle, G. J. Matthews, J. and Saklofske, D. H. (Eds.), Measures of Personality and Social Psychological Constructs. San Diego: Academic Press.

Sikes, P. and Potts, A. Eds. (2008) Researching Education from the Inside: Investigations from Within. Florence: Taylor and Francis Group.

Sinclair, S. Russell, L. Hacks, T. Kondejewski, J. and Sawatzky, R. (2016) Measuring Compassion in Healthcare: A Comprehensive and Critical Review. The Patient – Patient Centred Outcomes Research, 10(4), pp. 389–405.

Sines, D. (2013) Preparing the Next Generation of Nurses for Excellence and for the Reality of Employment. In: Beer, G. (Ed) Too Posh to Wash? Reflections on the future of Nursing. 2020 health.org. Available at: file:///C:/Users/id108889/Downloads/2020tooposh_06-02-13.pdf

Skarbaliene, A. (2019) Emotional intelligence in healthcare. Medical Science Pulse, 13(1), pp. 40-42.

Skills for Care (2017) The state of the adult social care sector and workforce in England. Available at: https://www.skillsforcare.org.uk/Documents/NMDS-SC-and-intelligence/NMDS-SC/Analysis-pages/State-of-17/State-of-the-adult-social-care-sector-and-workforce-2017.pdf

Smethurst, L. and Kuss, D. (2018) 'Learning to live your life again': An interpretative phenomenological analysis of weblogs documenting the inside experience of recovering from anorexia nervosa. Journal of Health Psychology, 23(10), pp. 1287-1298.

Smith, J. A. (2011) Evaluating the contribution of interpretative phenomenological analysis, Health Psychology Review, 5(1), pp. 9-27.

Smith, J. A. (2018) Yes, it is phenomenological: A reply to Max Van Manen's Critique of Interpretative Phenomenological Analysis. Qualitative Health Research, 28(12), pp. 1955-1958.

Smith, M.J. and Fitzpatrick, J.J. (2019) Perspectives on the Unitary Transformative Person-Environment-Health Process for the Knowledge Base of Nursing. Advances in nursing science, 42(1), pp. 43.

Smith, J. Flowers, P. and Larkin, M. (2009) Interpretative Phenomenological Analysis; Theory, Method and Research. London: Sage.

Snowden, A. Stenhouse, R. Young, J. Carver, H. Carver, F. Brown, N. (2015a) The relationship between emotional intelligence, previous caring experience and mindfulness in student nurses and midwives: a cross sectional analysis. Nurse Education Today, 35, pp. 152-158.

Snowden, A. Stenhouse, S. Duers, L. Marshall, S. Carver, F. Brown, N. and Young, J. (2018). The relationship between emotional intelligence, previous caring experience and successful completion of a pre-registration nursing/midwifery degree. Journal of Advanced Nursing, 74, pp. 433-442.

Snowden, A. Watson, R. Stenhouse, R. Hale, C. (2015b) Emotional intelligence and nurse recruitment: Rasch and confirmatory factor analysis of the trait emotional intelligence questionnaire short form. Journal of Advanced Nursing, 71(12), pp. 2936-2949.

Soderberg, A. Sundbaum, J. K. and Engstrom, A. (2017) Nursing Students reflections after meeting with patients and their relatives enacted by professional actors: Being touched and feeling empathy. Issues in Mental Health Nursing, 38(2), pp. 139-144.

Sokola, K.M. (2013) The Relationship Between Caring Ability and Competency with Caring Behaviours of Nursing Students. International Journal for Human Caring, 17(1), pp. 45-55.

Sparkes, A. C. and Smith, B. (2013) Qualitative Research Methods in Sport, Exercise and Health: From Process to Product. London: Taylor and Francis Group.

Spies, C. Seale, I. and Botma, Y. (2015) Adult learning: what nurse educators need to know about mature students: original research. Curationis (Pretoria), 38(2), pp. 1-7.

Starosta, K. Onete, C. B. Grosu, R. and Plesea, D. (2020) COVID-19 Mass Media Infodemic in Six European Countries, Advance. Preprint. Available at: https://doi.org/10.31124/advance.13333697.v1

Stenhouse, R. Snowden, A. Young, J. Carver, F. Carver, H. and Brown, N. (2016) Do emotional intelligence and previous caring experience influence student nurse performance? A comparative analysis. Nurse Education Today, 43, pp. 1-9

Stickley, T. (2011) From SOLER to SURETY for effective non-verbal communication. Nurse Education in Practice, 11, pp. 395-398.

Stiglic, G. Cilar, L. Novak, Z. Vrbnjak, D. Stenhouse, R. Snowden, A. and Pajinkihar, M. (2018) Emotional intelligence among nursing students: Findings from a cross sectional study. Nurse Education Today, 66, pp. 33-38.

Stough, C. Saklofske, D. H. and Parker, J. D. (2009) Assessing Emotional Intelligence; Theory, Research and Application. London: Springer.

Suri, H. (2011) Purposeful sampling in qualitative research synthesis. Qualitative Research Journal, 11(2), pp. 63-75.

Swami, M. K. Mathur, D. M. and Pushp, B. K. (2013) Emotional intelligence, perceived stress and burnout among resident doctors: An assessment of the relationship. The National Medical Journal of India, 26(4), pp. 210-213.

Swift, A. Banks, L. Baleswaran, A. Cooke, N. Little, C. McGrath, L. Meechan-Rogers, R. Neve, A. Rees, H. Tomlinson, A. and Williams, G. (2020) COVID-19 and student nurses: A view from England. Journal of clinical nursing, 29(17-18), pp. 3111–3114. Available at: https://doi.org/10.1111/jocn.15298

Tafjord, T. (2021) Managing Strong Emotions: Nurses' Recognition and Responses to Personal Emotions When Approaching Parents with Cancer and Their Dependent Children. Qualitative health research, 31(5), pp. 926–941.

Taylor, R. Macduff, C. and Stephen, A. (2014) A national study of selection processes for student nurses and midwives. Nurse Education Today, 34, pp. 1155-1160.

Tett, R. P, Fox, K. E. and Wang, A. (2005) Development and validation of a self-report measure of emotional intelligence as a multidimensional trait domain. Personality and Social Psychology Bulletin, 31, pp. 1-30.

Theodosius, C. (2006) Recovering Emotion from Emotion Management. Sociology, 40(5), pp. 893-910.

Thomas, J. Jinks, A. and Jack, B. (2015) Finessing incivility: The professional socialisation experiences of student nurses' first clinical placement, a grounded theory. Nurse Education Today, 35(12), pp 4-9.

Thomson, R. Docherty, A. and Duffy, R. (2017) Nursing students' experiences of mentorship in their final placement. British Journal of Nursing, 26(9), pp. 514-521.

Timmins, F. Corroon, A. Bryne, G. Mooney, B. (2011) The challenge of contemporary nurse education programmes. Perceived stressors of nursing students: mental health and related lifestyle issues. Journal of Psychiatric Mental Health Nursing, 18(9), pp. 758–766.

Tiwari, A. Avery, A. and Lai, P. (2003) Critical thinking disposition of Hong Kong Chinese and Australian nursing students: Critical thinking disposition. Journal of advanced nursing, 44(3), pp. 298–307.

Tod, A. (2015) Interviewing. In: Gerrish, K. and Lathlean. J. (Eds.) Research Process in Nursing. Chichester. UK: John Wiley & Sons.

Todres, L. and Galvin, K. (2005) Pursuing both breadth and depth in Qualitative Research: *Illustrated by a study of the experience of intimate caring for a loved one with Alzheimer's* Disease. International Journal of Qualitative Methods, 4(2). Available at: https://journals.sagepub.com/doi/pdf/10.1177/160940690500400202

Tower, M. Blacklock, E. Watson, B. Heffernan, C. and Tronoff, G. (2015) Using social media as a strategy to address 'sophomore slump' in second year nursing students: A qualitative study. Nurse education today,35(11), pp. 1130-1134.

Traynor, M. (2013) Nursing in Context: Policy, Politics, Profession. Basingstoke: Palgrave Macmillan.

Traynor, M. (2017) Critical Resilience for Nurses: An Evidence-Based Guide to Survival and Change in the Modern NHS. London: Taylor and Francis Group.

Triandis, H. C. and Gelfand, M. J. (1998) Converging Measurement of Horizontal and Vertical Individualism and Collectivism. Journal of personality and social psychology, 74 (1), pp. 118–128.

Trowler, P. (2011) Researching your own institution. British Educational Research Association. Available at: Researching your own institution: Higher Education | BERA

Tsauousis, I. and Kazi, S. (2013) Factorial invariance and latent mean differences of scores on trait emotional intelligence across gender and age. Personality and Individual Differences, 54, pp. 169–173.

Tung, Y. L. Lo K.K.H. Ho, R.C.M. and Tam, W.S.W. (2018) Prevalence of depression among nursing students: A systematic review and meta-analysis. Nurse Education Today, 63, pp. 119-129.

Turner, K and McCarthy, V. L. (2017) Stress and anxiety among nursing students: A review of intervention strategies in literature between 2009 and 2015. Nurse Education in Practice, 22(1), pp. 21-29.

Ulenaers, D., Grosemans, J., Schrooten, W., and Bergs, J. (2021). Clinical placement experience of nursing students during the COVID-19 pandemic: A cross-sectional study. Nurse education today, 99, pp. 104746. Available at: https://doi.org/10.1016/j.nedt.2021.104746

Ulrich, D. L. Gillespie, G. L. Boesch, M. C. Bateman, K. L. and Grubb, P. L. (2017) Reflective responses following a role play simulation of nurse bullying. Nursing Education Perspectives, 38(4), pp. 203-205.

Ulupinar, S. Senyuva, E. and Yceyurt, N. K. (2016) Does participation of nursing students in social activities affect their social emotional learning skills? Nurse Education Today, 76, pp. 78-84.

United Kingdom Research and Innovation (UKRI) (2021) What is impact? Available at: What is impact? - Economic and Social Research Council (ukri.org)

UNISON (2017) NHS bursary abolition: The Education (Student Fees, Awards and Support) (Amendment) Regulations. House of Lords secondary legislation committee UNISON briefing. Available at: https://www.parliament.uk/documents/lords-committees/Secondary-Legislation-Scrutiny-Committee/UNISON-Submission-to-SLSC-NHS-Bursary-SI-114-17022017.pdf

Vandergoot, S. Sarris, A. Kirby, N. and Ward, H. (2018) Exploring undergraduate students' attitudes towards interprofessional learning, motivation to learn and perceived impact of learning conflict resolution skills. Journal of Interprofessional Care, 32(2), pp. 211-219.

Van der Linden, D. Pekaar, K. Bakker, A. B. Aitken Schermer, J. Vernon P. A. and Petrides, K. V. (2017). Overlap between the general factor of personality and emotional intelligence: A meta-analysis. Psychological Bulletin, 143, pp. 36-52.

Van der Linden, D., Schermer, J. A., de Zeeuw, E., Dunkel, C. S., Pekaar, K. A., Bakker, A. B., Vernon, P. A. & Petrides, K. V. (2018) Overlap between the General Factor of Personality and trait emotional intelligence: A genetic correlation study. Behavior Genetics, 48, pp. 147–154.

Van der Linden, D. Tsaousis, I. and Petrides, K. V. (2012). Overlap between General Factors of Personality in the Big Five, Giant Three, and trait emotional intelligence. Personality and Individual Differences, 53, pp. 175-179.

Van Zyl, A. B. and Noonan, I. (2018) The Trojan Was inside nursing: An exploration of compassion, emotional labour, coping and reflection. British Journal of Nursing, 27(20), pp. 1192-1196.

Veblen, T. B. and Samuels, W. J. (1990) The place of science in modern civilisation and other essays (1st Ed.). New York: Routledge. Available at: https://doi.org/10.4324/9781315133850

Vernon, P.A. Petrides, K.A. Bratko, D. and Schermer, J.A. (2008) A Behavioural Genetic Study of Trait Emotional Intelligence. Emotion, 8(5), pp. 635-642.

Visser, C. L. F. Kusurkar, R. A. Croiset, G. Ten Cate, O. and Westerveld, H. E. (2018) Students' motivation for interprofessional collaboration after their experience on an IPE ward: A qualitative analysis framed by self-determination theory. Medical Teacher, 41(1), pp. 44-52. Available at: https://www.tandfonline.com/doi/full/10.1080/0142159X.2018.1436759

Wagstaff, C. and Williams, B. (2014) Specific design features of an interpretative phenomenological analysis study. Nurse Researcher, 21(3), pp. 8-12.

Walker, M. and Mann, R. A. (2016) Exploration of mindfulness in relation to compassion, empathy and reflection within nursing education. Nurse Education Today, 40, pp. 188-190.

Walker, S. Read S, and Priest, H. (2013) Use of reflexivity in a mixed-methods study. Nurse Researcher, 20(3), pp. 38-43.

Walter, F. Humphrey, R. and Cole, M. (2012) Unleashing leadership potential: Toward an evidence-based management of emotional intelligence. Organizational Dynamics, 41, pp. 212—219.

Walters, G. (2018) Response to enquiry regarding inclusion of EI in the Future Nurse Standards. Unpublished.

Wan Husin, W. N. I. (2017) Emotional intelligence: new ability or renowned traits? An investigation of the convergent, discriminant and incremental validity. PhD thesis, University of Nottingham. Available at: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.706382

Ward, J. (2016) The empathy enigma: does it still exist? Comparison of empathy using students and standardized actors. Nurse Educator, 41(3), pp. 134-138.

Ward, J. Cody, J. Schaal, M. and Hojat, M. (2012) The empathy enigma: An empirical study of decline in empathy among undergraduate nursing students. Journal of Professional Nursing, 28(1), pp. 34-40.

Wear, D. and Zarconi, J. (2008) Can compassion be taught? Let's ask the students. Journal of General Internal Medicine, 23, pp. 948-953.

Webb, C. A. Schwab, Z. J. Wever, M. DelDonno, S. Kipman, M. Weiner, M. R. and Killgore, W. D. S. (2013) Convergent and divergent validity of integrative versus mixed model measures of emotional intelligence. Intelligence (Norwood), 41(3), pp. 149–156.

Weijters, B. Baumgartner, H. and Schillewaert, N. (2013). Reversed item bias: An integrative model. Psychological Methods, 18*(3),* pp. 320-334.

Weng, H.C, Hung, C.M. Liu, Y.T. Cheng, Y.J. Yen, C. Y. Chang. C. C. and Huang, C.K. (2011) Associations between emotional intelligence and doctor burnout, job satisfaction and patient satisfaction. Medical Education, 45, pp. 835-842.

West, M. Bailey, S. and Williams, E. (2020) The Courage of Compassion. Supporting nurses and midwives to deliver high-quality care. The Kings Fund. Available at: https://www.kingsfund.org.uk/publications/courage-compassion-supporting-nurses-midwives#overview

Whitman, D. S. Van Rooy, D. L. Viswesvaran, C. and Kraus, E. (2009) Test the second order factor structure and measurement equivalence of the Wong and Law Emotional Intelligence Scale across sex and ethnicity. Educational and Psychological Measurement, 69, pp. 1059-1074.

Whittemore,R. and Knafl, K. (2005) The integrative review: updated methodology. Journal of Advanced Nursing, 52(5), pp. 546-553.

Williams, R. (2017) Why are there so few male nurses? The Guardian. Available at: https://www.theguardian.com/healthcare-network/2017/mar/01/why-so-few-male-nurses

Willis, G. (2012) Quality with Compassion: the future of nursing education. Available at: https://www.macmillan.org.uk/documents/newsletter/willis-commission-report-macmail-dec2012.pdf

Willis, G. (2015) Raising the Bar - Shape of Caring: A Review of the Future Education and Training of Registered Nurses and Care Assistants. Available at: https://www.hee.nhs.uk/our-work/shape-caring-review

Wilson, J. (2016) Professional Socialization in Nursing: Experiences of New and Established Nursing Staff in Response to Patient Death. American Research Journal of Nursing, 2016, pp. 1-6. Available at: http://shura.shu.ac.uk/12868/3/Wilson%20Professional%20socialisation%20in%20nursing

Windle, G. Bennett, K. and Noyes, J. (2011) A methodological review of resilience measurement scales. Health and Quality of Life Outcomes, 9(8). Available at: https://doi.org/10.1186/1477-7525-9-8

Wood, L. M. Parker, J. D. Keefer, K.V. (2009) Assessing Emotional Intelligence Using the Emotional Quotient Inventory (EQ-i) and Related Instruments. In: Stough, C. Saklofske, D. H. and Parker, J. D. (Eds.) Assessing Emotional Intelligence; Theory, Research and Application. London: Springer.

World Health Organization (WHO) (2020). Nursing and midwifery. Available at: https://www.who.int/fr/news-room/fact-sheets/detail/nursing-and-midwifery
Wros, P. L. Mathews, L. R. Beiers-Jones, K. and Warkentin, P. (2021) Moral distress in public health practice: Case studies from nursing education. Public Health Nursing, 38(6), pp. 1088-1094.

Xu, L. W. (2015) Parametric bootstrap approaches for two-way MANOVA with unequal cell sizes and unequal cell covariance matrices. Journal of Multivariate Analysis, 133, pp. 91-303.

Yao, X. Yao, X. Yuan, S. Yuan, S. Yang, W. Yang, W. Chen, Q. Chen, Q. Wei, D. Wei, D. Hou, Y. Hou, Y. Zhang, L. Zhang, L. Qiu, J. Qiu, J. Yang, D. and Yang, D. (2018) Emotional intelligence moderates the relationship between regional gray matter volume in the bilateral temporal pole and critical thinking disposition. Brain imaging and behavior, 12(2), pp. 488-498.

Yardimici, F. Bektas, M. Ozkutuck, N. Muslu, G. K. Gerceker, G, O. and Basbakkal, Z. (2017) A study of the relationship between the study process, motivation resources, and motivation problems of student nurses in different educational systems. Nurse Education Today, 48, pp. 13-18. Available at: http://dx.doi.org/10.1016/j.nedt.2016.09.017

Yardley, L. (2000) Dilemmas in qualitative health research. Psychology and Health, 15(2), pp.215-228.

Yiting Deng, D. Hillygus, S. Reiter, J. P. Si, Y. and Zheng, S. (2013) Handing attrition in longitudinal studies: The case for refreshment samples. Statistical Science, 28(2), pp. 238-256.

Younas, A. Pederson, M. and Tayaben, J. (2019) Review of mixed methods research in nursing: methodological issues and future directions. Nursing Research, 68(6), pp. 464-472.

Zahavi, D. (2018) 'Intersubjectivity, Sociality, Community: The Contribution of the Early Phenomenologists', in The Oxford Handbook of the History of Phenomenology. [Online]. Oxford University Press.

Zeidner, M. Matthews, G. Roberts, R. D. (2012) What We Know About Emotional Intelligence: How it affects learning, work, relationships and our mental health. London: MIT Press.

Zhang, H. and Lambert, V. (2008) Critical thinking dispositions and learning styles of baccalaureate nursing students from China. Nursing & health sciences,10(3), pp.175–181.

Zimmerman, D. W. (1987) Comparative Power of Student T Test and Mann-Whitney U Test for Unequal Sample Sizes and Variances. The Journal of Experimental Education, 55(3), pp. 171-174.

Zimmerman, D.W. (1998) Invalidation of Parametric and Nonparametric Statistical Tests by Concurrent Violation of Two Assumptions. The Journal of experimental education, 67(1), pp. 55-68.

APPENDICES

Appendix A: Literature Review data extraction table

Author and Title	Design and main aim	Participants and setting	TEI measure if used	Results	Main outcome	Quality
1.Benson, et. al. (2010) A cross-sectional study of emotional intelligence in baccalaureate nursing students	Cross-sectional survey design What are the EI scores of nursing students? Is there a difference in scores across the 4 years of the program?	Convenience sample of 100 female nursing students 25 from each of the 4 years of study. Single point in time in one university	Bar-On (EQi:S)	All students have average or effective levels of EI Interpersonal skills in year 4 in the enhanced skill category. Statistically significant difference in total EI between Yr1 and Yr4 ($p<0.05$) Also significant in subscales for interpersonal and stress management (<0.05) Positive linear association between year of program and higher categories of EI functioning. By year 4 24% of students functioning or well-developed EI.	Majority of students have adequate scores of EI at outset. Incremental increase in scores throughout years of study, suggests capacity grows over time. Unknown if growth due to developmental growth, life experience, education or clinical growth. It is important to pay attention to emotional development in nursing curricula, including reflection, modelling, mentorship, creative arts, exercise, talking, journaling, relationships etc. Longitudinal study recommended	Small convenience sample of female students. Only 25 per group. No exploration of gender or age. No discussion of distribution of data

2.Benson, et. al. (2012) Longitudinal study of emotional intelligence, leadership and caring in undergraduate nursing students	Correlational repeated measure design Assessing changes in EI and its relationship to leadership and caring	52 undergraduate student nurses 47 female 5 male Mean age 20 Representing a single cohort of 385 at Canadian university – 4 year program.	Bar-On (EQi:S) + Self-assessment leadership instrument (SALI) + Caring Ability Inventory (CAI)	No statistically significant changes to EI during nurse education. Only statistically significant change saw an improvement in one subscale, adaptability. Increasing from T1 – T2 and T1 – T3 (p=0.03) Changes in caring ability courage subscale between T1-T2 and T1-T3 (p=0.04 and p=0.02) Positive correlation between changes in EI and SALI (p<.001),CAI-knowing (p<.001) and CAI-courage (p<.001) subscales. Despite only small and non-significant changes in total EI scores.	Limited change in EI, leadership or caring through undergraduate program. Changes in overall EI correlated to changes in leadership and caring. High baseline scores linked with nursing potentially attracting individuals with above average EI may have limited significant growth. Growth in adaptability may be due to a range of clinical and academic requirements requiring acquisition of new knowledge and ways of being. EI and leadership correlation could be cause and effect or could be due to construct overlap.	Limited sample size 14% of entire cohort therefore may not be representative. Single university No rationale for absence of adjustments for repeated measure

3.Duygulu, et. al. (2011) Nursing Students' Leadership and EI in Turkey	Descriptive survey Examining EI and leadership orientations of junior and senior nursing students	69 freshmen 85 seniors Single university based school of nursing All female	Bar-On (EQi) (Acar, shortened version) + Leadership orientation questionnaire	No statistical significance in leadership orientation or EI for either group. Small sig. correlation between task orientated leadership (TOL) and EI (r=0.427, p=.001) None between people oriented leadership (POL) and EI. Negative between people-oriented and task-oriented (r=-0.212 p=.021)	EI does not improve with ease, but takes considerable time. This does not happen easily during the course of nurse education. Findings conflict with existing literature that associates EI with transformational leadership (TL) approaches. The explanation provided suggests that task oriented leadership and EI connects the pursuit of achieving institutional aims by managing emotions in relationships.	All female Ethics not robust No discussion of normality of distribution. Combination of non-parametric and parametric testing used without explanation. Snapshot at one moment in time. Modest sample.
4. Fernandez, et. al. (2012) EI as a predictor of academic performance in 1st year accelerated graduate entry nursing students	Prospective survey design Examine association between TEI and learning strategies in relation to academic performance.	81 1st year accelerated graduate entry nursing into the same programme in a single Australian university.	TEIQue short form + Motivated strategies for learning questionnaire + Demographic data	Stepwise multiple regression identified a significant positive association between EI and academic performance (β=0.25, p=0.035) EI and critical thinking (r=.41; p<0.0010 Help seeking (r=0.33; p<0.003)	Correlations between EI scores, critical thinking, help seeking, and peer learning. Higher EI scores were associated with improved academic performance. High scores for extrinsic motivation were	Predominantly international students 90% of whom did not have English as a first language. Initial data gathered within 8 weeks of

				Peer learning (r=0.32; p <0.004) Not significant with extrinsic goal orientation (r=-0.05; <0.677) Extrinsic goal orientation and academic performance were negatively associated (β=-0.23, p=0.035)	associated with lower academic performance.	commencement and follow up 6 months later, not a full academic year. Relatively small sample size.
5. Larin, H. M. et. al (2011) Examining change in emotional social intelligence, caring and leadership in Health Professions Students	Quasi-experimental survey To measure and provide a comparison between nursing and physio students development of ESI etc.	61 pre-reg. nursing students 59 physio students At the beginning of their 1st year and again after 1st clinical experience.	BarOn short questionnaire (EQ-i:S) + Caring ability inventory + Self-assessment leadership instrument (SALI)	No significant change in EQ-I:S scores, caring or leadership between beginning of program and after clinical exposure. Ithaca PT students had higher SALI scores than nursing students.	Longitudinal studies exploring change across the whole program are required. In order to change EI, caring and leadership specific targeted educational interventions are required in curricula. Consideration should be given to including self-reported and performance measures of ESI in future studies	Power calculation completed. Sample sizes adequate. Nursing students undergraduate when physio students MA level Excellent rationale for statistical analysis including normal distribution and significance level. No mention of adjustments for multiple tests.

						Reporting of students not completing 2nd phase.
6. McHugh Rappold, S. (2017) The effect of nursing education on emotional intelligence.	Quantitative quasi-experimental design What difference does nurse education make to students EI scores?	Nursing students: n=146 stage 1 n=51 stage 2 Analysis focussed on **51** participants who completed the survey on two occasions. Sophomores – 19 Juniors – 14 Seniors -18 Three men and 48 women – no data therefore generated in relation to gender. Control group of education students identified although so small (n=7) analysis became negligible. Five different campuses.	EQi- 2.0 (Bar-On) + Demographic data	Nurse education has no effect on EI. Slight reduction in mean scores across years but no statistical significance. Sophomores 104.28 Junior 103.64 Senior 102.89 EI increases with age. (r=.34, n=51, p=.02) Relationship between EI and age moderate, using Cohen's 1988 guidelines, $R2 = 0.11$ After adjustments for age, still no significant differences between 3 levels of education and EI scores. Improved validation of EQi-2 tool.	Additional work required to embed teaching strategies in nursing programmes to enhance EI.	Sample size calculator used responses well below the required level to ensure accurate representation of population. Control group n=7 ineffective Confounding factors identified but not mitigated. Response rate low. Students also taught by researcher. No male participants.

7. Snowden, et. al. (2015a) The relationship between EI, previous caring experience and mindfulness in student nurses and midwives a cross sectional analysis.	Cross sectional study from wider longitudinal survey.	938 first year students. Including 870 pre-reg. nursing/midwifery students across four fields in two universities. 785 females 149 males Mean age 25.39 yrs Control group of 68 computing students.	TEIQue-SF + Shutte's et.al (SEIS) 'ability' scale	EI increases with age TEIQue-SF H(5)=15.157, p=.001 SEIS H(5)=11.388, p=.044 Females scored higher than males TEIQue-SF U=44,931, z=-4.509, p<.001 SEIS U=44,744, z=-5.563, p=<.001. Nursing students scored higher than computing students TEIQ-SF H(5)=46,496, p=<.001 SEIS H(5)=33,309, p=.039 No sig. diff. between TEIQue-SF scores for those who had and had not had mindfulness training. But sig. diff. with SEIS score U=25,115.5, z=2.05, p=.039. No sig. diff. associated with previous care	Mindfulness training associated with higher ability EI scores but none with trait score No association between EI and previous care experience.	High quality study. Clear description of normality testing and subsequent use of parametric and non-parametric tests. Control group small. SEIS identified as ability model while representative of a mixed concept.

				experience using either score.		
8. Snowden, et. al. (2018) The relationship between EI, previous caring experience and successful completion of a pre-registration nursing/midwifery degree.	Prospective longitudinal study Exploring the relationship between EI, care experience prior to pre-reg. education and completion of degree.	876 student nurses and midwives in two universities. 589 completed on time (68.2%)	TEIQue-SF + SEIS + Previous care experience + Completion on time	Students completing the programme scored higher than those who did not TEIQue-SF Mann-Whitney U U=90,367, z=2.38, p=.016 T-test T(470.63)=2.73, p=.007 There was no relationship between previous care experience and completion.	Successful completion was associated with higher trait EI. However, use of the TEIQue-SF alone as part of the selection criteria was not recommended. No connection with improved completion associated with pre. care exp. EI was equitable between genders. Examination of factor level scores would be more helpful rather than relying on global scores.	Identification and removal of outliers documented. Violations of normality of distribution outlined leading to parametric and non-parametric testing. Interviewing or observational follow up would have developed a more in-depth appreciation of the topic.
9. Stenhouse, et. al. (2016) Do EI and previous caring experience influence student nurse	Longitudinal, quasi-experimental design. 1st year student nurses EI / previous care	598 students 315 prev. care exp. 277 no prev. care	TEIQue-SF + SEIS (Shutte) + Performance data + Withdrawal data	Students with no previous care experience generated higher scores than those who did. Sig. diff. between 2 groups T(533)=2.52, p=.012.	Previous care experience associated with lower academic and clinical performance. EI not a useful indicator.	Strong study as above. Limited to first year of study.

performance? A comparative analysis.	experience / performance.			EI scores not associated with performance. Social connection scores sig. diff. between those withdrawing and those remaining at the end of yr 1 U=15,300, z=-2.61, p=.009	Low social connection associated with withdrawal.	
10. Stiglic, et. al. (2018) EI among nursing students: Findings from a cross sectional study.	Cross sectional descriptive study To measure differences in student nurses EI in relation to previous care experience, according to gender and in comparison to non-nursing students.	113 1st year nursing students 104 1st year engineering students Female = 104 Male = 113 Single Slovenian university.	TEIQue + SEIS (Shutte)	EI higher in nursing students TEIQue t=3.972, p=<.001 SSEIT T=8.288, p=<.001 No sig. diff. between male and female students No sig. diff. between students with or without previous care experience.	Specific interventions may be required in order to develop EI, there is no evidence to suggest that simply performing a caring role.	Normality of distribution tested Shapiro-Wilks's Engineering students predominantly male while nursing female. Analysed separately for gender but resulted in very small sample sizes.

Appendix B: TEIQue Questionnaire

Instructions

- Please complete this questionnaire on your own and in quiet conditions.
- Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. ***There are no right or wrong answers.***
- Work quickly, and don't think too long about the exact meaning of the statements.
- Try to answer as accurately as possible.
- You have seven possible responses, ranging from 1=Completely Disagree to 7=Completely Agree
- Many thanks for your time and interest

		COMPLETELY DISAGREE						COMPLETELY AGREE
1.	I'm usually able to control other people	1	2	3	4	5	6	7
2.	Generally, I don't take notice of other people's emotions	1	2	3	4	5	6	7
3.	When I receive wonderful news, I find it difficult to calm down quickly	1	2	3	4	5	6	7
4.	I tend to see difficulties in every opportunity rather than opportunities in every difficulty	1	2	3	4	5	6	7
5.	On the whole, I have a gloomy perspective on most things	1	2	3	4	5	6	7
6.	I don't have a lot of happy memories	1	2	3	4	5	6	7
7.	Understanding the needs and desires of others is not a problem for me	1	2	3	4	5	6	7
8.	I generally believe that things will work out fine in my life	1	2	3	4	5	6	7
9.	I often find it difficult to recognise what emotion I'm feeling	1	2	3	4	5	6	7
10.	I'm not socially skilled	1	2	3	4	5	6	7
11.	I find it difficult to tell others that I love them even when I want to	1	2	3	4	5	6	7
12.	Others admire me for being relaxed	1	2	3	4	5	6	7
13.	I rarely think about old friends from the past	1	2	3	4	5	6	7
14.	Generally, I find it easy to tell others how much they really mean to me	1	2	3	4	5	6	7
15.	Generally, I must be under pressure to really work hard	1	2	3	4	5	6	7
16.	I tend to get involved in things I later wish I could get out of	1	2	3	4	5	6	7
17.	I'm able to "read" most people's feelings like an open book	1	2	3	4	5	6	7
18.	I'm usually able to influence the way other people feel	1	2	3	4	5	6	7
19.	I normally find it difficult to calm angry people down	1	2	3	4	5	6	7
20.	I find it difficult to take control of situations at home	1	2	3	4	5	6	7
21.	I generally hope for the best	1	2	3	4	5	6	7
22.	Others tell me that they admire me for my integrity	1	2	3	4	5	6	7
23.	I really don't like listening to my friends' problems	1	2	3	4	5	6	7
24.	I'm normally able to "get into someone's shoes" and experience their emotions	1	2	3	4	5	6	7
25.	I believe I'm full of personal weaknesses	1	2	3	4	5	6	7
26.	I find it difficult to give up things I know and like	1	2	3	4	5	6	7
27.	I always find ways to express my affection to others when I want to	1	2	3	4	5	6	7

		DISAGREE						AGREE
28.	I feel that I have a number of good qualities	1	2	3	4	5	6	7
29.	I tend to rush into things without much planning	1	2	3	4	5	6	7
30.	I find it difficult to speak about my intimate feelings even to my closest friends	1	2	3	4	5	6	7
31.	I'm not able to do things as well as most people	1	2	3	4	5	6	7
32.	I'm never really sure what I'm feeling	1	2	3	4	5	6	7
33.	I'm usually able to express my emotions when I want to	1	2	3	4	5	6	7
34.	When I disagree with someone, I usually find it easy to say so	1	2	3	4	5	6	7
35.	I normally find it difficult to keep myself motivated	1	2	3	4	5	6	7
36.	I know how to snap out of my negative moods	1	2	3	4	5	6	7
37.	On the whole, I find it difficult to describe my feelings	1	2	3	4	5	6	7
38.	I find it difficult not to feel sad when someone tells me about something bad that happened to them	1	2	3	4	5	6	7
39.	When something surprises me, I find it difficult to get it out of my mind	1	2	3	4	5	6	7
40.	I often pause and think about my feelings	1	2	3	4	5	6	7
41.	I tend to see the glass as half-empty rather than as half-full	1	2	3	4	5	6	7
42.	I often find it difficult to see things from another person's viewpoint	1	2	3	4	5	6	7
43.	I'm a follower, not a leader	1	2	3	4	5	6	7
44.	Those close to me often complain that I don't treat them right	1	2	3	4	5	6	7
45.	Many times, I can't figure out what emotion I'm feeling	1	2	3	4	5	6	7
46.	I couldn't affect other people's feelings even if I wanted to	1	2	3	4	5	6	7
47.	If I'm jealous of someone, I find it difficult not to behave badly towards them	1	2	3	4	5	6	7
48.	I get stressed by situations that others find comfortable	1	2	3	4	5	6	7
49.	I find it difficult to sympathize with other people's plights	1	2	3	4	5	6	7
50.	In the past, I have taken credit for someone else's input	1	2	3	4	5	6	7
51.	On the whole, I can cope with change effectively	1	2	3	4	5	6	7
52.	I don't seem to have any power at all over other people's feelings	1	2	3	4	5	6	7
53.	I have many reasons for not giving up easily	1	2	3	4	5	6	7
54.	I like putting effort even into things that are not really important	1	2	3	4	5	6	7
55.	I always take responsibility when I do something wrong	1	2	3	4	5	6	7
56.	I tend to change my mind frequently	1	2	3	4	5	6	7
57.	When I argue with someone, I can only see my point of view	1	2	3	4	5	6	7
58.	Things tend to turn out right in the end	1	2	3	4	5	6	7
59.	When I disagree with someone, I generally prefer to remain silent rather than make a scene	1	2	3	4	5	6	7
60.	If I wanted to, it would be easy for me to make someone feel bad	1	2	3	4	5	6	7
61.	I would describe myself as a calm person	1	2	3	4	5	6	7

62.	I often find it difficult to show my affection to those close to me	1	2	3	4	5	6	7
63.	There are many reasons to expect the worst in life	1	2	3	4	5	6	7
64.	I usually find it difficult to express myself clearly	1	2	3	4	5	6	7
65.	I don't mind frequently changing my daily routine	1	2	3	4	5	6	7
66.	Most people are better liked than I am	1	2	3	4	5	6	7
67.	Those close to me rarely complain about how I behave toward them	1	2	3	4	5	6	7
68.	I usually find it difficult to express my emotions the way I would like to	1	2	3	4	5	6	7
69.	Generally, I'm able to adapt to new environments	1	2	3	4	5	6	7
70.	I often find it difficult to adjust my life according to the circumstances	1	2	3	4	5	6	7
71.	I would describe myself as a good negotiator	1	2	3	4	5	6	7
72.	I can deal effectively with people	1	2	3	4	5	6	7
73.	On the whole, I'm a highly motivated person	1	2	3	4	5	6	7
74.	I have stolen things as a child	1	2	3	4	5	6	7
75.	On the whole, I'm pleased with my life	1	2	3	4	5	6	7
76.	I find it difficult to control myself when I'm extremely happy	1	2	3	4	5	6	7
77.	Sometimes, it feels like I'm producing a lot of good work effortlessly	1	2	3	4	5	6	7
78.	When I take a decision, I'm always sure it is the right one	1	2	3	4	5	6	7
79.	If I went on a blind date, the other person would be disappointed with my looks	1	2	3	4	5	6	7
80.	I normally find it difficult to adjust my behaviour according to the people I'm with	1	2	3	4	5	6	7
81.	On the whole, I'm able to identify myself with others	1	2	3	4	5	6	7
82.	I try to regulate pressures in order to control my stress levels	1	2	3	4	5	6	7
83.	I don't think I'm a useless person	1	2	3	4	5	6	7
84.	I usually find it difficult to regulate my emotions	1	2	3	4	5	6	7
85.	I can handle most difficulties in my life in a cool and composed manner	1	2	3	4	5	6	7
86.	If I wanted to, it would be easy for me to make someone angry	1	2	3	4	5	6	7
87.	On the whole, I like myself	1	2	3	4	5	6	7
88.	I believe I'm full of personal strengths	1	2	3	4	5	6	7
89.	I generally don't find life enjoyable	1	2	3	4	5	6	7
90.	I'm usually able to calm down quickly after I've got mad at someone	1	2	3	4	5	6	7
91.	I can remain calm even when I'm extremely happy	1	2	3	4	5	6	7
92.	Generally, I'm not good at consoling others when they feel bad	1	2	3	4	5	6	7
93.	I'm usually able to settle disputes	1	2	3	4	5	6	7
94.	I never put pleasure before business	1	2	3	4	5	6	7
95.	Imagining myself in someone else's position is not a problem for me	1	2	3	4	5	6	7
96.	I need a lot of self-control to keep myself out of trouble	1	2	3	4	5	6	7

97.	It is easy for me to find the right words to describe my feelings	1	2	3	4	5	6	7
98.	I expect that most of my life will be enjoyable	1	2	3	4	5	6	7
99.	I am an ordinary person	1	2	3	4	5	6	7
100.	I tend to get “carried away” easily	1	2	3	4	5	6	7
101.	I usually try to resist negative thoughts and think of positive alternatives	1	2	3	4	5	6	7
102.	I don’t like planning ahead	1	2	3	4	5	6	7
103.	Just by looking at somebody, I can understand what he or she feels	1	2	3	4	5	6	7
104.	Life is beautiful	1	2	3	4	5	6	7
105.	I normally find it easy to calm down after I have been scared	1	2	3	4	5	6	7
106.	I want to be in command of things	1	2	3	4	5	6	7
107.	I usually find it difficult to change other people’s opinions	1	2	3	4	5	6	7
108.	I’m generally good at social chit-chat	1	2	3	4	5	6	7
109.	Controlling my urges is not a big problem for me	1	2	3	4	5	6	7
110.	I really don’t like my physical appearance	1	2	3	4	5	6	7
111.	I tend to speak well and clearly	1	2	3	4	5	6	7
112.	On the whole, I’m not satisfied with how I tackle stress	1	2	3	4	5	6	7
113.	Most of the time, I know exactly why I feel the way I do	1	2	3	4	5	6	7
114.	I find it difficult to calm down after I have been strongly surprised	1	2	3	4	5	6	7
115.	On the whole, I would describe myself as assertive	1	2	3	4	5	6	7
116.	On the whole, I’m not a happy person	1	2	3	4	5	6	7
117.	When someone offends me, I’m usually able to remain calm	1	2	3	4	5	6	7
118.	Most of the things I manage to do well seem to require a lot of effort	1	2	3	4	5	6	7
119.	I have never lied to spare someone else’s feelings	1	2	3	4	5	6	7
120.	I find it difficult to bond well even with those close to me	1	2	3	4	5	6	7
121.	I consider all the advantages and disadvantages before making up my mind	1	2	3	4	5	6	7
122.	I don’t know how to make others feel better when they need it	1	2	3	4	5	6	7
123.	I usually find it difficult to change my attitudes and views	1	2	3	4	5	6	7
124.	Others tell me that I rarely speak about how I feel	1	2	3	4	5	6	7
125.	On the whole, I’m satisfied with my close relationships	1	2	3	4	5	6	7
126.	I can identify an emotion from the moment it starts to develop in me	1	2	3	4	5	6	7
127.	On the whole, I like to put other people’s interests above mine	1	2	3	4	5	6	7
128.	Most days, I feel great to be alive	1	2	3	4	5	6	7
129.	I tend to get a lot of pleasure just from doing something well	1	2	3	4	5	6	7
130.	It is very important to me to get along with all my close friends and family	1	2	3	4	5	6	7
131.	I frequently have happy thoughts	1	2	3	4	5	6	7
132.	I have many fierce arguments with those close to me	1	2	3	4	5	6	7
133.	Expressing my emotions with words is not a problem for me	1	2	3	4	5	6	7

		DISAGREE						AGREE
134.	I find it difficult to take pleasure in life	1	2	3	4	5	6	7
135.	I'm usually able to influence other people	1	2	3	4	5	6	7
136.	When I'm under pressure, I tend to lose my cool	1	2	3	4	5	6	7
137.	I usually find it difficult to change my behaviour	1	2	3	4	5	6	7
138.	Others look up to me	1	2	3	4	5	6	7
139.	Others tell me that I get stressed very easily	1	2	3	4	5	6	7
140.	I'm usually able to find ways to control my emotions when I want to	1	2	3	4	5	6	7
141.	I believe that I would make a good salesperson	1	2	3	4	5	6	7
142.	I lose interest in what I do quite easily	1	2	3	4	5	6	7
143.	On the whole, I'm a creature of habit	1	2	3	4	5	6	7
144.	I would normally defend my opinions even if it meant arguing with important people	1	2	3	4	5	6	7
145.	I would describe myself as a flexible person	1	2	3	4	5	6	7
146.	Generally, I need a lot of incentives in order to do my best	1	2	3	4	5	6	7
147.	Even when I'm arguing with someone, I'm usually able to take their perspective	1	2	3	4	5	6	7
148.	On the whole, I'm able to deal with stress	1	2	3	4	5	6	7
149.	I try to avoid people who may stress me out	1	2	3	4	5	6	7
150.	I often indulge without considering all the consequences	1	2	3	4	5	6	7
151.	I tend to "back down" even if I know I'm right	1	2	3	4	5	6	7
152.	I find it difficult to take control of situations at work	1	2	3	4	5	6	7
153.	Some of my responses on this questionnaire are not 100% honest	1	2	3	4	5	6	7

QUESTION SECTION 2 Please note that in this section you are occasionally asked to write in your answer.
About you

What is your gender?

☐ MALE ☐ FEMALE

What is your year of birth? 19……

What is your ethnic group?

White
☐ English/Welsh/Scottish/Northern Irish/British
☐ Irish
☐ Gypsy or Irish Traveller
☐ Any other White background, please describe……

Mixed/Multiple ethnic groups
☐ White and Black Caribbean
☐ White and Black African
☐ White and Asian
☐ Any other mixed/multiple ethnic background, please describe……

Asian/Asian British
☐ Indian
☐ Pakistani
☐ Bangladeshi
☐ Chinese
☐ Any other Asian background, please describe……

Black/African/Caribbean/Black British
☐ African
☐ Caribbean
☐ Any other Black/African/Caribbean background, please describe……...

Other ethnic group
☐ Arab
☐ Any other ethnic group, please describe……

Is English your first language?

☐ YES ☐ NO

What field of nursing are you studying?

☐ Adult ☐ Child ☐ Learning Disability ☐ Mental Health

Name …….

Student ID (if known) …….

Thank you for taking the time to complete this questionnaire.

Appendix C: Participant information sheet – Quantitative element

A longitudinal study of trait emotional intelligence in pre-registration nursing students

Invitation
You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

1.What is the purpose of the study?
The ability to notice, manage and express emotions are essential qualities for nurses who want to provide compassionate care. But we are unsure about what specific abilities student nurses have at the beginning of their training or if they change over time. The purpose of this study is to gain some understanding of emotional traits in nursing students and the effect of the course on their development. This will be done by measuring changes in elements of emotional intelligence at regular intervals throughout the three year BSc Nursing programme. We will also be looking at the significance of age, gender and ethnicity.

2. Why I have been invited?
You have been invited because you have entered the nursing degree programme in September 2015. We would like to follow your progress throughout your nurse training.

3.Do I have to take part?
It is up to you to decide whether or not to take part. A decision not to take part or to withdraw at any time, will not affect your nurse training. If you decide to take part, you can withdraw at any time without giving a reason. If you decide to withdraw after you have contributed research data, you can withdraw this data within 4 weeks of providing it, after which time it will be included in the analysis. If you do decide to take part, you will be given this information sheet to keep.

4.What do I have to do?
We would like you to fill in a questionnaire at the start of your training, at the beginning of your second year and at the end of your third year. The questionnaire asks you to circle the number that corresponds most closely with your thoughts about how you experience and manage emotions. This will be done while you are in University and will take approximately 25 minutes to complete. There is a second phase of this research which will involve asking a small number of students to participate in follow up interviews at the end of year 2 of your studies. You do not need to consider this at the moment, with your permission we will contact you again at a later stage to see if you are interested in taking part in this aspect of the study.

5.What are possible benefits of taking part?
It is possible that you may not benefit personally from participating in the research. However, many research participants take pleasure in knowing they are helping to shape future practice by taking part. We hope that the findings, which you will have contributed to, will inform policy on how best to deliver nurse education and where possible, we would it like to make nurse education better for other students in the future. Ultimately, this could lead to better care for patients.

6.Will my taking part in this study be kept confidential?
Yes, any personal details we take from you will only be used in our research and will not be given out to others not involved in the research. Your lecturers will not be allowed to see your completed questionnaires, which will be collected by the researcher. All information that is collected about you during the course of the research will be kept strictly confidential. Your research data will be anonymised: not identifiable to you. Any information about you that leaves the University will not have your name on it so that you cannot be recognised from it.

7.What do I do if I have concerns about this study?

his research study is not designed to cause you any distress, but if you find that it brings to mind any concerns you have, you can speak to the researcher who will ask your permission to relay these back to your lecturers. If you would rather speak to someone independent, you can contact Student Services who provide confidential advice and support. We can help you do that if you wish.

8. What will happen to the results of the research study?

The results of this study will be presented as part of the researchers PhD studies. It is anticipated that findings may also be published/presented in professional journals and/or conferences. You are welcome to have a summary of the findings at the end of the study just contact the researcher directly using the details below.

9.Who has reviewed the study?

[redacted] Faculty of Health, Education and Life Sciences Research Ethics Committee has approved this study and it has been agreed with the managers of the BSc Nursing programme at BCU.

10.Contact for further information

Allison Evans

[redacted]

Thank you for considering taking part in this study.

Appendix D: Participant consent form – Quantitative element

Consent Form

Title of Project: A longitudinal study of trait emotional intelligence in pre-registration nursing students

Name of Researcher: Allison Evans

Please initial box

1. I confirm I have read and understand the information sheet dated …….. for the above study. I have had the opportunity to consider the information, ask questions to the researcher and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. Should I choose to withdraw from the study, I can request removal of any of my data within 4 weeks of providing it. ☐
3. I agree to take part in the above named study. ☐
4. I agree to allowing the researcher to contact me with a request to take part in an additional element of the study at the end of year 2 for which my consent will be obtained separately. ☐

_____	_____	_____
Participant's Name	Date	Signature

_____	_____	_____
Researcher's Name	Date	Signature

When completed: 1 (original) to be kept in research record, 1 copy for the participant

Appendix E: Ethics Approval – Quantitative element

[redacted]

Ref: AK/jb

Monday, 17 August 2015

Email: alex.kendall@[redacted]

Allison Evans
[redacted]

Dear Allison Evans

Re: A mixed methods longitudinal study of Trait Emotional Intelligence in pre-registration nursing students

Following receipt of your application to conduct research within the Faculty of Health, Education and Life Sciences at [redacted], I am pleased to inform you that you have satisfied all the necessary requirements in relation to ethical approval and indemnity cover.

I am therefore able to grant you my formal permission to begin your research project from (17th August 2015). Your access to the Faculty will expire on (31st July 2016). If an extension is required you must contact me to apply at least one month before the expiry date.

Yours sincerely,

Alex Kendall
Associate Dean (Research Enterprise & Business Engagement)
Faculty of Health, Education and Life Sciences

Appendix F: Ethics approval – Qualitative element

[redacted]

[redacted]

05/07/2017
Mrs. Allison Evans
[redacted]

Dear Mrs. Allison Evans
Re: Trait Emotional Intelligence in pre-registration nurses - a mixed methods longitudinal study - Evans /Jul /2017 /RLRA /1304

Thank you for your amended application and documentation regarding the above study. I am happy to take Chair's Action and approve the study which means you may begin your research.

The Committee's opinion is based on the information supplied in your application. If you wish to make any substantial changes to the research, please contact the Committee and provide details of what you propose to alter. A substantial change is one that is likely to affect

- the safety and well-being of the participants;
- scientific value of the study;
- conduct or management of the study.

The Committee should also be notified of any serious adverse effects arising as a result of this research. The Committee is required to keep a favourable opinion under review in the light of progress reports.

I wish you every success with your study.

Yours sincerely,
Dr. Merryl Harvey

On behalf of the Faculty Academic Ethics Committee

Appendix G: Participant information sheet: Qualitative element

A longitudinal study of trait emotional intelligence in pre-registration nursing students

Invitation

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

1. **What is the purpose of the study?**
   The ability to notice, manage and express emotions are essential qualities for nurses who want to provide compassionate care. But we are unsure about what specific abilities student nurses have at the beginning of their training or if they change over time. The purpose of this study is to gain some understanding of student's experience of perceiving and managing emotion during nurse education.

2. **Why I have been invited?**
   You have been invited because you entered the nursing degree programme [redacted] in September 2015 and agreed to participate in the first stage of this study. At that time, you also expressed an interest in participating in the second stage for which we agreed we would seek your consent separately.

3. **Do I have to take part?**
   It is up to you to decide whether or not to take part. A decision not to take part or to withdraw at any time will not affect your nurse training. If you decide to take part, you can withdraw at any time without giving a reason. If you decide to withdraw after you have contributed research data, you can withdraw this data within 4 weeks of providing it, after which time it will be included in the analysis. If you do decide to take part, you will be given this information sheet to keep.

4. **What do I have to do?**
   This part of the research involves asking a small number of students to participate in individual interviews at the end of your second year of study. We would like you to participate in a single interview undertaken by the researcher which will take place at the University. The interview will be recorded and last 60-90 minutes focussing on the way in which you are experiencing and managing an emotionally challenging course.

5. **What are possible benefits of taking part?**
   It is possible that you may not benefit personally from participating in the research. However, many research participants take pleasure in knowing they are helping to shape future practice by taking part. We hope that the findings, which you will have contributed to, will inform policy on how best to deliver nurse education and where possible, we would it like to make nurse education better for other students in the future. Ultimately, this could lead to better care for patients.

6. **Will my taking part in this study be kept confidential?**
   Any personal details we take from you will only be used in our research and will not be given out to others not involved in the research. All personal information that is collected about you during the course of the research will be kept confidential and stored securely. Your research data will be anonymised: not identifiable to you, however direct quotes may be included in the final text. Any information about you that leaves the University will not have your name on it so that you cannot be recognised from it.

7. What do I do if I have concerns about this study?

This research study is not designed to cause you any distress, but if you find that it brings to mind any concerns you have, you can speak to the researcher who will ask your permission to relay these back to your personal tutor. If you would rather speak to someone independent, you can contact ASK who provide confidential advice and support. We can help you do that if you wish.

8. **What will happen to the results of the research study?**

The results of this study will be presented as part of the researchers PhD studies. It is anticipated that findings may also be published/presented in professional journals and/or conferences. You are welcome to have a summary of the findings at the end of the study just contact the researcher directly using the details below.

9. **Who has reviewed the study?**

[redacted] Faculty of Health, Education and Life Sciences (HELS) Faculty Academic Ethics Committee (FAEC) has approved this study and it has been agreed with the managers of the BSc Nursing programme [redacted]. If you have any complaints regarding the study at any stage, please contact the Insurance lead whose details are listed on the HELS Ethics icity site.

10. Compensation

In recognition of the time you have invested into participating we will provide compensation in the form of a £10 [redacted] onsite refreshment voucher which you will receive at the end of the interview.

Contact for further information

Allison Evans
[redacted]

Thank you for taking part in this study.

Appendix H: Participant consent form – Qualitative element

CONSENT FORM

Title of Project: A longitudinal study of trait emotional intelligence in pre-registration nursing students (Qualitative element)

Name of Researcher: Allison Evans

Please initial box

I confirm I have read and understand the information sheet dated …….. for the above study. I have had the opportunity to consider the information, ask questions to the researcher and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. Should I choose to withdraw from the study, I can request removal of any of my data within 4 weeks of providing it. ☐

I agree to take part in the above named study. ☐

_____	_____	_____
Participant's Name	Date	Signature
_____	_____	_____
Researcher's Name	Date	Signature

When completed: 1 (original) to be kept in research record, 1 copy for the participant.

Appendix I: Adaptations to the original Interview guide

Stage	Interview questions	Examples of how these were rephrased during interviews
Introductions Warm up	*Welcome participant /introduction to study / confirm consent / outline of process* 1. You are at the end of the second year of your nurse education what has your experience been like up until now? 2. What does emotional intelligence mean to you? Prompt: What kind of attributes do you associate with EI?	Can you tell me what you know about emotional intelligence?
Main interview questions	*Emotionality* 3. How would you describe the way you perceive and express emotion? Prompt: What have you seen or experience which has had an impact on this? 4. How would you describe your ability to form and maintain relationships? Prompt: What do you do when you feel the need for support?	Tell me something about the way in which you talk about your emotions? What changes have you noticed since you started nursing? How has it affected your relationships?
	Self-control 5. How would you describe the way in which you control your emotions? Prompt: What strategies do you use to help you? 6. Can you tell me about a time when you have felt stressed? Prompt: How did you cope?	What do you do to help you to manage your emotions? If you feel able, tell me something about a time when you felt overwhelmed?
	Sociability 7. How would you describe your social skills? Prompt: Can you tell me about a time when you have been in a situation which required you to manage other people's emotions? Prompt: How did it feel? Prompt: How easy or difficult do you find it to be assertive?	What kind of social activities do you enjoy? Tell me about a time when you have supported other people who were feeling emotional? Sounds like a difficult situation, how easy do you find it to be assertive?

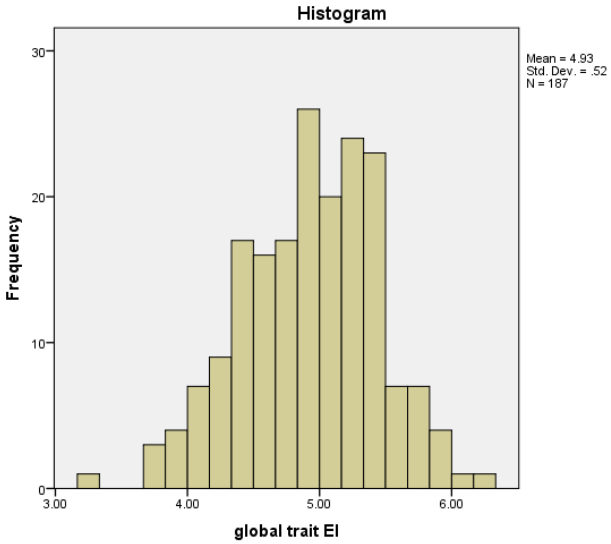
	Well-being 8. How would you describe your approach to life? Prompt: How do you feel when you think about the future? Prompt: How has your view of yourself changed, if at all, since you began the course?	How do you feel about the future? What changes have you noticed in yourself since you started nursing? Would you describe yourself as optimistic, happy or something else?
	Self-motivation 9. How would you describe your self-motivation? Prompt: Can you think of an example of a time when you have felt motivated or demotivated?	What motivated you to become a nurse? Has anything affected your motivation, can you tell me a little about that?
	Adaptability 10. How would you describe your response to unexpected changes in circumstances? Prompt: how does it feel?	When something unexpected happens how do you respond?
	NMC (2017) definition of EI provided for participants to read before moving on to the final questions.	
Wind down	*Perceptions of change* 11. How would you describe what has happened to your EI during the course of nurse education? Prompt: What factors or experiences do you think have influenced this? 12. What would help you to develop your EI as a student nurse? Prompt: Which, if any, aspect of your EI would you like to improve the most? Prompt: Are there any things that the University or practice placements could to do help?	Thinking about that definition, do you think your EI has increased, decreased or stayed the same since you started the course? Take a minute to think about something that has happened which might have affected your EI then tell me something about it? What do you think the University could do to help you improve your EI? And practice?
Close of interview	*Summary* 13. Is there anything else you would like to tell me about? Prompt: Or anything else you would like to ask before we finish? *Thank participant*	Thank you so much it's been good to hear your thoughts, is there else you would like to say or ask?

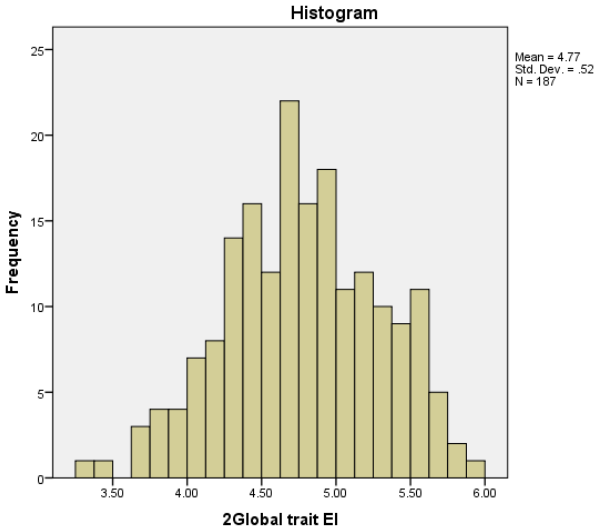
Appendix J: Skewness and Kurtosis for TEI at global, factor and facet levels

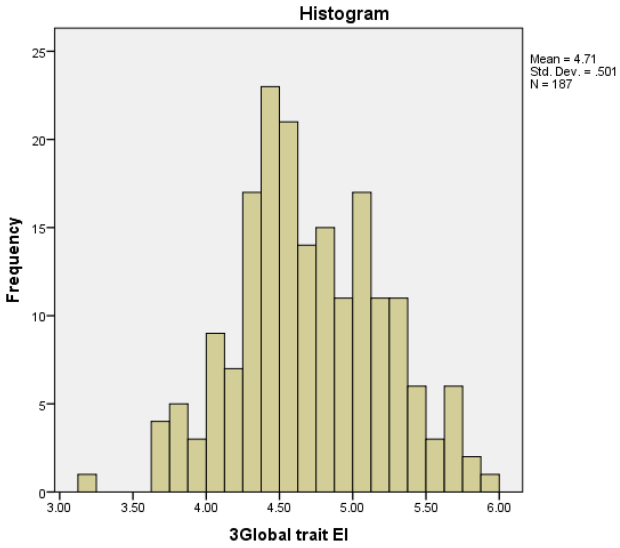
TEI	Mean	Median	Skewness	Kurtosis
Global TEI				
Global TEI T1	4.93	4.96	-.23	-.12
Global TEI T2	4.77	4.76	-.13	-.31
Global TEI T3	4.71	4.65	.05	-.23
Factors				
Wellbeing T1	5.27	5.41	-1.0	2.20
Wellbeing T2	5.12	5.22	-.82	1.2
Wellbeing T3	5.03	5.13	-.68	1.0
Self-control T1	4.59	4.55	.12	.01
Self-control T2	4.36	4.33	.03	-.01
Self-control T3	4.32	4.29	-.08	.01
Emotionality T1	5.23	5.33	-.25	-.26
Emotionality T2	5.11	5.07	.18	-.19
Emotionality T3	5.03	5.00	.20	-.14
Sociability T1	4.62	4.64	.08	-.05
Sociability T2	4.54	4.54	.28	.46
Sociability T3	4.53	4.47	.24	1.20
Facets				
Self-esteem T1	4.63	4.64	-.49	.75
Self-esteem T2	4.51	4.45	-.37	.01
Self-esteem T3	4.50	4.45	-.19	.15
Emotion expression T1	4.80	4.90	-.48	-.27
Emotion expression T2	4.72	4.80	-.23	-.23
Emotion expression T3	4.70	4.80	-.28	-.09
Self-motivation T1	4.94	4.90	-.47	.92
Self-motivation T2	4.60	4.60	-.17	.03
Self-motivation T3	4.39	4.40	-.31	.54
Emotion regulation T1	4.50	4.50	.06	-.31
Emotion regulation T2	4.25	4.25	.07	-.26
Emotion regulation T3	4.25	4.25	.072	.26
Happiness T1	5.86	6.00	-1.11	1.59
Happiness T2	5.67	5.75	-1.01	1.42
Happiness T3	5.51	5.75	-.84	.94
Empathy T1	5.34	5.33	.04	-.57
Empathy T2	5.19	5.22	-.13	-.57
Empathy T3	5.12	5.11	.16	-.27
Social awareness T1	4.90	4.90	-.22	-.35

Social awareness T2	4.82	4.82	.002	.16
Social awareness T3	4.71	4.72	-.04	.62
Impulsivity T1	4.81	4.78	-.16	.08
Impulsivity T2	4.55	4.56	-.16	-.24
Impulsivity T3	4.45	4.56	-.25	-.15
Emotion perception T1	4.91	5.00	-.30	-.19
Emotion perception T2	4.85	4.80	.04	.23
Emotion perception T3	4.78	4.80	-.13	.23
Stress management T1	4.47	4.50	-.37	-.23
Stress management T2	4.28	4.30	-.12	.11
Stress management T3	4.26	4.20	-.003	.01
Emotion management T1	4.43	4.33	.19	-.06
Emotion management T2	4.33	4.33	.48	.16
Emotion management T3	4.36	4.33	.40	.41
Optimism T1	5.33	5.38	-.64	1.11
Optimism T2	5.18	5.25	-.49	.27
Optimism T3	5.08	5.13	-.50	.28
Relationships T1	5.86	5.89	-.78	.37
Relationships T2	5.68	5.78	-.61	.29
Relationships T3	5.53	5.56	-.60	.52
Adaptability T1	4.63	4.67	.19	.18
Adaptability T2	4.47	4.44	-.22	-.08
Adaptability T3	4.51	4.44	.20	-.21
Assertiveness T1	4.51	4.44	-.01	-.17
Assertiveness T2	4.47	4.44	-.27	.55
Assertiveness T3	4.51	4.44	.01	.47

Appendix K: Histograms and Shapiro-Wilk tests for TEI at global, factor and facet levels at T1, T2 and T3





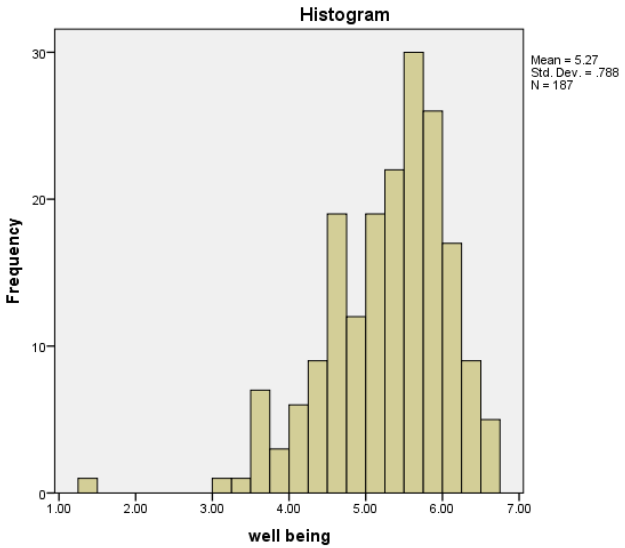


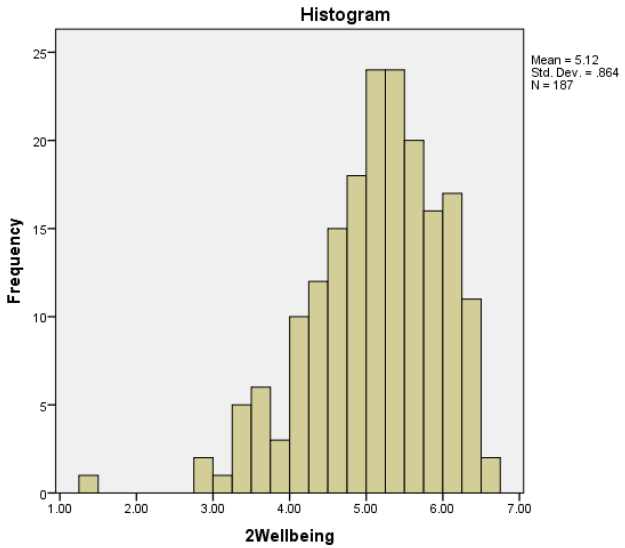
Tests of Normality

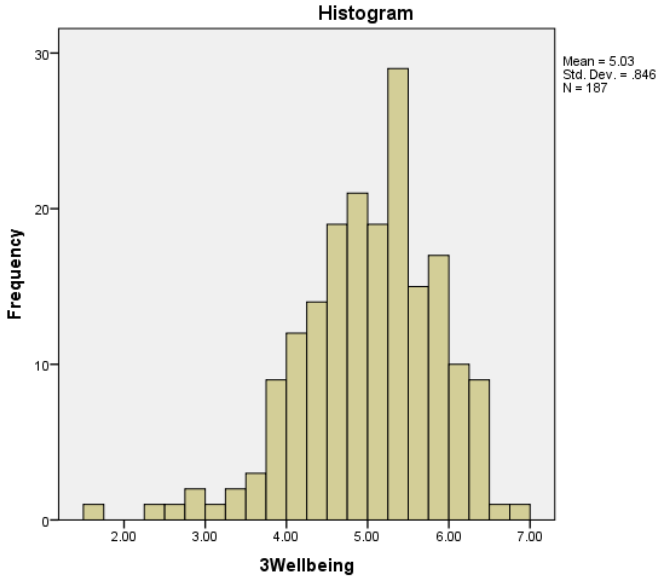
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
global trait EI	.052	187	.200*	.993	187	.561
2Global trait EI	.036	187	.200*	.993	187	.473
3Global trait EI	.064	187	.061	.991	187	.322

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





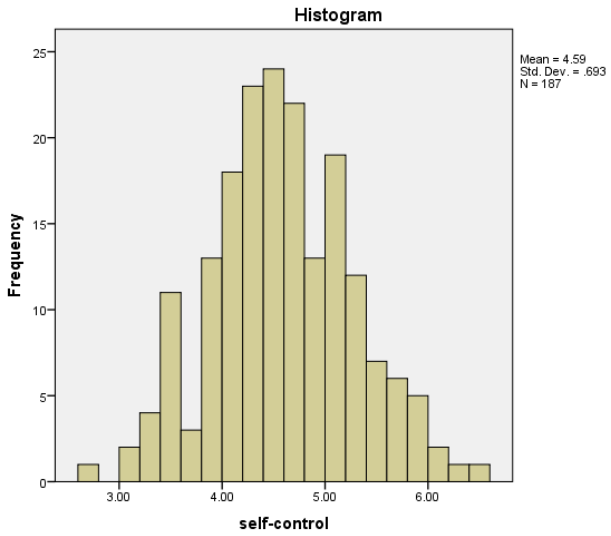


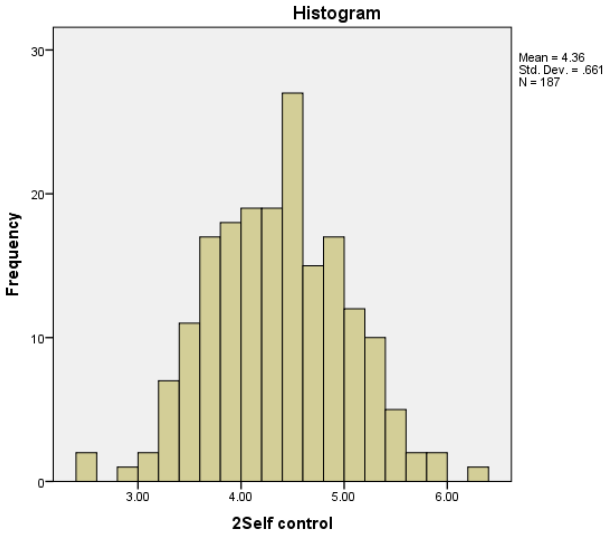
Tests of Normality

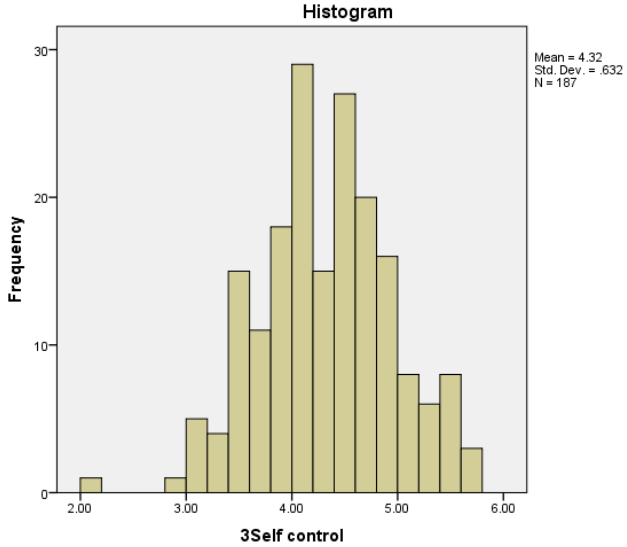
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
well being	.087	187	.002	.949	187	.000
2Wellbeing	.070	187	.028	.962	187	.000
3Wellbeing	.051	187	.200*	.974	187	.002

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





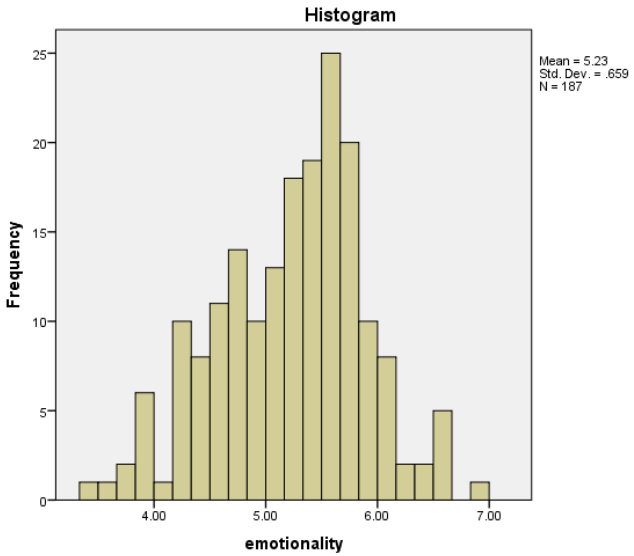


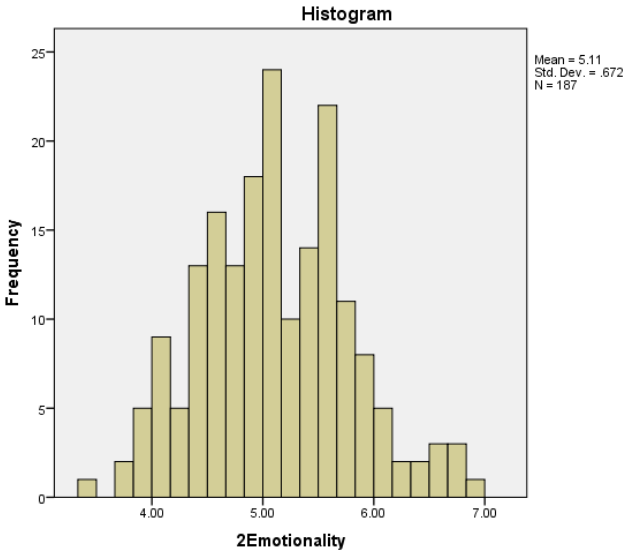
Tests of Normality

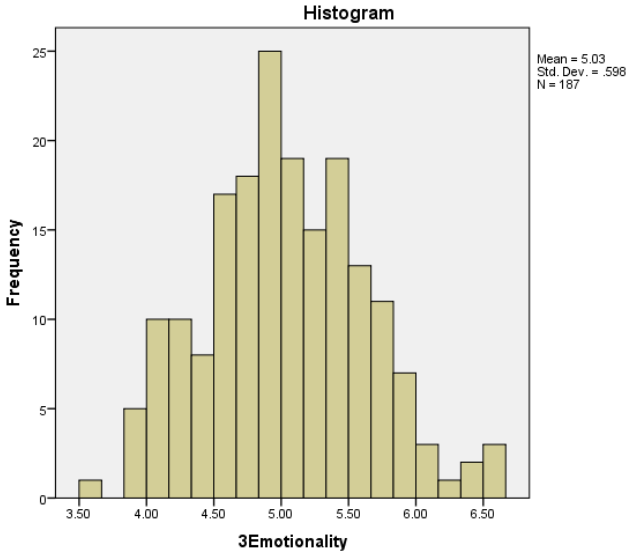
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
self-control	.060	187	.100	.995	187	.837
2Self control	.037	187	.200*	.997	187	.983
3Self control	.039	187	.200*	.992	187	.427

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





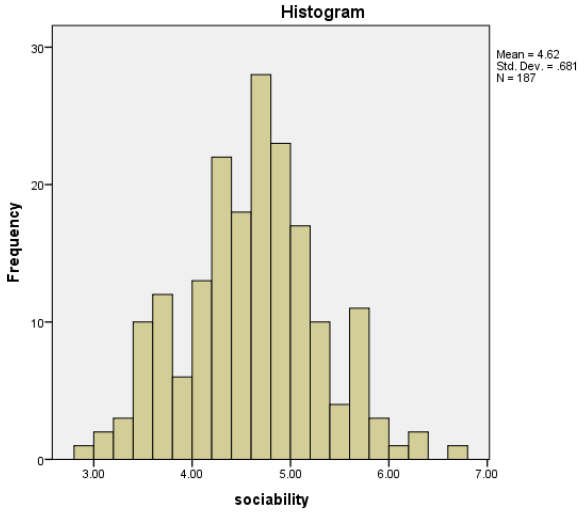


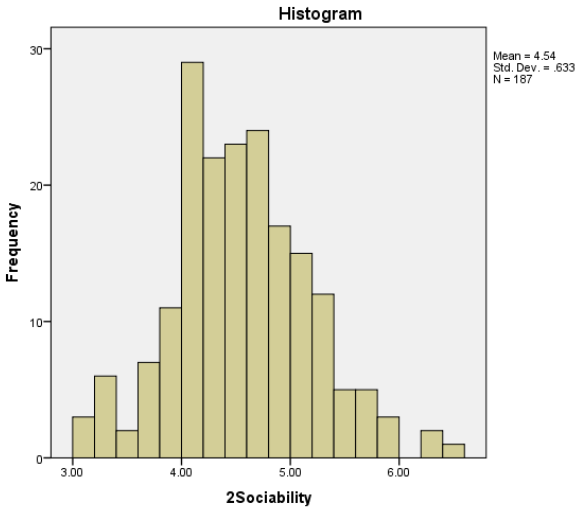
Tests of Normality

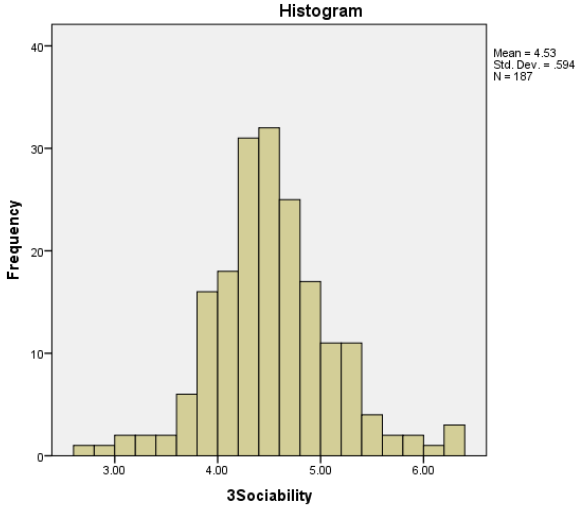
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
emotionality	.069	187	.028	.987	187	.074
2Emotionality	.049	187	.200*	.991	187	.263
3Emotionality	.033	187	.200*	.991	187	.305

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





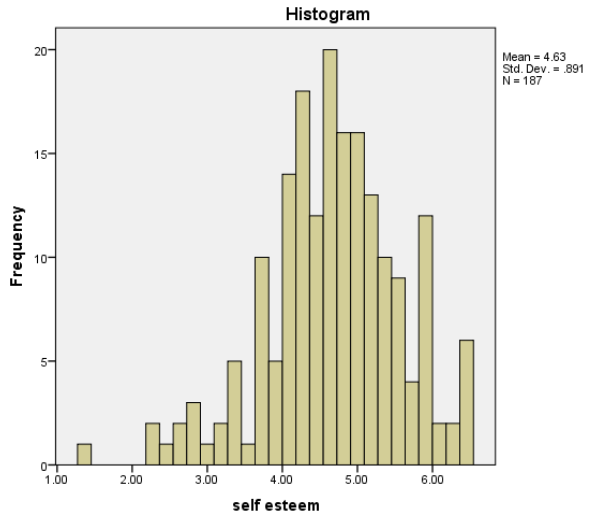


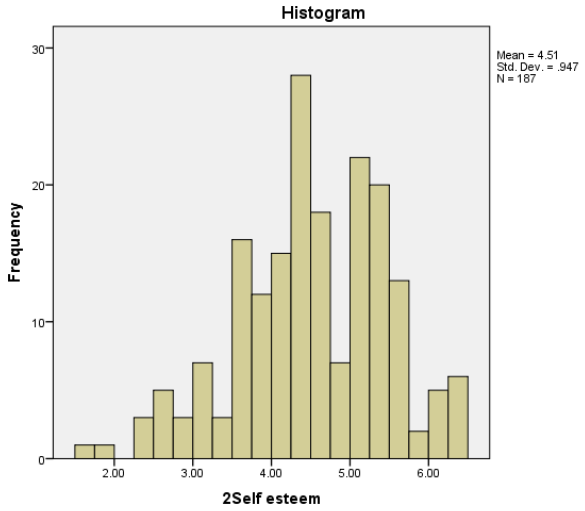
Tests of Normality

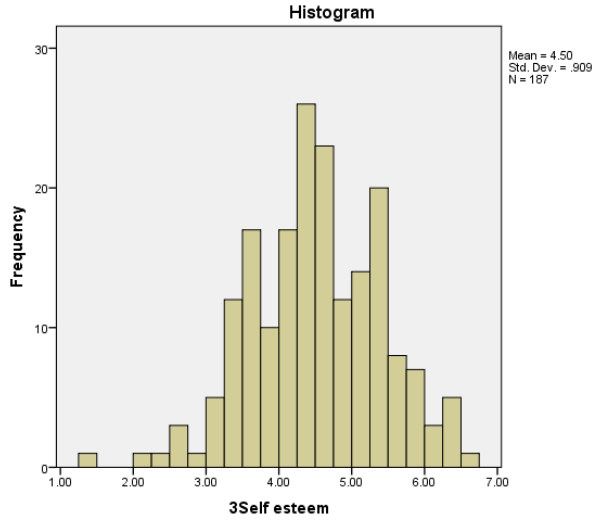
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
sociability	.041	187	.200*	.994	187	.634
2Sociability	.046	187	.200*	.989	187	.183
3Sociability	.055	187	.200*	.979	187	.006

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





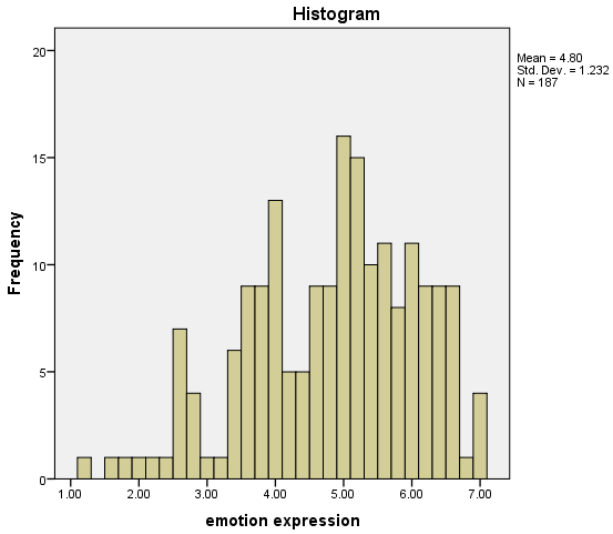


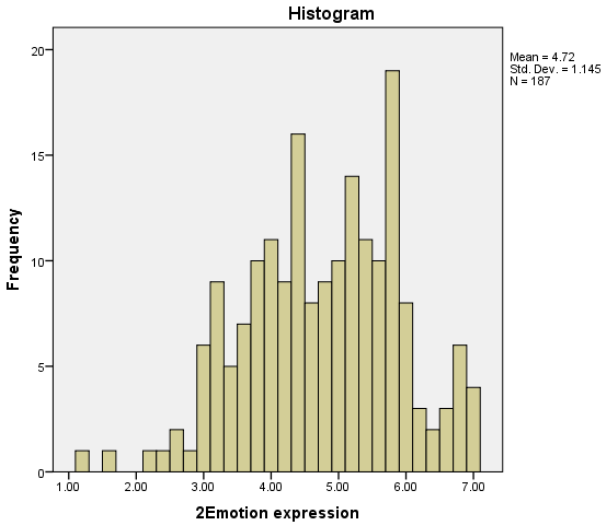
Tests of Normality

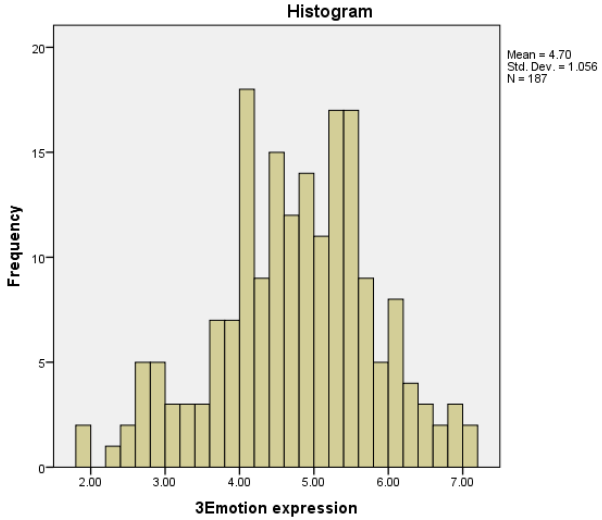
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
self esteem	.067	187	.038	.978	187	.005
2Self esteem	.063	187	.071	.987	187	.071
3Self esteem	.042	187	.200*	.992	187	.407

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





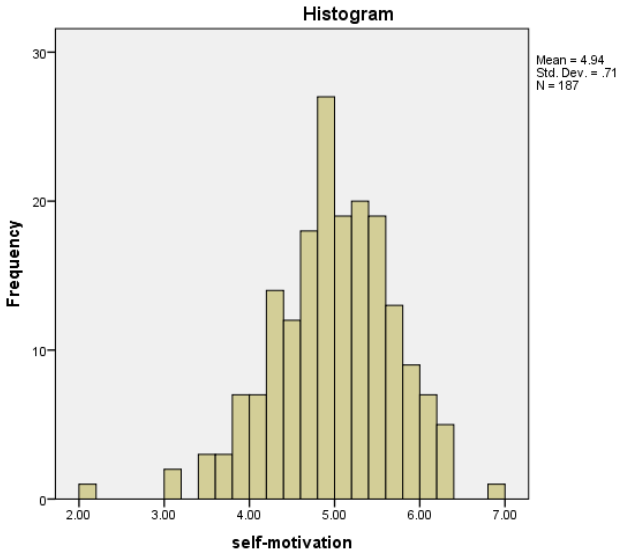


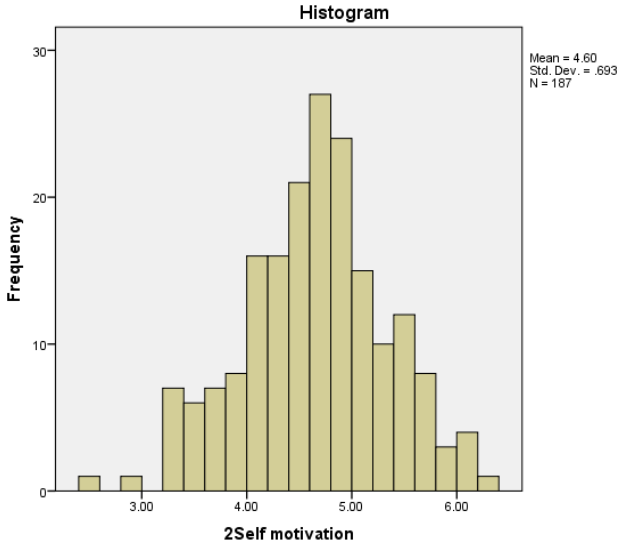
Tests of Normality

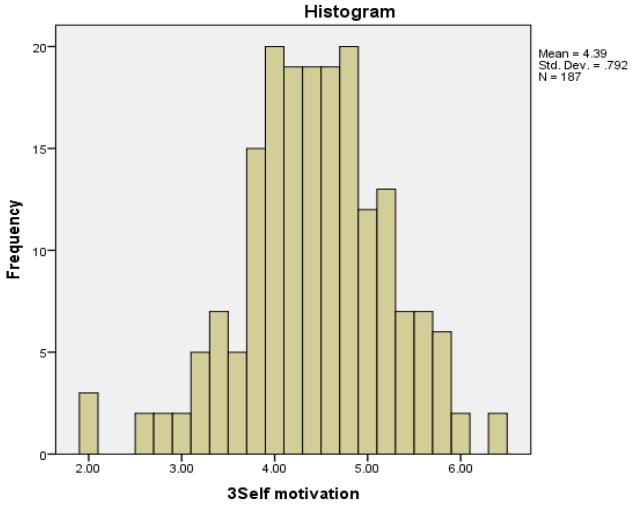
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
emotion expression	.083	187	.003	.974	187	.001
2Emotion expression	.058	187	.200*	.987	187	.097
3Emotion expression	.056	187	.200*	.988	187	.103

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



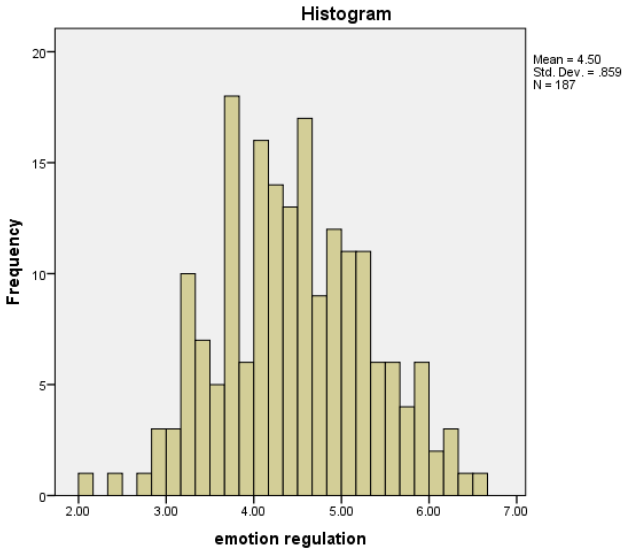


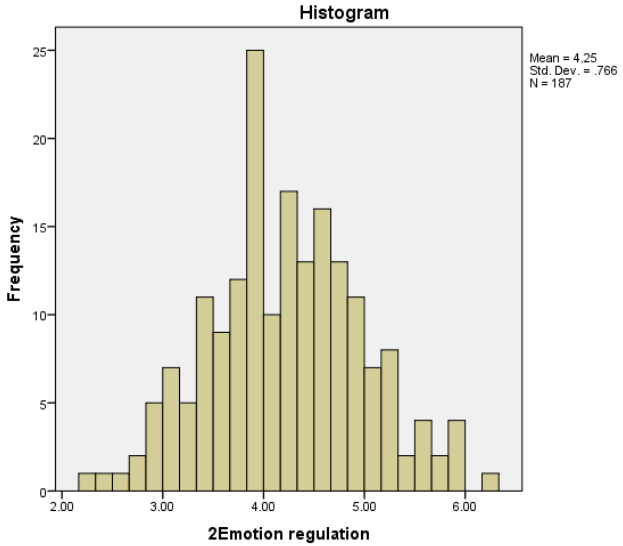


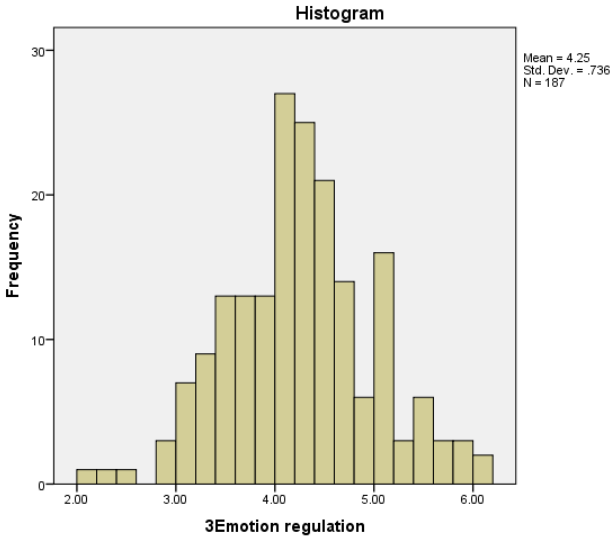
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
self-motivation	.073	187	.016	.984	187	.035
2Self motivation	.079	187	.006	.991	187	.330
3Self motivation	.061	187	.083	.988	187	.111

a. Lilliefors Significance Correction





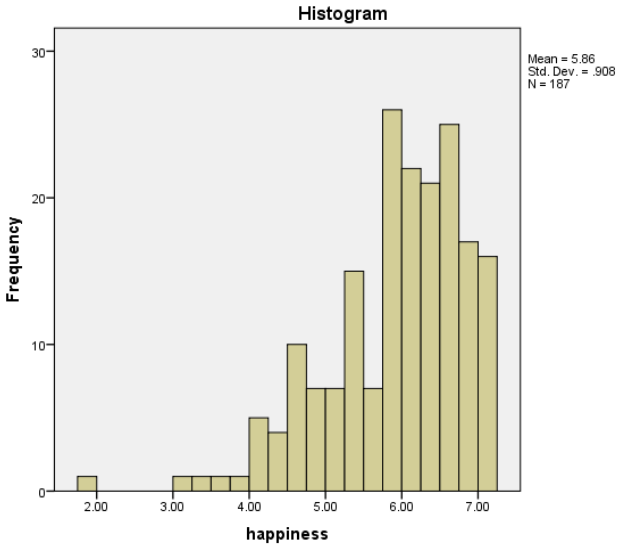


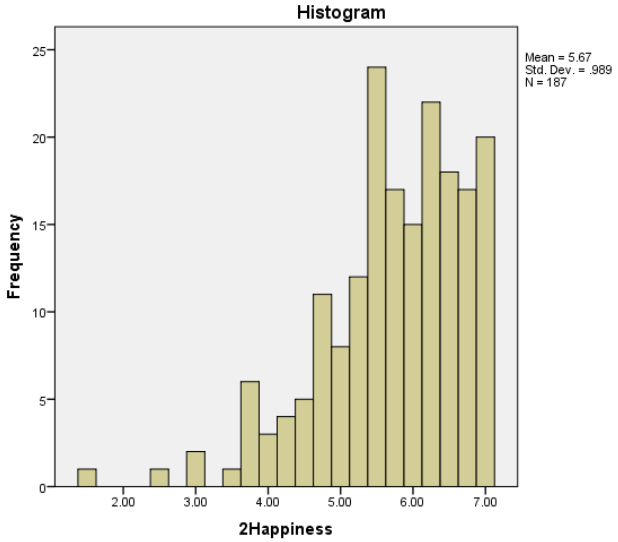
Tests of Normality

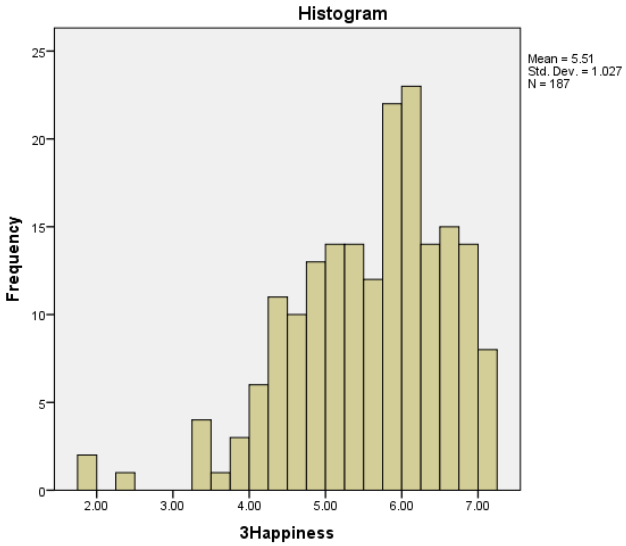
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
emotion regulation	.044	187	.200*	.995	187	.808
2Emotion regulation	.052	187	.200*	.996	187	.856
3Emotion regulation	.059	187	.200*	.993	187	.451

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



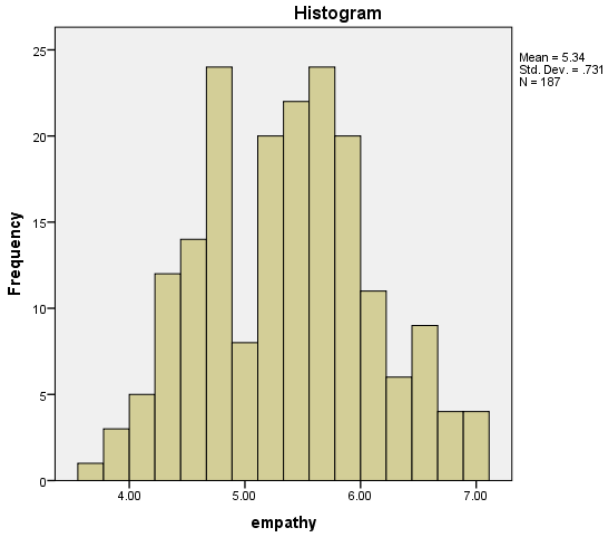


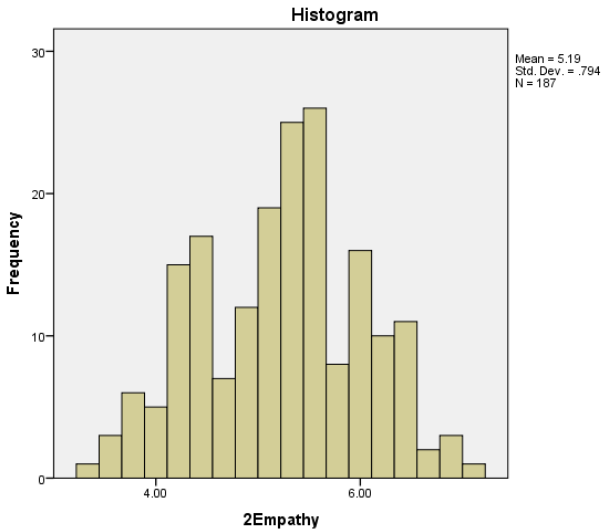


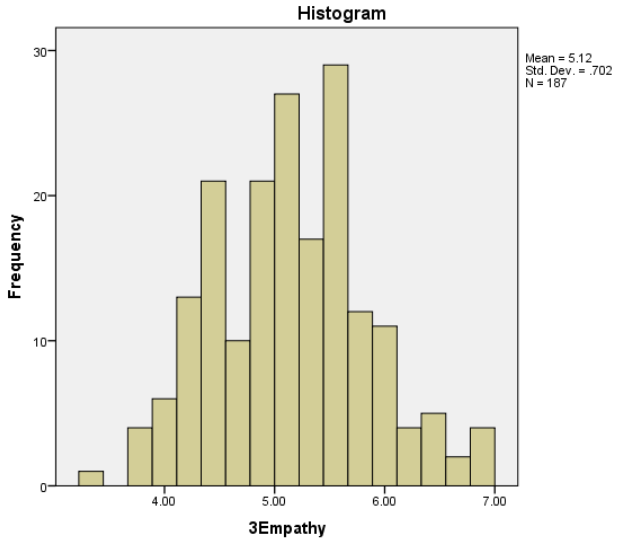
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
happiness	.133	187	.000	.919	187	.000
2Happiness	.093	187	.001	.933	187	.000
3Happiness	.105	187	.000	.948	187	.000

a. Lilliefors Significance Correction





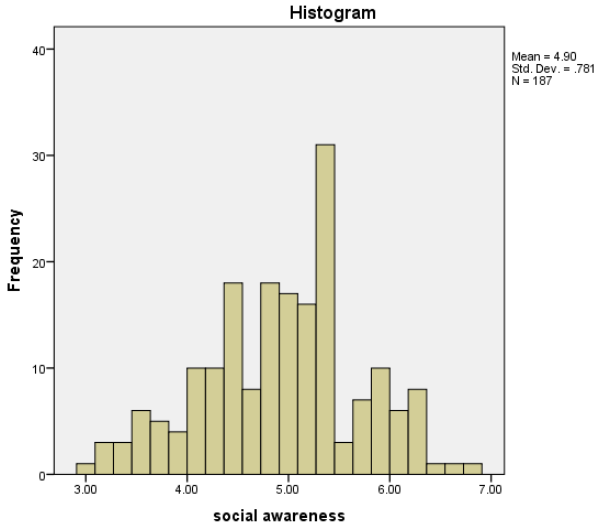


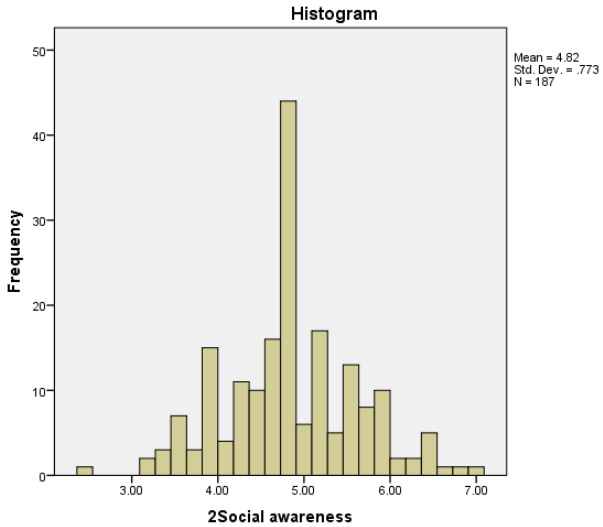
Tests of Normality

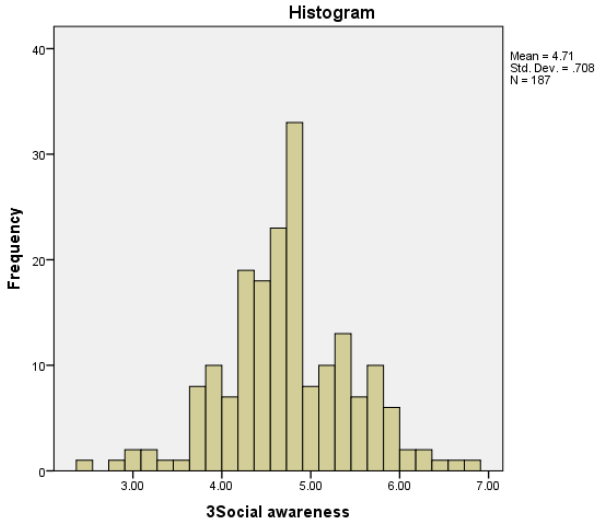
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
empathy	.049	187	.200*	.990	187	.197
2Empathy	.066	187	.043	.988	187	.114
3Empathy	.058	187	.200*	.990	187	.249

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





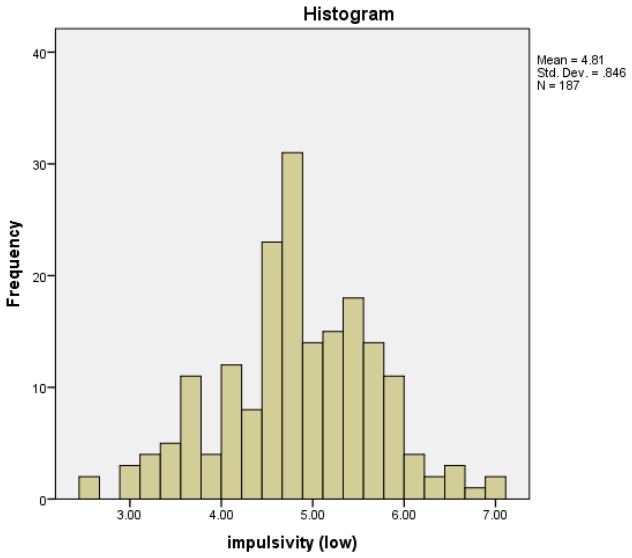


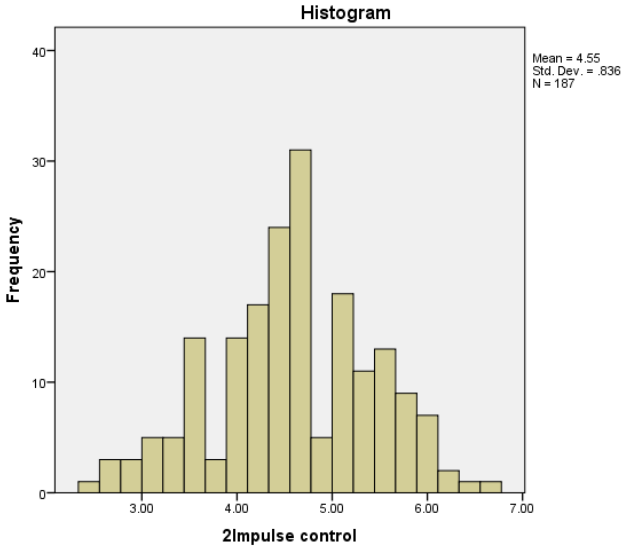
Tests of Normality

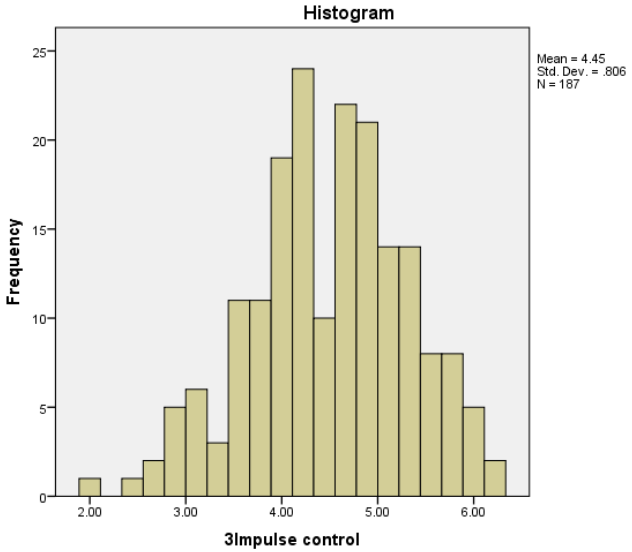
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
social awareness	.057	187	.200*	.989	187	.150
2Social awareness	.076	187	.011	.993	187	.466
3Social awareness	.063	187	.064	.990	187	.202

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





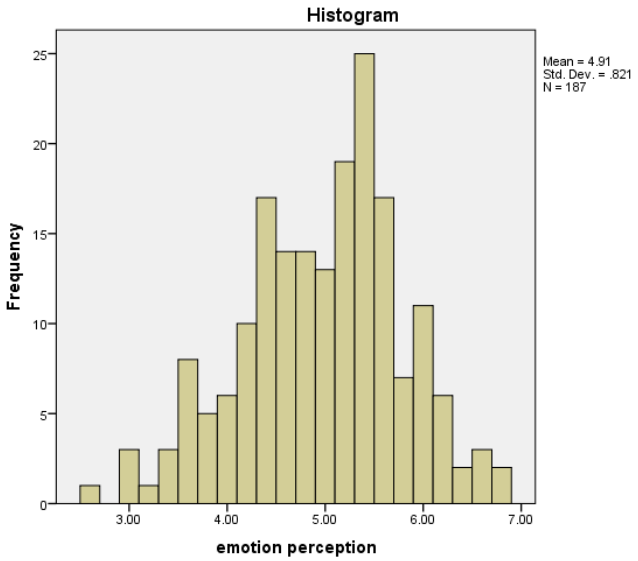


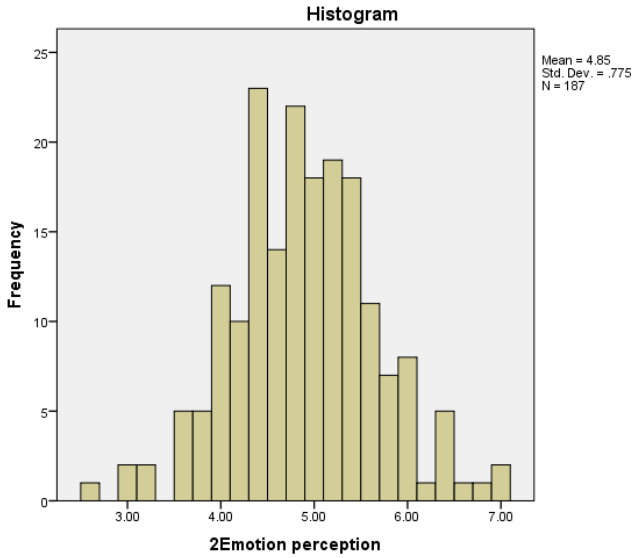
Tests of Normality

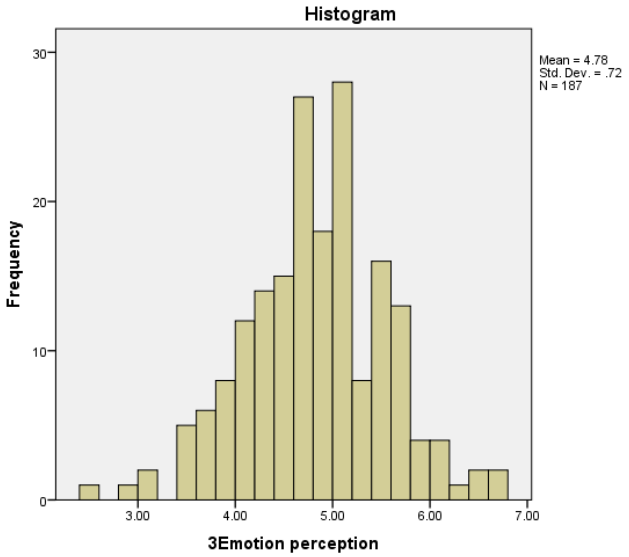
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
impulsivity (low)	.072	187	.019	.992	187	.396
2Impulse control	.053	187	.200*	.992	187	.443
3Impulse control	.055	187	.200*	.991	187	.271

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





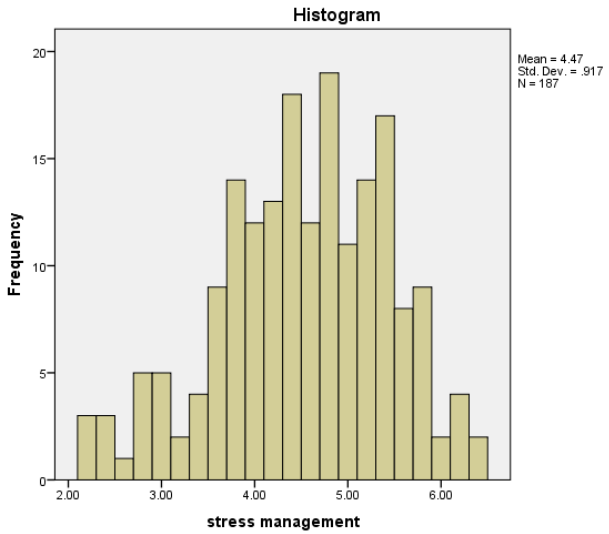


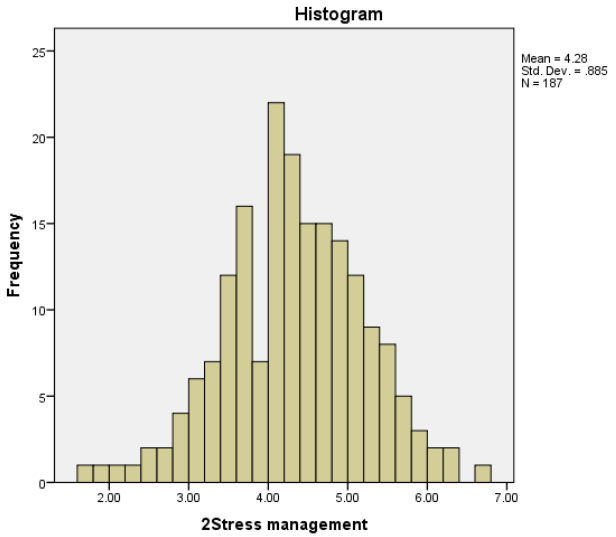
Tests of Normality

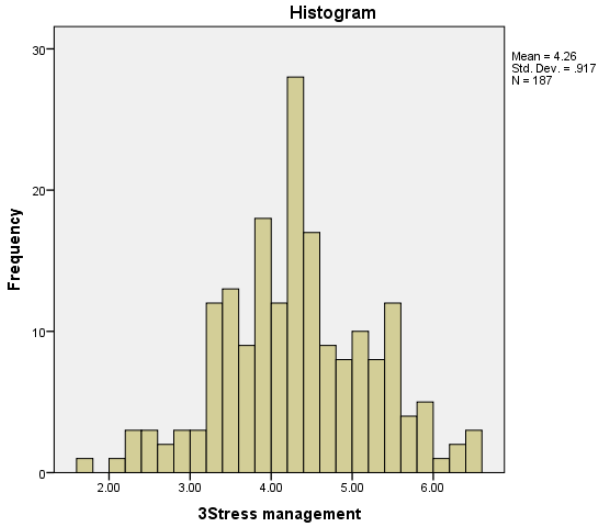
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
emotion perception	.082	187	.004	.988	187	.106
2Emotion perception	.049	187	.200*	.994	187	.632
3Emotion perception	.064	187	.059	.993	187	.560

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction





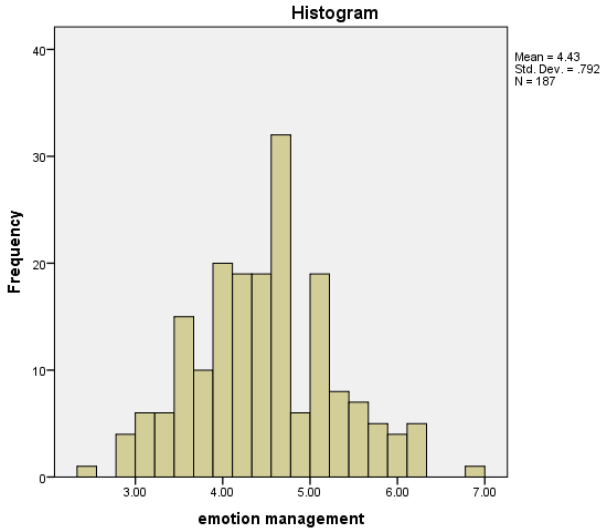


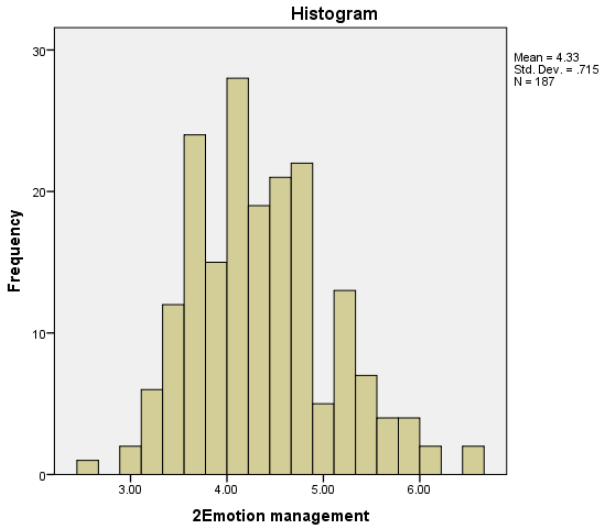
Tests of Normality

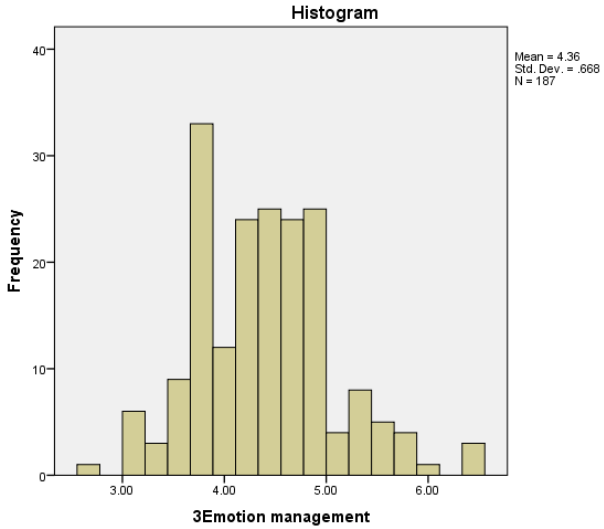
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
stress management	.060	187	.200*	.982	187	.019
2Stress management	.057	187	.200*	.996	187	.939
3Stress management	.075	187	.012	.992	187	.365

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



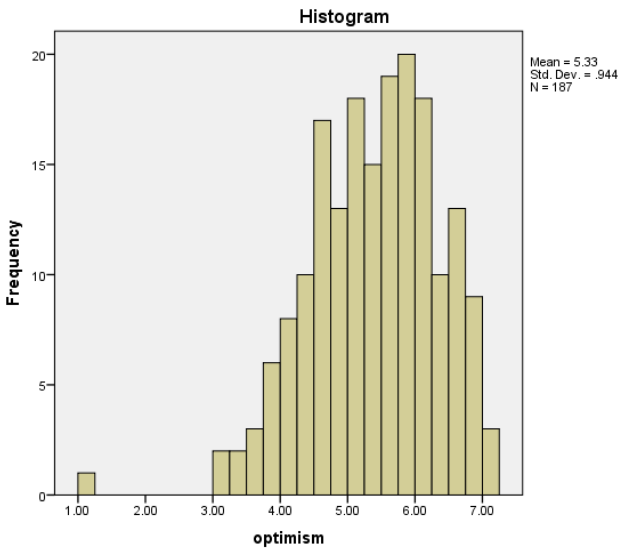


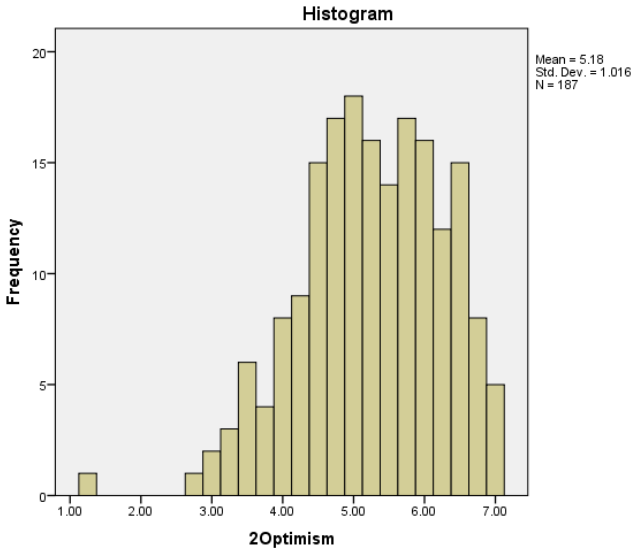


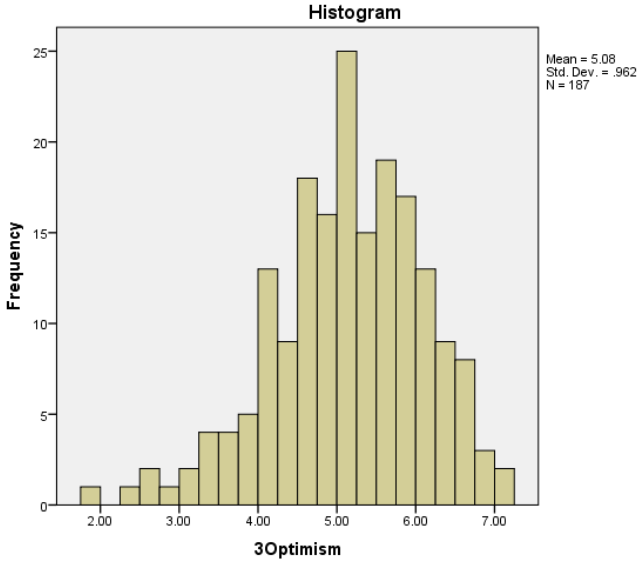
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
emotion management	.064	187	.064	.993	187	.563
2Emotion management	.091	187	.001	.981	187	.014
3Emotion management	.073	187	.016	.984	187	.034

a. Lilliefors Significance Correction





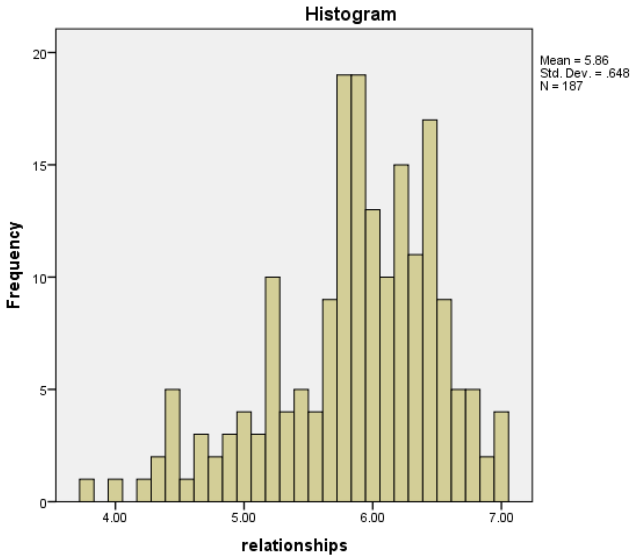


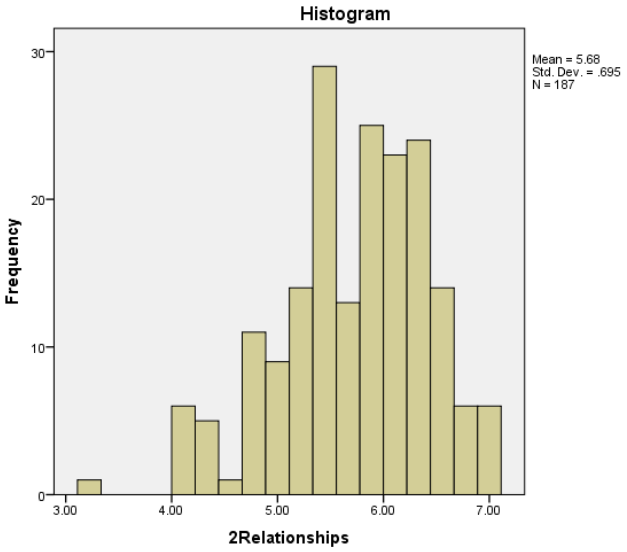
Tests of Normality

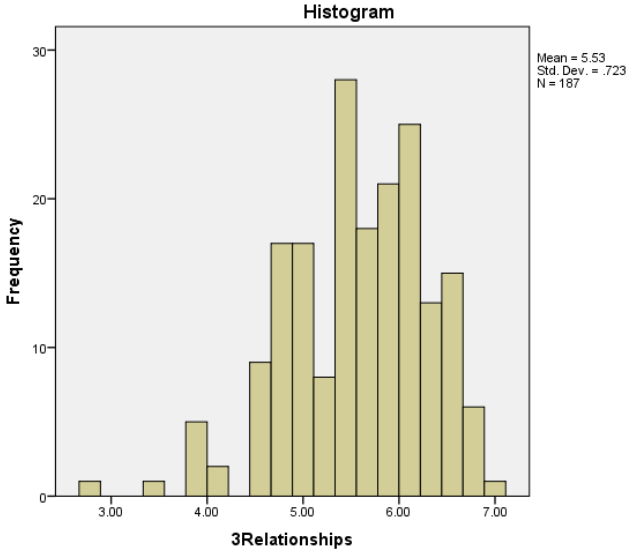
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
optimism	.064	187	.056	.969	187	.000
2Optimism	.060	187	.200*	.976	187	.003
3Optimism	.062	187	.074	.982	187	.016

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



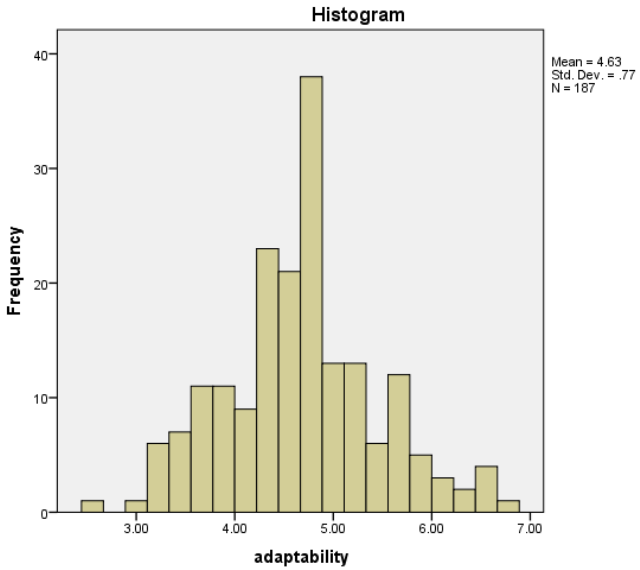


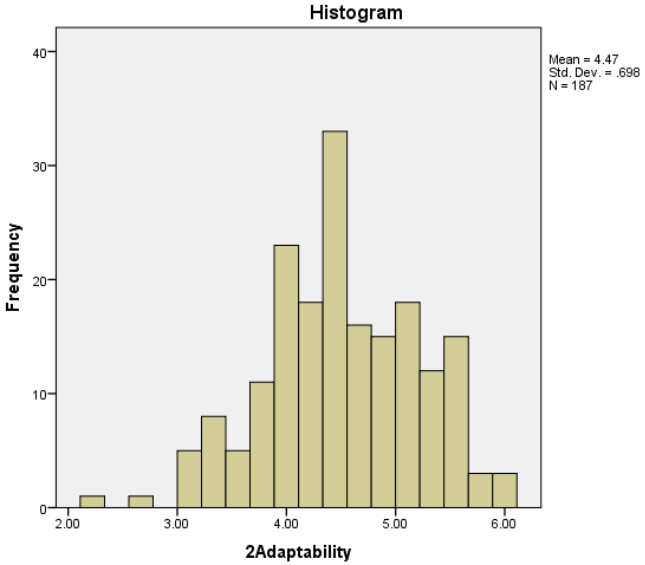


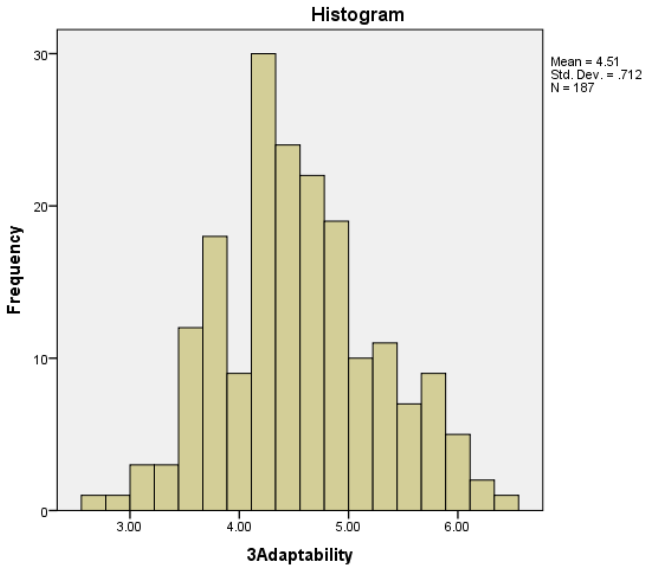
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
relationships	.138	187	.000	.952	187	.000
2Relationships	.094	187	.000	.972	187	.001
3Relationships	.074	187	.015	.973	187	.001

a. Lilliefors Significance Correction





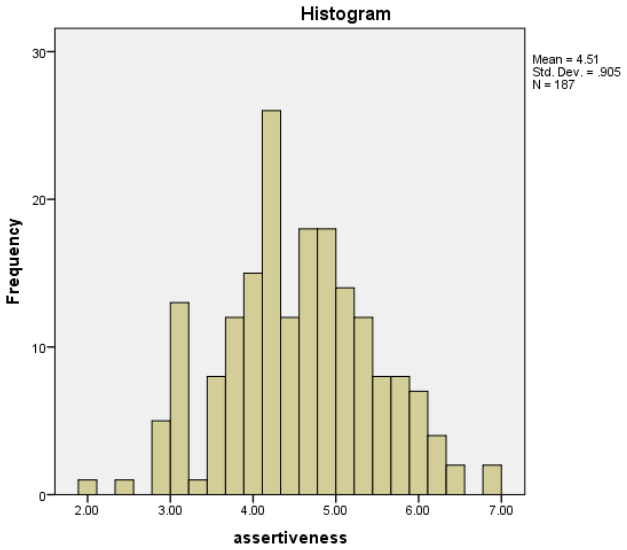


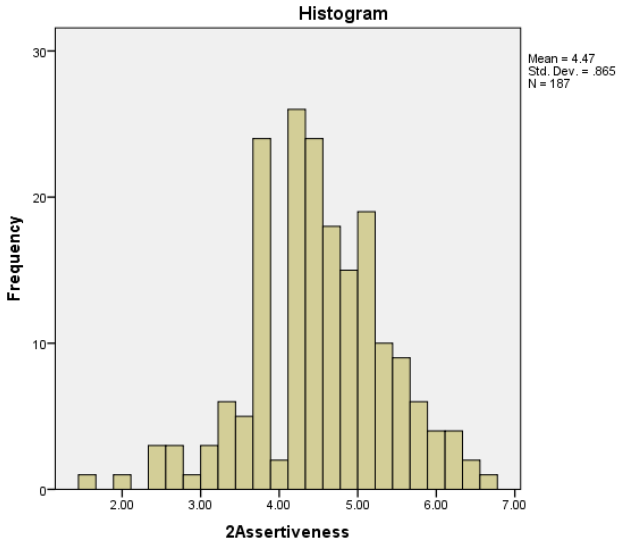
Tests of Normality

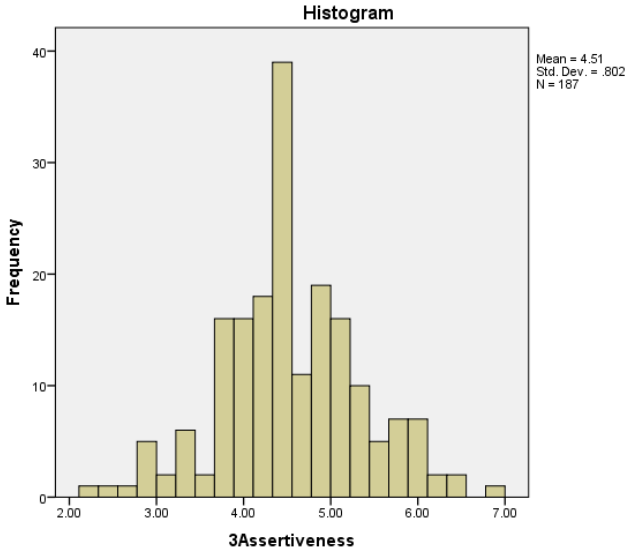
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
adaptability	.070	187	.027	.990	187	.222
2Adaptability	.056	187	.200*	.990	187	.188
3Adaptability	.098	187	.000	.988	187	.102

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction







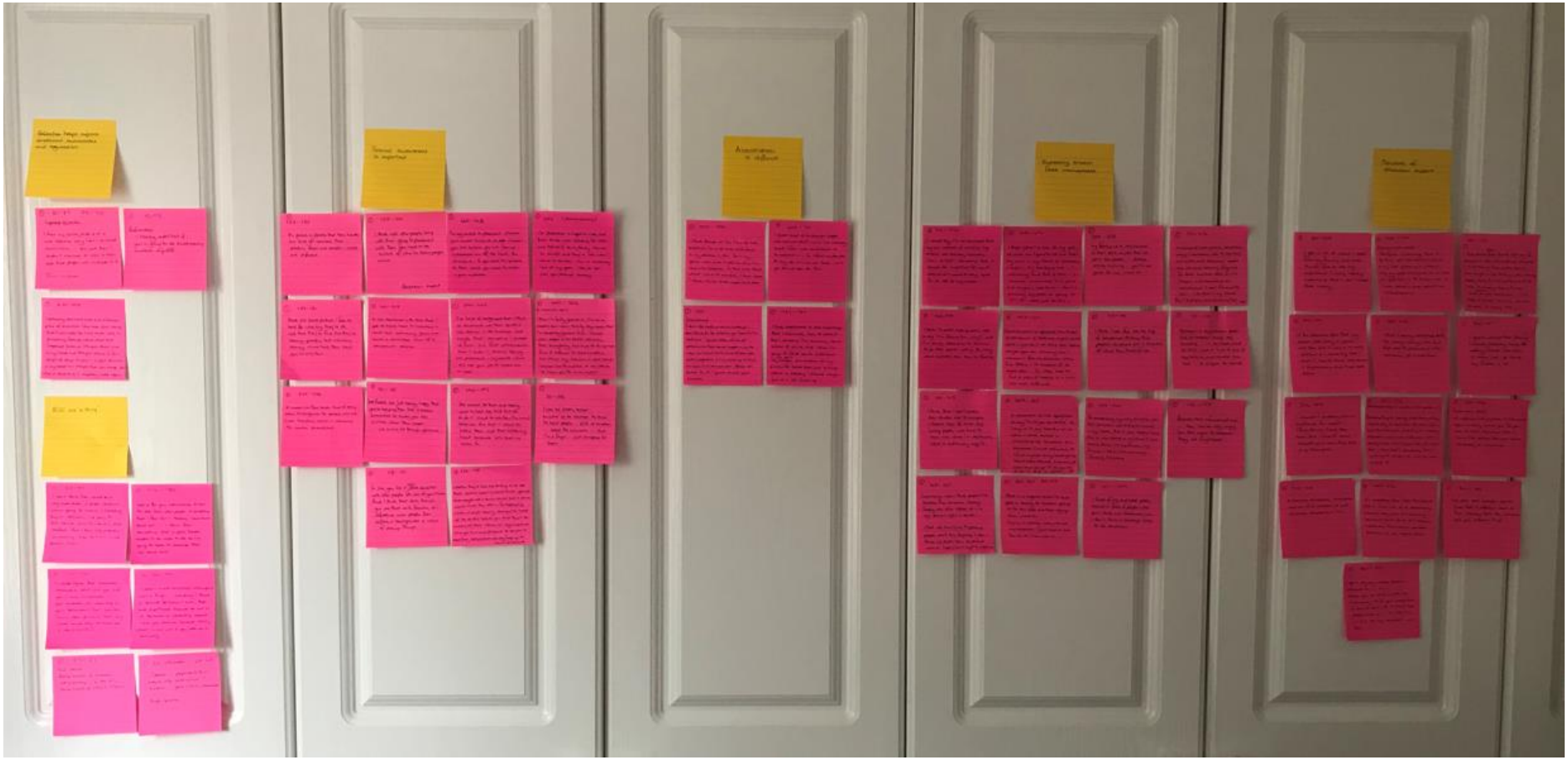
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
assertiveness	.043	187	.200*	.995	187	.820
2Assertiveness	.076	187	.011	.989	187	.150
3Assertiveness	.070	187	.027	.989	187	.177

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix L: Photograph of process used to organise and reorganise key quotes and phrases in IPA study



Appendix M: Theme development table - Theme 1: EI is important for nurses

Participants	Subordinate Themes	Key cross-references	Indicative quotes	Notes
All	Lack of semantic clarity	1 (57-60) 2 (26-30) 3 (142-146) 4 (44-54)	*Definitions:* To me that means being aware of your own emotions and um… not controlling them but like oh I guess a little bit of that but also like being aware of other peoples and how you like interact with that… (57-60) Oh that's hard to answer I think how um… your ability to regulate emotions and pick up other people's emotions um… like to understand how you're feeling yourself um… and to be able to understand how other people are feeling as well. I think that's what I'd say. (26-30) I think I kind of see it as almost being able to sort of pick up on sort of like emotions in a room, like yourself patients relatives, everything other members of staff everyone really and I don't know maybe being able to sort of read social cues and sort of know what to do with them. (142-146) Being able to manage your emotions and how you logically react to them. So like… I might be in a situation where someone's really, really doing my head in and it makes me really made me angry, the emotional intelligence part is how I deal with that anger like... If I was I don't really know that much about it but if I perceive that if I had low emotional intelligence that anger would just come out whereas if I'm emotionally intelligent about I think ok so that's made me really angry but think about the context that your in. Ok I can't express how I feel but I can tell someone I feel this way to deal with it in a more appropriate kind of way. (44-54) I wasn't aware EI was 'a thing' it's actually not something I've been aware of apart form you in the course (736-738) I guess like an openness. You've got to be like prepared to think about all the alternative like ideas and stuff, kind of being able to reflect and then in terms of being like aware of other peoples you got to be like a good listener, communicator (64-68) I actually think that it should be taught more, that more importance should be put on it because it massively impacts how you behave and how you behave towards others. Which is our job if you look at it basically (738-741) To kind of control other people. Use it for your advantage to get the best from other people is something that I don't really feel like I have much skill (776-778) EI Training… I think it probably is something that the NHS could benefit from. (815) Emotional intelligence means you have to be able to empathise with people and sympathise with people and have good observational skills I guess and be able to pick up like body language, people's tone of voice and things like that. Yes, just awareness I think, self-awareness and just awareness of what's going on around you as well. (35-40) For me maybe the lectures on like death and things like that and just like we were saying earlier about how you can cry with people and things like that… and also the	*Definitions* 1, 3 and 4 seem to be focussing almost entirely on managing emotions – 'knowing what to do with them'. 2 focusses more on the need to understand. The consensus is that EI is important for nurses although it is difficult to define. You know it when you see it… It's difficult to teach but there should be some intervention to help develop EI in practice and university settings.

			lectures that talk about communication and how so much of it isn't what people tell you but how they're acting and their body language, and so especially with non-verbal people like your emotional intelligence is really important otherwise it's easy to miss things (627-633) Maybe something like that with simulations because I think it's not really something you can be taught I think like you learn it from I don't know… I don't think you can, there could be like a lecture about how to be… it could tell you how to be emotionally intelligence but whether it would actually help anyone develop their emotional intelligence I don't know if it would (648-654) I think it would be quite hard I think it's quite a hard thing to teach (658) I think just being, being on the placement just in general should really help you I don't think there's a specific thing that you could do on your placement to help develop it (664) I feel like if you're gonna have emotional intelligence you'll have some idea of what to do about it, being able to sort of identify it and then help. You need to be a bit just sort of blank almost like a blank canvas and people can sort of project it on to you and you sort of see what's happening and then like help (215-220) I think they present as quite level headed and in control (68) I think you need to have self-control and there needs to be a level of cognitive ability as well like if you're… I don't know how to say it without being offensive but you're lower functioning cognitively it's going to be hard for you to rationalise your emotion and your response to it (59-63) I guess there's ups and downs to being emotionally intelligent. If you're constantly managing an emotion, so like if I was upset all the time but then came across like this then no-one would know that I was upset so the problem wouldn't get solved. In some ways maybe it's better to be, to not be so in control of it because then you're going to have to get help… (92-98)	Blank canvas idea unique to 4, sounds like application of therapeutic relationship. Articulation of TEI theory that it is not a case of the higher the better.
All	EI is an inherent trait	1, 2, 3, 4	I already do it a little bit (742) I am a kind of a reflective person anyway so I do often, have always, gone through conversations or events in my head and thought oh what happened what did I say naturally (81-83) I'd say I don't know if my emotional intelligence has changed but, I'd say I've been like it most of my life I'd say but, I think it shows how important it is to be like that to be a nurse. So I think it's like reassurance that you've got the right mind set and that's really how you should be if you're caring for people and their families (585-589) I think my awareness of the importance of my emotional intelligence has changed, I think that's probably, and realised how much of a skill it is as well really and how that not everybody has EI. Everybody has some but maybe not as much as you may need to do nursing (590-594) I think maybe it has improved slightly but only because it was already there I feel like it's not something you can teach somebody. If somebody comes in here and they don't	There is the potential to enhance what already exists but not to create EI if it isn't already present.

			really have any existing emotional intelligence that would be, I think they're really going to struggle (947-951) I think if you didn't have it you wouldn't get it um… I think you'd still be able to be a nurse but I think it would just be exhausting (960-961) I think that and being on the course has developed my confidence a lot. I think I've always been like, being a student nurse hasn't changed me it's just kind of moulded me and helped me grow kind of thing (550-552) I wouldn't say it's changed; I've always been that way inclined. I've probably developed skills in picking up on things. Especially in our field, things like not always taking things at face value in terms of their emotion and how they're behaving. I wouldn't say it's changed I'd say it's developed and improved maybe. It's just always been in the same direction I've just improved it a little bit (646-652)	
1, 3 and 4	EI begins with self-awareness		I would argue that emotional intelligence needs to come from you first being able to recognise. You can't recognise other peoples until you are aware of your own and its impact on your behaviour (721-724) I would argue that emotional intelligence starts with you and your own awareness I've just said it it's not at all, your emotions are impacting on your behaviour that you can know that person is acting in that way what could their emotions be in like a reverse (725-729) (Reflection) Is really important if you are going to be like emotionally aware of yourself (73-75) I am a kind of a reflective person anyway so I do often, have always, gone through conversations or events in my head and thought oh what happened what did I say naturally, so I guess that's kind of helped me personally. But I think my ability to do it in a more effective way has massively improved (81-86) I actually went home and did a formal pieces of reflection I felt like after doing that I was more like much better able to process my feelings about what had happened because I thought what I did in my head and I thought about it for a couple of days it wasn't a light reflection in my I head but I thought that was enough but when I came to it, it completely broke again (423-428) It's something that I often think back to but in much more of an emotionally neutral way and it's actually led me to think oh so it's actually made me think about practice and how we can improve things (469-472) Definitely you need to be able to identify your emotions and that's something I'm really, really terrible at, really, really awful at (167-169) I can identify that I'm not ok but why? I can't seem to get my head around that one (179-180) I think if you've got emotional intelligence you sort of have to, you have to listen, you have to observe you can't just be in your own little world you really need to see what's going on around you (204-206) I think reflections I only do it because I'm told I have to (497)	The capacity to reflect is important although not all participants agree that this is a purposeful action. Although 1 and 4 describe activities that encourage introspection, 3 feels it is an automatic inherent process. Contradiction here, 3 feels that she needs to be able to identify personal feelings better but at the same time expresses the belief that it happens through an unconscious effortless process.

			I guess it (reflection) does have it uses but I don't enjoy how structured typical reflections are, I think if there's something you're going to learn from it you're gonna have learnt from it before the reflection. I don't think… I don't think you need a written reflection I think you take things from a situation without realising. I do feel like you almost don't need to put that sort of effort or emphasis on it cos if you act like a sponge you're going to be a sponge and just kind of draw from the experiences and work out what's happening (512-520) I'm not very good at writing it down but I do a lot in my head (206) I think I'm a very reflective person, so sometimes I'll over reflect say, say even like a debate in a class like… you're just putting across a point that you've been told to put across but I'll over analyse it and think, oh God have I really upset them. I over analyse everything, and I think it's helpful and unhelpful (210-214) I think it's really important still but I think if you're not aware of your own emotions how you control yourself, how can you be aware of others? (633-635) they say that you'll have supervision but you never do. I think it's easy to forget from a mentor's point of view that a lot of the things we see it's the first time we're seeing it and it can be distressing and I think maybe they need to improve their emotional intelligence by picking up that we're like, but we also need to recognise our issues and discuss it (689-694) Reflection with input. So I don't know if that's like the actual format for supervision, I'm sure there's different types isn't there but… Talking through what happened how you dealt with it, how you felt about it, having someone there to challenge it. (704-707)	Reflection as a written activity is helpful but not enough without someone to enable you to process the experience.