Abstract
The global population is ageing, and this trend is expected to continue. Cultures around the world socialise with older people differently with distinctive attitudes towards ageing. Ageism is a complex multifaceted concept that includes attitudes and behaviours. In the UK, ageism and discriminatory practices exist within nursing, and nurse educationalists and clinicians need to address ageist attitudes and promote older people care as healthcare needs increase.

Within the context of nursing there is a lack of synthesised evidence which measures ageism amongst nursing students. This paper examines the Relating to Older People Evaluation (ROPE) questionnaire which has been used in different student populations in Higher Education (HE) including nursing students.

A systematic search across databases was conducted from June 2007 to December 2017 resulting in 6 quantitative studies. Statistical analysis of ROPE was not possible, so a thematic analysis of the narrative was completed identifying two themes: attitudes predict behaviour and socialisation to ageism in HE.

There remains a need to explore ageism and ageist attitudes of student nurses in HE. The ROPE is a suitable tool to measure student nurses' ageist attitudes and behaviours.

Keywords:
Ageism
Narrative review
ROPE
Older person care
Student nurse education
Socialisation
Introduction

The number of people over the age of 60 years continues to increase from 900 million in 2015 to 2 billion by 2050 (World Health Organisation (WHO) 2018). In the UK 70% of population growth between 2014 and 2039 will be in the over 60 age group, increasing from 14.9 to 21.9 million people (Government for Science 2016). An ageing population impacts on all elements of society, including health and social care services (Prince et al. 2015), therefore ageism is a global concern (Vauclair et al 2017).

The term ageism was originally proposed by Butler (1969), who identified three distinct elements within this concept. More recently these elements have been further defined by Cherry and Pamore (2008). Firstly, negative attitudes determine behaviour which then enables the formation of negative stereotypes. Secondly, attitudes and discrimination towards an older person can have significant consequences on physical and mental health. Lastly, the impact of institutional discrimination through restrictive policies and practices related to a person’s age can have negative outcomes.

Globally ageism exists in healthcare systems around the world (Wilson et al. 2017), and nurses ageist attitudes could impact negatively patient care, colleagues and mentored student nurses (Smith et al. 2017). In the UK ageism and discriminatory attitudes have been evident across health and social services at different levels, for example at policy level through to screening and accessing services (Ouchida and Lachs 2015). These practices need to be challenged (Faronbi et al 2017).

Positive attitudes and perceptions in older person care have been found amongst student nurses (Faronbi 2017). However, student nurses’ perceptions are often influenced during clinical placements by registered nurses who hold negative attitudes towards older people (Hovey et al. 2017). Following placements, student nurses have described older person care as less desirable (Smith et al 2017), repetitive and unchallenging (Gould et al. 2013), undemanding and depressing (Carlson et al 2015) and consequently few student nurses see older people care as good career and many want to avoid this area upon qualifying (Neville et al 2016).

Within the context of nursing the development of older person care in Higher Education (HE) and practice can address ageism and promote person-centred care for older people (Hovey et al. 2017). Educational strategies within HE aiming to address ageism can transform attitudes and increase students’ intention, knowledge and capacity to work within older person
care (Brown et al 2017). However, it is difficult to study student nurses’ attitudes because of the lack of a pre-existing valid and reliable measure of ageism.

One tool that measures stereotypes of older people is Kogan’s (1961) “Attitudes toward Older People Scale”. While this tool has been applied internationally and translated into many languages (Runkawatt et al 2016), the authors wanted to explore ageism in nursing using an alternative tool. ROPE is seen as a valid tool which measures student nurses’ attitudes and behaviours towards older people.

Relating to Older People Evaluation (ROPE) is a self-report questionnaire designed to measure a person’s negative and positive attitudes towards older people, frequency and types of ageist behaviours (Cherry and Palmore 2008). The word ageism has deliberately not been included in the tool to allow respondents to be honest about their behaviours and perceptions. ROPE identifies the prevalence, type and most reported ageist behaviours. Initially the ROPE questionnaire assessed only negative forms of ageism but has since been modified to contain six positive and fourteen negative ageist behaviours (Cherry and Palmore 2008). The internal validity and reliability were appropriately established, with internal consistency reliability adequate (0.70) (Cherry and Palmore 2008: 856).

While student nurses’ ageist attitudes and behaviours have been seen to increase during nursing education (Frost et al 2016), early elderly care placements have positively impacted student nurses’ experiences in Norway (Skaalvik et al 2010) and Australia (Robinson and Cubit 2007). Consequently, an understanding of nursing students’ prejudices and attitudes in the UK is essential to develop nurse education programmes, socialise students in the workplace and develop a nursing workforce for the future. The identification of a valid and reliable tool to measure nursing student’s attitudes is vital.

Aim
The aim of this review was to examine the use of the Relating to Older People Evaluation (ROPE) questionnaire within different student populations in Higher Education (HE) including nursing students.

Method
A comprehensive search strategy of published literature was conducted by using systematic review guidelines (Bettany-Saltikov 2012). Electronic databases were searched: EBSCOHost (which included CINAHL Plus, MEDline, PsychINFO, PsycARTICLES), Web of Science, Science Direct and Wiley-Online. Search terms included the use of recognised Medical
Subject Headings (MeSH) and specific headings: “student nurse” or “nursing student” (including other healthcare worker terms nurses, healthcare professional, healthcare providers, physician/doctor/, healthcare assistant/support workers), AND “older people” (including older adults, elder*, seniors, aged, geriatrics) AND “attitudes” (including prejudice, ageist language/behaviour, attitude towards, discrimination, stigma, stereotyping, ageism, labelling). Hand searching of journals and reference lists of papers identified were completed. The searches and databases are presented in Figure 1, Preferred Reporting Items for Systematic Review and Meta-Analyses [PRISMA] (Moher et al. 2009).

**Inclusion and exclusion criteria**

Primary data from the ROPE questionnaire which included students in HE and university staff published between the 1st June 2007 and 31st December 2017 in the English language; and only papers published after the main dissemination of Cherry and Palmore (2008) work were included. Exclusion criteria included studies with participants outside of HE, clinicians such as social workers or clinical psychologists, papers prior to 2007, discussion and opinion papers.

**Findings**

The search identified 2,672 papers with 31 additional papers found through hand searching. Duplicates were removed (1,336) and the remaining records were screened (n=1,367). Papers were excluded by title (n=895), abstract (n=434) and then full-text papers were screened (n=38). Thirty full-text papers were excluded as data from the ROPE questionnaire was not presented and two were excluded due to the type of trainees, leaving 6 quantitative papers (Cherry and Palmore 2008, Garcia and Troyano 2013, Cherry et al 2015, Cherry et al 2016, Frost et al 2016 and Shiovitz-Ezra et al 2016).

**Data extraction, analysis and synthesis**

Each study was reviewed by the two authors to determine inclusion, and key data were extracted and presented in Table 1, including the key components of each study. Due to the nature of data presented further statistical analysis was not possible, however, statistically significant differences from each study are reported. Thus, a narrative review of the results was completed (Ryan 2013).

**Quality Appraisal**

All the papers were critically appraised using a survey checklist (Rees et al 2015) which considers the quality and appropriateness for methodology, design, recruitment strategy, data collection, data analysis, findings and the value of research (CASP 2014). While all six papers
followed a clear structure, there was a lack of consistency in reporting elements of internal and external validity such as: randomisation, loss of follow-up, and study power calculations.

Overview of studies
Studies were completed in the United States of America (Cherry and Palmore 2008; Cherry et al 2015; Cherry et al 2016), Spain (Garcia and Troyano 2013), Australia (Frost et al 2016) and Israel (Shiovitz-Ezra et al. 2016). Different studies included a variety of populations such as college students, members of university staff, community dwelling older adults (Cherry and Palmore, 2008); undergraduate and graduate students, university staff, middle-age and older adults (Cherry et al 2015); adolescents attending high school, young, middle and older adults enrolled on university courses (Cherry et al 2016); psycho-pedagogy students (Garcia and Troyano, 2013); general population over 21 years showing a high level of education (Shiovitz-Ezra et al 2016) and one study on 1st year nursing students (Frost et al. 2016).

Cherry et al (2015) included the Marlowe-Crowne Social Desirability Scale (M-C SDS) (Crowne and Marlowe 1960) and the Fraboni Scale of Ageism (FSA) (Fraboni et al 1990). A correlation analyses of ROPE and M-C SDS found a small but significant correlation between ROPE positive items and M-C SDS scores ($r=0.16$, $p< 0.1$) indicating that positive ageism responses are associated with greater social desirability. The ageist attitudes and ageist behaviours of the FSA correlated with positive and negative scores of ROPE, which was significant with age ($r=-0.15$, $p=.01$).

Shiovitz-Ezra et al (2016) also used the Facts on Ageing Quiz (Palmore 1998) with M-C SDS and FSA. Correlations of the three scales found a negative relationship between knowledge, negative and explicit attitudes of ageism. As knowledge increased, there was a tendency for less negative expressions and less ageist attitudes.

Three studies reported the mean and standard deviation of positive and negative ageist behaviours. Reported by subgroups: participants by age (Cherry and Palmore, 2008), age and gender (Cherry et al. 2016), and undergraduate, postgraduate students and community adults (Cherry et al. 2015). Data has been extracted from these three studies and presented in Table 2. Generally, the positive statements attracted higher “sometimes” and “often” percentages with the majority of negative statements yielding high “never” percentages.

The remaining three studies report percentages of positive and negative behaviours for participants per question (Cherry and Palmore, 2008; Frost et al. 2016; Shiovitz-Ezra et al. 2016). Shiovitz-Ezra et al. (2016) excluded three of the questions from ROPE, whilst Garcia
and Troyano (2013) presented percentages of overall positive and negative ageist behaviours. No further statistical analysis was possible or appropriate.

**Themes**
Two main themes emerged from this analysis of the narrative review: attitudes predict behaviour and socialisation to ageism in HE.

**Attitudes Predict Behaviour**
Generalised discriminative behaviours occurred across all groups: most admitting one or more ageist behaviours (Cherry and Palmore 2008), and ageist attitudes were correlated with negative ageist behaviours (Cherry et al 2015). Whereas Cherry et al (2016) and Shiovitz-Ezra et al (2016) reported more positive ageism rather than negative ageist behaviours; 97.8% reporting they would “hold doors for older people” (Frost et al 2016), and 98% asking “for advice from an older person because of his or her age” (Garcia and Troyano 2013).

The reporting of ageist behaviours across age and gender was inconsistent across studies. Adolescents and younger adults reported few ageist behaviours than middle aged and older adults, and women reported more positive ageist behaviours (Cherry et al 2016). Women tended to report less negative ageist behaviours (Shiovitz-Ezra et al 2016) whereas Garcia and Troyano (2013) found no differences between men and women. With 83% of the sample being female, nursing students’ ageist attitudes became stronger as their studies progressed (Frost et al 2016).

Cherry et al (2016) examined the prevalence of self-reported ageist behaviours in a lifespan sample and positive ageist behaviours were more frequent than negative behaviours for all ages; women endorsed positive ageism items more than men, although neither gender differed in frequency of negative ageist behaviours. The Facts on Ageing Quiz (Palmore 1998) and the Knowledge of Memory Ageing Questionnaire (Cherry et al 2003) showed that knowledge of ageing was significantly positively correlated with less negative ageist behaviours, after controlling for age and gender (Cherry et al 2016).

**Socialisation to Ageism in Higher Education**
All studies explored students and other members of the university community in the HE setting. Garcia and Troyano (2013) applied the ROPE to two student groups, 4th and 5th year psychopedagogy students and some older students, with 84% reporting intergenerational relationships with grandparents. Both groups of students displayed frequent age discriminative behaviours, with positive behaviours being reported more frequent than negative ones. There
was no significant difference between the age of students and positive or the negative behaviours reported.

Cherry et al (2015) and Cherry et al (2016) found ageist views of undergraduate and graduate students in other sample groups scoring higher positive ageist views. Students’ ageist attitudes were correlated with negative ageist behaviours and found to be significantly lower than older adult groups. Cherry et al (2016) found adolescents and young adults reported fewer ageist behaviours and higher frequency of positive ageist behaviours.

Nursing students report engaging in ageist behaviours as they progressed through their studies which can negatively affect future relationships with older patients (Frost et al 2016). Frost et al (2016) surveyed first year undergraduate nursing students; while 63.2% of student nurses considered working in aged care, 98% reported engaging in some ageist behaviour and 88% reported talking slow and/or loud to an older person. Understanding ageism in nursing can provide structure to students learning experiences and can help to recognise ageism in one’s own practice (Frost et al 2016).

Discussion
The themes identified from this review: attitudes predict behaviour and socialisation to ageism in HE highlights that ageist positive and negative attitudes and behaviours continue to exist.

Attitudes predict behaviour
Knowledge, attitudes and behaviour influence both positive and negative ageist behaviours, occurring at individual level (Cherry et al 2015). There were no consistencies across groups such as young, middle aged and older people, or gender and neither group or gender behaviour towards the older people.

Positive and negative ageist beliefs and behaviours changed over time. Socialisation of nursing students in clinical practice increases ageist attitudes (Frost et al 2016). Ageism and discriminatory behaviour exist amongst healthcare professionals and can influence nursing students’ values and beliefs (Hovey et al. 2017). Ageist perceptions toward older persons within the healthcare environment must be addressed in nursing curricula to support nursing students to recognise negative beliefs and behaviours (Band-Winterstein 2015).

This review identified the need for information on the ageing process to be disseminated for people of all ages, and continuous education for healthcare professionals who work with older
people (Cherry et al 2016). An important element identified was that of cultural differences of ageing (Shiovitz-Ezra et al 2016). Culture is been seen as a significant factor to influence attitudes towards older people (Mark and Charles 2013). Ageism can be overcome by understanding the different cultures of older people, how care is provided and ageing perceived. With particular reference to older person care and dementia the provision of culturally appropriate person-centred care has been identified as essential (Brooke et al 2017).

Developing educational interventions and promoting awareness of ageism through media may highlight the realities of ageism, however positive and negative behaviours must be disseminated to illustrate its impact on older people (Brown et al 2017). Smith et al (2017) suggests integrating other programmes of study such as gerontology or social work to help understand the ageing process. Multidisciplinary teaching in nursing curricula would highlight the complex nature of ageing and importance of a collective approach to support healthy ageing of the population.

Socialisation to ageism in Higher Education
In HE and particularly in nursing, student nurses are socialised into their new profession with pre-existing ageist beliefs (Neville 2016). Additionally, nurses and clinical placements in older person care may impact negatively on the ageist values of the future workforce (Wilson et al 2017). Consequently, healthcare curricula including nursing which inherently rely on the workplace needs to address ageism and ageist views in clinical practice (Faronbi et al 2017).

Where young adolescents and adults are socialised early with older people this instils positive cultural behaviours and attitudes towards ageing (Shiovitz-Ezra et al 2016). An Australian study which explored the socialisation of student nurses into their new role in older person care examined student nurses’ intention and perceptions and found working with older people challenging, interesting and stimulating, however they described working with older people as basic care (Neville 2016). This is consistent with the view of socialisation of young adolescents and adults early with older people and affirms positive behaviour of cultural attitudes and ageing. While Neville (2016) recommends earlier exposure to older people care, this approach needs to be supported in education and practice to promote positive ageism and ageist views.

Nursing students’ HE and clinical practice are important elements of socialisation into their profession; and there is urgent need to influence the understanding of ageing, ageing process, dementia and healthcare provision (Faronbi et al 2017). Appropriate education for nursing students, qualified nurses and other healthcare professionals is necessary for person-centred older people care to be provided and understood by both patient and healthcare provider.
In the only study with a student nurse sample, Frost et al (2016) suggests the self-administration of ROPE for students to learn to recognise their own ageist practices and recommends early implementation in nursing programmes.

The ROPE is a valid tool which is comparative to both the Facts on Ageing Quiz (Palmore 1998) and the Knowledge of Memory Ageing Questionnaire (Cherry et al 2003). The successful introduction of the ROPE within nursing in HE to assess ageism may help raise awareness of everyday ageist practices helping change ideas and values of older person care (Frost et al 2016). Measuring ageist attitudes of student nurses entering the healthcare workforce might be necessary to ensure negative attitudes are addressed to support an ageist free workforce (Wilson et al 2017).

**Limitations**
The review was limited to papers published in the English language and highlighted the limited use of ROPE in student nurses. Further limitations include small sample sizes and a reliance on convenient samples in HE.

**Implications for practice and education**
This review highlights the importance of providing appropriate educational information on the ageing process and ageing in different curricula in HE for nurses working with older people. Furthermore, this needs to be comprehensive and inclusive as people from other occupations with varying educational backgrounds and occupational experiences in social services, readily admitted to positive ageist behaviours (Brown et al 2011).

Due to an ageing population, educational programmes need to focus on improving knowledge of ageing, older people care, and additionally measure the attitude of healthcare professionals and those entering healthcare professions to develop the future workforce (Wilson 2017).

**Conclusion**
The results of this narrative review present a number of issues for nursing practice in the UK. There are mixed views on ageism and the complexities of defining ageism are noted in the gerontological literature. While the review included papers on different student groups in HE, it is difficult to draw any conclusions to translate these into nurse education. The themes: *ageism in HE and socialisation to ageism in HE* must be challenged on a university wide basis, so older people remain appropriately integrated in society. Therefore, educators in university and clinicians in nursing must challenge and change ageist attitudes and promote an inclusive society and healthcare.
References


