Understanding mental health content on social media: A mixed methods study exploring perceptions, motivations, and impacts on mood.

By

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ABSTRACT

Background. Evidence suggests that mental health and ADHD related content is being shared regularly on social media; leading to positive outcomes for some, such as an increased sense of community, feelings of support and decreases in depressive symptoms. However, there are also indications of negative affect; with some exposure to mental health and ADHD related content resulting in increases in anxiety, or depressive mood. Others report that content was overwhelming or could cause anxiety and anger for those exposed. Further, some mental health content (particularly ADHD content) has also been noted to increase in online self-diagnosis after exposure. There are also concerns for the authenticity of those that post mental health and ADHD content (e.g. Mental health influencers) due to financial rewards for virality, or popularity online.

Rationale. Until 2022-2023 there was no existing literature that investigated any negative associations with viewing mental health (or ADHD) content online, with all previous research only exploring the positive associations such as spreading awareness and decreasing stigma. There was also limited research that explored perceptions of mental health influencers and public and user perception of financial incentives for mental health content posted online. Additionally, there were only a handful of naturalistic studies that incorporated the use of the TikTok API (the application software for TikTok, including all posts, comments and informatics), with limited investigations into interactions with mental health content, particularly when it comes to exploring perceptions of and motivations for self-diagnosis.

Overall aim. The thesis aimed to explore mental health and ADHD content that can be seen on social media, with a particular focus on content that related to symptoms of mental health disorders and ADHD. As a part of these explorations, the thesis also aimed to further understand concepts that are connected to this content type such as motivations for and

perceptions of online self-diagnosis, and mental health influencers, including the ethics surrounding financial incentives for sharing mental health and ADHD content.

Methods. Mixed methods with three studies: *Study one:* Quantitative study investigating fluctuations in positive and negative mood, pre and post content exposure (PANAS). Participants were randomised into three groups: Symptom, wellbeing, and image only, current mental health status was also explored as a contributor. *Study 2:* Qualitative semi-structured interviews with 15 people: exploring perceptions of different content types and of self-diagnosis; using content to self-diagnose; 'mental health' social media influencers; financial reward for virality, and motivations for posting mental health content. *Study 3:* Quantitative data analysis and an inductive thematic analysis was conducted for TikTok user data and comment sections using #Mentalhealth, #Depression, #Anixety, #Selfdiagnosis, and #ADHD via TikTok researcher API. This was to explore how people interact with mental health content online, including perceptions of, and motivations for self-diagnosis.

Findings. *Study one:* Mixed-ANOVAs revealed no significant differences for the main effects for mood between the three content conditions, and mental distress for both positive and negative affect. However, a Chi Squared analysis highlighted significant associations for the symptom-based group (negative) and wellbeing group (positive). *Study 2*: A deductive Thematic Analysis generated 4 themes: (1) Mixed perceptions of symptom-based content on social media; (2) conflicting views on self-diagnosis, from encouraging misdiagnosis to pathways for clinical diagnosis, (3) questioning influencer authenticity and motivations for sharing mental health content and (4) the positive influence of wellbeing content. These findings suggest that mental health overall was a positive, but symptom-based content should be approached with caution as it may cause relatability and lead to self-diagnosis. Mental health content was also not deemed appropriate for those in a mental health crisis. *Study 3:* Quantitative data reports high frequency of engagement on mental health related hashtags

across the three time points. The Inductive Thematic Analysis generated 6 themes: (1) showing support and empathy towards posters; (2) relatability of content, personal declarations, and experience coherence; (3) indirect and direct cries for help; (4) affirming those that self-diagnose; (5) motivations for avoiding formal diagnosis; (6) negative perceptions of online self-diagnosis. Findings suggest that people engage with mental health and ADHD content in a positive manner through words of kindness and affirmation. People relate to the ADHD content and use the comment sections to report their relatability. Self-diagnosis was seen as being both negative and positive. Motivations for self-diagnosis were also discussed such as access to services, distrust of mental health professionals, and perceived stigma.

Implications and conclusion. Findings generate new knowledge and support education for social media information sourcing. Social media companies could look to implement disclaimers for sensitive topics, symptom discussion and financial incentives. Findings overall detail that mental health and ADHD content as a whole has its place online, but users should apply caution when symptoms, financial inventive and content creators are involved. Self-diagnosis is known to occur, and people report a range of motivations as to why they chose to do this. However, some of these motivations may be for financial reward, attention or online popularity.

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PREFACE

During 2020, the world came to a standstill when the COVID-19 pandemic hit, affecting populations worldwide. Due to the increase in restrictions and limited social interactions, people began to reach for their smartphones and tablets in order to facilitate social connections. During this time, my own personal social media usage increased, and with this, a barrage of mental health posts relating to mental health disorders (and ADHD) found their way onto my Facebook and Instagram newsfeeds with statements such as '*This is what anxiety looks like!'*, *'10 steps to know if you have depression'* and '*ADHD bingo'*. However, as a person with lived experience of mental illness (anxiety and depression), not only did I feel that this content was not helpful for me, but it also actually began to make me feel overwhelmed; and with that I initiated an investigation into whether there was any research exploring whether overexposure to this type of content could be making others overwhelmed too. To my surprise there was not a single piece of research that investigated this, only the more positives that were associated with mental health conversations online, such as increased support, combating stigma, and spreading awareness.

Understanding that there was limited information and resources to support those accessing this information, I felt that it was imperative to continue my investigation, and with that began my PhD journey. Through further investigation, I uncovered phenomena such as online self-diagnosis and mental health influencers. From 2021, TikTok increased in popularity and with that, content could be shared even easier than before. Even when restrictions were lifted and people were able to return to some sense of 'normality', TikTok's popularity continued to increase, and therefore more 'influencers' have become famous as a result. So, taking all of this into consideration, I developed this thesis to further understand mental health content on social media by exploring concepts that have not yet been explored to this extent, such as any negative connotations from exposure to or engaging with content relating to symptoms of mental health

disorders, mental health influencers, and online self-diagnosis. I hope that by investigating these phenomena, findings from this thesis will help to provide evidence to others with lived experience, young people accessing social media, as well as those that are vulnerable, who may need further support when accessing and navigating the tumultuous world of social media.

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Chapter One: Introduction

The aim of the thesis was to explore and examine perceptions of, and motivations for sharing mental health related content found on social media. This included its impact on mood, with a specific focus on content that details symptoms of mental health disorders. Areas of contribution included exploring perceptions of social media influencers; and people's opinions surrounding online self-diagnosis, including possible motivations for this practice.

1.1 Structure of the thesis

The thesis is comprised of seven chapters. Chapter one introduces the thesis structure and the topic area by providing a detailed background of the applicable concepts and theories related to the thesis. Chapter two details a literature review of related studies that provide support to the rationale and help identify gaps for further research. Particular attention is given to the areas of online self-diagnosis and the impact of mental health content, and mental health influencers on social media.

The focus of chapter three is on methodology; it begins by introducing the philosophical paradigm of pragmatism, which is the chosen methodological assumption that underpins the thesis and design of the subsequent studies. The chapter will then outline the methodological framework and introduce methodological pluralism (mixed methods). Next, an overall rationale will then be presented, followed by the research questions, aims and objectives. The chapter will progress onto an overview of the three studies that make up the thesis, including linkages with existing literature, the research questions that apply to these studies, rationales, and introduction to the chosen methodologies.

Chapter four introduces study one - the quantitative study. It begins with a detailed outline of the methodology utilised, including the hypothesises and applicable research questions. The methodology also includes details of the statistical plan that was utilised. Next, the chapter will display the results of data analysis, including demographic and descriptive

data. The chapter will then report the results of the inferential tests conducted to check for statistical significance. Results are then interpreted, and a discussion of findings is presented, followed by strengths and limitations. Finally, the chapter will close with a discussion of implications and concluding remarks.

Study two will be introduced in chapter five - the qualitative study with content exposure. The chapter will begin by detailing the chosen methodology for the study, including researcher reflexivity and the analytical approach. Next, the chapter will present demographic information relating to the sample recruited, followed by the codes and corresponding themes relating to the study. The findings of study two will then be presented, including applicable participant quotes with interpretation of findings for all included themes. The chapter will then discuss the findings in relation to existing literature and highlight strengths and limitations. Finally, the chapter will close with a discussion of implications and a conclusion.

Chapter six will begin by detailing the methodology associated with study three - the mixed methods analysis of the TikTok researcher application programmer interface (API), including how the API was sourced and the development of the application to extract the data. The mixed methods analytical plan will then be described. Findings of the study will be reported, beginning with a descriptive narrative analysis of quantitative data sourced from the API. Following this, themes and applicable codes will be reported for the qualitative data. These findings will then be presented via quotes from social media users and interpretation for all themes. A discussion of findings will then occur, including strengths and limitations. Finally, implications will be discussed followed by concluding remarks.

The final chapter, chapter seven, comprises the overall discussion. This chapter will begin by explaining how the findings from the three-studies support answering each of the research questions. An overall discussion of findings will then occur, followed by the strengths

and limitations of the entire thesis. Practical implications will then be highlighted, followed by concluding remarks which will close this thesis.

1.2 Introduction to the chapter, key themes and terms.

This chapter comprises an introduction to the key themes and concepts that are related to the thesis and their epistemologies. Firstly, an introduction to mental health and mood, the impact of Covid-19, social media, algorithms, social media influencers, and self-diagnosis will be presented. Next, a discussion of key themes that support the rationale of this research including social identity theory, social learning theory and social comparison theory will be introduced and examined. It will then describe online behaviours that are related to social media usage which include problematic social media usage, vaguebooking, a fear of missing out and the need to belong. Finally, the introduction will detail Munchausen by internet, cyberchondria, a self-fulfilling prophecy and self-stigma.

1.2.1 An introduction to Mental health, mood and relevant disorders.

1.2.1.1 Mental health, mood and statistics

According to the National Study of Health and Wellbeing survey (2023), 1 in 6 people aged over 16 in England have experienced a common mental health disorder such as anxiety or depression (NHS England, 2023). Poor mental health is the second largest burden of disease in England, being more common, impactful and long-lasting compared to many other physical health disorders or conditions (Public Health England, 2024; Ritchie & Rosser, 2018). The World Health Organisation (WHO) describe a burden of disease as the measure in which a disease or injury can impact a population overall. This includes economic, social and health impacts (Public Health Scotland, 2024), using the disability adjusted life year (DALY). The DALY is determined by combining years of health lost to disability, but also years of life lost due to premature death (WHO, 2021). Negative effects of mental illness include, but are not limited to, a low quality of life, death in early life, disability, cognitive and functional

impairment and low productivity in work (Mrazek et al., 2014; Twenge et al., 2019). Mental health support and treatment in England costs an estimated £119 billion per year (O'Shea & Bell, 2020), with the overall cost of mental ill health in 2022 being at an estimate of £300 billion (Centre for Mental Health, 2024). Furthermore, there are also costs to the economy; in the UK £110 billion is lost annually due to working days from mental health (O'Shea & Bell, 2020). This includes job loss rates per year, for those with a mental health disorder being double, at approximately 300,000 compared to those without (O'Shea & Bell, 2020; Stevenson & Farmer, 2017). Demographically, US and UK statistics report that over half of mental ill health begins prior to the age of 15, with 75% before the age of 18. Moreover, 12.8% of children and adolescents aged between 5-19 meet the clinical standard for mental health disorders (Davis, 2013; Sadler et al., 2018). There are also noted gender differences, with women being three times more likely than males to experience common mental health disorders in the UK (McManus et al., 2016). However, when considering suicide rates, males aged 40-49 have the highest rates in the UK, at around 74.1% of reported suicides being males (OFNS, 2018; Revie et al., 2023).

Definitions of 'mental health' vary across differing theoretical domains; for example, The Dual Continuum Model of Mental Health and Mental Illness (Keyes, 2002) considers mental health as a duality that encompasses two separate but correlated dimensions. (1) Positive mental health or feeling well: a subjective sense of pleasure, well-being, and happiness, and doing well: fulfilment, psychological strength, meaningfulness or 'psychosocial functioning'. (2) Mental illness, with mental illness being the absence of positive mental health (Keyes, 2002). In contrast, Cvetkovich (2012) and Blackman (2012) detail the feminist construct theory of depression which details that mental health, in particular depression, is a social and cultural construct rather than a biomedical narrative and that mental ill health cannot be quantified but based on lived experience. Conversely, Galderisi et al., (2015) argue that mental health is

defined as close to human life experience as possible, sometimes being ‘joyful’ and other times being ‘frightful’. This definition therefore considers that one can feel emotions strongly, without the narrative that this is related to a mental health disorder (Boruchovitch & Mednick, 2002; Fueston & Piper, 2018). By contrast moods, as defined by Morris (2012), are “low-intensity, diffuse (pleasant or unpleasant) feeling states that typically last for hours or days” (pg.1-3). Mood is known to significantly affect health and wellbeing; for example, negative moods can contribute to some wounds not healing correctly, with ‘angry’ people having poorer immune responses to some vaccines (Ortiz et al., 2017). Negative affect has also been known to be linked in an increased risk of heart disease, type two diabetes (Steptoe et al., 2005), as well as anxiety and depression (Ortiz et al., 2017). There are also reports that lingering negative affect may contribute to chronic conditions up to ten years later (Leger et al., 2021). However, positive affect is also known to have an impact on health and wellbeing, such as low blood pressure levels, lower inflammatory rates, and a stronger immune system (Ortiz et al., 2017).

1.2.1.2 Introduction to relevant mental health and neurodevelopmental disorders.

Depression, also known as clinical depression or major depressive disorder (MDD), is one of the most experienced mood disorders (Bains & Abdijadid, 2024; Malhi & Mann, 2018). For reference, according to the Institute of Health Metrics and Evaluation (IHME) globally, 4% of men, 6% of women, and 2.1% of children aged between 5-19 years have been diagnosed with depression throughout their life (IHME, 2023), with depression often being co-morbid with other disorders (Cullen & Bortnova, 2016; McManus et al., 2016; Sadler et al., 2018). Symptoms of depression are typically associated with feelings of worthlessness, fatigue, loss of interest and in extreme circumstances suicidality (Tolentino & Schmidt, 2018). Depression is also a dominant cause of morbidity and mortality globally, being a notable contributor to both coronary heart disease and suicide (Chesney et al., 2014; Correll et al., 2017; Vaccarino et al., 2020). However, mediating variables should also be considered; indeed, Ohrnberger et

al. (2016), report a causal effect for those that are mentally unwell to have poorer physical health, for which 7.5% of the total effect was represented by poor lifestyle choices and limited social interactions. This is also reflective in eating behaviours as those that are depressed are more likely to consume unhealthy foods as a result of emotional eating (Konttinen, 2020). Nevertheless, a recent meta-analysis has also revealed this can actually be the opposite, and eating junk food may in fact be a contributor to becoming depressed (Ejtahed et al., 2024). For this thesis, the term depression will refer to Major Depressive Disorder (MDD).

The word anxiety is often used in contemporary discourse; however, anxiety is an emotion, and in turn feelings of anxiety are a typical response to stressors, stimuli, and life events (Kanner et al., 1981). There is a difference however in definition between trait and state anxiety, with trait anxiety defined as a personality trait whereby an individual would respond anxiously to a situation (Jouvent, 1999), and the latter an emotional response that includes tension and apprehension. Furthermore, Foulkes and Andrews (2023) define anxiety as a dimensional construct that ranges from a regular emotion to a debilitating and chronic mental health disorder (Foulkes & Andrews, 2023; Lebeau et al., 2012). Both state and trait anxiety can contribute to anxiety related disorders such as general anxiety disorder (GAD), social anxiety disorder, panic disorder, post-traumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD) (NIMH, 2009). For this thesis, the term ‘anxiety’ will refer to GAD. Symptoms of GAD include, but are not limited to, fatigue, pervasive anxiety and worry, and may also cause sleep disturbances in some (DeMartini et al., 2019).

Neurodevelopmental disorders are now more commonly diagnosed and thus essential to the outcomes of this thesis (Lang, 2024: attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD). Although it is recognised that neurodevelopmental disorders are not mental health disorders, some lay social media users may conflate the two, so therefore it was deemed appropriate to consider ADHD and ASD within this thesis (Forbes, 2023; Peters

& Furnham, 2021). ASD varies in severity across a “spectrum”, but also incorporates definitions of Aspergers, autism, childhood disintegrative disorders, and pervasive developmental disorder otherwise not specified (APA, 2013). Those that have ASD typically present as having deficits in social communication, displaying repetitive behaviours and having restricted interests, though the diagnosis is not restricted to these behaviours (APA, 2013). Further, the global prevalence of ASD is around 1% with a (biological) male-to-female ratio of 4:1(Zeidan et al., 2022), with females being less likely to be diagnosed with ASD regardless of meeting diagnostic criteria. This may be due to male autism stereotypes, gender bias, or a combination of masking or ‘camouflaging,’ which may lead to misdiagnosis, late diagnosis, or being completely overlooked (Bargiela et al., 2016). For note, ASD is only lightly mentioned throughout existing research relating to the concepts of this thesis. However, ADHD is discussed more often and is an important factor throughout the thesis alongside ‘mental health’ and mental health disorders. ADHD is a commonly diagnosed neurodevelopmental disorder in children, with symptoms often continuing into adulthood (90% of children with ADHD report symptoms as adults) (Abdelnour et al., 2022). According to the DSM-5, symptoms of ADHD typically present themselves as hyperactive, inattentive, and disorganised (American Psychiatric Association [APA], 2013), though flexibility in presentation is accepted as symptoms can change with age (Pagán et al., 2023). According to statistics from the US, ADHD globally affects 5%-7.2% of children and around 2.5%-6.7% of adults, with (biological) male-to-female ratios in children being 4:1, and 1:1 in adulthood (Abdelnour et al., 2022). ASD and ADHD are not mental health disorders and conscious efforts have been made to keep mental health and neurodevelopmental disorders separate. For the purpose of the thesis, ADHD and ASD will be mentioned separately from mental health. ADHD is discussed in literature and throughout the thesis frequently and will be mentioned separately where possible. However, there may be sometimes during data collection where mental health and neurodevelopmental

disorders may be conflated. Efforts have been made to keep these two concepts separate however this has not always been possible.

1.2.1.3 Covid-19 and mental health

Research is ongoing, but the pandemic has had significant implications for both individual and collective health, as well as a social impact (Pfefferbaum & North, 2020). There was extensive loss of life, with over a million deaths worldwide between 2020 and 2021 as a direct impact of the pandemic (WHO, 2024). Mental health was also affected, including depression from grief, as well as a lack of physical contact and in-person support due to government guidelines for social distancing (Banks & Xu, 2020; Zhao et al., 2020). Increases in the symptoms of depression and/or anxiety because of limited educational resources and pandemic-related job loss in young people, have also been reported (Panchal et al., 2021). The effect of prolonged self-isolation, particularly where in-person social activity is crucial for individual developmental needs (Loades et al., 2020), may have been detrimental to mental health due to isolation from friends and the outside world. Thus, struggles with identity formation might have occurred due to limited access to people outside of their familial circle (Evans et al., 2022). Recently, Bandinlou et al., (2024) discussed changes in mental health symptoms (anxiety, depression, and insomnia) over a 12-month period post-COVID-19 infection. They reported that, although depression symptoms decreased, those who experienced a COVID-19 infection exhibited no significant changes in symptoms of anxiety and insomnia. Rosen et al., (2024) also detail changes to mental health since the pandemic, with their findings suggesting that, for their sample, life has returned to some sense of normalcy. However, some populations (females, students, young adults, and those of low social economic status) still report high psychological distress, detailing that mental distress is still a recurring issue post-pandemic (Rosen et al., 2024)

1.2.2 An introduction to social media, algorithms, and social media influencers.

1.2.2.1. Social media: a brief history and definitions.

With the launch of the World Wide Web, existing methods of communication began a paradigm shift with the use of HTML, graphical interfaces, and web browsers (Panwar, 2024). Before this, in the 1980s and early 1990s, current event information access was limited to newsgroups and bulletin boards along distributed networked communications (Zeng & Tao, 2023). Following this, online platforms for social usage began to emerge in the early 1990s, which began on websites such as 'Classmates' in 1995, and 'Six Degrees' in 1997 (Meikle, 2024). Later, an array of online microblogging and blogging websites were developed, allowing users to share their content; this has since evolved into what is now known as social media platforms and applications (Apps) (Panwar, 2024).

Social media is an umbrella term for an app or platform which can be defined as "a social network site is a networked communication platform in which participants (a) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-level data; (b) can publicly articulate connections that can be viewed and traversed by others; and (c) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site" (Ellison & Boyd, 2013). Social media has had a notable impact on society by providing its users with innovative ways to communicate and connect with others, initiate awareness campaigns, and promote online businesses (Siddiqui & Singh, 2016). However, social media also promotes more negative implications for its users, including exposure to cyberbullying (bullying that takes place online), risk of online addiction, and increased exposure to online fraud and scams (Rao et al., 2022). Due to its ability to maintain connections and access populations worldwide, social media as a concept has adapted into a business model (Montag et al., 2024). Companies are now able to share their products or services to a wider reach with strategic advertising through

algorithms or sponsored posts (Gross & Von Wangenheim, 2022). These services do not only benefit the businesses but also the consumers, due to the products or services they may not have been alerted to otherwise (Rosario & Dias, 2023). Social media as a business model also provides a benefit to the parent companies of these platforms, as advertisement from other businesses increases their own revenue and profits (Martinez-Lopez et al., 2022).

Some platforms are marketed as 'social media'. These include Facebook, Instagram, X (Twitter), and Snapchat (Dean, 2024). There are also platforms that are not typically considered social media but have aspects of social media, including video-sharing platforms such as YouTube and TikTok, community discussion websites such as Redditt, and live streaming platforms such as Twitch TV, with most of these platforms having their own specific algorithms to display and recommend content (Narayanan, 2023). For this thesis, the term 'social media' will refer to any app that has a social aspect, such as the aforementioned apps and websites.

Social media analytics report that in 2024 there were 4.95 billion social media users worldwide, increasing by 7.7% since 2022, with an overall 138% increase from 2015 (Dean, 2024). Facebook is reported to have the highest number of users worldwide at around 3.05 billion, followed by Instagram and TikTok at 2 billion and X (Twitter) at 685 million (Dean, 2024). One such platform, TikTok, is an application used to disseminate short video clips from a few seconds to over ten minutes (Zuo & Wang, 2019). During the COVID-19 pandemic, the number of users accessing the platform TikTok increased exponentially, from over a million in 2018 during the platform's launch, to billions of users in 2022 (Haltigan et al., 2023). Initially, TikTok was marketed as a platform used to share short clips of users singing and dancing, and for light-hearted comedy (Zuo & Wang, 2019). The content now available to view on TikTok has vastly expanded, as it is now host to those that discuss topics such as mental health, gender issues and inequalities, disabilities, body positivity, and feminism. The app has now provided creators the ability to have users access their content worldwide (Haslem, 2023). Social media

applications also have their own dedicated algorithms which will be discussed in the following section.

1.2.2.2 A brief introduction to social media algorithms.

Algorithms are “encoded procedures for transforming input data into a desired output” (Gillespie, 2012; pg. 1), or a collection of code that automates the tasks that are an essential part of all social media platforms. By simply using social media platforms, its users will produce information that the algorithm will use to generate specific content, such as tailored posts, advertisements and search results (Gruwell, 2018). Each platform has its own individual algorithm and, though there are nuances specific to each platform, fundamentally they work the same. Most of the input stored by the social media algorithms is noted from individual engagement, through selective allocation of attention and conscious clicking. This engagement is used to formulate the output of their algorithm, meaning an individual will influence what they see in a tailored news feed (Swart, 2021). For example, Facebook’s algorithm is tailored to likes, shares, and comments; a post containing high traffic likes, shares, and comments will continue to sit at the top of the feed regardless of how often the page is refreshed. Also, if an individual interacts with a Facebook friend frequently, their posts will display on the news feed more often (Marret, 2020). Due to Facebook and Instagram being under the same umbrella company, Meta, they have similar algorithms. Instagram feeds tend to highlight the users with higher engagement but also incorporate the types of content that someone interacts with and incorporates the use of hashtags (#) (Agung & Darma, 2019). TikTok, on the other hand, has its own dedicated algorithm for the platform; the content stream on the ‘for you’ page is individual to the user. The more the user engages with a particular content type, the more this content will show within the stream of videos displayed. For example, if a user engages with content that relates to dogs, they will see dogs on their ‘for you’ feed often (Koç, 2023). However, there have been reports of issues surrounding TikTok such as content moderation,

data regulation, safety online, and the ethics that are involved with online advertisement, all of which can be linked to the tailored algorithm on the platform known as the 'for you page' (FYP) (Singhal et al., 2023; Scalvini, 2023). According to Costello et al., (2024) social media algorithms are known to thrust extreme content types onto its users, such as unrealistic body images, self-harm, and suicide content. Costello et al. (2024) also detail a case study known as Alexis, who suggested that because of her algorithm on Instagram (showing self-harm, suicide, and self-deprecation content), she ended up being hospitalised for her mental health and had countless years of therapy. Furthermore, as discussed, social media in its entirety is now a business model and in turn its algorithms are designed to turn profits for those that own these platforms through targeted advertising. Raffoul et al., (2023) noted a profit of $11 billion from advertising to those aged between 0-17 years, across the six major social media platforms in between 2021-2022. Therefore, these substantial profits do not incentivise these platforms to moderate their content to young and vulnerable users (Costello et al., 2024), suggesting that those that develop these algorithms do not have the best interest of their users in mind, which can also be reflected in social media influencer which will be discussed in more detail in the next section.

1.2.2.3 Social media influencers and content creators

Due to the evolution of technology over time, what constitutes a celebrity is also evolving. One such group of 'celebrities' are known as social media influencers (SMI). These SMI's vary in degrees of popularity and sustainability of career and are therefore difficult to define in a singular category (Ruiz-Gomez, 2019). According to practitioners, categories of social media influencer are determined by their followers; with those that have less than 100,000 followers, being known as a micro-influencer, and those that have between 100,000 and 1 million followers being known as macro-influencers. Those that have over one million followers are mega-influencers, and anyone with more than 10 million followers is a social

media celebrity (Bernazzani, 2018; Bullock, 2018; Hatton, 2018; Ruiz-Gomez, 2019). The role of SMIs is typically to influence their followers, from rallying changes in behaviour, to the endorsement of products or services (Alves de Castro et al., 2022). The influencer industry grows year on year and was worth 21.1 billion US dollars in 2023 (Statista, 2024), compared to 5-10 billion in 2019 (Brookes, 2019). Furthermore, children and adolescents are more susceptible to influence from SMI than other age groups, holding a belief that SMIs are credible and trustworthy sources of information for them (Lajnef, 2023; Sokolova & Kefi, 2020). Furthermore, according to Goatana and de Greogiro (2021), 'content-creators' are an umbrella term for those that create content regardless of the intent, either for personal or professional reasons including social media influencers.

Parasocial relationships are the perceived connectiveness between the SMI and the consumer or audience (Lou & Kim, 2019). What determines the strength of a parasocial relationship relies on the ability of the SMI to appear authentic, including self-disclosure, access to their personal life and the impression of intimacy (Cond & Casais, 2024). These relationships also foster a need for the consumer or audience to engage with the SMI through purchase intentions, which according to Lou and Kim (2019) relates to how similar the influencers are to themselves, how attractive they are and how trustworthy they appear, suggesting that those that have stronger parasocial relationships may be more inclined to make purchases they may not typically make, because of the endorsement of these SMI's.

For this thesis the term 'social media influencer' or 'SMI' will refer to an individual who creates content for the purpose of influence or product advertisement, as part of their career. This also extends into the term 'mental health social media influencer,' one who uses their platform to influence in the same manner but in a mental health context. However, mental health influencers can include licensed therapists, mental health professionals and trainee therapists who use their platforms to disseminate accurate mental health information (Triplett

et al., 2022). The term ‘content creator’ will refer to those that create online content for business but also pleasure, or entertainment without intent to earn an incentive, influence or promote a product or service.

1.2.3 Self-diagnosis: benefits and detriments.

Self-diagnosis is a term referring to when a person formulates a diagnosis of a disorder or disease without confirmation or clinical diagnosis from a health care professional (Baars, 2001; Walton, 1908). Although self-diagnosis predates the internet (Walton, 1908), the rates of self-diagnosis have rapidly increased since the internet became more established (Mago, 2013). The internet is now an integral part of daily life for most people, providing its users with a significant amount of medical based information; from health organisations such as the NHS, to disseminating individual experiences of an illness or disorder on a social media platform (Tekdemir et al., 2022). For clarity, Vismara et al., (2020) studied 12,000 people, and found 12% to 40% of participants regularly searched online for information regarding medical conditions, and around half of those used the information provided to form a self-diagnosis (Tekdemir et al., 2022; Vismara et al., 2020). Furthermore, Fox and Duggan (2013) observed that almost 70% of participants reported that they searched for medical information online, and 35% of those people used that information to self-diagnose (Fox & Duggan, 2013; Tekdemir et al., 2022). There are benefits to this information being so accessible however, as it allows those from a low socioeconomic background and status much needed access to medical information that they may not be able to access otherwise (Starcevic & Berle, 2013).

Whilst access to this information provides individuals opportunities to make more educated decisions about their wellbeing and health, problematic and even harmful connotations can also be noted; information relating to health online can often contain misleading and incorrect information which can detail and highlight the most ‘high risk’ and terminal illnesses first. This may result in health anxiety, even for those not reporting acute

symptoms (Tekdemir et al., 2022; White & Horvitz, 2009; Vissmara et al., 2020). Experiences are subjective and a person may see their symptoms as more severe than they actually are, leading to an incorrect or inflated self-diagnosis. As a result, delays in receiving the correct treatment, or no treatment at all, may occur (Robertson & Harrison, 2009). In contrast, findings by Rutter et al., (2023) indicate that clinical diagnosis and self-diagnosis were accurate when compared via the use of self-report measures for disorders such as anxiety and/or depression. On the other hand, bi-polar disorder was not accurate compared to clinical diagnosis. However, these outcomes may be due to the use of fallible self-reported measures over clinical assessment (Rutter et al., 2023).

Whether it be formally or self-diagnosed, those receiving a diagnosis report increases in quality of life. Individuals create a deeper understanding of their illness, and this in turn promotes help seeking behaviours (Roberts, 2018). Diagnosis provides avenues for support networks (online or in person), or places to seek information through community and sharing of experiences (Alper et al., 2023; Gallagher, 2022). However, due to misleading and interpretive information, this practice may lead to an incorrect self-diagnosis, resulting in treatment that is not effective, or is detrimental to recovery, for example, self-prescribing of or incorrect dosage of medications (legal or illegal); including ADHD medication which includes stimulants such as Adderall (Zuddas & Carucci, 2023). These medications are used recreationally to increase concentration by those that do not have ADHD to induce similar effects to that of other stimulants such as cocaine (Kerna et al., 2020). Adderall for example is an amphetamine and can be addictive and dangerous to those that abuse it, which can have both physical and psychological effects from usage, addiction, and withdrawal (Kerna et al., 2020). Pasha et al., (2022) detail links between these medications and the onset of first episode psychosis; while most previous studies focus on those with a clinical diagnosis of ADHD, those without a clinical diagnosis or misdiagnosed with ADHD could also be susceptible to

experiencing first episode psychosis if taking these medications (Björkenstam et al., 2020). Alongside misdiagnosis, self-diagnosis contributes to individuals attempting to self-medicate their suspected mental health and neurodevelopmental disorders with medication they have purchased online (Monteith et al., 2024). Without correct regulation and monitoring, self-treating with supplements and medications can have fatal consequences, particularly with serotonin-based supplements that can lead to serotonin syndrome (Maffei, 2020). The syndrome can vary in intensity with symptoms including an altered mental state, neuromuscular abnormalities, and autonomic hyperactivity. Serotonin syndrome can also result in death in extreme cases (Volpi-Abadie et al., 2013). Alongside perceived negatives, problems and dangers that could be associated with self-diagnosis, there are also reported benefits; one study that explored self-diagnosis practices of psychology students report that self-diagnosis provided a clearer sense of self that made interacting with others and self-reflection of their behaviour easier, as well as showing increased empathy for others that are struggling (Ahmed & Samuel, 2017). Furthermore, observations including feelings of worthlessness, isolation and low self-worth were reported prior to self-diagnosis of ASD. Self-diagnosis provided them with a sense of belonging, understanding oneself, and management of self-doubt (Lewis, 2016).

1.2.4 A brief introduction to relevant social media related theories

1.2.4.1 Identity formation and online self-presentation

Children as young as 12 are reported to be accessing Facebook and those as young as 10 are accessing TikTok (Sood, 2021). Therefore, children and adolescents may use these online platforms to construct their identities and present themselves favourably virtually, rather than gain real life experience in the outside world (Oberst et al., 2017). Online self-presentation is where an individual purposefully controls, alters or manipulates their image, or perception of their image online (Arnani & Nindhita, 2024; Paliszkiewicz & Madra-Sawicka, 2016). Nevertheless, due to the decreasing anonymity of the self-online through mutual friends,

tagging and other contributions, selective self-presentation online is becoming increasingly difficult (Hollenbaugh, 2021). For note, Marwick (2010) discusses the concepts of 'context collapse', and how Twitter (X) is providing a domain where multiple identities are converging into one, including family, friends and co-workers. They suggest that some users may in turn create multiple accounts, nicknames and pseudonyms, in order to shield themselves from their true self or identities. Furthermore, selective self-presentation online relates heavily to the audience, as without an audience there would be no need to selectively present oneself (Lowe-Calverley & Grieve, 2018). Social media offers an opportunity to effectively 'try on' different self-identities to a wide range of audiences, however, it is imperative that the audience accepts someone's selected self-presentation for it to be effective (Hollenbaugh, 2021). This can be reflected when exploring the construction of self-presentations through TikTok; due to the features that are readily available on the platform (editing software, filters etc.), the application provides its users with the ability to create a persona to their own liking via a stream of personalised video content (Putro & Palupi, 2022). Thus, social media allows its users to manipulate and control profiles to enable them to interpret their own identity. As such, platforms enable younger users to pursue an online identity that is shielded from adults and parents, which may play a role in mental health decline due to confusion over their authentic identity during crucial developmental stages such as adolescence (Carbonell & Panova, 2016). Indeed, social media offers a novel domain where there are new opportunities for exploration, potential for experimentation, and creating connections, as well as opening a door for new risks and challenges (Orben, 2020). As well as regular users of the platform, social media influencers may construct their identities online to appeal to their chosen audience, such as manipulate their content, romantically engage with people their audience suggests, or amend their appearance (Dotson, 2022). Moreover, Arnani and Nindhita (2024) report that those that have lower levels of self-esteem also had higher levels of self-presentation on social media; they

argue that this might be due to those with lower self-esteem rejecting real contact, and therefore have a preference to the virtual world where they can be a chosen version of themselves. Arnani and Nindhita (2024) also report that those with low self-esteem prefer using social media to yield acceptance from others, whereas those with higher self-esteem may use social media to maintain their popularity (Arnani & Nindhita, 2024; Kırcaburun, 2016; Raymer, 2015). Thus, social media sites have provided a positive space for adolescents to be empowered and construct their own identity (Pérez-Torres, 2024), particularly through authentic self-disclosure, and promoting a positive sense of self (Vaingankar et al., 2022). There are other theories and concepts that may support an understanding of behaviour on social media. One of which is social learning theory (Bandura, 1977) which will be discussed in the following section.

1.2.4.2 Social learning theory

Social learning theory (SLT; Bandura, 1977) suggests that behaviour is learnt from others, via repeated exposure, and can either be deliberate or inadvertent (Strasser-Burke & Symonds, 2020). Thus, shared experiences, gender, race, value, and interest are likely to reproduce said behaviours (Bandura, 1977; Lockwood & Kunda, 1997; Marx & Ko, 2012). Villamil and King (2024), relates this to the concept of behaviour modification and how it is "a method of gradual change implemented over time and through specific social interactions to reinforce desirable behaviour, determined by another individual (e.g., caregiver, teacher)" (pg. 49). They further highlight how this translates into digital culture, and how social learning also relates to self-efficacy (Bandura, 1977), where an individual has a control over their own actions. This becomes increasingly difficult in digital landscapes due to its influential nature, which can promote observational learning via those that engage with online (Villamil & King, 2024). Furthermore, Taylor (2023) discusses the relationship between social media influencers, and young people adopting behaviours seen from these social media influencers particularly if

they have a strong parasocial relationship. Suggesting those aligning with select behaviours seen on online in relation to mental health content, may also begin to adopt these said behaviours. Another theory that may help to understand behaviour on social media is that of social comparison theory (Festinger, 1945) which will be discussed in the next section.

1.2.4.3 Social comparison theory, and online social comparisons.

Social comparison theory (Festinger, 1954) dictates that although individuals prefer using objective measures to self-evaluate their progress in life; without this, they may have tendency to use others as a source of information to ascertain progress relative to others. People also may use others as a means to provide information as to how they should feel, think and behave. These comparisons allow an individual to collect the information that they need to enable them to navigate the social world without difficulty (Festinger, 1954; Verduyn, 2020). Individuals may compare themselves negatively (upward) to those who outperform them in a social manner (e.g., more social media traffic) (Gerber et al., 2018). Exposure to a person's success rather than failures occurs more regularly on social media. Therefore, increased upwards comparisons on social media might be expected (Kross, 2013; McComb et al., 2023; Park et al., 2021). For example, findings by Reinecke and Trepte (2014) highlight a positive publication bias within the platform Instagram. Furthermore, Aubry et al., (2024) found that participants revealed increased upwards social comparisons twenty-four hours after exposure to Instagram but also reported unpleasant emotions and low-self-esteem. They also detailed that after only ten minutes of Instagram usage their participants showed increased depressive mood alongside the aforementioned outcomes. They also investigated the 'vicious circle pattern' which revealed that those that had increased depressive symptoms, engage in self-assessment activities and were more likely to compare themselves negatively to others (Aubry et al., 2024). Nevertheless, positive behaviour change in relation to upwards social comparison

has also been reported, which creates benign envy, leading people to feel inspired and promote self-enhancement behaviours (Meier et al., 2018; Noon et al., 2019; Verduyn et al., 2020)

The social comparison narrative further extends the exposure to unrealistic body image standards. A systematic review by Vincente-Benito and Del Valle Ramirez-Duran (2023) explored the relationship between mental health, wellbeing and body image across 21 studies. Findings from their review suggest that those that make body image comparisons with those on Instagram (and other social networking sites and applications) are more likely to report poorer mental health and wellbeing. However, findings can only be suggested, as data presented within the reviews is not enough to present a causal link. Furthermore, access to an almost unlimited amount of warped and distorted images online may present a notable negative impact by decreasing mood and wellbeing (Fioravanti, 2023; Sanzari et al., 2023). Just as edited pictures and the distortion of reality on social media are influenced by body image, it could be speculated that there is the possibility of similar consequences in relation to mental health-based posts, such as those discussing symptoms. The type of social media user can also determine the type of social comparisons a person can make, for example TikTok's target users (Gen-z) who post content, or 'active' users, could be oblivious to the negative implications of increased social media usage or virility, as they are experiencing engaging rewards from high views and content interactions. Users may even begin to "chase the high" by posting content that is likely to have high engagement, including issues such as mental health, gender, and social justice, which could be seen as 'trendy subjects' used to increase likes and, in turn, illicit a dopamine response (Carbran, 2020; Campana, 2022; Medium, 2020). As well as those who actively post, there are also passive users (using social media to just observe and not interact); this type of social media user is more likely to make upward social comparisons that stem from feelings of envy, due to not creating or participating in their own content to receive the validation from others via likes and shares etc., (Krasnova et al., 2013; Verduyn et al., 2020).

This aligns with Eler (2017) who stated that likes on social media (especially for ‘selfies’) can provide validation, and that an individual can experience disappointment when they do not get the desired number of likes on a post.

1.2.5 Behaviours and concepts relating to social media use

1.2.5.1 Problematic social media usage

Problematic social media usage (PSMU) occurs when an individual is preoccupied with or has a compulsive need to use social media or uses social media in a negative manner (Bányai et al., 2017; Shannon et al., 2022). Examples of PSMU include a compulsive need to be on social media at times when other things should take priority – such as school or work - and when being on social media gets in the way of daily life, such as interacting with friends and family (Ahmed et al., 2022). PSMU also refers to online behaviour outside of the societal norm, such as oversharing personal information, as well as posting degrading or volatile information about others directly, or on a status or photo (also known as trolling) (Shabahang et al., 2024). Existing research into PSMU has ignited concerns regarding the addictive nature of social media. Addiction has previously been referred to as the dependency on ingested illicit and psychoactive substances (Kranzler & Li, 2008; Olsen, 2022), or addictive behaviours may be repetitive habits that can cause increasing problems for an individual’s social and personal life (Griffiths, 1997; 2016, Marks, 1990; Marlatt et al.,1988). Moreover, Su et al. (2021) reported how, when being exposed to content on TikTok, the brain responded in ways that mimic other addictive activities (such as gaming addiction and social media addiction) when being exposed to personalised videos (from user algorithm) in comparison to non-personalised ones (recommended videos for new users). Thus, due to TikTok’s ability to use personalised data collected from its powerful recommender system, the algorithm can predict the interests of each user and suggest personalised videos based on their previous browsing history (Wang, 2022). Resulting in a potential infinite number of videos that a person could access that would

elicit a dopaminergic response (Su et al., 2021), and in turn cause problematic behaviours. However, the DSM-5 does not recognise social media addiction as a medical condition (APA, 2013), even though research suggests that the human brain can respond in ways similarly to other types of addiction (Su et al., 2021). It is important to note that social media addiction is still heavily debated and not a consensus. For the purpose of this thesis, PSMU will simply refer to problematic behaviours associated with social media use; these behaviours will be discussed further throughout the following sections. The first example provided is Vaguebooking.

1.2.5.2 Vaguebooking

When an individual uses social media in a manipulative way to elicit support or an emotional response from others this is what is known as Vaguebooking (Buehler, 2017). Examples of vaguebooking could be posts or status updates on social media such as: “I can’t do this anymore…” or “Why does this always happen to me?” with no further elaboration or information (Boyd & Marwick, 2011; Oolo & Siibak, 2013). This phenomenon is a gateway for those that desire increased attention from their peers online, with those displaying this behaviour being more likely to have a mental health disorder due to an innate desire for attention (Carpenter & Tong, 2017). Vaguebooking presents as problematic due to its non-conformity to or violation of social media norms (an extension of social norms) for example, posting online about personal or emotional issues, which would normally be ‘kept in private’ (Choi & Toma, 2014; McLoughlin & Vitak, 2012). Motivations for vaguebooking are known to be associated with marketing of the self (Child & Starcher, 2016), suggesting that people are purposefully vague and cryptic to rouse attention (Astleitner et al., 2023). Vaguebooking may also be specific to an individual or individuals which may only be understood by a select group of people (Mondal & Reddy, 2021).

Vaguebooking may present in a negative light to other social media users due to its manipulative nature, however it may also be an indicator for those that are struggling with their mental health as an indirect 'cry for help' (Berryman et al., 2017; Mondal & Reddy, 2021). Vaguebooking also has positive benefits as it provides a method for users to be able to discuss their problems or issues with others, without disclosing too much personal information, including the aforementioned cries for help. These disclosures can promote help seeking behaviours and may inform others to possible suicidal ideation from the poster (Monda & Reddy, 2021; Nester, 2015). There are also other behaviours that can be related to both vaguebooking as well as PSMU; the next example is the fear of missing out and the need to belong, as discussed in the following section.

1.2.5.3 Fear of missing out (FOMO) and the need to belong

The fear of missing out (FOMO) is defined as the "uneasy and sometimes all-consuming feeling that you're missing out - that your peers are doing, in the know about, or in possession of more or something better than you" (JWT Marketing Communications, 2012, p. 4). Abel et al., (2016) notes that although FOMO is not a new concept, social media has exacerbated feelings of FOMO through the ability to depict lives in a desirable manner. FOMO can also be related to PSMU, as those who experience FOMO may then use social media in a problematic way to rebuild social connections with others and thus feel included (Astleitner et al., 2023; Zhang et al, 2021). Further, due to some ostentatious displays of wealth (such as posting lavish houses, designer clothes and expensive cars) on social media, the consumption of this content may increase the likelihood of upward social comparisons, leading an individual to believe that their own lives and experiences are not as interesting, leading to FOMO (Burnell et al., 2019). FOMO is also associated with those that fit into the category of articulated low self-belief and those who may have more intense beliefs of feeling ignored in social contexts, such as in person and online in the virtual world (Yin et al., 2021). This may in turn create a

vulnerability to social comparisons, with those that consider themselves to be perceived as ‘alien’ or ‘abnormal’ socially being more likely to try to achieve a more positive concept of self, by trying harder to adopt to social norms detailed on social media (Alutaybi et al., 2020; Servido et al., 2021).

Similarly, the need to belong is wired into our brains as humans have an innate desire to be socially connected. This can be reflected in Maslow’s (1987) hierarchy of needs after both safety and physiological needs. These social needs not only allow the odds of survival to increase, but they also allow for the ability to thrive (Lunstad et al., 2010; Maslow, 1987). This inherent need for social connection can be defined as ‘the need to belong’ (Pardede & Kovac, 2023), which can heavily impact social media use as these platforms allow for users to increase their social engagement and, in turn, satisfy their need to belong (Yin et al., 2021). Those that fear social exclusions are more likely to be conducting social surveillance to try and remain relevant and feel included in a group dynamic (Lim, 2019). This can be reflected in social media use, as these groups tend to be larger and span across networks and global domains. Those that feel excluded from these groups may embed themselves within these ‘social norms’ dictated by the group to become more socially relevant and increase their social connections (Lim, 2019). Therefore, these behaviours may relate to sharing content online relating to mental health to feel included, and not outside of the current social media narrative. A further PSMU behaviour is that of online disinhibition which will be discussed in the next section.

1.2.5.4 Online disinhibition

The online disinhibition effect (Suler, 2004) is the understanding that those that frequent online interactions are exempt from societal expectations and social norms. Thus, users can express themselves however they please, and act and say however they feel, freely within the virtual world (Suler, 2004). The virtual world provides a space for people to engage in activities or discuss topics that they typically would not in the real world (Wen & Miura, 2023). Suler

(2004) proposes that there are two distinct types of social disinhibition; (1) benign disinhibition whereby an individual's defences are lowered which in turn provides them with the opportunity to disclose issues or resolve problems, and (2) toxic disinhibition, where and individual has no punishment and therefore acts aggressively (Wen & Miura, 2023). When considering online toxic disinhibition, platforms such as X (Twitter) and Instagram provide uncensored platforms where people can freely present whatever self that they see fit (Aydogdu Karaaslan & Senses, 2023). Further, online disinhibition and trolling behaviour (bulling or insulting others online under a fake profile or name) has been associated with psychopathy (low empathy, thrill-seeking tendencies, impulsivity – all of which have links to anti-social behaviour) (Hare, 2003; Jones & Pualhaus, 2014; Paulhus & Williams, 2002) and moral disengagement (when someone does not feel guilt or remorse for immoral or delinquent behaviour) (Bandura, 2002; Bandura et al., 1996; Wu et al., 2023), suggesting that those engaging in trolling online are disinhibited, and in turn feel no consequences for their actions in the virtual world (Suler, 2004; Wright et al., 2019; Wu et al., 2023). Conversely, online benign disinhibition can be seen to promote positive behaviours such as selective self-disclosure and social support (Andalibi et al., 2018). Therefore, it may be suggested that self-disclosure of mental health disorders online and conversations surrounding self-diagnosis may be a result of online disinhibition. As well as PSMU behaviours as previously discussed, there are also more pathological implications and behaviours such as Munchausen by internet and cyberchondria which will be discussed in the next section.

1.2.5.5 Munchausen by internet and cyberchondria

Munchausen by internet (MBI) is a disorder whereby an individual factitiously depicts an illness online to gain support, sympathy or financial gain from others (Giedinghagen, 2023; Pullman & Taylor, 2012). This may include the desire to gain the monetary value that comes with "likes"; if mental health content is associated with greater engagement, and in turn

increased rewards, individuals may use this to their advantage (Zenone et al., 2021). Unlike Factitious disorder (Munchausen's syndrome), Munchausen by internet is not currently outlined in the DSM-5 but there is supporting research and evidence for its existence (Ayyer & Sousa, 2014; Giedinghagen, 2023; Pullman & Taylor, 2012). Current research does not apply MBI to mental health issues, only physical illness such as cancer, however it can be speculated that, if this is presenting in physical illnesses, it is likely that mental illness is being fabricated online also (Mellor, 2021).

Cyberchondria is a self-diagnosis sourced from information found on the internet (Starcevic et al., 2020). Whilst finally having a name or diagnosis, even if only via internet 'confirmation,' to explain one's thoughts, feelings and actions is welcomed by those that are struggling, accessing health information online can also lead to increased anxiety, as well as exposure to high risk and terminal illness as previously discussed. Those that are self-diagnosing disorders online can also cause increasing pressure to NHS waiting lists due to wanting to seek formal treatment or diagnosis (ADHD UK, 2023; Foster, 2024; Starcevic et al., 2020). As a result of engaging with some of the previous behaviours, people may begin to manifest symptoms or have a negative perception of themselves as discussed in the final section of this introduction.

1.2.5.6 A self-fulfilling prophecy and self-stigma.

A self-fulfilling prophecy is when an individual meets some diagnostic criteria (for example, they have some symptoms of anxiety, or major depressive disorder) and then with this they may consider themselves to have this disorder without a professional diagnosis, and in turn could manifest symptoms of these disorders (Foulkes & Andrews, 2023). This can be linked to anxiety; Folkes and Andrews (2022) hypothesised that those exposed to content relating to anxiety could exaggerate their milder symptoms into something pathological, such as an anxiety disorder. An individual may believe their symptoms to be more severe than they

are, causing their behaviour to change and alter their self-concept. For note, the Oxford University Press (2022) defines self-concept as “how a person thinks about, evaluates, or perceives themselves”. Furthermore, people may no longer engage in anxiety triggering behaviours, such as a school presentation or going to a party. This may then exaggerate these symptoms which can create more anxiety over time, fuelling a self-fulfilling prophecy. In turn this may be detrimental to someone’s mental health by triggering an emotional response even if they do not actually have the pathological illness but believe that they do (as discussed earlier in the chapter) which may have negative outcomes such as self-stigma (Foulkes & Andrews, 2022). Self-stigma can also be reflected in work by Kroska and Harkness (2008), who report that, when an individual is diagnosed with a mental illness, there is a cultural categorisation process: “when an individual is diagnosed with a mental illness, cultural ideas associated with the mentally ill become personally relevant and foster negative self-feeling”. This may be due to the negative stigma that surrounds mental illness, with some cultures seeing those with mental health disorders as being dangerous or incompetent (Ahad et al., 2023; Kroska and Harkness, 2008).

1.2.6 Chapter summary

In summary, there are an array of different theories and concepts that relate to and support this thesis. As described, mental health illness is a top burden of disease globally and can have negative impacts of those with poor mental health (Mrazek et al., 2014; Public Health England, 2024; Ritchie & Rosser, 2018; Twenge et al., 2019). Furthermore, depression and anxiety are both commonly diagnosed mental health disorders, which both have their own negative implications on those that are diagnosed, in relation to their symptoms (Bains & Abdijadid, 2024; DeMartini et al., 2019; Malhi & Mann, 2018; Tolentino & Schmidt, 2018). ADHD and ASD are not mental health disorders but are commonly discussed in literature in relation to mental health and social media (discussed further in the next chapter) but are also

now becoming more prevalent and commonly diagnosed (Lang, 2024), particularly for ADHD which presents often throughout the thesis. The Covid-19 pandemic has also had its implications, through its lockdown restrictions (Banks & Xu, 2020; Zhao et al., 2020) but also, mental health disorder symptoms still being reported 12 months after Covid-19 infection (Bandinlou et al., 2024) Indeed, social media usage has increased exponentially (Dean, 2024), with each individual platform offering its own unique algorithm (Narayanan, 2023), some of which have seen adverse effects such as poor mental health after continuous exposure to triggering content (Costello et al., 2024). Social media influencers were also discussed, with findings revealing that people often believe social media influencers to be authentic, which can often influence purchase intentions (Lajnef, 2023; Lou & Kim, 2019; Sokolova & Kefi, 2020). Self-diagnosis was introduced, including positive benefits such as increased sense of community (Alper et al., 2023; Gallagher, 2022), but also detriments including risks such as incorrect diagnosis, or self-prescription of medications (Monteith et al., 2024; Robertson & Harrison, 2009). Identity online was also highlighted, with a discussion around selective self-presentation and social media users creating an identity or persona to appeal to a chosen audience (Hollenbaugh, 2021). Classical theories such as social learning theory (Badura, 1977) and social comparison theory (Festinger, 1954) were also introduced in relation to social media. SLT algins with social media users wanting to replicate behaviours they see online. This includes adopting behaviours seen by social media influencers (Taylor, 2023). Social comparison theory suggests that upwards social comparisons may negatively influence people by making them feel that their lives are not as desirable as what they see online (Kross, 2013; McComb et al., 2023; Park et al., 2021). However, it was also revealed that these upwards comparisons may also lead to positive self-enhancement behaviours (Meier et al., 2018; Noon et al., 2019; Verduyn et al., 2020). Finally, applicable problematic online behaviours relating to social media were also presented; Vaguebooking (Buehler, 2017), FOMO (Abel et al., 2016),

Online disinhibition (Suler, 2004; Wen & Miura, 2023) revealing that people often use social media in a way which is outside of social norms, but also that people can often be disinhibited on social media. This presents an argument as to why some users may engage in self-disclosure (Andalibi et al., 2018), but also in harmful practices such as trolling (Suler, 2004; Wright et al., 2019; Wu et al., 2023). Munchausen by internet (Giedinghagen, 2023; Pullman & Taylor, 2012) and cyberchondria (Starcevic et al., 2020) were also discussed, as sharing certain types of content or self-disclosure may be influenced by financial incentive (Mellor, 2021). However, cyberchondria reveals that some people may often diagnose disorders from the information they source online (Starcevic et al., 2020). By relating to disorders, online users may begin to manifest symptoms of disorders (Foulkes & Andrews, 2023) or relate to those that are mentally ill, which may in turn result in self-stigma (Krosta & Harkness, 2018). These factors may determine motivations for some online behaviours and the effect of exposure to online content which will be discussed within the literature review in the following chapter.

Chapter Two: Literature review

2.1 Introduction to the chapter.

The purpose of this section is to critically explore and examine current literature that supports this thesis. It will investigate current perceptions of mental health content found online and the impact of social media influencers that share this content. It will then add context to current research surrounding perceptions of online self-diagnosis and implications of this practice. The literature review begins with an overview of the existing evidence that discusses social media and mental health. The literature review will then progress onto a report of current findings relating to mental health content on social media and introduce key studies that support this thesis. Information will then be provided regarding the impact of mental health social media influencers, followed by the possible glamorising and romanticisation of mental illness online. Finally, the review will outline the impact that mental health content may have on online self-diagnosis, including key studies, as well as targeted online self-disclosure relating to mental illness, ASD and ADHD.

2.2 Social media and mental health

Evidence suggests that social media usage has a notable impact on mental health (Lui, Wu & Yao, 2016; Verduyn et al., 2017). However, reported outcomes are mixed. On one hand, poorer mental health outcomes may present due to a continuous lack of sleep from increased screen time at night (Woods & Scott, 2016). This is echoed within the social displacement hypothesis (Kraut et al., 1998), where individuals are actively displacing their time by being on social media. Tasks such as sleeping, socialising or studying could be displaced, resulting in implications for an individual's social development and wellbeing (Tibber & Silver, 2022). However, support for social displacement hypothesis (Kraut et al., 1998) has its weaknesses; Hall et al., (2021) suggest that social media can displace more subjectively neutral and negative activities rather than those that are considered more rewarding, positive, or pleasurable.

Conversely, individuals are being exposed to unrealistic body images that have been manipulated by editing software and filters, which may result in upwards social comparisons (detailed in social comparison theory) (Festinger, 1954). Content creators are known to share unrealistic lifestyle expectations such as expensive houses, clothes and cars, which may have a detrimental effect on mental health, particularly in those that are younger and more vulnerable (Fardouly & Vartanian, 2016; Orth, Maes & Schmitt, 2015; Woods & Scott, 2016). Further, young people that are using social media more frequently are associated with higher levels of parent reported anxiety, depression and ADHD, with symptoms increasing the more social media platforms used (Barry et al., 2017; Ra et al., 2018). However, the validity of the results could be scrutinised due to the use of a proxy measure (parent completed) rather than self-reported by the young people themselves (De Los Reyes et al., 2015). Additionally, Pantic et al., (2012), investigated the relationship between time spent on social networking and depression severity. Their participants were asked to record their social networking activity, along with time spent on other activities such as watching TV and sleep duration across a 24-hour period. Participants were also asked to report their depression severity. The findings revealed that there was a significant positive correlation between time spent on social networking websites and depression severity, suggesting that the more time an individual spends on social networking the more depressed they are. However, a correlation alone is not enough evidence to suggest a causality.

In contrast, initial research scrutinising Facebook found that this platform provided many benefits (emotional, informational, financial) to its users, such as to enhance experiences with social capital – emotional and informational support that people gain from their social networks (Utz & Muscanell, 2015) - as well as show improvements to participants social wellbeing (Ellison et al., 2007). Further, Xu et al., (2021) explored the effect that social media usage has on older adults and found that social media is a positive tool to decrease loneliness

and, in turn, decrease depressive symptoms in older adults. This was due to being able to create social connections they may struggle to create in the "outside" world for reasons such as frailty, illness and the inability to travel, whilst also allowing for them to effectively communicate with younger family members online. These perceived benefits are also generalised to other individuals aside from older adults, as use of social media can facilitate strong social online connections through communities that they may have not been able to access otherwise, particularly when it comes to online support groups for physical and mental health disorders (Naslund et al., 2020; Zsila & Reyes, 2023). Tibber and Silver (2022) also debate that mental health and social media usage are associated with a possible bidirectional causal relationship, implying that poorer mental health might cause increased social media usage and intensity, as much as social media intensity can cause poorer mental health. Indeed, the previously discussed literature within this section suggests that mental health can be directly impacted by social media both negatively and positively. Contrastingly, social media also provides spaces where people are able to meet others for support and increase social connection. However, what the existing literature within this section fails to consider is how specific types of content may affect mental health, well-being and mood.

2.3 Mental health content on social media

Indeed, social media has provided an avenue for mental health information being readily available online (Fergie et al., 2016), and users frequently interact with social media posts that are based around mental health, with the hashtag #Mentalhealth being used over a billion times on TikTok in 2021 (Saha et al., 2019; Zenone et al., 2021). The spread of positive mental health awareness can play a valuable role in behavioural change, as more people are interacting with, and sharing mental health information in an attempt to combat stigma (Kim, 2022). In addition, Pavlova and Berkers (2022) conducted a content analysis of mental health awareness across Twitter (X) and found that the emotion associated with most of the content was positive.

However, this could be due to the content being strictly awareness-based, without encompassing mental health content as a whole (e.g. diagnostic, or symptom related content). Fergie and colleagues (2018) have noted that those exposed to mental health related content, found this both helpful and reassuring. However, this only applied to those who had received a formal diagnosis, as their participant's believed information sourced on social media prior to diagnosis would not be suitable. Participants also detailed a preference for using reliable resources and knowing that the information was authentic as a result. It was additionally reported that participants felt it was reassuring to see that others were in similar situations, and it helped them to feel less alone (Fergie et al., 2018). Moreover, those that use social media for peer-to-peer support regarding their mental health report decreased feelings of isolation and increased feelings of connectedness (Prescot et al., 2020). Indeed, Gallagher (2022) found that mental health related communities on TikTok comment sections can yield positive outcomes. For example, users can feel empowered by creators sharing their stories and dialogues, to celebrate their victories and raise awareness. However, findings were only limited to one year (2021), and only 38 videos were included within their analysis. Mental health support and awareness on TikTok has yielded other positive outcomes, such as finding others in similar situations for support and guidance and be able to use the platform to raise awareness (Amato, 2022; Drillinger, 2022). Schluchter (2024) also details positive associations with mental health content on TikTok. The personalised approach of TikTok's algorithm provides its users with the content they want to see but also provides them with information or topics they may not have engaged with otherwise. The open conversations surrounding mental health on the app also provide a space where its users can feel safe and trusting. Despite this, Schluchter (2024) did also find some aspects of the algorithm to be problematic, which will be discussed later in the section.

How people interpret mental health content online may be further determined by lived experiences, as well as other external influences. An ethnographic study of mental health-based posts on Instagram by Fueston and Piper (2018) investigated how people portrayed their mental health, and mental illness, on Instagram. Different levels of mental health-based posts along a spectrum were reported. Some posts were vague and related to thoughts and feelings of sadness and distress, whilst others shared self-harm scars and eating disorder (ED) recovery pictures. Fueston and Piper (2018) concluded that, depending on the personal lived experiences of the individual, visual representations on social media could be interpreted in numerous ways. For example, an apple could be an apple or could 'symbolise the fall of man'. This may be reflective of those that regularly consume mental health content online. Videos that detail more intimate and personal narratives are more popular than information-based videos and are the preferred resource for online mental health information (Choi et al., 2021). This could be problematic as the information accessed could be inaccurate or lead individuals to confusion surrounding their own mental health (Kosar, 2024). Self-proclaimed mental health influencers are also capitalising on this narrative; due to the high-income streams associated with high levels of likes and shares, these platforms can often incentivise people to share deceptive stories and misinformation for financial gain (Clark, 2023).

Health practitioners and mainstream news sources have also reported their concerns with the increase in reported mental health issues that relate to content shared by content creators (Bahorsky, 2022; Taylor, 2023). Social media provides the ability to share an unrivalled amount of content, including incorrect information, worldwide, which may cause distress to those that are vulnerable (Johnson, 2022). However, this is not limited to social media; Reavley et al., (2020) explored the quality of information relating to mental health disorders across a variety of health-related websites, and social media. They found that information relating to mental health and neurodevelopmental disorders was often misleading

or insufficient. It was further reported that implications for this may result in delays in receiving treatment, increase stigma and produce a barrier to seeking support.

Mental health content also extends into the realm of ‘TikTok Trends’. These are ‘trends’ that entice other users to create the same or related videos, such as a challenge, a popular dance or lip-sync, or divulging personal and explicit information about themselves or others for ‘clout’ (popularity) online. These ‘trends’ may trigger to those that are survivors of these lived experiences, or those that are young and vulnerable, as these experiences can be anything from lived sexual assault, self-harm, and suicide attempts (Bonifazi et al., 2022; Mukhra et al., 2019). These challenges can be particularly dangerous. For example, the ‘Blue Whale Challenge’ showed increases in self-harm behaviours after viewers were encouraged into self-harming, which in some cases led to suicide (Khasawneh et al., 2020; Zhu et al., 2023). This in turn details how easily it is for some to be influenced into these harmful behaviours. Indeed, some videos display trigger warnings; however, sometimes it is too late, or these do not satiate the curiosity of all viewers (Zenone et al., 2021). There are ways around these trigger warnings and content moderation by using ‘algospeak’ (codewords) and signals to maintain visibility on the platform. Vera (2023) highlights that users often use algospeak to avoid detection from the platform's algorithm, particularly in relation to self-harm and suicide content. Their participants believed that sharing self-harm content was important to support with the destigmatisation of non-suicidal self-injury (NSSI). However, their findings also suggested that participants were not concerned about the possible negative implications this content may have on those that were vulnerable but focused on maintaining their community and voice (Vera, 2023).

Milton and colleagues (2023) aimed to increase an understanding relating to mental health content on TikTok, including how this content thrives on the platform, the impact of this content, and its effect on the community. The study included interviews with TikTok users that engage with mental health content on the platform and included a visual elicitation exercise,

which was to draw what their TikTok experience looked like. A further exercise consisted of attending the interview with one or two TikTok videos of their choice, one which promotes feelings of support and community and one which did not conform. Findings suggested that mental health content on TikTok fits into three distinct paradigms: (1) informational or clinical content, which included discussions around disorders and symptoms with a specific focus on how creators discussed their own individual experiences of living with a mental health disorder, (2) pragmatic content, this did not specifically mention mental illness but mentioned about how wellbeing activities can support daily living; (3) comfort content, which was not at all related to mental health, but helped provide support to an individual's mental health, or provide a 'mental break'. This content typically consisted of animals and other videos that promoted wellbeing. Their research also discussed the perceptions of mental health communities on TikTok. Findings suggested that the participants felt that this community was positive and provided an opportunity to be seen and feel less alone. However, these communities were also seen as permeable which therefore meant that users were exposed to content that they did want to engage with, including the difficulty in removing themselves from communities they do not wish to be a part of (also known as 'the wrong side of TikTok') due to the applications algorithm. Findings also discussed the concept of 'clout' and credibility on the platform. Their participants reported that although they liked the raw and unfiltered aspects of this content, they were also concerned about misleading and overgeneralising information and how this could relate to self-diagnosis, particularly for ADHD. Participants were concerned about the credibility of content creators and speculated whether content was created solely for popularity purposes. Finally, participants discussed the platforms algorithm, the 'for you page,' and how they were often provided with content that was not to their liking and that it disregards the users' preferences. Additionally, some content was reported as harmful, as they were not able to remove this from their 'for you' page after they engaged with it on a single occasion. This

in turn made participants feel overwhelmed with suspicions that the algorithm may do this intentionally to elicit an emotional response (Milton et al., 2023). Despite their study having notable and insightful findings, they did also report integrity challenges in relation to participant recruitment, one of which was how they filtered out participants but also how they did not collect information in relation to the participants current mental health status. The study also only considered content that was provided by the participants, which is not representative of all content that can be seen on TikTok or other social media platforms.

Participants in findings by Dewak (2023), reported anger, anxiety and uneasiness relating to symptom-based 'diagnostic' content, particularly content that is vaguer in nature. Symptom-based content is defined as being like that of Milton et al (2023), with their informational or clinical content, or content that discusses symptoms of mental health disorders and ADHD. Further, Taylor (2023) examined the influence of mental health-based content on participants, with a focus on predictors of mental health outcomes such as problematic social media use (PSMU) and self-regulation in adolescents. This included survey data collection and content exposure which produced conflicting findings. On one hand, some of their participants reported that mental health content on social media was both accessible and relatable. On the other hand, participants felt that due to the ambiguity of the content, and the lack of scientifically backed evidence, misinformation was also noted. Participants saw this as a negative and that it may lead to barriers to seeking-help, lead to behaviours such as self-diagnosis and rumination, and may also lead to other social media users to believe that 'typical' behaviours are a symptom of mental illness. Taylor (2023) also explored the immediate effects of exposure to mental health content (via YouTube) on symptoms of anxiety and depression, as well as mediators such as parasocial relationships, PSMU, and self-regulation. They found that levels of anxiety were increased when watching the anxiety-related video compared to the control group, particularly in female participants. Their study also reported limitations such as

lack of diversity in the sample due to the social economic status of their participants which may have affected the study's outcomes. Familiarity to the SMI's prior to data collection may also have influenced the outcomes as it was suggested that social media influencers had a significant persuasive effect on the participants.

Schluchter (2024) also examined mental health content on TikTok. Although as previously discussed, the algorithm can present its users with content they want to see, they also suggest that the algorithm may present its users with content they do not want to engage with. This resulted in their participants presenting their worries around vulnerable users viewing this, as it may unintentionally make their mental health worse. For note, although algorithms typically relay content that a user has engaged with, the algorithm may provide recommended or popular content that may not result from an individual's engagement (Milton et al., 2023). Schluchter (2024) also discussed the difficulties in separating misinformation from valid information and how users will often believe all the mental health content they engage with. Limitations to their study were also reported; it was noted that due to the API restrictions in their home country, some data was not accessible which meant that the data they sampled was not diversified. They also report that only including educated mental health influencers in their interview sample meant that perspectives of lay TikTok users were not included. Furthermore, Yeung et al., (2022) also explored misinformation on the platform TikTok. They assessed that over half the information shared under #ADHD was misleading and shared by non-healthcare related content creators. Their findings also revealed that, although the content was easy to understand, the content was often vague in nature and could potentially lead to incorrect self-diagnosis, health anxiety and increased waiting lists for their suspected diagnosis. Findings discussed within this section suggest that although information surrounding mental health online can start much needed conversations, users may need to approach with caution as information can be misleading or interpretive, particularity if they are

considered more vulnerable. These discussed findings also provide evidence that access to content relating to symptoms may promote self-identifying behaviours, which has links with Social Learning Theory, whereby users will identify, and replicate behaviour seen by others they relate to (Bandura, 1977). Limitations discussed also present an argument for gaps in research to explore more lay perspectives of mental health content, use content that is objective of social media influencers, and exposure to a wider range of content, not provided by the participants to understand a wider range of perspectives.

2.4 Social media, body image, mental health content and mood

Suggestions may also be made in relation to social media and content having a possible influence on mood. However, most initial research exploring social media and mood typically presents itself in relation to body image. As previously noted, social media may provide avenues for upwards social comparison (detailed in social comparison theory) (Festinger, 1954; Verduyn, 2020). In relation to this, Instagram usage for example has been known to report decreases in depressive mood after only ten minutes of exposure. This is further supported by Fordouly et al., (2015), who found significantly higher negative mood scores in those that spent time on Facebook than a control website in relation to body image. Mood changes after content exposure can also be noted in relation to beauty focussed TikTok videos - a compilation of videos relating to Botox, skincare, and make-up tutorials. Significant mood decreases were reported after only a brief exposure to this content type (Seekis & Kennedy, 2023). On the other hand, Fioravanti et al., (2023) actually found increases in positive mood in those viewing body positive or body neutral imagery. This suggests that mood can be influenced both negatively and positively depending on the type of content people are exposed to.

Research exploring the influence of mood in relation to mental health content is limited. One study, by Kourkoulou (2023), suggests that those that regularly engaged with mental health content on TikTok reported lower feelings of anxiety, loneliness and even depression compared

to those that did not regularly engage with mental health content on the app. However, the study did encompass mental health content as a whole and was not specific to content type (e.g. diagnostic or symptom related content). In contrast, Akil et al., (2024) aimed to understand if exposure to depression memes could impact mood. Memes are known as images, and/or text, spread via the internet with the intent to have a wide reach (Milner, 2017). Depression memes are still memes but with a focus on depression, and depressive symptoms. See Figure 1 for examples of depression memes.

Figure 1 - Examples of depression memes (sourced from Akil et al., 2022)

In order to meet their desired aims, they collected both brain activity data as well as an online survey to collect depressive mood data pre and post exposure. They utilised both depression memes and a neutral content condition. Their findings report that there were significant increases in depressive mood for the depression memes compared to the mood scores when exposed to the neutral content. This provides evidence that symptom-based content (depression symptoms) can negatively impact depressive mood. However, they did report limitations to their study; one such was that they used healthy volunteers and did not include those that had a prior diagnosis of depression or any other mental illness which suggests their findings are not generalisable across populations. Their study also only assessed depression memes, and depressive mood. Their research did not consider other types of mental health symptoms (or ADHD, ASD) but also general mood (positive and negative affect)

without being specific to depression. The limited research in relation to mood and mental health content prompts questions about how different types of content may impact mood. As noted in the above findings relating to body image, beauty related content and findings by Akil et al., (2024), different types of content could have different impacts on mood, warranting further exploration.

2.5 The impact of 'mental health' social media influencers

YouTube is a video sharing platform which allows creators to upload videos where they are rated via likes and dislikes and, like most video sharing platforms, it has a comment section. YouTube is also evolving and now offers other features such as video shorts similar to TikTok (Li & Kim, 2023). As with other platforms, YouTube is also host to misinformation (Baydilli & Selvi, 2022) and is a place where influencers can go to discuss their experiences with mental health (Lind & Wickstrom, 2023). It is important, however, to discuss the possible implications that these influencers could have when discussing sensitive topics such as mental health, including their own self disclosure (Adeane & Stasiak, 2024). When exploring investigations into social media influencers, mental health and authenticity, social media users revealed that one of the main things they want from an influencer is authenticity (Wolf, 2020). Indeed, Berryman and Kavka (2018) examined the vlogs of Zoe Sugg, Trisha Paytas and Nichole Klein, who were very prominent in the influencer industry at the time. The study investigated the impact of anxiety-focused and 'crying' vlogs of these creators. These anxiety and 'crying' vlogs increased following and content interaction compared to other content, with speculations that this type of content could be seen as more authentic and truer to self. Moreover, Stein (2014) discussed that self-presentation in digital culture via social media consists of a barrage of beautiful and happy people that are talking about their impressive accomplishments in life. Content that details more 'negative' aspects of life are commonplace across social media platforms, with content ranging from vlogs sharing an individual's struggle with depression,

eating disorders and personal expression of loss and grief (Berryman & Kavka, 2018; Gibson, 2016) to users discussing their own personal symptoms of disorders such as ADHD, borderline personality disorder (BPD), anxiety and depression on TikTok (McCashin & Murphy, 2023). Crying vlogs also extend into Instagram, where influencers may post stories of themselves crying and 'speaking their truth' about their own struggles with mental health (Berryman & Kavka, 2018). The desire to share these emotional and tearful videos can be related to (changes in) cultural shifts, one of which being life-streaming – the near constant broadcasting of an individual's feelings, thoughts and activities. With this almost consistent invitation into the intimate lives of themselves, it allows these people to feel more confident in sharing the intimate moments of their lives, such as crying and times of struggle (Berryman & Kavka, 2018; Marwick, 2013).

Further, Berryman and Kavka (2018) highlight that people are confident to discuss and compare symptoms of the same disorders the influencers may have, asking others in comment sections if they 'feel this too'. This shared experience of emotion can elicit a feeling of support and connectedness, with people feeling that influencers are crying *with* them, and feeling exactly the same (Berryman & Kavka, 2018). However, this could be exposing viewers to a myriad of misinformation, subjective experiences, and symptoms that could be related to something other than a mental health disorder (Eaton, 2023; Starvaggi et al., 2023), or not factually correct (due to content creators embellishing this type of content to appear 'authentic' or 'real'). Berryman and Kavka (2018) highlight a video by Felix Kjellberg discussing if 'forced positivity' is being inauthentic; the opposite end must mean that unforced negativity is 'real', which dictates that the more negatively content appears, the more 'real' it must be. With these types of videos being increasingly popular due to the perceived connectiveness it can facilitate, and the increased likes and shares granting increased popularity to the influencer, there could be difficulty understanding what is 'real', and what is embellished for popularity

(Clark, 2023; Marwick, 2013;2015). Likewise, when examining the effects of influencer messages on Instagram in relation to self-diagnosis and the intention to act, Hebben (2019) discussed that their participants were not influenced by the content itself, but more by the credibility of the influencer, supporting the notion that people may relate to both factually correct and incorrect content due to the perceived authenticity of the post. Although video, photo and discussion boards created by influencers could support the destigmatisation of mental health issues, it could also be contributing to the normalisation of mental health conditions, particularly the discussion of symptoms of mental health disorders on social media (Eaton, 2023; Hasan et al., 2023). However, as discussed by Drăgușin (2021,) symptoms of these disorders can be used to describe everyday incidents and struggles, highlighting the importance of a balance between handling mental health information effectively on a personal level for those who need it, rather than as an adjective to describe an everyday feeling.

In addition, Taylor (2023) investigated the role of social media influencers who disseminate mental health content. Their findings revealed the impact SMI have on adolescent mental health, beliefs and attitudes. SMIs documented harmful or misleading information, which may be problematic due to parasocial relationships, as participants believed that the information was authentic. Their findings also reported that there were increased depression and anxiety scores (after exposure to anxiety and depression related content) for those that had an emotional connection to the social media influencers, even after one single exposure point. This aligns with social learning theory (Bandura, 1977), as their participants have begun to replicate the behaviours, in this case symptoms of mental illness, presented by these social media influencers. Nevertheless, the familiarity of the SMI may have impacted on the results, therefore highlighting a gap to explore the impact and perception of ‘mental health’ influencers overall. Indeed, Adeane and Stasiak (2024) explored user and influencer perceptions of sharing mental health content on social media. Their findings suggest that there is a dialectical

approach, with contrasting opinions. It was reported that users enjoyed that influencers shared their lived experience of mental illness, that profiting from mental health was inappropriate, and that they regularly questioned the authenticity of influencers, regardless of their qualifications. They also explored how some creators get financial incentives from posting mental health content or being sponsored by brands relating to mental health. Participants reported mixed views some suggested that this was unethical and not appropriate, whereas others understood that this was how people made money in the modern world and saw no harms in this practice. However, there were limitations such as the generalisability of the findings. Their findings also only discussed influencer content in relation to financial incentives and sponsorships, but did not thoroughly explore the perceptions of influencers in relation to deceptive content.

Furthermore, social media influencers are now moving into the territory of what is known as 'mental health social media influencers.' In fact, accredited mental health professionals are taking to applications like TikTok to disseminate correct, informative and up to date information regarding mental health and mental health disorders. Dr Julie Smith has been using the platform to try and help those accessing the app for mental health information, supporting users on where to look for accurate information (McCashin & Murphy, 2023; Smith, 2022). Thus, young people aged 10-19 are now increasingly subscribing to content from psychologists and psychotherapists on TikTok, including discussion of illnesses such as anxiety and depression and where to seek treatment and coping techniques (Sood, 2021). However, there are limitations of this method; White and Handley (2023) reported the ethical issues that therapists face on social media platforms. They highlight that these therapists are not aware that they have unintentionally become social media influencers. Although there are benefits to this, such as increased exposure to their practices and the ability to disseminate information, this broadcasting and virality may impact the therapeutic relationship as clients may use the

therapist's social media profile and content to make assumptions about their professional capacity, particularly if brand deals or advertisement is involved. Findings also discuss that social media users are more trustworthy of a title (Professor/Dr), regardless of what their area of expertise is. Their findings also extend into matters surrounding confidentiality with findings from their review detailing that doctoral students regularly search for clients online, to understand them on a more personal level to support with treatment (White & Handley, 2023). Further, there is the risk that mental health professionals may also unintentionally disclose personal information about their patients online when posting about their workday (Ahmed et al., 2022). These findings discussed in this section suggest that individuals can be easily influenced by the information they see online, particularly when an influencer is involved. However, these are limited as perspectives are seen to not be generalisable or may be influenced by the perceived parasocial relationship with an influencer.

2.6 The glamourising and romanticisation of mental illness on social media

There are also considerations for the possible romanticisation and glamorising of mental illness online, which has increased in recent years (Issaka et al., 2024). Some social media users may attempt to create a more positive presentation of mental illness online to make it more desirable and attractive (Vidamaly & Li Lee, 2021). The way in which individuals attempt to glamorise and romanticise these disorders is via the use of heavily edited images and GIFS; for example, a photo of a sad girl with the caption “I think suicidal people are just angels that want to go home.” (Shrestha, 2018; pg. 72). Furthermore, Shrestha (2018) details that social media (for example Tumblr) can create ‘echo chambers’ whereby an individual’s thoughts and beliefs are fortified, and where users can be absorbed in each other’s negativity. They also discuss the types of content that are on social media that depict mental illness and suicide in a desirable manner. These images are usually framed to detail a person who completes suicide to have died a ‘beautiful death’ (pg.73). They also highlight that this type of

content could be damaging and may promote those that are neurotypical to replicate these behaviours, due to the portrayal of those that are mentally ill as ‘ethereal’ or someone they aspire to be (Shrestha, 2018), therefore, aligning with both Social Learning Theory (Bandura, 1977) and Social Comparison Theory (Festinger, 1954). This practice may also lead to a distortion of the true lived reality of those with mental illness, along with promoting the debilitating and harmful behaviours that are associated with it (Dunn, 2017; Shrestha, 2018).

Issaka et al., (2024) conducted a content analysis of ‘Tweets’ on X (Twitter) through collecting secondary data. Their findings focussed on themes including the marketisation of mental health issues, traditional media’s role in romanticising mental illness, reported misconceptions of mental illness, and how users rejected but also advocated for authentic discussions about mental illness on the platform. Their findings highlighted that X users often reject the romanticisation of mental health illness, and that these incidents of making mental illness ‘cute’ or desirable are directing the attention away from people with lived experiences of these disorders. The Tweets also detailed users concern about the amount of content that glorifies suicide on both X and TikTok. Nevertheless, some X users also stated that their intent is not to portray mental illness in a desirable manner, but to educate and inform users with their open and honest expressions. Their findings also revealed a business model that embodies the romanticising of mental illness, with X users discussing their negative thoughts on their Tweets in relation to merchandise being sold with slogans such as ‘to be one with the stars’. Equally, the glamourisation and romanticisation of mental illness is reported within the wider media, for example, in teen-focused TV dramas such as ‘13 reasons why’ and ‘Euphoria’, and from also two decades ago with that of ‘Skins’ (Kenza & Sabrina, 2021; Shrestha, 2018). However, Euphoria does display mental illness in a way that has not be depicted on TV before, especially when it comes to one of the character’s portrayals of bipolar disorder. Whilst most TV shows and movies show a more violent and destructive outburst by the characters experiencing manic

episodes, Euphoria shows a more realistic impression by the character being hyper focused and productive, but also impulsive and slightly erratic (Alkhalifa, 2022). Findings within this section therefore suggest, that although some users may be creating content that portrays mental illness as being desirable, there are also users that reject this notion and believe it to be harmful. This may be problematic as some users may begin to replicate these behaviours in order to fit the same narrative as noted by Social Learning Theory (Bandura, 1977), and Social Comparison Theory (Festinger, 1954).

2.7 Online self-diagnosis and self-disclosure

Mental health based online communities tend to require a form of self-disclosure or self-diagnosis to facilitate a group membership (Shi & Khoo, 2023). Social media provides a 'safe space' for disclosures of subject matters that are typically seen as 'taboo', such as mental health and illness (Uridge et al., 2023). Furthermore, these self-disclosures are seen to promote a positive feeling of instant gratification, through receiving attention from their online audience, and in turn promoting feelings of community (Ostendorf et al., 2022). However, there are questions surrounding self-disclosure, its links to attention-seeking behaviours and mass-sociogenic illness (Müller-Vahl et al., 2022), discussed later in the chapter. Firstly, Eaton (2023) investigated if self-diagnosis is influenced in relation an understanding of commonly (Autism Spectrum Disorder, ASD) and uncommonly (Histrionic Personality Disorder) discussed mental health and neurodevelopmental disorders. Findings report that participants overall were not very knowledgeable of both disorders but were more familiar with ASD due to its prevalence on social media. They also found that participants reported significant differences between their perception of ASD and clinical information, whilst revealing that the information they knew about ASD was sourced from social media. This in turn highlights the vast amount of misinformation found on social media, detailing that the more time an individual spends on social media, the more they endorsed incorrect information about both disorders.

Dewak (2023) explored the role of social media in the increase of self-diagnosis of mental health disorders, with a focus on self-diagnosis content found on TikTok and Instagram via semi-structured interviews. They also aimed to understand how this type of content may impact youth mental health. Different types of self-diagnosis content were discussed within the interviews by participants, with most of the content being displayed in the form of videos or infographics. The findings reveal that this content was perceived by participants to be ambiguous and often exaggerated symptoms of disorders, with trauma and ADHD being popular topics for discussion. Additionally, participants described how this content was often validating for them and can lead to some seeking a professional diagnosis. Findings also indicated that some participants found engaging with this content to be a negative experience as it increased feelings of frustration, anxiety and self-doubt. Discussions centred around the implications of this content being on social media, highlighting benefits such as support (especially due to issues in received treatment) with social media providing a sense of community. Detriments or issues such as access to misinformation content, were also discussed, particularly regarding content that romanticises or trivialises mental health content. Overall, the findings suggest that self-diagnosis content needs to be regulated along with increases in mental health literacy for those that seek mental health information online. It also provides a need to further explore symptom-based content and its impact on online self-diagnosis behaviours.

As noted, an increase in mental health self-diagnosis can be seen on the platform TikTok, where some influencers share their own experiences of self-diagnosis (Faulkes & Andrews, 2023; Milton et al., 2023). What these creators fail to communicate is that symptoms do not present typically for all, and that they are differences between each individual. Disorders are also often comorbid or have overlapping symptomologies. For example, ADHD and Borderline Personality Disorder (BPD) share very similar symptoms such as impulsivity,

emotional instability and risk-taking behaviours (Matties & Philipsen, 2014; Philipsen, 2006). Self-diagnosing these disorders may present issues when seeking treatment or clinical diagnosis due to confirmation bias (Ditrich et al., 2021). Content that promotes symptoms of mental health disorders could also provide a pathway for those that are exposed to manifest the symptoms of these disorders as a form of self-validation (Clarke, 2023, Pringsheim et al., 2021), which can be linked to similar behaviours noted in Social Learning Theory (Bandura, 1977). Similarly, Gilmore et al. (2022), completed a content analysis of a Twitter feed using the words 'ADHD' and 'TikTok' and reported that there were numerous Tweets that discussed how individuals had self-diagnosed with ADHD after watching TikTok videos, with their study highlighting the positive implications that can come with self-diagnosis such as a better quality of life for the individual. However, they also discussed that increased self-diagnosis can also add to waiting times for treatment for those that wish to seek a formal diagnosis. With this in mind, they recommended for those who perceived themselves to have a disorder to be reflective by considering what impact these perceived symptoms have on their quality-of-life. Findings also suggest that ADHD content on TikTok may have the power to exaggerate how prevalent ADHD is, whilst also highlighting the misleading information found within these posts. It was further discussed that due to this interpretive information, young people may be easily influenced into believing that they have disorders they see online, leading to inappropriate self-diagnosis (Gilmore et al., 2022). However, what both Gilmore et al. (2022) and Dewak (2023) failed to understand in their research, was possible motivations for self-diagnosis, which therefore warrants further investigation and exploration.

Underhill and Foulkes (2024) investigated self-diagnosis on the platform Reddit. Their content analysis revealed five themes in relation to self-diagnosis (1) tension over who is the expert in diagnosis; (2) self-diagnosis as a route to self-understanding in an inaccessible symptom; (3) teenagers on social media are the problem; (4) self-diagnosis can become self-

fulling; (5) now none is believed. Their findings suggest that some Reddit users believe that self-diagnosis can be a positive and can provide clarity surrounding their distressful symptoms but should only be in lieu of seeking a formal diagnosis. Users did however understand that sometimes formal diagnosis is not accessible for all, so self-diagnosis provided some with an opportunity to understand themselves and their symptoms better. On the other hand, some Reddit users also discussed their questions surrounding who is the 'expert' in diagnosing; due to mental health assessments and objective rater scales being self-reported, Redditt users detail that self-diagnosing using the same measures would produce the same outcomes as seeking a professional diagnosis. Overall, their findings revealed that self-diagnosis was controversial and that there are distinct views on its acceptability; however, it was understood that sometimes this was the only option for some. Nevertheless, limitations can also be noted; they report that only 22% of the population use Reddit which suggests that the results are not generalisable, warranting further exploration into self-diagnosis perspectives from people more representative of the general population. Indeed, their findings did attempt to understand some motivations for self-diagnosis, however this was limited to only an access to services, with no other motivations discussed, thus, evidencing a clear gap to understanding motivations separate from area level factors such as access to services.

As noted, vast amounts of health and mental health information are relayed on social media platforms, such as TikTok, whereby individuals are being exposed to creators making content that discusses symptoms of mental health disorders (Yeung et al., 2022), leading to what is known as a 'TikTok diagnosis'; this occurs when someone uses information that they have sourced from videos on TikTok to formulate a diagnosis. This can refer to both mental and physical health disorders, but the most common are ADHD and Dissociative Identity Disorder (DID), with some even developing tic-like behaviours (involuntary movement or speech, typical of those that have Tourette's syndrome) (Cavanna & Seri, 2013) from over

exposure to tic-related content in a mass sociogenic illness manner (Müller-Vahl et al., 2022). Internet self-diagnosis has also prompted an increase of people using the national health service (NHS) in the UK to seek a formal diagnosis. This has subsequently increased the waiting period, with some clinics having waiting times of approximately five years for an ADHD diagnostic assessment (ADHD UK, 2023; Foster, 2024). This has led people to seek diagnosis from other sources, such as from private clinics in the UK, which could be a problematic resource; a recent BBC panorama documentary investigated private clinics in the UK offering an ADHD diagnosis to people after just a very short assessment of forty-five minutes. This was compared to an NHS assessment, which followed NICE guidelines which lasted approximately three and a half hours. Private clinics come at a large cost, with diagnostic consultations costing between 600-1200 GBP. The documentary showed that most people that were seeking a diagnosis were granted one, regardless of the severity of their symptoms, with this then being followed by a prescription for high-risk stimulant medication. Although there is no evidence to suggest that these clinics are providing diagnosis under false pretences, there is still the financial burden associated with paying for private care due to increased waiting times (BBC, 2023).

The Prevalence Inflation Hypothesis (Foulkes & Andrews, 2023) investigates the possible influence that the increase in mental health awareness efforts could have on the prevalence of mental health disorders. Although efforts are made to suggest that there are other reasons behind the increase in mental health disorders, such as anxiety, depression and eating disorders being diagnosed; increased academic pressure (Hogberg, 2021); increased cost of living against working wage inequality (Patel et al, 2018); the impact of austerity (Knapp, 2012); and an increase in social media usage (Orben, 2020) as previously discussed they present that, paradoxically these efforts to raise awareness in mental health could also be contributing, in a bidirectional manner rather than one causing the other (Foulkes & Andrews,

2023). There is a set pattern as to how the process work: that the increased rates of diagnosis may lead to an increase in further mental health awareness efforts. This then develops further into two differing processes; (1) improved recognition, which is how these efforts to raise awareness have provided some people with an increased ability to both identify and report a mental health problem; and (2) overinterpretation, which is when these awareness efforts have then led to people using this information to over-pathologise some commonly seen psychological occurrences. In some more severe cases, overinterpretation may form a self-fulfilling prophecy, leading to changes in behaviour and self-concept, which can be seen as being both problematic and can in turn lead to processing 'normal' feelings of distress into being something more pathological (Foulkes & Andrews, 2023). This may be rooted in the 'Psychiatrisation' of everyday suffering, a notion that has been regularly discussed in existing literature whereby an individual perceives negative emotions, behaviours and thoughts to be symptoms of a mental health disorder (Beeker et al., 2021; Eaton, 2023; Foulkes & Andrews, 2023). Hasan and colleagues (2023) also explored self- diagnosis of anxiety disorders, with particular focus on how normalising the disorder online can influence people to self-diagnose. Their results found that posters online that normalised anxiety were more likely to self-diagnose typical anxiousness as an anxiety disorder (Hasan et al., 2023). The findings discussed in this section suggest that not only is there an increase in online self-diagnosis, but there are also harms and complications associated with self-diagnosis, such as a misdiagnosis from self-diagnosing from misinformation, self-medicating and the financial burden of private clinics. The findings within this section also highlight an evidence gap; there is a still only a limited discussion around social media users' perspectives of self-diagnosis, but also motivations for self-diagnosis which has not yet been explored.

2.8 Mass-sociogenic illness, deceptive mental health content and 'fakeclaiming'

Mass social media induced illness (Müller-Vahl et al., 2022) is a phenomenon whereby many individuals online show symptoms en masse after viewing illness-related content online (Frey et al., 2022), particularly DID and Tourette's syndrome (Giedinghagen, 2023; Müller-Vahl et al., 2022). DID, according to the DSM-5, is a disorder in which the individual has a fragmented or fractured personality due to significant trauma experienced (typically) in childhood (APA, 2013). Individuals with DID have created altered personality states or 'alters', and they shift between these altered states of personality depending on different environmental and emotional triggers. Alters have significantly different personalities, traits, memories and behaviours, making DID a complex disorder that is difficult to diagnose (Kumar & Krishnamurthy, 2024). DID is highly controversial, with a significant debate around whether distinct personalities, or 'alters' are a product of childhood trauma or created during the therapeutic process (Reinders & Veltman, 2020). DID has now found a home in the virtual world, with users on various platforms claiming that they have this disorder, some even documenting the 'shifts' between alters. An example of this is seen on TikTok with the 'wonderland system', a DID system of 271 'alters' (Colombo, 2022). With the increase of individuals claiming to have rare mental health disorders such as DID, there are others in the community that doubt these claims to be true. Indeed, there are even Sub-Redditt's that are dedicated to questioning claims for disorders and portraying them in both insulting and demeaning ways (Chestnut, 2022; Deligent & Klonaris, 2024). This then leads directly to the phenomenon known as 'fakeclaiming', where people who have publicly declared that they were faking illness to gain attention online post a video apologising for their behaviour and even captioning that they are DID fakeclaimers (Chestnut, 2022). Fakeclaiming has also been noted in relation to Tourette's syndrome; Olvera et al. (2021) aimed to understand the increase of tic related behaviours after exposure to Tourette's related content on TikTok. Their findings

revealed that most of the creators that posted about having Tourette's syndrome; had existing severe symptoms at increased rates, compared to that cited within literatures. It was therefore inferred that the majority of these creators were in fact faking having Tourette's syndrome, with a sole purpose of receiving a financial incentive. Fakeclaiming has also been embedded as a part of 'cancel culture', where creators or celebrities are shunned or no longer seen as legitimate (Lucas, 2023). This culture has led to some DID or Tourette's creators being bombarded or threatened by other creators as they have perceived this to be fake. Fakeclaiming therefore delegitimises people who have a diagnosed disorder (Yoon et al., 2024). However, research has yet to understand why people may choose to fabricate a disorder. Indeed, Munchausen by internet (Zenone et al., 2021) details that some users may be creating fake disorders online to reap financial rewards, whereas others may be doing this as a means to increase their social capital (Utz & Muscanell, 2015). This therefore links to how some users may create fake disorders online in order to be able to create desirable content that romanticises mental illness, in order to reap financial or social capital benefits (Issaka et al., 2024).

The notion of deceptive content has rarely been discussed in current literature, although some studies have briefly touched on this notion in relation to other aspects. One such example is that of Adeane and Stasiak (2024) who discussed the authenticity of creators in relation to mental health content. Their participants revealed some social media users are oblivious to deceptive content, particularly if a creator has 'qualifications' or self-proclaims as a doctor. Their participants also discuss that creators often use mental health to promote sponsorship deals, when they may not actually have a disorder or any issues. It was also noted to be unethical as they believe that some creators may target vulnerable users with this deceptive content to be able to make a financial incentive or rewards from content or sponsorship deals. Nevertheless, there are some limitations to these findings; although deceptive content was briefly highlighted, no discussion occurred that particularly related to deceptive content. This

therefore indicates that further research could look to understand participant perceptions of deceptive content relating to mental health, including faking disorders for financial gain.

2.9 Chapter Summary.

In summary, social media as a whole is neither innately positive nor negative (Lui, Wu & Yao, 2016; Verduyn et al., 2017), as it is seen to facilitate connections (Naslund et al., 2020; Zsila & Reyes, 202), but may also contribute to poor mental health outcomes as a result of some associated problematic behaviours (Tibber & Silver, 2022; Woods & Scott, 2016). Social comparison theory (Festinger, 1954) also suggests that people may have decreases in mood (Seekis & Kennedy, 2023) or poorer mental health due to upwards social comparisons. This may also be reflected in relation to mental health influencers (Burnell et al., 2019) or people gaining popularity from sharing mental health content (Clarke, 2023). Upwards social comparisons are also noted in relation to body image content, which also has implications on positive and negative affect (Verduyn, 2020). The literature review also detailed how mental health content is being shared widely (Fergie et al., 2016; Saha et al., 2019; Zenone et al., 2021) which in itself has seen implications; these included positives such as increases in community and combatting stigma (Kim, 2022) but also negatives. Some negatives discussed related to Social Learning Theory (Bandura, 1977), as people may begin to replicate or manifest the symptoms they see online due to how they relate to the content being shown (Foulkes &Andrews, 2023). People are also exposed to harmful suicide and self-harm related content (Vera, 2023), which may also entice vulnerable users to replicate this content (Khasawneh et al., 2020; Zhu et al., 2023). Furthermore, the literature review also notes how influential mental health influencers are, but also that they may manufacture symptoms, or create deceptive content to solely reap financial benefits (Adeane & Stasiak, 2024). Findings also highlight that some creators may be presenting mental health illness in a desirable manner which may also add to the manifestation of symptoms or replicative behaviours (Issaka et al., 2024; Shrestha,

2018; Vidamaly & Li Lee, 2021). Finally, online self-diagnosis literature was explored. Although findings are limited, it was revealed that self-diagnosis has both benefits and detriments, and that people may have no other option due to area-level factors such as access to services (Underhill & Foulkes, 2024). Self-diagnosis behaviours were also discussed in relation to mass-sociogenic illness (Müller-Vahl et al., 2022), deceptive content (Zenone et al., 2021) and fakeclaiming (Chestnut, 2022; Olvera et al., 2021) as self-diagnosis culture is heavily embedded within these concepts. The literature review also discussed study limitations and highlighted gaps for further exploration which will be presented within the thesis rationale in the next chapter (chapter three).

Chapter Three: Method

3.1 Overview of the chapter

This chapter will present the methodology associated with the current thesis. It begins with an introduction to the chosen philosophical assumption for this thesis known as pragmatism. Next follows discussions in relation to methodological pluralism (mixed methods), and the methodological framework utilised. The chapter will then highlight the rationale for this thesis, showcase the current gaps in research, and indicate how the thesis aims to use the outcomes of the studies conducted to address these gaps. It will also detail the research aims and questions for the overall thesis, as well as detailing how each of the studies will provide new knowledge and empirical findings in this under-researched subject area.

3.2 Philosophical assumptions: Pragmatism.

The philosophical paradigm selected for the current thesis was pragmatism. Due to the mixed methods design utilised, philosophies such as positivism or constructivism were not deemed appropriate due to their assumptions that reality only fits into either subjective or objective opposing epistemologies (Danermark et al., 2019). It can be noted that other philosophical paradigms, such as critical realism, are related to mixed methods (Creswell & Plano Clarke, 2018) however, pragmatism is much more flexible in its approach and effectively combines multiple methodologies to answer the research question or questions (Tashakkori & Teddlie, 2010). Pragmatism was selected as it recognises that knowledge is heavily related to social interactions (Morgan 2014), which this thesis explores by the means of social media interactions. Pragmatism also details knowledge as a means to interact with the world, compared to other assumptions that ascertain knowledge with reality (Goldkuhl, 2012; Rorty, 1980). As the current thesis is inherently focusing on social interactions and influence through social media, it was deemed the most suitable approach.

Furthermore, pragmatists adhere to the principles that the research question or questions are the priority in this research position (Goles & Hirschheim, 2000) and rely heavily on the usefulness of knowledge rather than an absolute truth or falsehood as the principal objective for understanding the world (Allemang et al., 2022; Hildebrand, 2011). There are also action-oriented frameworks arising from this position; pragmatism relies heavily on lived experiences. Therefore, a pragmatist researcher would use methodology that would be most appropriate to answer the specific research question, whilst addressing issues that have derived directly from the population in question (Allemang et al., 2022; Hothersall, 2019). Pragmatism provided the flexibility and opportunity for this thesis to utilise different types of methodology to support the thesis's aims and research questions. Additionally, pragmatism in mental health allows for the outcomes of the research to be implemented back into communities to benefit the population in question. For example, it could answer vital questions about an intervention or RTC, how this can be used in community setting and within clinical care (Summers Holtrop, 2020). Pragmatism goes above the understanding of how one thing may cause another or the benefit of one thing over a another, as it allows for a broader insight into how the outcome can be used in a real-world setting, and what is the best way to test and observe this outcome (Summers Holtrop, 2020).

Pragmatism has also been used in previous research that explores the role of social media on wellbeing including data collection methods such as, qualitative studies, mixed methods and content analysis approaches (Hanifa et al., 2021; Powell, 2020; Singh et al., 2021). The flexibility of pragmatism also fits appropriately into the realm of social media due to its focus on understanding real-world issues, separate from the debates surrounding reality, truth and knowledge (Kelly & Corderio, 2020). Social media also sits between an idealist reality (ideas are true or real) and a true reality or a materialist position (the world is made up of matter) (Bertman, 2007). Although most activity on social media takes place within the 'virtual

world', consequences of actions taken online can translate into the 'real world', such as self-diagnosis content increasing waiting lists for treatment or diagnosis; trolling behaviour causing real life distress; and viral posts creating a financial incentive for the creators (Adeane & Stasiak, 2024; Gilmore et al., 2022; Milton et al., 2023; Taylor, 2023). Pragmatism also provides an avenue to understand motivations and categorise intent for certain methods of communication which provides support for the methodology and aims of study three, whereby TikTok comment sections were thematically analysed to understand intent and motivations (see chapter 6). The position also supports the entire thesis as a whole; the three studies that comprise this thesis are all completely unique from one and other, but overall, support answering the research questions via their own specific direction. For example, study one uses quantitative data collection via a larger sample size, using survey and content exposure to collect objective data in relation to content, mental health status and mood. Study two on the other hand, collects qualitative and subjective data from a smaller sample, with content exposure, whilst also examining perceptions about self-diagnosis, mental health influencers and mental health content. Finally study three, utilises conversations within TikTok comment sections to build a more in depth understanding of mental health communities, self-diagnosis and how people engage with this content more naturalistically. Individually the studies do not answer the research aims of the thesis however, collectively the three different studies, using a mixed methods approach, allows for all the research questions to be answered.

3.3 Methodological pluralism: mixed methods.

Pragmatism is also associated with the notion of methodological plurality, which is the concept that no data collection method is superior, as well as finding value in several information sources (Barker & Pistrang, 2005; Barker et al., 2002; May et al., 2017). Due to the complexity of mental health, and social media research, a pluralistic (mixed methods) method was preferred to effectively collect data to support the research questions and

hypothesised outcomes. Evidence suggests that combining both quantitative and qualitative methods can offer an enhancement of applicability and provide better insights in health-related research (Wasti et al., 2022). For the current thesis, quantitative methods allowed for the collection of objective and statistical data using a series of validated and reviewed scales, including numerical data sourced from social media application programming interfaces (APIs) (Bryman., 2016; Clark et al., 2007; Jones, 2010), while qualitative data, such as that from semi-structured interviews and qualitative data sourced from the API, provides subjective viewpoints and rich in-depth data (Braun & Clarke, 2013; Bryman, 2016; Cresswell, 2009).

3.4 Methodological framework: Mixed methods components of thesis, and data collection methods.

3.4.1 Rationale and introduction to current research gaps.

Existing research has provided insight into the relationship between social media and mental health, including both perceived benefits, such as increased communication and support networks (Ellison et al., 2007; Naslund et al., 2020; Utz & Muscanell, 2015; Zsila & Reyes, 2023) to detriments such as lack of sleep, addiction and possibility of problematic social media usage (Barry et al., 2017; Fardouly & Vartanian, 2016; Orth et al., 2015; Pantic et al., 2012; Ra et al., 2018; Woods & Scott, 2016). Social Comparison Theory (Festinger, 1954) suggests that people may have decreases in mood, or poorer mental health, due to upwards social comparisons; this may be reflected in that of mental health influencers or people gaining popularity from sharing mental health content. Upwards social comparisons are also noted in relation to body image content, which also has implications on positive and negative affect (Fioravanti et al., 2023; Fordouly et al., 2015; Seekis & Kennedy, 2023). It has also been detailed how mental health content is being shared widely, which in itself has seen implications including how access to mental health information online can attempt to raise awareness and combat stigma (Pavlova & Borkers, 2020; Kim, 2022), increases in perceived community

(Milton et al., 2023; Schluter, 2024), but also negatives. Some negatives have related to Social Learning Theory (Bandura, 1977) as people may begin to replicate or manifest the symptoms they see online, due to how they relate to the content being shown (Clarke, 2023; Foulkes & Andrews, 2023; Pringsheim et al., 2021). People are also being exposed to harmful suicide and self-harm related content, which may also entice vulnerable users to replicate this content (Khasawneh et al., 2020; Zhu et al., 2023). These findings therefore detail that there are negative aspects of social media that need to be explored further. Until 2023 there was no research that looked to understand if there were any negative implications in relation to exposure to mental health related content online and since then findings have been limited to only a few.

Indeed, Taylor (2023) explored exposure to anxiety and depression focussed content types on YouTube and found that there were mild fluctuations in anxiety levels after exposure, which indicates that effects of exposure to symptom-based content should be further explored. They also were limited in their findings as their results were specific to anxiety and depression-related content and not symptom-based content as a whole. There have also been findings that suggest that viewing mental health content can be overwhelming, but also increase anxiety and promote feelings of anger (Dewak, 2023; Milton et al., 2023; Schluter, 2024). Nevertheless, these findings have yet to explore possible implications this content has on mood. As noted, mood is known to have an impact on both physical health and wellbeing, therefore understanding if mental health content can influence mood is particularly important (Leger et al., 2021; Ortiz et al., 2017; Steptoe et al., 2005), especially due to the billions of mental health-related posts available on TikTok (Saha et al., 2019; Zenone et al., 2021). Existing findings have also yet to explore overall perceptions of symptoms-based content.

There have also been some initial studies conducted in the area that examine influencer relationships, including methods for maintaining authenticity, such as disclosing personal

information (Berryman & Kavka, 2018), but also the influence of parasocial relationships on purchasing intent, believability and authenticity (Lou & Kim, 2019). Furthermore, investigations into mental health conversations online via YouTube and Instagram have included both benefits and possible problems associated with this too (Berryman & Kavka, 2018; McCashin & Murphy, 2023; Warwick, 2013). Adene and Stasiak (2024), have explored perceptions of influencers that post mental health content, with notable findings. This research will take a similar approach and will expand on these findings by also investigating specific content types (wellbeing, symptom) but also incorporate self-diagnosis and motivations for sharing this type of content.

Previous discussions in research have noted the increase of ADHD prevalence and the relationship between this and increasing social media messages about the disorder (Milton et al., 2023), including its relationship to people self-diagnosing (Gilmore et al., 2022; Yeung et al., 2022). Relationships between access to symptom-based mental health content online and self-diagnosis have been explored, with outcomes showing positive relationships between the two, with particular focus on disorders such as ADHD, Autism, BPD and DID (discussed in 1.3.6) (Dewak, 2023; Milton et al., 2023). Positives surrounding mental health content and self-diagnosis have also been noted via qualitative research; Milton et al., (2023) reports that mental health communities online are beneficial to social media users and help some people feel less alone. Their findings also reported limitations, as they only included video content the participants provided, therefore revealing a gap to explore still-image media but also a wider array of generalisable content. Equally, Dewak (2023) aligns with findings by Milton et al. (2023) by reporting that access to self-diagnosis content provided people with validation surrounding their feelings but have yet to understand motivations for self-diagnosis. Indeed, Underhill and Faulkes (2024) did uncover that people self-diagnosis due to a limited access to services, however their findings did not extend beyond this, thus detailing a gap to more

thoroughly explore motivations for self-diagnosis that extend outside of area-level and social economic issues. Though existing findings within this realm of research are insightful, current research has yet to examine how people interact with content on the platforms themselves via comment sections on mental health posts. For note, Underhill and Foulkes (2024) examined comments on Subreddits relating to self-diagnosis, however only 22% of people use Reddit, suggesting that the results are not generalisable and should be explored on a platform that is more popular. Furthermore, Gillmore (2022) did examine comment sections on TikTok in relation to mental health communities, including peer-support and mental health awareness. However, findings were only limited to one year (2021) and only 38 videos were included within their analysis. They also did not explore these comments sections in relation to self-diagnosis or ADHD.

Overall, limitations noted from existing findings illustrate that there was a gap in research to thoroughly examine mental health content on social media, to explore perceptions of mental health content as a whole, but also more individually in relation to symptom-based content. There were also gaps to understand if exposure to symptom-based content could impact positive and negative mood, which is important due to how moods impact on health and wellbeing. Online self-diagnosis research is still in its infancy and therefore warranted further exploration as whole but also gaps in research reveal that motivations for self-diagnosis also need to be discussed further. Finally, the use of the TikTok Application Programme Interface (API) for research has only been available in the UK since August 2023. This therefore detailed a gap in research to use this API to collect data from comment sections to be analysed on a large scale.

3.4.2 Overall aims and objectives.

The main aim of the thesis was to explore mental health and ADHD content that can often be found on social media. The thesis has a particular focus on symptom-based content,

with an effort to understand if accessing and exposure to this content has a negative effect, or negative perceptions. A secondary aim of the study was to further understand concepts that relate to mental health and ADHD content. This includes possible implications of exposure to content such as mood fluctuations, and online self-diagnosis, including possible motivations for this practice. The final aim was to further understand those that share this content, known as 'mental health influencers and the ethics surrounding financial gain for sharing content, but also perceptions of these influencers and possible motivations for sharing mental health and ADHD content.

3.4.2 Research questions applicable to this thesis.

As stated above due to lack of research into the role of mental health content on social media on individuals, the current thesis has the following research questions:

Research question 1: What effect does symptom-based content have on mood compared to other content types?

Research question 2: What is the perception of symptom-based content compared to other content types?

Research Question 3: What are people's perceptions of mental health influencers (including the monetary incentives for posting mental health content online)?

Research Question 4: What is the overall perception of, and motivation for, self-diagnosis (including any links to symptom-based content)?

Research Question 5: How and why do people interact and engage with mental health content online?

3.4.3 Study One: Quantitative study exploring the effects of different content types on negative and positive mood (RQ1, RQ2 & RQ5).

Some initial research has reported significant changes in anxiety levels after being exposed to anxiety-based content (Taylor, 2023), and exposure to content such as unrealistic body image

content, which have promoted a negative impact on mood (Fioravanti, 2023; Sanzari et al., 2023). Negative feelings have also been reported after exposure to mental health content, with some users feeling overwhelmed after exposure to content as a result of their algorithm (Milton et al., 2023). Further, Schluchter (2024) has reported participants' feelings of anger, anxiety and worry towards mental health content on TikTok, specifically when the algorithm highlights extreme content types (self-harm, suicide) which have the possibility of triggering negative responses in some.

In contrast, some research that explores mental health conversations online has highlighted positives, such as validation, due to the perceived increase in support and community forged through online social networks (Alper et al., 2023; Dewak, 2023; Ellison et al., 2007; Gallagher, 2022; Utz & Muscanell, 2015). Decreases in depressive mood after engaging with mental health content as a whole have also been reported (stories of recovery, awareness etc.), but this content was not specific to symptoms of disorders (Kourkoulou, 2023). Other than one study by Akil et al. (2023), no existing research has yet to understand the impact that symptom-based content may have on mood. Indeed, Akil et al (2023) report that those that were exposed to depression memes show increases in depressive mood compared to a neutral condition. However, no existing research has yet aimed to understand whether content that details symptoms of disorders, regardless of disorder, has an impact on positive and negative mood. Study one aimed to address that gap. Study one investigated the impact certain mental health content may have (symptom-based, wellbeing based and image only) on mood, with particular focus on symptom-based content (content that details symptoms of mental health disorders and ADHD). For note, Milton et al. (2023) detail this type of content as 'informational or clinical content' which was used to help facilitate the content conditions within the study. Due to the ever-increasing population accessing social media (see Dean, 2024), as well as the effect that mood has on wellbeing and physical health (Leger et al., 2021; Ortiz et al., 2017; Steptoe et

al., 2005); it was imperative that effects on mood and wellbeing were explored in relation to the content that people, particularly those that are considered vulnerable, are viewing. Furthermore, study one also aimed to understand the immediate perception of each of the content conditions to address gaps in research due to the conflicting perceptions relating to symptom-based content reported by Milton et al., (2023) and Schluchter (2024). Findings from this study may also help with the development of good practice guidelines for social media use.

3.4.3.1 Chosen methodology for study one: Quantitative study.

A quantitative approach was used for study one. The study consisted of a series of surveys, mood scoring and content exposure to simulate online mental health content found on social media (symptom; wellbeing; image only). Social media usage, mental health status and real time perceptions of content (negative, positive, neutral) were also recorded. The purpose of the study was to examine if different types of content were perceived in certain ways immediately after exposure, and if a single exposure point can influence mood. (See Chapter four, for full methodology, results, and discussion).

3.4.4 Study Two: Qualitative semi-structured interviews, including content exposure (RQ2, RQ3 & RQ4).

Previous research has explored the perceptions of mental health content online, as well as its links to self-diagnosis, and found that exposure to certain content types can produce negative feelings (Dewak, 2023; Gilmore et al., 2022; Milton et al., 2023; Schluchter, 2024; Taylor, 2023). However, these findings have reported limitations, such as the impact of influencer perceptions on results (Taylor, 2023); the diversity of the sample, due to limitations of data collected from the TikTok API; and use of only content creators in data collection (Schluchter, 2024); only using video media and content sourced from study participants (Milton et al., 2023); and limited data collected, leading to a lack of generalisability of findings (Gilmore et al., 2022). This provides a gap in research to further understand the perception of

symptom-based content in a qualitative manner, but also include a diverse sample of people that are not exclusive to content creators. Study two also aimed to address the gap in relation to content by providing examples that were sourced through a rigorous selection process in an attempt to be more generic and less biased.

It has also been equally suggested that there are positive benefits to seeing mental health content that is relatable, which in turn provides a sense of belonging and community (Alper et al., 2023; Gallagher, 2022; Ostendorf et al., 2022). Exposure to positive affirmations and mental health content such as recovery posts also yield benefits to its viewers (Dale et al., 2022; Pavlova & Borkers, 2020; Roberts, 2018). However, relatability of content can also lead to replicative behaviours as noted in Social Learning Theory (Bandura, 1977). As well as perceptions of symptom-based content, study two also aimed to understand the overall perceptions of wellbeing-based content. Existing research has yet to explore thoughts about the types of content that would be suitable for those in a mental health crisis; study two aimed to address this gap by asking participants what type of content they would deem as being suitable.

Indeed, there have been previous efforts to explore perceptions of self-diagnosis, as well as the perceived benefits and detriments associated with it (Alper et al., 2023; Gallagher, 2022; Monteith et al., 2024; Müller-Vahl et al., 2022; Robertson & Harrison, 2009). However, there is limited research that has used semi-structured interviews to discuss self-diagnosis, with particular focus on using online content to self-diagnose. Dewak (2023) has produced results discussing self-diagnosis from a qualitative study, and how this type of content can influence its viewers. Although their findings are insightful, their findings were only specific to self-diagnosis content and did not discuss mental health content as a whole. They also did not investigate perceptions of mental health influencers. Dewak's (2023) findings also revealed an evidence gap in relation to motivations for self-diagnosis. Underhill and Foulkes (2024) did report that barriers to accessing care were an influencer for self-diagnosis, however research

has yet to understand other motivations for self-diagnosis outside of area level factors. Study two aimed to address this gap.

Some existing literature has previously explored social media influencers and parasocial relationships, including the problematic nature of crying videos on YouTube (Berryman & Kavka, 2018; Marwick, 2013; McCashin & Murphy, 2023). Adeane and Stasiak (2024) have also explored users' perceptions of influencers sharing mental health content and found that people question the authenticity of these influencers, particularly when sponsorships are involved. They also highlighted that people are likely to trust content created by 'professionals' regardless of whether they were accredited. However, there were limitations such as the generalisability of the findings. Their findings also only discussed influencer content in relation to financial incentives and sponsorships, but did not thoroughly explore the perceptions of influencers in relation to deceptive content. They also did not discuss the influencer role in self-diagnosis or symptom-based content, all of which were explored in study two.

Qualitative research including content exposure (using a video or image in the interview process) is also limited; Milton et al. (2023) required their participants (TikTok content creators) to attend the interview with their own examples of mental health content that (1) they enjoyed, and (2) they felt did not fit within the remit of mental health. Study two aimed to build on these findings by incorporating an array of different types of mental health content (symptom-based, wellbeing, and image only) to help direct conversations as well as providing evidence as to what is meant by 'mental health content'. This also addressed limitations from Milton et al., (2023) as they only made use of content sourced form participants, but also only used video contents which are not easily generalisable. Findings in study two that are sourced from conversations after the content exposure were tailored to positive and negative perceptions. Therefore, study two aimed to provide novel insight into perceptions of different

types of content being shared across social media platforms. Furthermore, this knowledge sourced from findings will provide support that may influence good practice guidelines or disclosures around monetary incentives on social media. It will also provide evidence as to whether further mental health literacy and educational materials should be developed to support those that engage with mental health content online.

3.4.4.1 Chosen methodology for study two: Qualitative semi-structured interviews with content exposure.

Study two consisted of qualitative semi-structured interviews with a content exposure. Interviews consisted of a series of questions relating to the participants social media use and what type of mental health content they see online, followed by exposure to three types of content (symptom, wellbeing, image only). Open ended questions were then asked after each type of content exposure to understand feelings and perceptions towards the content shown. Final questions were to discuss social media influencers and self-diagnosis. The purpose of this study was to explore views and perceptions of mental health content, and to collect rich, novel data regarding mental health influencers self-diagnosis, and online mental health content. (See Chapter five, for full methodology, results, and discussion).

3.4.5 Study Three: Mixed-methods analysis of TikTok videos, users, and comments using the research application programming interface (API) (RQ4 & RQ5).

TikTok, and corresponding research, is still in its infancy with research revealing both the benefits and reported issues that are associated with using the platform (Carbran, 2020; Campana, 2022; Medium, 2020; Su et al., 2021). Explorations into biological and cognitive effects of the app's usage have included similarities to other addictive behaviours (Ahmed et al., 2022; Su et al., 2021). Others have noted vast amounts of misinformation seen on the app, particularly with ADHD (Yeung et al., 2022). A rise in online trends, such as TikTok trends, have also been reported which include self-disclosure of trauma, or taking part in risky tasks

(Bonifazi et al., 2022; Bukhra et al., 2019). The app has also been known to have revived previous trends such as that of the blue whale challenge; where people are being influenced into self-harm and suicidal behaviours (Khasawneh et al., 2020). TikTok has also been known to have ethical issues that are associated with the app's 'For You Page' such as content moderation, data regulation, safety online and the ethics that are involved with online advertisement (Singhal et al., 2023; Scalvini, 2023). The quantitative element of this study sourced data from the API to understand the popularity of mental health, ADHD and self-diagnosis content across three years to compliment the qualitative data that was also sourced and analysed. The purpose of this was to address gaps to understand what type of content was more popular at what time point and which type of content has remained more stable across the time points. Currently, no existing literature had explored API data in this manner, which study three aimed to address.

Research has yet to fully examine mental health communities that may be located within comment sections of mental health posts. Indeed, Gallagher (2022) did explore mental illness related content on TikTok through a content analysis and found that mental health illness communities within comment sections are seen to be positive. As such, users can feel empowered by creators sharing their stories and dialogues, celebrating their victories and raising awareness. However, findings in were only limited to one year (2021) and only 38 videos were included within their analysis. This therefore provides a gap to explore these communities in more depth over a longer period with a larger dataset. Study three aimed to do this with the use of the researcher API. It was deemed important to further understand these communities as TikTok is known to be a platform where people may source their information for a diagnosis (Gilmore et al., 2022). Further, Gallagher (2022) also did not investigate these communities or comment sections in relation to perceptions of self-diagnosis, which study three aimed to address. Equally, no research has yet to thoroughly understand motivations for

self-diagnosis. Indeed, Underhill and Foulkes (2024) have previously examined subreddits (forum pages on the platform Reddit) to understand their perceptions of self-diagnosis through secondary data collection. They found that people had mixed perceptions of self-diagnosis and believed it should only be a used in advancement of a formal dialogises. Some users did however understand that due to some area level factors, self-diagnosis is the only option for some due to access to and cost of services. However, other than an access to and cost of services, this and other research has yet to understand other possible motivation or reasons for self-diagnosis. Study three aimed to address this gap by exploring self-diagnosis related comment sections. The use of the researcher API for TikTok has only been available in the UK since August 2023. Other countries have had access to the API in advance of this, however some countries have restrictions on what content can be accessed. For example, Schluchter (2024) used the API to understand how the API worked, however did not use the API to source data from comments sections. No other research is known to have used the API for qualitative data in relation to mental health, ADHD and self-diagnosis.

3.4.5.1 Chosen methodology for study 3: Mixed-methods analysis of TikTok videos, users, and comments using the research application programming interface (API).

Study three utilised a mixed-methods analysis. The TikTok researcher API was used to source content from three time periods (July 2021, 2022 and 2023) under the hashtags #Mentalhealth, #Depression, #Anxiety, #ADHD, and #Selfdiagnosis. Comment sections, video descriptions and bios (biographical information displayed on users' profiles) were collected from one-hundred videos per hashtag per time period. Descriptive data was collected and analysed from the API (comments, likes, shares, views and verified status). Qualitative data from the comment sections were explored inductively, via thematic analysis (Braun & Clarke, 2006; 2021). The purpose of this study was to understand how social media users on TikTok interact with mental health and ADHD content. Study three also aimed to understand

perceptions of online self-diagnosis by examining comment sections within self-diagnosis online content, as well as to attempt to uncover motivations for self-diagnosis (See Chapter six, for full methodology, results, and discussion).

Chapter Four: Study one. Quantitative study exploring the effects of content exposure on mood fluctuations.

4.1 Chapter introduction.

The purpose of this chapter is to detail the aims, objectives and research questions of study one. The chapter will report the study methodology, statistical plan, results, and findings that were utilised. Discussions debate effectiveness of the study and its design in answering the research questions and aims.

4.2 Research rationale, aims, questions, and hypotheses.

4.2.1 Research rationale for study one

Whilst some existing research has noted negative emotional responses to exposure to mental health symptom related content – including increases in anxiety symptoms, feelings of being overwhelmed and/ or distress (Milton et al., 2023; Schluchter, 2024; Taylor; 2023). Others have shown a more positive affect; including increases in community, affirmation and validation (Alper et al., 2023). Nevertheless, prior research has yet to understand the impacts on mood via positive and negative affect after exposure to symptom related mental health content. Indeed, Atkil et al., (2023) reports increases in depressive mood after exposure to depression memes. Study one aims to expand on this by examining a wider range of content, with a focus on positive and negative affect rather than clinical symptoms. Due to the ever-increasing social media population globally (Dean, 2024), along with the reported links between mood, health and wellbeing (Leger et al., 2024); study one aims to address inconsistences in prior findings to provide a more detailed insight to support social media guidelines and future research endeavours.

4.2.2 Research aims.

The overall aim of study one is to understand whether exposure to symptom-based mental health (and ADHD) content impacts short term- mood state, in comparison to the wellbeing-based content and the control 'image only' condition (in which participants view only images that are not related to mental health, see more on pg. 63). The study also aimed to investigate whether participants had more negative associations to symptom-based content compared to wellbeing-based content and an image only group. Finally, the study attempted to understand if current mental health state could be a contributing factor towards mood fluctuations.

4.2.2 Research questions.

The research questions that are applicable to study one are:

Research question 1: What effect does symptom-based content have on mood compared to other content types?

Research question 2: What is the perception of symptom-based content compared to other content types?

Research Question 5: How do people interact and engage with mental health content online?

4.2.3 Research hypotheses.

As indicated within existing literature, mental health content is becoming increasingly prominent on social media platforms. It has also been reported that mental health-based hashtags are dominating these platforms, with millions of people engaging with these posts (Yeung et al., 2022). With that in mind, it was hypothesised that:

Hypothesis 1: People will report that they see large quantities (more than 5 posts per week) of mental health content online.

Further, social media is considered by some to be addictive, and tailored algorithms informed by users' preferences can increase social media intensity (Ahmed et al., 2022; Griffiths, 1997; 2016, Marks, 1990; Marlatt et al.,1988). Indeed, social media usage has been linked with excessive consumption and phenomena such as problematic social media usage (PSMU) (Bányai et al., 2017; Shannon et al., 2022). Further, Tibber and Silver (2022) suggested that those that are mentally unwell may use social media more problematically. Therefore, it was hypothesised that:

Hypothesis 2: Increased general distress, anxious arousal and anhedonic depression will be a significant predictor for social media usage intensity.

Social learning theory details that behaviour is learnt vicariously (Bandura 1971;1977; Strasser-Burke & Symonds, 2020). Therefore, it can be recognised that exposure to relatable symptoms may in turn promote replication of this behaviour or adopting of these symptoms (Bandura, 1977; Lockwood & Kunda, 1997; Marx & Ko, 2012)**.** Akil et al. (2022) revealed that, when exposed to depression memes, participants reported significant increases in depressive mood when compared to viewing a neutral condition. Equally, Taylor (2023) previously reported how exposure to anxiety-based content increased anxiety levels after a single exposure point. Exposure to certain content (such as retouched body images, self-harm content) has also been associated with negative implications for the consumer, such as decreases in mood (Fardouly & Vartanian, 2016; Fioravanti, 2023; Orth, Maes & Schmitt, 2015; Sanzari et al., 2023; Vincente-Benito & Del Valle Ramirez-Duran, 2023; Woods & Scott, 2016). Indeed, websites that detail symptoms of both physical and mental health disorders have been linked to cyberchondria, health anxiety and a 'self-fulfilling prophecy' (Foulkes & Andrews, 2023; Starcevic et al., 2020) which may result in a manifestation of symptoms for some. Negative perceptions towards these topics are reported to be due to relating to 'negative' symptoms of disorders as well as self-stigma (Ahad et al., 2023; Kroska & Harkness, 2008).

This also aligns with Milton et al., (2023) who suggests that over-exposure to mental health related content via the TikTok 'For You' content page can be 'overwhelming' to the viewer, due to the algorithm 'forcing' this content on them. This is also reflected in findings by Schluchter (2024), who suggest that people are often provided information on their 'for you' page that may be detrimental to those that are vulnerable. In contrast, some social media activity relating to mental health has also been associated with increases in positive mood due to increased social support and a greater sense of community (Ahmed & Samuel, 2017; Alper et al., 2023; Gallagher, 2022; Milton et al., 2023; Schluchter, 2024). Positive outcomes, such as increases in positive mood and increased wellbeing, have also been noted after exposure to self-help strategies and positive affirmations (Arquiza, 2020; Taylor et al., 2021). Therefore, it was hypothesised that viewing different types of content online will result in different levels of mood fluctuations, as well as affect perceptions of this content:

Hypothesis 3: **(a)** Symptom-based content will yield either significant decreases in positive mood or increases in negative mood and **(b)** wellbeing-based content will yield either significant increases in positive mood or decreases in negative mood.

Hypothesis 4: **(a)** People will self-report significantly more negative associations to the symptom-based content and **(b)** people will self-report significantly more positive associations to the wellbeing-based content.

Finally, due to individual differences, and the vulnerability associated with mental illness, it can be speculated that those that are mentally distressed may interpret what they see online differently than those that are not (Fueston & Piper, 2018). Although it has been reported that people have a preference to engaging with mental health content online after diagnosis to viewing this prior to diagnosis (Fergie et al., 2018), this does not confound for those that have not yet had a diagnosis or are not aware they are unwell. Therefore, it was hypothesised that:

Hypothesis 5: There will be a significant difference in mood between those in the low mental distress group compared to the high mental distress group. Research does not dictate a direction for the hypothesis but that differences may occur.

4.3 Methodology.

4.3.1 Design

A multi-factorial design (2x3x2), with both between and within subject variables, was utilised for the entirety of the analytical approach. Three Independent variables (IV): (1) within subjects; observation point with two levels; pre-exposure and post exposure: (2) between subjects; content exposure condition had three levels (symptom-based content; wellbeing-based content; image-only content): and (3) between subjects; current mental health state (as indicated by the MASQ-D30) which had two levels (higher mental distress and lower mental distress). The design also incorporated three dependent variables (DV): (1) positive affect, and (2) negative affect (measured by PANAS score); and (3) subjective self-reported perception of content (positive; negative; neutral).

4.3.2 Participants and recruitment.

G*Power 3.1 (Faul et al., 2007) was used to facilitate a priori power analysis, supported by Cohen's (1992) power recommendations. The purpose of this was determine the required sample size for the mixed-design ANOVAs. A medium effect size (f = 0.25) was assumed, with a power of 0.80 and an alpha level of 0.05. Therefore, the estimated total sample size was 171 participants. Baseline assessments were completed by 232 participants in total; 12 were excluded due to not completing the surveys correctly or having missing data. The remaining 220 completed the required surveys and tasks. Therefore, more participants were recruited than required according to the power analysis, resulting in an observed power of between 0.91-0.93.

Participants were aged between 18-68 years with a mean age of 25.32 years (SD 9.82), of which 198 participants (85.3%) were female, 18 (7.8%) were male, three (1.3%) were non-

binary or third gender and one participant (.4%) selected "other". Of these participants, 60 (25.9%) reported that they had a diagnosed mental health disorder (MHD), 42 (18.1%) reported they have self-diagnosed or suspect they have a mental health disorder and 118 (50.9%) reported that they do not have a mental health disorder.

The study only accepted those aged over 18 years old. Further, those in a mental health crisis were advised, via the recruitment text and information sheet, not to take part and seek help from support services. Participants were recruited via both opportunity and snowball sampling methods (Naderifar et al., 2017; Suen et al., 2014). The lead researcher's (KS) social media accounts were used to support recruitment via Facebook and Instagram. Online recruitment was the preferred method for data collection as it has been noted to be a cost-effective, quick and convenient way to recruit potential participants (Smith et al., 2012; Warmerdam et al., 2010). Moreover, the anonymity of online data collection provides a more comfortable place for self-disclosure in some of the more sensitive aspects of the survey (Maloni et al., 2013). Participants were also recruited via the supervising university's (Birmingham City University) Research Participant Scheme (RPS) platform[1]. LinkedIn and the researcher's (KS) in-person promotion via professional and personal networks were also utilised for recruitment. Qualtrics and the Gorilla Experiment Builder (www.gorilla.sc) were used to create and host this project (Anwyl-Irvine et al., 2018; Qualtrics, Provo, UT).

4.3.2 Measures

The survey incorporated a demographic survey which measured age and gender, as well as disclosure of mental health status (MHD diagnosed by a health care professional; self-diagnosed with an MHD or suspected diagnosis; no MHD at all) which were only used for demographic purposes.

[1] A platform used by the university psychology department, which allows for undergraduate students to gain 'points' for taking part in research which will then allow for them to have more participant slots for their own undergraduate dissertation in the future

4.3.2.1 Content used for exposure.

4.3.2.1.2 Sample, coding procedure and search strategy.

Content conditions were selected and developed from outcomes reported by Milton et al. (2023). Mental health content in their study was classified as: (1) Informational or Clinical Content which discusses symptoms of disorders, therapies, treatments and the more clinically significant parts of mental health; (2) Pragmatic content; which was not specific to mental illness but how aspects of this content (mental health) impacted the participants lives; (3) Comfort content which was not specific to mental health, and not directional in nature but related to the individual (examples reported were kittens/ puppies but were not exclusive to animals).

Due to the lack of research involving content exposure in a mental health context, research that used similar methodologies in relation to body image influenced the study design. Previous body image studies have included up to 30 images per condition, resulting in statistically significant findings (Nelson et al., 2022; Cohen et al., 2019; Tiggermann & Anderberg, 2020). However, Braithwaite et al. (2022) used 10 stimuli per content condition for their study, which also presented statistically significant findings. Therefore, the current study also utilised 10 images per content condition; a smaller image sample was a preferred choice to keep data collection shorter and maintain participant engagement (Stantcheva, 2023).

To obtain the images for the content conditions, a detailed search strategy was employed for all three levels. At the time of study conception (2022-2023), still image media was the preferred choice for sharing information via social media. Both Pinterest and Instagram were used to source the images for the symptom-based and well-being-based content conditions. Pinterest is an application used for sharing images in the form of digital ‘pinboards’, with billions of images available to pin, save and share (Pinterest, 2024). Instagram provides an ‘explore’ function where you can search for images using hashtags or words within the captions

associated with the images. Although TikTok was increasing in popularity at the time, Facebook and Instagram were the more popular platforms (Buchholz, 2022). Search terms were inputted into the search functions for Instagram and Pinterest and the first 10 images for each of the search terms were pooled for review. Each of these images were then reviewed for suitability, with 10 images being selected for each condition (see inclusion and exclusion for each content condition). All content used in study one can be found in appendix 1.0.

Symptom-based content: These were developed further from Milton et al. (2023) and their 'Informational and Clinical Content'. Search terms included 'mental health' which was chosen as the main topic of interest for the thesis is mental health; this term also encompasses a wide range of content due to not being diagnosis specific. 'Anxiety' and 'depression' were selected as anxiety and depression are the most prevalent or 'common' mental health disorders (NHS England, 2023). Anxiety and depression also represent the subscales of the MASQ-D30 (discussed later in this section). 'ADHD' was selected due to the current positive relationship between ADHD and increased self-diagnosis in existing research (Gilmore et al., 2022). 'BPD' was selected due to the similar and overlapping symptomology associated with ADHD and BPD (Philipsen, 2006; Matties & Philipsen, 2014).

Existing research reports how people that relate to experiences of others are likely to self-diagnose (Bippert, 2023; Milton et al., 2023; Gilmore et al., 2022). Content included within the symptom-based content condition specifically discussed symptoms of mental health disorders and ADHD. Content selected was intended to be presented as personable and representative of 'typical' life experience and was intentionally vague and generalisable to other experiences separate from diagnostic criteria (Dewak, 2023). Each image was reviewed to confirm that the content was appropriate for the condition. Inclusion criteria included content that discussed symptoms of mental health disorders and ADHD. Symptoms included in content are comparable with ICD-10 and DSM-5 but also referred to typical life experiences (APA,

2013; WHO, 2019). Examples included trouble sleeping, overindulgence, feeling unable to speak up, negative self-talk among others. Exclusion criteria was content that was specific to ICD-10 or DSM-5 wording and was not comparable to lived experience.

Wellbeing-based content: Developed further from Milton et al. (2023), 'Pragmatic content' search terms included the term 'positive affirmations' which was selected due to existing research that detailed how positive affirmations significantly increased self-esteem and wellbeing (Arquiza, 2020). 'Self-help & self-care' was selected due to the noted significant increases in wellbeing scores seen for those that use self-help strategies (Taylor et al., 2021). The term 'inspirational quotes' was also selected; Dale et al. (2020) found that people are inspired by this type of content, which in turn encourages them to share this content with others, with particular focus on 'overcoming obstacles'. Each image was reviewed to confirm that the content was appropriate for the condition: inclusion criteria comprised of content that included the words 'positive affirmations', 'self-help', 'self-care' and 'positive'. Content that included quotes that detail how to overcome a negative experience as well as quotes that reflect 'overcoming obstacles' was also included. Finally, content that is directed at the viewer, e.g. 'you can do this' or 'your thoughts matter' was included. Exclusion criteria included any content that is specific to mental health, not supportive in nature or specific to treatment or medication. Content was also excluded if it discussed problematic coping strategies (e.g. drinking, drugs, risky sexual behaviour).

Image-only content: This was developed further from Milton et al., (2023) and their 'comfort content'. This content was designed to be more neutral but may also be a positive or negative experience for the viewer depending on how they perceive the content (Fueston & Piper, 2018). The content was chosen at random; 25 random items and animals were inputted onto a spin wheel (https://wheelofnames.com/) and the first 10 that were chosen were used in the search strategy (see appendix 2.0 for the list of 25 words). The items and animals selected

were boat, dog, cat, tree, sun, river, cheese, motorbike, car and mountain. Google image search was used to source the images (creative commons license). The first image presented in the search was used unless the image was not of the chosen item or animal. Inclusion criteria used was to ensure the image was of the chosen item or animal, the image was of a good quality, and the image could not be considered another item or animal. The exclusion criteria included images that contained words, including words that may harbour a more subjective meaning as this content condition was intended to be neutral.

Figure 2 - Examples of content shown (left to right: Wellbeing, Image only and Symptom)

4.3.2.2 Scales and questionnaires.

Self-reported perception. Following exposure to the content (symptom; wellbeing; image only) the participants were asked what their perception was of this content. The question asked was *'How did this content make you feel?*' with the options of '*positive'*, '*negative'* and '*no feelings whatsoever*'. The purpose of this is to explore in real time how the participant perceives this content to be immediately after the single exposure point.

General distress, anxious arousal and anhedonic depression. The Mood and Anxiety Symptoms Questionnaire (MASQ-D30) (Wardenaar et al., 2010) was used to measure anxious arousal, anhedonic depression and general distress prior to content exposure. The MASQ-D30 was chosen over the Full-MASQ as it has shown better validity in younger adult participants (Lin et al., 2014). The MASQ-D30 is a shorted more concise version of Full-MASQ (90 items), but still shows excellent discriminant validity in other studies ($r = 0.45$; Johnson & Saunderson,

2023). The purpose of using a more concise scale was to facilitate better participant engagement during data collection (Stantcheva, 2023).

The MASQ-D30 consists of three collective factors: general distress, anxious arousal and anhedonic depression. 'General distress' reflects the more general symptoms such as anxiety, depression, and somatic feelings that relate to mental distress. 'Anxious arousal' represents specific features of anxiety such as somatic hyperarousal. This includes sleeping problems and finding it hard to concentrate. Finally, 'anhedonic depression' is described as loss of energy and positive affect (Lin et al., 2014). The MASQ-D30 is a 30 item, Likert scale-based questionnaire. Items include '*How often have you felt inferior to others?'* or '*How often have you felt worthless/ confused/ hopeless?*' on a scale of 1-5: *not at all* (1), *a little bit* (2), *moderately* (3), quite *a bit* (4) *or extremely* (5). These scores can be assessed individually for each of the tripartite dimensions, each scoring between 10-50, with higher scores indicating higher levels of each of the corresponding dimensions. The three dimensions can also be combined to produce an overall score between 30-150 (Bate et al., 2022). These scores were adapted into a categorical variable of low and high scores. Those that scored higher than the mean/median (equal to or more than 63) were categorised into the higher mental distress group, and those that scored lower than the mean/median (less than 63) were assigned to the lower mental distress group. Both approaches were used in the analysis. Internal consistency for the current study data was excellent, $\alpha = .840$.

Positive and Negative affect. The 20 item Positive and Negative Affect Scale (PANAS) (Watson et al., 1988) was used to assess participants' mood before (baseline) and after exposure to the assigned content condition. The purpose of using the PANAS was to track real time mood fluctuations after exposure. Participants responded to each of the 20-items using a 5-point Likert scale ranging from 0 (not at all) to 5 (extremely); example items include '*How often in the last two weeks have you felt scared?*' and '*How often in the last two weeks have you felt*

excited'. The scale has both negative and positive items; a high score on the positive items represents a higher positive mood, and a higher score on the negative items indicates a higher negative mood. The scale has previously shown excellent reliability and validity (Crawford & Henry; 2004). Reliability for the current study data was excellent, α = .802.

Current social media usage and engagement in mental health content. The Social Networking Activity Intensity Scale (SNAIS) (Li et al., 2016) was used to measure the participant's social media usage. This scale was preferred as it tracks the usage of social media from the week to the hour and considers platforms other than just Facebook (Li et al., 2016). Additional questions were included to capture mental health content engagement as part of the SNAIS; these were: (1) *How often do you see mental health content on social media? and* (2) *How many mental health posts do you see in a week?* The scale is scored by adding up the total, with a higher score indicating a higher level of social networking activity. The SNAIS showed excellent reliability for the current study, including the additional questions, α = .820.

4.3.2.3 Post exposure Video.

The purpose of the post exposure video was to stabilise participant mood; this was provided to participants after exposure to their assigned condition, and after completing the post-exposure PANAS scale. This video consisted of upbeat music to regulate or increase mood, and was provided as some of the content was expected to decrease positive or increase negative mood, and therefore these contingencies were put in place to regulate the participant to their baseline mood state. (See appendix 3.0 for the video link).

4.3.3 Ethical considerations.

All participants were treated in accordance with the British Psychological Society's code of conduct (BPS, 2021) and ethical approval was granted from the university's (Birmingham City University) ethical review committee (Saunders /#10002 /sub4 /R(B) /2022 /Jul /BLSS FAEC. See appendix 6.1). Due to ethical considerations, recruiting children and

adolescents under 18 for observational studies (informed and parental/guardian consent procedures), as well as the exposure to sensitive content, a decision was made to only recruit those that are over 18 that can provide their own informed consent. Sensitive content warnings were provided to the participants prior to taking part, advising those in a mental health crisis not to take part due to the nature of the content, and peri-study disclaimers were also provided prior to the content exposure page. An on-screen debrief was also provided to every participant, which detailed the aims and potential impact of the research, the supervisory team's contact details, and details of appropriate support services.

4.3.4 Procedure.

After viewing the study advert via social media or the RPS scheme, participants followed a link that directed them to the survey**.** A participant information sheet (appendix 4.1) and consent form (appendix 4.2) were provided to the participant electronically via the survey platform (Qualtrics & Gorilla). At the end of the consent form, participants were asked to create a participant ID: a random word of choice followed by 3 numbers (e.g., TEST123). Participants answered demographic questions, followed by the MASQ-D30 (Wardenaar et al., 2010), the SNAIS (Li et al., 2016), and the initial baseline PANAS (Watson et al., 1988). After the baseline PANAS, participants were randomised into their allocated content condition using a randomiser tool on the data collection software programme. Once the participant had been exposed to their assigned condition (symptom; wellbeing; image-only), they were shown a series of 10 images (see appendix 1.0) and then asked their perception of the content (positive, negative, neutral). The participant was not able to progress to the next stage of the survey until 60 seconds had passed, to allow for ample time to view the content and report their perception. After content exposure, participants were required to complete the PANAS scale again. Finally, participants were advised to watch a video with mood boosting music (time delay of 30 seconds). They were then provided with an on screen debrief (appendix 4.3) with researcher and supervisory

contact information, contacts for support services and a brief outline of the anticipated study outcomes.

4.3.5 Statistical analysis

Data were extracted from the corresponding survey platform (Qualtrics, Gorilla) via CSV (MS Excel files). The information within these outputs were surveyed to check for missing data, as well as false data entry. These data sets were then imported onto SPSS (29) for analysis.

4.3.5.1 Social networking activity intensity scale (SNAIS), and subscales of the MASQ-D30 (anhedonic depression, anxious arousal, and general distress).

Data was collected from the answers on the SNAIS scale to understand how people use social media and how often they engage with mental health content. SPSS Frequencies function was used to facilitate this.

A hierarchal regression was conducted to understand if the three dimensions of the MASQ-D30 (anhedonic depression, anxious arousal, and general distress; mental health state) could predict social media usage. A hierarchical regression was chosen as it allows for a two-step approach and age was included as a variable to make the data more robust. By including age as variable, this accounts for its influence on the results as a confounding variable (Schneider et al., 2010). The two-step approach allows for the regressions to be observed with the testing variables (MASQ-D30, SNAIS) separate from the additional age variable, as well as combined.

4.3.5.2 Additional confirmatory analysis: MASQ-D30 subscales (anhedonic depression, anxious arousal, and general distress) and content condition group (Symptom, wellbeing, image only).

The purpose of this additional analysis was to confirm that each of the randomly allocated content condition groups displayed a varied spectrum of mental health distress levels.

This was to ensure that mental health distress levels were consistent between groups. Descriptive statistics displayed that data was not normally distributed, therefore a non-parametric (Kruskal Wallis) was the chosen statistical test for this analysis.

4.3.5.3 Confirmatory correlations, PANAS positive and negative for pre and post exposure.

Although the scales on the PANAS are separate dimensions, previous research identified these as negatively correlated dimensions, meaning that when positive mood increases, negative mood decreases (Crawford & Henry, 2010). Therefore, it was deemed necessary to confirm the present study data fits this narrative. A bivariate correlation was conducted between positive and negative affect, for pre-exposure and post exposure, to confirm that there were significant negative correlations between these variables.

4.3.5.4 Content conditions (Symptom, wellbeing, image only), trait and state mood (PANAS), and high and low mental distress (MASQ-D30).

Statistical tests were conducted exploring the pre- and post-PANAS scores for positive and negative affect, in relation to the assigned content condition, as well as also introducing the high and low mental distress variable. Data frequencies were explored for the MASQ-D30 combined scores to collect the mean (63) and the median score (63), to facilitate the creation of the categorical variables low mental distress (less than 63), or high mental distress (63 or more). Descriptive statistics were run to check the assumptions for normality, in this case data was not normally distributed in relation to skewness, kurtosis and normality plots (Kolmogorov-Smirnov, $p < .050$). Although there are individual non-parametric tests that could be run to find the main effects for the desired outcomes, two mixed ANOVAs (one for negative PANAS and one for positive PANAS) were deemed the test of best fit due to their ability to provide both main effects and interactions. Mixed ANOVAs are a robust test that are deemed suitable for violations that are not extreme (Glass et al, 1972). Profile plots for significant interactions were also generated. Main effects consisted of within and between effects for the

content condition and the pre- and post-exposure scores. Further main effects were explored for the mental health distress status, content condition and the pre and post exposure PANAS scores for both positive and negative affect. Interactions were also examined between (1) pre- and post- scores for positive and negative affect and (2) pre and post scores for negative and positive affect in relation to mental health distress status.

4.3.5.5 Self-reported positive and negative perceptions of the three content conditions.

As well as exploring positive and negative mood fluctuations, self-reported perception was also examined regarding allocated content condition. A chi-squared test of association was conducted to facilitate this. This analysis was chosen to complement the outcomes of the ANOVAs by exploring 'real time' perception of the content.

4.4 Results

4.4.1 Social networking activity intensity scale (SNAIS), and subscales of the MASQ-D30 (anhedonic depression, anxious arousal, and general distress).

Research question 5: How and why do people interact with mental health content on social media?

Hypothesis 1: That people will report that they have seen large quantities of mental health content. ***Hypothesis 2:*** Increased general distress, anxious arousal and anhedonic depression will be a significant predictor for social media intensity.

4.4.1.1 Descriptive statistics and narrative analysis for SNAIS scale.

Firstly, the Social Networking Activity Intensity Scale (SNAIS) (Li et al., 2016) descriptive data were analysed to assess the participants' current social media usage, their preferred platforms, the devices they use, and their main purpose for using social media (Table 1). Participants were also asked how frequently they see mental health content when they are online (Table 2), as well as how many posts they see.

Table 1 - *Description of sample characteristics: Social Networking Activity Intensity Scale (SNAIS).*

Domain	**(*n* = 220)**
Social media preferred platform	
Facebook	32 (14.5%)
Instagram	50 (22.7%)
Snapchat	36 (16.4%)
TikTok	84 (38.2%)
Reddit	1 (.4%)
Twitter	9 (3.4%)
Other	8 (3.4%)
Social networking characteristics	
Device used for social networking	
Personal computer	11 (5%)
Smartphones	204 (92.7%)
Other	5 (2.3%)
Purposes for using social networking	
Keep in contact with friends	55 (25.0%)
Entertainment	150 (68.2%)
Other	15 (6.8%)
Duration of social networking use	
<3 months	2 (9.9%)
3–6 months	0
7–12 months	3 (1.4%)
1–2 years	5 (2.3%)
>2 years	210 (95.5%)
Amount of time/day	
<10 mins	3 (1.4%)
11–30 mins	14 (6.4%)
31–60 mins	45 (20.5%)
>60 mins	158 (71.80%)
Number of social networking friends	
<50	36 (16.4)
51–100	28 (12.7%)
101–200	33 (15.0%)
201–400	38 (17.3%0
>400	85 (38.6%)

Descriptive statistics from the SNAIS reveal that TikTok was the most popular platform (38.2%), with Instagram being second most popular (22.7%). Most participants used

smartphones to access social media (92.7%) and used social media mainly for entertainment purposes (68.2%). Most participants had been active on social media for longer than two years (95.5%), use it for more than an hour a day (71.8%), and have more than four hundred friends/followers (38.6%).

Table 2 - *Shows percentages of responses for the added elements to the SNAIS for the previous week*

Domain	**Response**	**(n = 220)**
How often do you see mental health content online?	Not at all	12 (5.5%)
	A little	78 (35.5%)
	Moderately	71 (32.3%)
	A lot	47 (21.4%)
	Always	12 (5.5%)
What is the average number of mental health posts you have seen in the last week?	None	33 (15%)
	1-3	117 (53.2%)
	3-5	44 (20%)
	More than 5	26 (11.8%)

When exploring participants' exposure to mental health content via the SNAIS additional questions, it is highlighted that most saw 'A little' amount of mental health content (35.5%). Most participants reported seeing 1-3 mental health-based posts within the last week (53.2%).

4.4.1.2 Correlations and hierarchical regression to examine whether subscales of the MASQ-D30 are predictors of social media intensity (with age included as a variable).

Table 3 - *The means and standard deviations across the included variables.*

Variable	**Mean**	**Standard deviation**
General distress (MASQ-D30)	25.75	8.58
Anhedonic depression (MASQ-D30)	28.07	7.85
Anxious arousal (MASQ-D30)	19.76	7.27
Age	25.31	9.82
Social media intensity (SNAIS)	43.39	10.08

Hierarchical regression analysis was conducted to examine whether age, and the three MASQ-D30 subscales (anhedonic depression, anxious arousal, and general distress) could be

a predictor to social media intensity (SNAIS). The study utilised a two-step hierarchal approach with the predictors in the following order. Step one, all three subscales of the MASQ-D30; anhedonic depression, anxious arousal and general distress were added and this model did not significantly predict social media intensity (R^2 = .028, Adj. R^2 = .014, F (3, 216) = 2.073, p = .105). The second stage included age as part of the model; this also revealed a non-significant model (R^2 = .029, Adj. R^2 = .011, F (4, 215) = 1.607, p = .174).

4.4.2 Content conditions (Symptom, wellbeing, image only), trait and state mood (PANAS), and mood and anxiety subscales (MASQ-D30).

4.4.2.1 Independent samples Kruskal-Wallis: To confirm that levels of anhedonic depression, anxious arousal and general distress were consistent across the three content conditions.

To ensure that levels of anhedonic depression, anxious arousal and general distress (MASQ-D30) were consistent across the three content conditions (symptom, wellbeing, image-only), a confirmatory independent samples Kruskal-Wallis test was conducted due to data not meeting assumptions for normality (Kolmogorov-Smirnov, $p < .050$). Table 4 shows means and standard deviations for levels of the MASQ-D30 across the three content conditions (symptom; wellbeing; image only).

Table 4 - *Means and standard deviations for the MASQ-30 subscale scores for the three content conditions.*

Content Condition	MASQ-D30 subscale	Mean	Standard Deviation
Symptom	Anhedonic depression	27.43	8.49
	Anxious arousal	19.19	6.44
	General distress	25.96	9.14
Wellbeing	Anhedonic depression	28.07	7.33
	Anxious arousal	19.04	7.06
	General distress	25.32	7.71
Image only	Anhedonic depression	28.76	7.61
	Anxious arousal	21.03	8.12
	General distress	25.89	8.75

Before conducting the Kruskal-Wallis, correlations among the dependent variables were conducted and a significant negative correlation was observed between general distress scores and Anhedonic depression (r_s = -.357, N = 220, p < .001, two-tailed). There were also significant positive correlations between general distress and anxious arousal scores (r_s = .642, N = 220, p < .001, two-tailed). However, there was no significant correlation between anxious arousal and anhedonic depression (r_s = -.072, N = 220, p = .286, two-tailed).

The Kruskal-Wallis run for general distress revealed a non-significant result between the three content conditions, $\chi 2$ (2, N = 220) = .207, p = .902. Results for anhedonic depression also yielded non-significant results between the three content conditions, $\chi 2$ (2, N = 220) = 1.18, p = .553. With the anxious arousal scores also reporting non-significant results, $\chi 2$ (2, N = 220) = 2.10, p = .348. Therefore, the null hypothesis can be retained as scores for the MASQ-D30 subscales detail consistency across the three content conditions.

4.4.2.2 Confirmatory correlations for PANAS negative and positive affect for pre and post exposure.

Confirmatory correlations were conducted to check for negative relationships between negative and positive affect pre- and post-exposure to content condition. For pre-exposure, there was a significant negative correlation between positive and negative affect (r = -.171, N = 220, p = .011, one tailed), but it was a weak correlation with only 3% of the variance explained. For post-exposure, there was also a significant negative correlation (r = -.186, N = 220, p = .006, one tailed) but this was also a weak correlation with 3% of the variance explained.

4.4.2.3. Means and Standard Deviations for the PANAS scales (positive and negative), the three Content conditions, and mental distress (high and low).

Table 5 *– Reports the means and standard devotions for the PANAS scores for content conditions without mental health distress as a variable.*

Variable	Group	PANAS (pre-exposure)		PANAS (post-exposure)	
		M	*SD*	*M*	*SD*
PANAS Positive	Symptom	32.44	8.04	30.79	9.29
	Wellbeing	31.56	6.53	30.23	7.81
	Image-only	31.83	6.64	30.83	7.07
PANAS Negative	Symptom	24.37	8.16	22.89	9.51
	Wellbeing	23.53	8.31	20.88	8.12
	Image-only	25.02	8.60	22.62	9.15

Table 6 - *Means and standard deviations for the PANAS positive and negative scales for the content conditions, and mental health distress.*

Mental health	Variable	Group	Mean	Standard Deviation
Low mental distress	PANAS (pre-exposure) positive	Symptom	33.19	8.01
		Wellbeing	31.33	6.97
		Image-only	32.00	6.15
	PANAS (pre-exposure) negative	Symptom	18.11	5.35
		Wellbeing	21.21	7.23
		Image-only	21.80	7.75
	PANAS (post-exposure) positive	Symptom	31.13	9.14
		Wellbeing	30.21	7.77
		Image-only	30.90	6.69
	PANAS (post-exposure) negative	Symptom	15.86	5.33
		Wellbeing	18.72	6.97
		Image-only	18.65	7.15
High mental distress	PANAS (pre-exposure) positive	Symptom	31.82	8.12
		Wellbeing	31.92	5.91
		Image-only	31.65	7.26
	PANAS (pre-exposure) negative	Symptom	29.53	6.23
		Wellbeing	27.16	8.73
		Image-only	28.82	8.07
	PANAS (post-exposure) positive	Symptom	30.51	9.52
		Wellbeing	30.28	8.04
		Image-only	30.76	7.60
	PANAS (post-exposure) negative	Symptom	28.67	8.21
		Wellbeing	24.24	8.76

Image-only	27.29	9.13

4.4.2.4 Changes in positive and negative mood between the three content conditions, pre and post exposure for PANAS (negative and positive), and mental distress.

Research question 1: What effect does symptom-based content have on mood compared to other content types?

Hypothesis 1: **(a)** Symptom-based content will show either decreases in positive mood or increases in negative mood whilst **(b)** wellbeing-based content will show either increases in positive mood or decreases in negative mood.

Hypothesis 5: There will be a significant difference in mood between those in the low mental distress group compared to the high mental distress group. Research does not dictate a direction for the hypothesis but that differences may occur.

4.4.2.4.1 Mixed ANOVA for positive affect (PANAS)

A mixed-design ANOVA compared positive affect mood scores between exposure time (pre- versus post-exposure: within subjects), content conditions (symptom, wellbeing, image only: between subjects) and mental distress conditions (high versus low: between subjects).

The main effect of exposure time yielded a significant effect, with a significantly lower positive affect score post-exposure, F (1, 214) = 24.47, $p < .001$, $np^2 = .103$. Both main effects for content condition, F (2, 214) = .166, $p = .847$, and mental distress, F = (1, 214) = .087, $p = .768$. All interactions for positive affect were also non-significant.

4.4.2.4.2 Mixed ANOVA for negative affect (PANAS)

A mixed-design ANOVA compared negative affect mood scores between exposure time (pre- versus post-exposure: within subjects), content conditions (symptom, wellbeing, image only: between subjects) and mental distress conditions (high versus low: between subjects).

The main effect of exposure time yielded a significant effect, with a significantly lower negative affect score post-exposure, F (1, 214) = 75.05, $p < .001$, np2 = .260. The main effects

for content condition, F (2, 214) = .683, p = .506 were non-significant. However, the main effects for mental health distress group were significant, revealing that the low mental distress group had lower negative affect scores, than the higher mental distress group, F (1, 214) = 75.86, p < .001, np2 = .260.

There was also a significant interaction between mental distress group and content condition F (2, 214) = 3.72, p =.026, np2 = .026. Referring to the interaction plot (see Figure 3), participants with low mental distress reported the lowest overall negative affect in the symptom condition compared to the wellbeing and image only conditions. Participants with high mental health distress however reported the lowest negative affect in the wellbeing condition. All other interactions were non-significant.

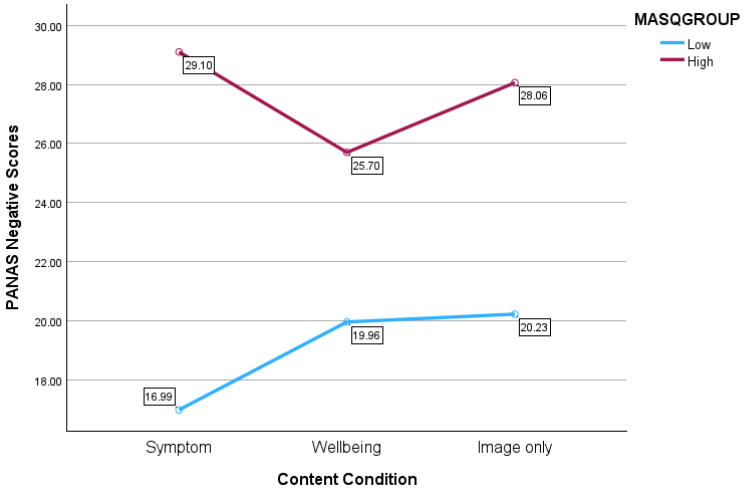

Figure 3 - Profile plots for Mixed ANOVA interactions for Negative Affect (Content Condition and Mental health Distress Group)

4.4.3 Self-reported positive and negative perceptions of the three content conditions.

Research question 2: What is the perception of symptom-based content compared to other content types?

Hypothesis 4: **(a)** People will self-report more negative associations to the symptom-based content, whilst **(b)** people will self-report more positive associations to the wellbeing-based content.

4.4.3.1 Chi- Square: associations between content condition and self-reported perception.

To explore associations between content condition and perception of content, a chi-squared test of association was conducted. Significant associations were noted between perception of content and the content the group were assigned to $\chi 2$ (4, N = 220) = 111.887, p < .005, with the results illustrating that those in the 'symptom' group had more negative associations, those in the 'wellbeing' group had more positive associations and those in the 'image-only' group had more positive association (see Table 7). The association was of high strength: Φ = .71 and thus the type of content viewed accounted for 51% of the variance between the perceptions of the content.

Table 7 - *Crosstabulations for the subjective perception for the three content conditions.*

	Content Condition		
	Symptom	**Wellbeing**	**Image Only**
Positive	9 (11.0%)	49 (32.3%)	53 (37.3%)
Negative	45 (54.9%)	2 (3.1%)	0 (0%)
Neutral	28 (34.1%)	13 (20.3%)	21 (28.4%)

4.5 Discussion

Research question 1: What effect does symptom-based content have on mood compared to other content types?

Research question 2: What is the perception of symptom-based content compared to other content types?

Research Question 5: How do people interact and engage with mental health content online?

4.5.1 Overall findings and comparison to existing literature.

The current quantitative study investigated whether exposure to different types of mental health and well-being social media content had an impact on mood, via positive and negative affect. It also aimed to explore the participant's perceptions towards this content directly after exposure. Descriptive statistics indicate that most participants used the platform TikTok,

preferred the use of smartphones for social media usage, and have been using social media for at least two years. Findings also revealed that most participants had self-reported that they did not see many (1-3) mental health posts per day. These findings were unexpected as existing research, and social media engagement reports detail that millions of posts have been shared and viewed under mental health related hashtags on TikTok (Saha et al., 2019; Zenone et al., 2021). However, personalised news feeds and algorithms require a user to actively engage with content for this to be visible within their newsfeeds or 'For You' pages (Koç, 2023). This suggests that participants in the current study do not choose to engage with this type of content and therefore are exposed to this less frequently. Conversely, participants may not be aware of how much mental health content they see and engage with, particularly with an infinite stream of content on the TikTok 'For You'. Endless scrolling on these platforms may also suggest that participants may not be able to differentiate between different types of content so they may see mental health content but not register that they have actually seen it (Singhal et al., 2023; Scalvini, 2023; Koç, 2023; Wang, 2022).

In relation to the descriptive statistics, these findings do not algin with hypothesis one, as participants have reported that they do not see mental health related content on their on social media accounts very often. However, the findings do help to support in answering research question five, which was to understand how and why people engage with mental health content on social media. The current study highlights that some people do not engage with mental health content often or indeed at all.

Anhedonic depression, anxious arousal, and general distress were not reported to be significant predictors for social media intensity, though it was hypothesised that this would be the case. Research linking addiction, problematic social media usage (Ahmed et al., 2022; Taylor, 2023; Shabahang et al., 2024), and online disinhibition (Wu et al., 2023) to social media intensity has previously been reported in literature. However, this was not the case for the

current study. It could be suggested that anhedonic depression, anxious arousal and general distress are not related to social media intensity, but other problematic aspects of social media usage not reported in the scale. This may include behaviours such as trolling, oversharing personal information (Shabahang et al., 2024) or sharing deceptive content (Chestnut, 2022), all of which could be explored in future research.

In relation to the hierarchical regression, the current study's findings do not effectively align with hypothesis two, as anhedonic depression, anxious arousal and general distress were not significant predictors of social media intensity.

No significant differences were observed between pre- and post-PANAS scores (both positive and negative affect) or between the three content conditions (symptom; wellbeing; image-only), suggesting that no content condition impacted mood more than another, therefore demonstrating an ambivalence towards mental health content being online (also noted in the descriptive statistics) by the current study participants. These findings are not reflective of existing literature; Akil et al., (2022) reported that exposure to depression memes resulted in significant changes in depressive mood scores compared to neutral content. It was expected that the current study would result in similar outcomes, which it did not. However, this may be due to the current study being generic to symptoms and positive and negative affect rather than specific to a single disorder and its corresponding mood. Similar results were seen in Taylor (2023), who noted increases in anxiety symptoms after exposure to anxiety related content, detailing that data collection may need to be more specific to a single disorder in order to yield significant results. Furthermore, other research suggests that viewing mental health content online has been a positive experience overall, has had a positive impact such as spreading kindness, and decreases depressive symptoms (Dale et al., 2020; Kourkoulou, 2023; Gallagher, 2023). However, the lack of mood differences between the content conditions might be due to the limited personalisation of the content in the current study. Indeed, Harwood (2022) suggests

that people prefer content that is more personal and tailored to their own preferences. To note, those that do not see mental health content often, will not have this content type within their algorithm, suggesting that participants in the current study do not want to engage with this content type often, which could contextualise the lack of positive mood changes (Swart, 2021). In contrast, Schluchter (2024), revealed that TikTok users often see content they may not actively choose to engage with, but what the algorithm suspects they want to see due to their user preferences, and that users report anxiety and anger towards this algorithmic manipulation. Furthermore, it has been reported that some people that have been exposed to varying types of mental health-based content on social media have feelings of being overwhelmed (Milton et al., 2023; Dewak, 2023). These findings do not align with the current study, which suggests that not all those that engage with mental health content are susceptible to negative affect following exposure to mental health content. There are also contradictions in current findings relating to wellbeing-based content. It has previously been noted that exposure to this content type has been associated with increases in positive mood (Arquiza, 2020; Taylor et al., 2021), which the current study did not. Findings therefore reveal that participants in the current study are not susceptible to influence by any type of content in relation to mood from a single exposure point.

In relation to the mixed ANOVA, the current study findings do not support hypothesises three (a) and (b) as no mood changes were reported across the content conditions and between exposure points. The findings do effectively answer research question one by suggesting that symptom-based content does not impact mood differently to other content types.

Although no significant main effects were reported in relation to content exposure and mood, there were significant negative associations towards the symptom-based content condition for self-reported perception. It may be inferred that these negative associations may be as a result of the contents relatability. Indeed, exposure to relatable or vague content

containing mental health themes or symptoms can lead to feelings of being 'overwhelmed', anxious or uneasy (Milton, et al., 2023; Dewak, 2023). These feelings of relatability may also lead to negative feelings about themselves, due to a belief that they may have these disorders (cyberchondria) (Starcevic et al., 2020), which might increase health anxiety or trigger a 'self-fulfilling prophecy' (Foulkes & Andrews, 2023). Findings also align with Social Learning Theory (SLT) (Bandura, 1977), as observing content that is both relatable *and* lists more 'negative' symptoms might have led to a negative perception of the content by the current studies participants (Bandura, 1977; Lockwood & Kunda, 1997; Marx & Ko, 2012; Strasser-Burke & Symonds, 2020). Moreover, Krosta and Harness (2008) support both SLT and the current study. They suggest that relating to those that are mentally ill (or they suspect they have a disorder) can result in negative feelings about themselves, including feelings of incompetence or being dangerous. However, it could be that those participants simply just felt negative after viewing the symptom-based content, with no more complex explanation. Unlike the current study, other research has found that viewing mental health content online can lead to more positive outcomes (Gallagher, 2023; Dale, 2020; Fergie et al., 2018; Kourkoulou, 2023) such as decreases in depressive symptoms and increases in positive mood. These studies, however, consider mental health content as a whole (symptoms, experiences, recovery and awareness), rather than exploring symptom-based content as an individual factor. This may explain the lack of significant mood changes for those in the symptom-based content condition, as this content is specific to symptoms and not personal experience which have been noted to be a positive to viewers (Dale, 2020). On the other hand, participants in the wellbeing-based content condition did self-report positive associations to their prescribed content. This is supported by previous research which suggests that those who regularly view mental health content (in any capacity) feel a sense of belonging and community with other users and, by exposing themselves to this type of content and seeing these quotes, they may have felt 'less alone' and in turn had more

positive perceptions (Berryman & Kavka, 2018; Fergie et al., 2018; Gallagher, 2023; Milton et al., 2023; Prescot et al., 2020). However, participants may have also just had more positive associations than neutral or negative associations towards this content, with no other explanation.

In relation to the chi-squared texts of association, these findings do support with answering research question two and effectively support hypothesises four (a) and (b), due to wellbeing content being viewed as being more positive and symptom-content being more negative.

The interactions of the mixed ANOVA for negative affect revealed different patterns of results when comparing low and high mental distress in relation to how both groups responded to the different content conditions. Participants in the low mental distress group had the lowest negative affect scores compared to those in the wellbeing and image only groups. A speculation for this may be that those that are lower in mental distress do not align themselves with the symptoms they see within the content, therefore eliminated the chances of self-stigma (Krosta & Harkness, 2008). It may also be inferred that as those in the low mental health distress group may only see the positives associated with mental health related content such as awareness and combatting stigma, and as a result this may suggest lower negative affect than the wellbeing or image only group (Gallagher, 2022; Koukoula, 2023; Pavlova & Berkers, 2022). In relation to the high mental health distress group, findings revealed that those in the symptom-based condition had the highest negative affect scores compared to those in the wellbeing and image only conditions, detailing an opposite effect to those in the low mental distress group. A reason for this may be due to people in the high stress group aligning with the symptoms they see, therefore creating a form of self-stigma, resulting in higher negative affect (Krosta & Harkness, 2008). The high mental distress group also reported the lowest negative affect scores for the wellbeing group compared to those in the image only and symptom conditions. This may be due to the wellbeing content having a positive effect and increasing mood, thus aligning with

existing research which has also shown positive associations with exposure (Arquiza, 2020 Dale et al., 2020; Taylor et al., 2021).

These findings do not support hypothesis five, as those with mental health distress do not present with differences in mood in relation to content type. However, there are slight differences in negative affect between content conditions, and mental distress groups.

4.5.2 Strengths, limitations, and recommendations for further research.

The present study and its results have provided insight to a very new area of research. Until 2021 there had been no research that explored any negative impacts associated with mental health content online and, since then, findings are limited (Dewak, 2023; Milton et al., 2023; Schluchter, 2024; Taylor, 2023). Prior to the commencement of study one, there was limited research that explored the influence that mental health content may have on mood. Indeed, Akil et al. (2022) found that exposure to depression memes increased depressive mood post-exposure compared to a neutral content group. Study one aimed to address the gaps highlighted in this study, such as expanding beyond simply exploring depression and depressive mood, to mental health symptoms across disorders and moods as positive and negative affect. Although the study yielded no significant main effects, the current study has provided insight into both negative and positive mood following exposure to mental health and wellbeing content, and that a single exposure event is not sufficient to trigger changes in mood. Future research could extend data collection into a more longitudinal design, as mood may fluctuate significantly with repeated or prolonged exposure. At the time of conception, there was no indication from the literature that a longitudinal study would be necessary. A single exposure point was considered sufficient to yield a significant main effect, as reflected in Taylor (2023) and Akil et al. (2022), whose studies also used only a single exposure point with significant findings in relation to anxiety, and depressive mood. However, this was not the case for the current study. Additionally, the PANAS (Watson et al., 1988) was used to collect mood data. Items in the

PANAS detail positive and negative affect as separate but correlated dimensions and were deemed a suitable scale for the current study. Further research, however, could look beyond mood and investigate changes in anxiety, depression or distress to see if content influences mental health rather than mood.

As it was deemed important to gather as much rich data as possible, there were no upper age limits, but there was a lower age limit of eighteen years. As younger generations spend more time on social media than their older counterparts, including under-eighteens in the sample may have yielded different outcomes (Atske & Atske, 2024). Cognitive differences between those in developmental stages, such as risk taking and mood regulation, compared to adults, may be an influencing factor in subjective mood (Carbonell & Panova, 2016; Orben, 2020; Taylor, 2023). However, there is no indication of what the outcomes of this may be, so future research could explore this. For note, as this study exposed participants to content that may be sensitive and upsetting to children, due to their vulnerability, this study only sampled adults to assess the initial outcomes of exposure at this time; the outcomes can now provide a starting point for further research to explore these research questions and hypotheses in younger samples.

Still images were used as stimuli to limit distraction and avoid bias; there is little video-based content on social media that does not involve an individual in one way or another. Although these individuals may not self-proclaim as influencers, those that showcase themselves on video content are advertising themselves to a degree. Those that do not engage in social media regularly may not be aware of this form of self-advertisement. The use of still imagery in the current study attempted to remove this confounding variable by not including this form of self-advertisement or influence. Further, creators/ influencers may be known and liked by participants which could be a confounding variable, as Hebben (2019) suggests; people can be influenced to purchase items or believe information that an influencer shares,

solely due to their likability. However, with the non-significant main effects in the current study, further explorations in the research area may wish to consider the use of influencers and videos to explore if findings yield different or significant outcomes.

4.5.3 Implications and conclusion.

The findings from the current study could have implications for practice. Although the findings reveal that exposure to these content types does not significantly impact mood, they do suggest that there are significant negative associations to symptom-based content, and positive associations for wellbeing-based content for the Chi-squared test of association. These significant negative associations to symptom-based content could prompt social media companies to use this information to inform policy and information sharing, for example, disclaimers on content relating to mental health symptoms, or trigger warnings for those that are discussing symptoms or experiences of disorders. This is also reflective on the other end of the spectrum; as the wellbeing-based content is seen as positive, social media companies and healthcare industries could implement aspects of this content into practice.

In summary, this study aimed to investigate the perceptions of different types of mental health content posted on social media and its effect on viewer's mood. The study successfully supported answering the applicable research questions, but did not align with hypotheses 2, 3a, 3b and 5. It was also suggested that some content types had more negative associations than others, but there were no significant changes in mood between the content conditions. These novel findings have provided a much-needed insight into the perceptions and outcomes of exposure to different types of mental health content on social media and offer recommendations for future research to further explore this phenomenon.

It could be indicated that findings from this study warranted further investigations in the form of a longitudinal or 1b study to further understand effect on mood. However, rather than focussing on quantitative measures and objective data, it was felt that qualitative

exploration and subjective data would be a preferred option. Outcomes for longitudinal data are not confirmed, and although speculation can be made for increased exposure to have an effect. It was deemed more appropriate to further understand the significant negative perceptions of the symptom-based content quantitatively instead. This provides an avenue to understand why there are significant associations that can support the alignment to related theories (SLT, Bandura, 1977; SCT, Festinger, 1954). A qualitative study also allows for a deeper more nuanced exploration into impacts of exposure such as self-diagnosis, and motivations for this; but also, detailed perceptions of 'mental health influencers' that cannot be effectively sourced from quantitative data alone. Furthermore, time constrains did not allow for an effective 1b longitudinal study which would provide a disservice to the project. It was therefore recognised that it would be preferred that the outcomes from study would provide a footprint for further data longitudinal data in a standalone project dedicated to understanding contents possible effect on mood.

Chapter Five: Study two. Qualitative semi-structured interviews exploring perceptions of online content, self-diagnosis and mental health influencers.

5.1 Chapter introduction

The purpose of this chapter is to detail the aims, objectives and research questions that were associated with study two. The chapter will report the study methodology, analysis plan, results and findings that were utilised. Discussions debate effectiveness of the study and its design in attempt to answer the research questions and aims.

5.1.1 Research rationale for study two.

Whilst previous research has provided a link to certain types of mental health content to negative outcomes such as anxiety, feelings of being overwhelmed and frustration (Milton et al., 2023; Schluchter, 2024; Taylor, 2023). These studies were also limited by their sample (e.g content creators only), use of user provides video content only, or the sample lacked generalisability. It has also been equally suggested that there are positive benefits to seeing mental health content that is relatable, which in turn provides a sense of belonging and community (Alper et al., 2023; Gallagher, 2022; Ostendorf et al., 2022). Exposure to positive affirmations and mental health content such as recovery posts also yield benefits to its viewers (Dale et al., 2022; Pavlova & Borkers, 2020; Roberts, 2018). Existing research has yet to further understand thoughts relating to the types of content that would be suitable for those in a mental health crisis; study two aimed to address this gap by asking participants what type of content they would deem as being suitable. Indeed, previous research has explored the concepts of self-diagnosis (Dewak, 2023; Underhill & Foulkes, 2024), and mental health influencers (Adeane & Stasiak, 2024). However, research in this area is still new with only a handful of studies exploring these concepts. Study two further aims to explores these concepts but also the motivations for engaging in practices such as sharing online content for deceptive reasons (e.g. financial reward only), and motivations for online self-diagnosis.

5.1.2 Research aims for study two.

The aim of study two is to build on quantitative findings from study one, in relation to perception of mental health (and ADHD) content, with a particular focus on the negative perceptions of symptom-based content. A further aim is to increase knowledge and further insight into the perceptions of online self-diagnosis (including possible motivations for this), mental health social media influencers and the ethics surrounding financial incentives for viral mental health and ADHD content.

5.2 Methodology

5.2.1 Design

A series of semi-structured interviews were conducted. The purpose of using semi-structed rather than structured interviews was to allow for more flexibility for the researcher and participant (Magaldi & Berler, 2020). Further, due to the 'top-down' nature of the study and the content exposure included, a deductive thematic analysis approach was preferred. This study relates heavily on the outcomes of study one, and the positive and negative associations between each of the content conditions. Existing research also informed the design of the study, taking into consideration concepts such as FOMO (Zhang et al, 2021; Astleitner et al., 2023), PSMU (Bányai et al., 2017; Shannon et al., 2022), online disinhibition (Suler, 2004) and social comparisons (Festinger, 1954). The design of the study was also influenced by Milton et al., (2023), Dewak (2023), and Schluchter (2024) who all investigated either self-diagnosis, or mental health content online, including perceptions of this content or practice. To ensure findings were drawn from rich data and full use of transcripts, once deductive analysis was complete, a confirmatory inductive analysis was conducted on all transcripts to improve study rigour. Using both inductive and deductive analysis aligns with the philosophical position of the thesis, pragmatism. Pragmatism provides the opportunity for researchers to use an array of

methodologies and effectively borrow and combine what is needed to answer the research questions (Ramanadhan et al., 2021).

5.2.2 Research questions and aims for study two.

Research question 2: What is the perception of symptom-based content compared to other content types?

Research Question 3: What are people's perceptions of mental health influencers (including the monetary incentives for posting mental health content online)?

Research Question 4: What is the overall perception of, and motivations for self-diagnosis (including any links to symptom-based content)?

The aim of this qualitative study was to explore perceptions and opinions on different types of online content related to mental health, neurodevelopmental disorders, and wellbeing. It also aimed to explore self-diagnosis, perceptions of mental health influencers, and motivations for sharing mental health content online. It also investigated the participants views on mental health content for those in a mental health crisis.

5.2.3 Participants

A total of 15 participants (12 female, 2 male, 1 non-binary) (see Table 8) were recruited for the interviews via opportunity (convenience) sampling (Suen et al., 2014). The researcher's (KS) social media accounts (Facebook, Instagram, and LinkedIn) were used to advertise the study, as well as the supervising university's (BCU) Research Participation Scheme (RPS) platform[2]. Snowball sampling was also utilised (Naderifar et al., 2017); participants that had been recruited then shared the advertisement with their peers/colleagues/followers. The age of the sample ranged between 20 and 44 years with a mean age of 29.78. An option to disclose current mental health status was also provided; only one of the participants opted out of this.

[2] A platform used by the university psychology department, which allows for undergraduate students to gain 'points' for taking part in research which will then allow for them to have more participant slots for their own undergraduate dissertation in the future.

Four participants disclosed that they had a mental health disorder (diagnosed by a mental health professional), three disclosed they have self-diagnosed, or they suspect they have a diagnosis, and eight disclosed they have no current mental health issues; this was collected only for demographic purposes. Data saturation was reached at ten participants but, due to limited existing research, a further five people were recruited to allow for deeper data exploration.

Table 8 - *Shows the pseudonym, age, gender, and mental health status of participants*

Pseudonym	Age	Gender	Mental health status
Amy	25	Female	Unsure/ Suspected diagnosis & Self-diagnosed
Sophia	20	Female	No diagnosis
Ashley	24	Male	Diagnosed by healthcare professional
Scarlett	35	Female	Unsure/ Suspected diagnosis
Lilly	N/A	Non-binary	Diagnosed by healthcare professional & unsure/ suspected diagnosis
Rosie	26	Female	No diagnosis
Amari	20	Female	No diagnosis
Jenny	24	Female	Diagnosed by healthcare professional
James	36	Male	No diagnosis
Sasha	44	Female	No diagnosis
Jasmine	25	Female	No diagnosis
Tina	34	Female	No diagnosis
Molly	42	Female	Diagnosed by a healthcare professional
Aaliya	28	Female	N/A
Kai	34	Female	No diagnosis

5.2.4 Ethical considerations

All participants were treated in accordance with the British Psychological Society's Code of Ethics and Conduct (BPS, 2021). The study received ethical approval from Birmingham City University BLSS ethics committee (Ref: /#10950 /sub2 /R(B) /2023 /Apr /BLSS FAEC) (see appendix 6.2). The minimum recruited age for participants was eighteen years. Due to the nature of the study, the exposure to negative stimuli and possibility of distress, a decision was made for only those over eighteen to take part due to being able to make their own informed decisions on consent, participation and withdrawal without the need for a parent or guardian's consent (UK Research and Innovation, 2024).

Participants were advised of the length of the interview and provided with a participant information sheet and consent form in advance of the interview (appendix 5.1). This outlined the basic premise of the study and included a notice of the sensitive content exposure, enabling the participant to be fully prepared, as well as informed of their right to withdraw. During the interview, participants were also advised as to when the content would be shared, giving them ample time to prepare or advise the researcher that they did not want to continue. A researcher debrief conversation also occurred after the interview, where participants could ask any questions (not recorded). A written debrief was also provided after the interview to provide information for support services but to also provide the participants with information relating to the overall aims of the study. Although informed consent was provided through the consent form, verbal consent was also sought prior to any recording taking place. A preamble was read by the researcher to confirm that the participant was happy to take part. Participants were also advised that they would remain anonymous, and any identifiable data would be redacted. Pseudonyms were randomly allocated to the participants prior to analysis, sourced from a variety of names from different cultural backgrounds, to represent the diverse sample included.

There were no anticipated adverse outcomes related to participation, however information for support services was provided to the participant on both the information sheet and the debrief sheet in case any of the content or the conversations caused any distress. Participants were advised that they could stop the interview at any time by leaving the Teams call, the researcher would wait up to ten minutes in case they returned but, if they did not, the interview would then end. They would then be automatically withdrawn and any previous data collected would not be used in the analysis. None of the participants left the calls and all continued to the end of the interview. All recordings were saved on the secure password protected OneDrive of KS; these were all securely deleted once transcription was complete. KS was the only individual to have access to these recordings.

5.2.5 Materials

A participant information sheet, consent form and debrief sheet were provided (appendices 5.1, 5.2, 5.3). A demographic survey (Age, Gender), as well as disclosure of mental health status (optional), was located on the consent form. An interview schedule (appendix 5.4) was utilised by the researcher and included statements and questions such as "*please tell me your opinion on people disclosing their struggles with mental health*" and "P*lease can you explain your own personal opinion regarding using content that details symptoms to self-diagnose?".* The interview questions were formulated after an initial analysis of the quantitative data (study 1), alongside consideration of theoretical underpinnings, including Social Learning Theory (Bandura, 1977), Social Comparison Theory (Festinger, 1954), FOMO (Zhang et al, 2021; Astleitner et al., 2023), and need to belong (Pardede & Kovac, 2023). Other initial qualitative research in this area was also an influencer (Dewak, 2023; Milton et al., 2023; Schluchter, 2024), and questions were designed to align with these concepts, as well as the applicable research questions for this study.

Visual content was also used during the interviews. Specific questions were asked of the participant that related to these images as well as this type of content in general (see Figure 2 [pg. 97] for examples and appendix 1.0 for all content used). This was organised into three categories (symptom-based content; wellbeing-based content; image only content). The stimuli used were the same as those used in study 1. (See section 4.3.2.1 [pg.94] for the search strategy and coding procedure for this content from study one).

5.2.6 Procedure

All interviews were completed via Microsoft Teams. Participants were provided with both the information sheet and consent form in advance of the interview. Interviews lasted between 25 and 50 minutes with most taking around 45 minutes. Prior to recording the interview, the researcher read through a preamble that was located on the interview schedule.

They were also advised that the interview would need to be recorded for the researcher to transcribe the conversation. Once this preamble was complete, verbal consent to begin the recording was then obtained and the interview began. The interviewer began by asking generic questions about the participant's social media use, what content they interact with, and how often they observe mental health content online. The interviewer's screen was then shared to display Content 1 (symptom), there were 10 images in total per section, with 10 seconds per image. Once content was shared a discussion was then conducted between the researcher and the participant, as per the interview schedule questions. The interviewer then repeated this for Content 2 (Image only), and Content 3 (Wellbeing). After the exposure to the content and corresponding questions, the interviewer continued with a series of generic open-ended questions about mental health content and mental health influencers. Once completed and the recording stopped the researcher asked the participant if they would like to know the overall scope of the study. For those that said yes, a brief discussion occurred and after this the researcher advised the participant that a debrief sheet would be sent within 24 hours, but time was provided for the participant to ask any questions after the recording had stopped.

5.2.7 Data analysis

Due to the interviews taking place via Microsoft Teams and being recorded, a transcript was automatically generated. These transcripts were carefully reviewed line by line by the researcher (KS) on two separate occasions to ensure that transcripts were correct before analysis. Once transcription was complete, the transcripts were analysed using Braun and Clarke's (2006; 2021) Thematic Analysis (TA). There is an overarching approach to exploring the data via a six-step process: familiarisation with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; writing report. This method was preferred as it is a useful method when exploring subjective information and personal experience in both a deductive and indicative manner (Crosley, 2021; Dawadi, 2020). It is also

an effective approach for early career researchers as it does not require some of the technological knowledge other approaches may (Braun & Clark, 2006; Nowell et al., 2017). Thematic analysis is also flexible and pragmatic in its approach, which can fit into a range of studies and philosophical approaches, whilst still providing a rich and detailed account of the data (Braun & Clarke, 2006; Nowell et al., 2017). Thematic analysis also goes beyond personal experiences and allows for an exploration of diverse subjects such as cultural phenomena and social structures (Delve et al., 2023). To facilitate this, the analysis for this study was first explored deductively to generate themes that align with the research aims and objectives. Following this a confirmatory inductive analysis was undertaken to check for any other themes that may have been missed through deductively analysing the data. See Table 9 for a full list of codes and themes.

Table 9 - *Themes and codes for study two.*

Themes	Codes
Theme 1: The mixed perceptions of symptom-based content on social media.	Informative, descriptive, problematic, helpful, relating to, negative, over-exposure, unhelpful at times, overwhelming, thought provoking.
Theme 2: Conflicting views on self-diagnosis: From encouraging misdiagnosis to pathways for clinical diagnosis.	Problematic, only option, pathway, misdiagnosis, overdiagnosis, unhelpful, motivations.
Theme 3: Questioning influencer authenticity and motivations for sharing mental health content.	Combatting stigma, conversations, support, help, guidance, inauthentic, attention seeking, fabricating, erroneous, deceptive.
Theme 4: The positive influence of wellbeing content.	Affirmations, positive, happy, support, not alone, small things, small steps, low level crisis.

5.2.8 Researcher Reflexivity

As an individual who has a prior history of mental illness, adjustments to data collection were considered by the lead researcher (KS), as to how these experiences may affect data collection and analysis. One such adjustment was a careful review of the interview schedule by the supervisory team to confirm that questions were suitable for the population. Furthermore, due to having this ‘lived experience’, KS was also able to empathise with those

that disclosed any personal issues. This also provided insider knowledge and supported KS when she needed to ask follow-up questions. KS also made sure not to agree with points made by interviewees directly and supported the answers regardless of subjective view and responded with statements such as ‘okay, thank you’ and ‘great, thank you’ (continue to next question). Due to the nature of the data collection and coding framework, both deductive and inductive analyses were utilised to ensure that the outcomes were a fair representation of the data collected. After transcripts were reviewed, coded and collectively generated into themes, the data extracts were loaded onto an Excel spreadsheet and forwarded to the supervisory team for full transparency prior to write up. One supervisor (JC) who is a qualitative expert reviewed the findings and themes and supported KS in further developing these themes to best support the desired outcomes of the study (personal experiences, thoughts, and beliefs) as well as to critically review the statements and corresponding analysis.

5.3 Findings

5.3.1 Results.

Initial codes were generated from the data using a data led deductive thematic analysis (see Table 9 for a full list of themes and codes), followed by an interpretive confirmatory inductive analysis (Braun & Clarke, 2006; 2021). These codes were then merged collectively to create four corresponding themes that support the research aims and questions. The themes are as follows: (1) the mixed perceptions of symptom-based content on social media; (2) conflicting views on self-diagnosis: rom encouraging misdiagnosis to pathways for clinical diagnosis (3) questioning influencer authenticity and motivations for sharing mental health content; and (4) the positive influence of wellbeing content.

5.3.1.1 Theme 1: The mixed perceptions of symptom-based content on social media.

This theme details the perceptions of the participants in relation to the symptom-based content they were exposed to (content 1). This theme conceptualised the different perspectives

that participants had regarding this content depending on the intended viewer, whether that be themselves as the viewer, or others that may be exposed to similar content outside of the study.

It was evident from discussions during the interviews that participants had key positive associations with this content being online. One of the areas that participants discussed in detail was how symptom-based content was an accessible resource for those that needed to seek information about their own symptoms and feelings:

> "*I think it can be quite informative and so for example like. Um the different symptoms you can realise that maybe that if you're experiencing certain things like that, you can feel as if or maybe that might be what I have. So, it might be quite helpful to help identify things." (Amy, Line 31).*

Participants also discussed their own learning from being exposed to the symptom-based content during the interviews. They felt this was a positive experience as the content provided insight into disorders that they themselves were unaware of beforehand, and may also be a prompt for some to seek support if they recognise these symptoms in themselves:

> '*It was really informative, like some of the like. Most of the things I didn't know where anxiety or like symptoms of mental illness. And I think you would help people like recognise their symptoms as well. And like get help if they need it to?" (Sophia, Line 24).*

Interestingly, several participants also spoke of their own associations with the symptoms listed within this content, and viewed this positively as it helped them to recognise feelings within themselves:

> *"I've personally related to so sort of seeing some of those things pop up. I was like, yeah, that's definitely me that, you know, I, I feel that a lot of the time and things and, and I think that's in a way can be a really positive thing." (Ashley, Line 47)*

This therefore indicates that even after a single exposure point, symptom-based content can prompt positive feelings of relatability.

However as highlighted by Scarlett, some of the content shown 'might put ideas in your head' about mental health issues, and prompt confusion around their own feelings and symptoms. Participants believed that viewing this content could provoke thoughts about self-identification of mental health disorders, due to how they have related to the symptoms that they have seen:

> *"But yeah, I think mostly sometimes I do read them and think I wonder if that's me [redacted information]. So sometimes you do think. I wonder if it's that instead. You know what it kinda puts ideas in your head, I guess whether you do have a mental health issue?" (Scarlett, Line 39)*

Although participants felt that this content type was informative and could assist those requiring help to recognise their own thoughts, feelings and symptoms, there was also a worry associated with relating to symptoms of mental health disorders. This was especially the case when content is showcased in a fashion akin to a lottery or 'Bingo' game as discussed by Ashley. Ashley was not aware of the relationship they had with ADHD symptoms prior to exposure during this interview, suggesting that even those that do not regularly engage with this content may also spark feelings of relatability:

> *"I mean, I relate to it. Mainly the anxiety, depression kind of ones that was a few things that I read on there that I didn't realise were actually anxiety related that I do. There was a few ADHD ones as well. That I was a bit worried about because I do a lot of the things on there, but I didn't, I don't think I have ADHD. Well, I might do. But. But the, the bingo, when have a quick scan I thought I do a lot of these. Yeah. But they're all quite informative, I think. (Ashley, Line 38)".*

It was proposed by participants that some of the symptoms described in the content shown may not be specific to mental health disorders and could be seen as more typical of transient mood or personality. Some participants highlighted that the content they were exposed to detailed traits or symptoms that are more 'general' rather than specific to a mental health diagnosis:

> *"Um, it's interesting to see each thing classified under a mental health title when a lot of it's quite generic stuff that anyone could say that they have irrespective of whether they've got they're mental health condition or such and like wanting to be control about something doesn't necessarily mean you've got a mental health condition. It just might mean you like to be prepared." (Rosie, Line 17).*

Participants also mentioned that they are exposed to content that details 'generic' symptoms outside of the scope of the content shown within the interviews, via their own social media accounts, with some content also displaying physical symptoms alongside cognitive ones. These views are indicative that sharing vague or generic symptoms within content may be problematic due to it its ability to be easily misinterpreted:

> *"But then sometimes people will put things that contradict themselves a little bit. They'll be like oh, you'll either be really lazy or really crazy and you're like well, you know which one is it kind of thing like or they'll be like you're nauseous and like you maybe you just got like a funny tummy. It doesn't mean you depressed or something." (Scarlett, Line 36).*

Furthermore, it was suggested by participants, that engaging with this type of content could lead those who are experiencing typical 'bad days' to misinterpret their symptoms as an indication of a mental health disorder. As the statement below denotes, Amari believed that associating these transient feelings with a disorder may result in the individual feeling worse than they did before they engaged with the content:

"You know, if they're going to do something short term, but then they believe like ohh wait, I've seen this post and I've got every single symptom. It has only been for a day not, you know, gone past a certain long amount of time to be diagnosed with the disorder. You know, you could make the person feel, I don't know…worse if they find out that they have a disorder when they don't." (Amari, Line 63).

Likewise, participants expressed concerns that overexposure to this type of content may be unsuitable or dangerous for those experiencing low moods or a mental health crisis. It was thought that although some people may not actively seek out this information, they may unwillingly encounter this content due to the nature of social media algorithms, which in turn could result in negative outcomes:

"I think that would probably be a dangerous thing to do, to publicise that too much, because if someone is a bad mental place, they might not want to see it and they might make them worse. And, and I doubt it's the reason that most people would go on to social media to see that kind of content. And so again, that might put them in a bad position even if they weren't in a bad mental state when they went on to social media." (Rosie, Line 41).

This indicates that although this type of content can be seen as informative, participants were aware of potential harm, with suggestions that the content itself may increase negative feelings. Participants felt that this was especially the case because of overexposure, as expressed by Ashley:

"*It can be really disheartening. Definitely I, I feel like if you're, you're seeing that content day in day out and, and you know you're, you're you start to associate yourself with it purely because it's, it's all you're seeing you're, you're then sort of thinking, OK well actually is that me and you know do I need to seek help for it because of that and*

then that can lead you into almost a lower state in terms of your mental health"(Ashley, Line 84).

However, participants exhibited an awareness of this occurring, detailing that not everyone who is exposed to this content will be influenced by what they see online.

Overall, participants had mixed views on symptom-based content. Although most participants detailed perceived benefits of this content, such as its informative nature, the support it can provide, and the accessibility of the content, there were also reported negatives in the participants' perspectives. This was particularly in relation to more generic symptoms and over exposure to content, especially for those lower in mood or who are vulnerable. Although there were concerns about people misinterpreting content, the participants perspectives demonstrate that this may not always be the case, as they themselves realised that some of the content was not diagnosis specific. This suggests that other social media users may also be aware that this takes place.

5.3.1.2 Theme 2: Conflicting views on self-diagnosis: From encouraging misdiagnosis to pathways for clinical diagnosis.

This theme conceptualises the perceptions of the participants in respect to using symptom-based content to self-diagnose. Additionally, this theme examines the perceptions of self-diagnosis in its entirety. Most participants felt that self-diagnosis was not a viable option and should not be used in isolation, but as a precursor to a formal diagnosis. However, it was understood by participants that self-diagnosis may have relevance and value in certain contexts. As discussed in theme one, exposure to symptom-based content may prompt feelings of relatability towards mental health symptoms or disorders. Some participants made suggestions of negative implications that may be associated with using online symptom-based content to formulate a self-diagnosis. As noted by Rosie:

"And so, I personally wouldn't recommend anyone to self-diagnose with information that they find on social media.' (Rosie, Line 145).

It was suggested by participants that some individuals accessing this type of content may have a limited understanding of mental health and have used social media as their only source of information. Therefore, they self-diagnose solely from the information they see online. Participants expressed caution that social media may not provide information in an effective way for those that need it, and should not be used to self-diagnose:

> *"If you do these things, this could be something you should consider. But I think a lot of the time they come across quite poorly, cause if, if you've got someone who doesn't really understand, they could be sat at home self-diagnosing themselves with things like that on what they have." (Jenny, Line 38).*

Detailing that participants believe that those that are vulnerable may not be able to conceptualise this information as anything other than a tool for self-diagnosis.

Participants expressed concerns around the potential usage of second-hand experiences in self-diagnosis. Social media is often used to document and discuss lived experiences; however, participants felt this that is not a reliable source of information, as one person's experience is not always suggestive of another:

> *"So, these things potentially start with someone who says Ohh I think I have ADHD and I do this because of it. So, these are all now symptoms of ADHD and then they posted it and now people self-diagnose with someone else's self-diagnosis. Um, not great, but yeah" (James, Line 125).*

Therefore, according to participants, symptoms being discussed online can be interpreted in a multitude of different ways. Moreover, participants believed that this type of content could lead others to diagnose from others subjective experience such as a creator's self-diagnosis, which could lead to their own misdiagnosis.

Correspondingly, participants were anxious that individuals may exaggerate or fabricate symptoms to fit within specific diagnostic criteria:

> "*I believe that the more you read about something, the more you can believe it…. They think that the out of the 5 symptoms, they've got three, but they don't have the other two, and they might start to pick up on things that could then fit into those buckets and then miss self-diagnose." (Rosie, Line 34).*

This highlights that social media users may also begin to manifest symptoms to conform to their chosen diagnosis, which was seen as problematic by participants, as without access to this content, social media users may not have identified with this disorder and therefore would not have begun presenting with clinically relevant symptoms.

As well as raising concerns around the intentional fabrication or manifestation of symptoms, participants also highlighted that some viewers may unintentionally misdiagnose themselves with a disorder that they do not have, particularly, as some disorders are known to overlap with symptomology, which may cause harm to the viewer as they may align with an incorrect disorder:

> "*But sometimes I think because there is a lot of like comorbidity across different mental health issues and sometimes the same thing will pop up a few times and you might think you've got something, whereas might not necessarily. So, it can be informative, but it also could be in certain circumstances it might be a bit harmful." (Amy, Line 48).*

In the participants' view, symptom-based content may not fully demonstrate the nuance and complexity of lived experience of mental health disorders. Symptom-based content may only provide more simplistic account of these disorders or relay 'surface-level' information to viewers. Further, it was discussed that indications for a diagnosis should not be simply identifying with symptoms, as this does not consider the impact these symptoms have on a person's life:

"*I just think tools like that aren't the best, because I'd say it takes away a lot of the, I guess depths to what mental health is. And they're very like surface level. So, I think it's very easy like from what, what you showed me I could say oh right okay. So, I have I have ADD I've ADHD I also have a personality disorder now. Oh yeah, I can get really depressed as well so, so it's like if you self-diagnose like I could probably sit and go through the DSM and diagnose myself with loads of things and it's not because I have them it's because I show a lot, because I show the symptoms, but actually the symptoms aren't the extent where it's a problem." (Jenny, Line 86).*

These findings detail that identifying with disorders via diagnostic criteria is not necessarily a preferred choice according to these participants. It also details how there are vast opportunities for how an individual may misinterpret their feelings or symptoms, detailing a need for increased mental health education particularly, in the realm of social media for information sourcing.

Although some participants raised concerns around self-diagnosis, self-diagnosis was also seen as beneficial to those who subsequently seek a clinical diagnosis. Participants felt that symptom-based content may provide clarity, information and resources for those that subsequently wish to seek formal support, but should not be used in isolation:

"Yeah. Again, like, you know a I don't think of Instagram posts can diagnose you, you might think 'Ohh yeah, that sounds like me. Maybe I should get checked and to see if I do have this or have something" (Scarlett, Line 205)

"Personally, I don't like self-diagnosis, but I'm also very aware that it happens a lot and I think in terms of relating to it and maybe then pushing further to go to the GP or getting an actual diagnosis, that's more beneficial." (Jasmine, Line 84).

Paradoxically, this thinking may also be counter intuitive if self-diagnosis is only used as a pathway for formal support, as participants suggest. This does not consider the long waiting

times for treatment, or that viewers may not actually have the disorder they identify with, leading to further confusion or distress.

Participants also indicated that some people may self-diagnose to meet some external needs such as an excuse for poor behaviour; for financial gain such as disability allowance; or to create 'trendy' social media content or 'clickbait.' It was recognised by participants that this behaviour was not beneficial to anyone, and that people should not be seeking a diagnosis or self-diagnosing solely for external purposes:

> *"I think I only, I can only think about that side of things because I can draw from experience of seeing people trying to make themselves fit into a diagnosis in order to get some other um, need met. And it isn't always the right thing. Whether it's a financial need or an emotional need or just um, you know, accepting a behaviour by saying, well, I suffer with this condition therefore, that's why I am 'Ohh hey this is me' I've heard people say 'Well, I'm schizophrenic so you know, what do you expect?' And you think? That, that's just something you experience, but it isn't your personality, it isn't how you are, and it shouldn't, people shouldn't do that to themselves." (Molly, Line 66).*

Molly's statement presents an argument that there are motivations for diagnosis separate from understanding oneself. This presents as problematic as social media users may not be able to determine what an individual's motivation for sharing this content may be, or what their motivation is for having a diagnosis is in its entirety.

A description of symptoms alone may be insufficient for an individual to make an informed choice on their next steps. As such, symptom-based content online could be further expanded to provide a clear pathway for support. For example, directions for services and support for those both diagnosed or suspecting a diagnosis could be included with this type of content. Participants believed that it would be much more beneficial having contact information for support services rather than symptoms alone:

"I feel like if you're long term diagnosed or self-diagnosing yourself with that thing based on a post that you've seen or, or something like that. Then I think that's, that's not really the right way to go about it there. There should be in that content, there should be if you're feeling any of these, please reach out to you know this person or that person, and I feel like that would be much more beneficial." (Ashley, Line 179).

This demonstrates that although symptom-based content is an accessible information resource, participants believed that encouraging a diagnosis or self-diagnosis is not always appropriate. This presents an opportunity for creators on social media to incorporate support services into their content.

In summary, there appear to be conflicting views in relation to self-diagnosis. Although participants understood self-diagnosis occurred, it was also discussed how people may use the information they source online to formulate their diagnosis. There was also a consensus that those that self-diagnose should try to seek out a formal diagnosis as this pathway would be better to gain insight and correct treatments, however, participants did not consider the implications for this such as further burdens on the service. Although participants had these concerns, they also provided an insight that not everyone is susceptible to the influence of online content. Participants themselves were able to separate diagnosis from transient feelings, whilst highlighting external motivations as to why someone may self-diagnose.

5.3.1.3 Theme 3: Questioning influencer authenticity and motivations for sharing mental health content.

This theme explores the concept of mental health influencers, and their motivations for sharing mental health content via the perspective of the participants. Participants discussed their feelings towards these influencers and their beliefs surrounding the use of financial incentives for sharing mental health-based content online. Participants discussed their positive thoughts about mental health content online. They spoke of how creators may use their platform

to spread awareness and support. Participants felt that sharing this content provides a voice to those who are suffering, combats stigma and starts much needed conversations about mental health. Participants suggested that this type of content makes it easier for those that are suffering or those who 'feel alone' to understand themselves and their symptoms. Overall, participants believed that mental health content has its place on social media as it helps to spread awareness and can be a source of support for those who need it:

> "*But I think on the whole, it's good to bring awareness and make people feel like they're not alone and reduces the stigma as well." (Amy, Line 108)*
>
> *"In general, brilliant. Keep sharing it. Keep getting the messages out there. That mental health is real because there are still people in this century that don't believe it exists. Um, so I don't know how they're thinking or feeling or what they think that is. Um. But I think you know the mental health content again. Brilliant." (Jasmine, Line 38)*

These findings detail how there is a positive space for mental health information to be online, particularly due to the communities it creates, as well as an increase in perceived social support.

Furthermore, key positive associations were discussed in relation to the availability of mental health content online, as well as the convenience and benefit of having this content and information accessible to those that need it:

> "*I think it's perfect if they can access this literally just from their hands on their phone. I think it's perfect. So, we do, we should continue having lots of information about mental health and like. What support you can receive or hearing other people's stories as well, I think it is important, yeah." (Amari, Line 244)*

Positive associations with mental health conversations online were also discussed outside of the context of information sourcing. It was also described how seeing this type of content being shared by friends and family online may promote help-seeking conversations:

"Yeah. If they have personal struggles and like, like I said, a lot of my stuff is friends. So, if they put out there and they wanna talk about it, I think it's a good idea. Just talking about it. I suppose that it's one of the first hurdles, so yeah." (James, Line 110)

This suggests that social media can be a safe space to spark conversations and encourage help-seeking behaviour. Individuals may not feel comfortable sharing their experience with friends and family directly, so social media may provide a place that is less pressured so they can initiate these much-needed conversations.

Although many participants agreed that mental health conversations online are important, there were concerns raised about the authenticity of information that was being provided by content creators. As discussed in previous themes, those that are creating mental health content may be sharing content related to their own experiences. The validity of these experiences was not questioned by participants. However, they did feel that this content may not be reflective of how others experience their own feelings, illness or disorders. Participants also highlighted the risk of sharing misinformation:

"...but I think the only problem it is, is if sometimes there might be a bit of misinformation. I know sometimes I've seen somebody disclosing things and that they might have slightly given misinformation or yeah, just not described in exactly the best way." (Amy, Line 106).

"... Suppose you click on this link, and it could be full of false information or just what somebody's gone through in their life doesn't mean it's necessarily correct information for everyone else." (Aaliya, Line 136).

Participants also suggested that there could be other extrinsic motivations for posting mental health content, with speculations that some content creators could be posting this content to gain attention or 'clout' online. Participants were also cautious of those sharing mental health content online, with concerns surrounding motivations behind it. Selfish

motivations for sharing this content could result in some people not wishing to engage with this type of content going forward:

> "*Although I do still think that some people almost do it for attention like the they're probably haven't been to a doctor and got a diagnosis, they're just like. I don't know, like I don't know if I can give an example, but yeah, like, I think some people do. It does come across like they're doing it for attention." (Scarlett, Line 159)*

Due to their own perception of this content type, one participant Kai, reflected on how they automatically have negative associations with this type of content, as they have only ever seen this as being for attention-based reasons:

> *"I personally don't like seeing that because my mind automatically goes to. Well, that are attention seeking rather than they're genuinely looking for help. Cause I think you'd go somewhere else if you're looking for help." (Kai, Line 178)*

This was also not specific to content creators, or influencers. Participants described how they are aware of users on their own social media accounts that engage in this type of behaviour, which in turn has created a negative association to that person going forward:

> *"...definitely negative because in, in my personal experience, I've, I've had people doing it purely for attention-based reasons and not actually being in a crisis or anything like that. It's, it's just something that they're doing for attention-based reasons. And I don't think that's beneficial for anybody." (Ashley, Line 204)*

This adds to the narrative that those that share this content for 'attention-based reasons' have now created negative associations in some towards those that create this content for a genuine purpose as it takes away from the credibility of the influencer.

Participants felt that this behaviour may also influence others to replicate this behaviour (crying videos). Due to the popularity of this content, some users that are not unwell nor have these disorders may create similar content purely for extrinsic benefits and financial rewards:

"But. I also think again, it's that risk of people seeing it and going well. They've got clicks and views and attention. If I go online and say XYZ and I'm crying. Then I'm going to get the same views clicks attention." (Jenny, Line 258)

Participants also raised concerns about of the rise in mass sociogenic illnesses that are manifesting after people are being exposed to certain types of content online. These illnesses are not typically organic, and result from being exposed to others gaining popularity for sharing this content type. Those that do partake in sharing false information online sometimes come out as 'fakeclaiming' (admitting they were faking their illnesses) which in turn also provides them with further attention online. Participants discussed how even those that have faked a disorder still received online attention when they come forward about their deception:

"Again, a TikTok thing with like they've had a surge of people saying they've got Torrette's or like some sort of tic disorder because people have gotten popular for it on like TikTok and then people have gone 'oh well if I pretend to have this, I can also get popular on TikTok' and you've got people coming out now and saying, yeah, I lied about having this disorder just to get views and likes." (Jenny, Line 206).

Those that are posting deceptive content could be causing further damage by taking away credibility from those legitimate creators that post their own authentic lived experiences to spread awareness and provide support, as well as viewers that may be struggling. They also suggest that some influencers may not notice or care that their content may affect those that are struggling, as long as they get the desired attention or rewards:

*"But just takes the **** because there are people really struggling and genuinely affected and are in such a difficult situation, and to see somebody then parading it around like it's Ohh, like it's just not that not that big a deal in terms of what it really means to somebody and how it impacts on somebody." (Molly, Line 190).*

However, conversations with some participants revealed that they felt there was no issue with a content creator receiving financial incentives for creating content that had positive outcomes, and that comes from a genuine place:

> *"If it's genuine, then it is always good to share whatever you have, if you gain some monetary value from it, I guess that's all right. I mean If you have depression, get something out of it, I guess." (Lilly, Line 177).*
>
> *"It's interesting if they can kind of spread knowledge. And actual fact about it then, it's probably not the worst thing. Even if they're getting paid for it. If they're kind of. If the information they're spreading is right, then yeah, fine …" (James, Line 145).*

In contrast, participants had negative perceptions of those that shared mental health content under false pretences, and sharing content that is purely motivated by financial compensation was viewed as unethical. Participants were concerned that social media may incentivise creators to make unethical judgments purely to increase engagement on their content. This also comes at a cost to the viewer as misinformation, as well as the risk of viewing fabricated 'lived experience' could lead to inaccurate self-diagnosis. Participants discussed how providing deceptive information online for financial incentive was inherently negative:

> *"I think it's wrong to do that cause. Like you said, like um, if, if it's like, if they're faking it, they're not really showing sympathy or sympathy to the viewers, they're just basically doing it for, you know financial gain. I think it's wrong to do that." (Amari, Line 211).*
>
> *'But if your intentions are purely money driven and you don't really care what the outcome of whatever you're putting out there it is. Um, I think that's really unethical." (Kai, Line, 168),*

Reflections were also made when considering those that are in a mental health crisis. Those social media users that view this in a crisis may have negative experiences when being exposed to a creator fabricating information or creating content for financial rewards:

"I think as soon as somebody in that is in a mental health crisis sees that you're sort of making money off of it and things like that. I think that would, would make the situation so much worse and. Purely because in when in that mind frame or, or in that crisis state, I think it, it just wouldn't support anybody at all." (Ashley, Line 190)

Tina also spoke of their negative thoughts surrounding influencers who have sponsorship deals with companies that pay them to advertise products, particularly when these have a mental health focus. They also discussed how seeing this was not of benefit for them and they would not want to engage with this creator going forward:

"I think there are a lot of people, especially the influencer type community who are putting things out there for, likes for sponsorship, for money and that is the kind of thing when I see it, I unfollow it there very quickly because I think that's. I think that's just so unbelievably wrong." (Tina, Line 241).

Additionally, participants were concerned about some of the posts that content creators make, particularly when products or services for mental health are being advertised. People are known to have parasocial relationships with these influencers and some believe what they say at face value, which may influence an individual's purchasing intentions. However, the participants themselves were able to recognise that a creator may not be authentic:

"*Like I know I saw this thing about like some sort of CBD product and this girl was like 'it helped me with my anxiety' and it's like that's good and I'm glad it helped you with that, but then just in that sentence, people will hang on to that and will go. Oh, it helps with anxiety! And I think it's really unhealthy cause actually it, it might not help everyone." (Jenny, Line 228).*

Participants were also worried about vulnerable and young people having access to this content. Those that are vulnerable may be more susceptible to influence, especially when it comes to an influencer that they like, trust or relate to:

"I think I think it's wrong to do that cause especially if you've got people who are feeling hopeful for like a creator that thinks you know what this person's you know, got a high following and look how many people support them and they have the same you know problems as me..." (Amari, Line 204).

Overall, although many participants agree that mental health content has its place on social media to combat stigma and spread awareness, participants also questioned the authenticity and motivations of these online content creators; especially when financial incentives and 'clout' are involved. Participants were especially concerned and formed negative opinions on those that fabricate illnesses and disorders to both gain attention online and receive financial payment for high traffic mental health content. Although participants expressed these concerns, they themselves were able to discern their own consumption of mental health content, indicating that not all users take this content at face value.

5.3.1.4 Theme 4: The positive influence of wellbeing content.

This theme discusses the participant views surrounding wellbeing-based content. Overall, this content type was seen as being supportive and affirming. Participants regularly engaged with this content on their own social media platforms and believed that it was a better choice of content than content showcasing symptoms of disorders. Furthermore, it was revealed that this content could possibly improve the mood of those that are experiencing difficulties in life, and was overall viewed positively by participants:

"I think it just gives you a bit more of, as it, as I say it, because it makes you feel a bit more uplifted. It gives you a bit more, um sort of courage, just, sort of just if you're having difficulties, it just gives you a bit more courage to just sort of feel like you can take it a bit more in your stride or just the things will pass that sort of thing" (Amy, Line 92).

It was also noted that these quotes and affirmations are reflective of everyday experiences and provide a sense of online support. Exposure to this type of content could help those that are dealing with a mental illness or other negative situations due to the inherent positive messages that are typical of this type of content:

> *"I think it was really positive and if it put that positive spin on the, the, the sort of the things that again we, we all feel while I think we all feel day in day out it, it put that positive spin on it was more of a these are some actions you can take it was much more informative as well. And I feel like a lot of those things you can put into place and even just the positive affirmations just sort reading them." (Ashely, Line 111)*

> *"It was really positive and like. It could help people, who I can't like deal with mental illness and stuff like, be positive about themselves and it made me feel positive too myself." (Sophia, Line 64).*

Not only does viewing and interacting with this content provide positive outcomes for the individual, such as reflective self-work and restructuring thinking, it was believed that this content could also be used to support and uplift people other than themselves. It was also discussed that this type of content can also be implemented into practice. Jasmine, for example, shared how they regularly incorporate these self-management strategies into their work and indicated that this has yielded positive results for not only their service users, but for themselves too:

> *"So, I really like this kind of content. I think just again from the working in mental health side, it gives me some different things to use in my sessions, but it also does make me change my perspective on things like if I'm having a bad day and something like that crops up, I think okay, maybe I can work on changing to maybe thinking that thought instead of this one." (Jasmine, Line 157).*

These findings suggest that having this content as resource both online and offline could provide positive outcomes (such as increased or uplifted mood) to those that view and engage with it.

Although this content was predominately seen as being positive, some participants discussed the 'cheesiness' of the content:

> *"Um, but yeah, it might help someone to try these things and to help them relax and stuff some quotes. I find a bit cheesy, but some of them are quite like, yes, go girl, you know. And a bit of motivation kind of thing, yeah" (Scarlett, Line 122)*
>
> *"A bit cheesy, to be honest, I think. Yeah. Um. Some of them they are nice ideas. Try like making sure that there's that reminder to get 7 to 8 hours a day of sleep. And I think it might have said on that one about drinking water, just like nice ideas to have. And kinda yeah, try and follow through with. Um I'm trying to think whatever ones were on there. Yeah, a lot of them. Just a little bit kind of corny sort of stuff." (James, Line 84).*

This details that the content may not be suitable for everyone, and that content could be tailored to be more suitable for those that find this content 'cheesy' or 'corny,' with the message of support and affirmation remaining intact.

Furthermore, participants suggested that those in a mental health crisis may not engage with this content or could dismiss it entirely. Due to the light-hearted, or positive nature of the content, messages of affirmation may not encourage those that are unwell or past the point of self-management strategies, to seek out support:

> *"I know a lot of people do get a little bit ohh, feel a little bit dismissive when they see things like have a cup of tea, have a bath. That that information's not there for people in a crisis. I don't think because they're, they're too restless to do something like that" (Jasmine, Line 243).*

"In a crisis, I say probably not. Again, it's like it's nice and I think it can definitely help like de-escalate a situation. But I think if you've got someone at crisis point. It's kind of past that point, a little bit like. You know, saying oh we'll take a deep breath you've got this. They're like, well, I haven't though, have I? Like, I'm past that point now." (Jenny, Line 161).

As these statements denote, wellbeing content may not be suitable for those that require more formal and crisis level support. Due to some people in crisis not being responsive to help, participants felt that having access to crisis numbers, including out of hours due to the working timeframes of secondary care mental health sectors, would be more beneficial for those in a crisis:

"Um crisis numbers and opening times. Um I think a lot of people again in crisis, don't necessarily want to reach out, but knowing that they have that option is so beneficial. Um I know that a lot of local mental health teams, they shut their doors at 5. You cannot get a hold of them. I know it from safeguarding people. So having the crisis numbers…" (Jasmine, Line 234).

As well as crisis numbers, some participants indicated that content could also provide advice about more informal support, such as having mental health conversations with friends and family. It was also discussed that having access to other formal resources could be beneficial to those seeking accurate information online:

"I think the main thing is showing resources in my opinion. Again, I think it's all good that you can share like your techniques that you use and. But I really feel like, sorry, it's, it's great to have resources shown and accessible." (Lilly, Line 155)

"Um, probably the contact details for people they can talk to. And just yeah. Or just advice on how to reach out to friends and kind of manage everything going on." (James, Line 120)

This suggests that in the participant's view, if framed correctly, rather than solely for self-management strategies or symptoms of disorders, those in crisis can use social media as a resource to promote healthy conversations with family or friends or can access contact information for services to get the support they need.

Promoting positive attitudes towards reaching out online was also deemed important. Participants noted that some people in need of support may feel like a burden on the service, and that having active resources could help to promote help seeking behaviours and prompt people to seek formal support:

> *"...And, and knowing that you're, you're not a burden on the service as well, cause I know that sometimes it, it can feel like, you know you, you don't want to reach out purely because you might not feel that you're, you're bad enough to be reaching out for support" (Ashley, Line 168).*

Overall participants spoke about the positive nature of the wellbeing-based content and its implications in supporting those in the low-level crisis. Most of the participants mentioned that support services, helplines and signposting talking pathways would be the most beneficial route to utilise when creating content for those that are in a mental health crisis. These findings also highlight that individual differences play a role in how content is interpreted and that, going forward, considerations should be made regarding this. The findings further imply that those in a crisis require support outside of social media and that content should refer people to services or promote health conversation with friends and or family for support.

5.4 Discussion.

Research question 2: What is the perception of symptom-based content compared to other content types?

Research Question 3: What are people's perceptions of mental health influencers (including the monetary incentives for posting mental health content online)?

Research Question 4: What is the overall perception of, and motivations for self-diagnosis (including any links to symptom-based content)?

5.4.1 Overall findings and comparison to existing literature.

The overall aim of study two was to examine perceptions surrounding mental health content that can be found on social media, as well as further understand participant perceptions of symptom-based content and its links to self-diagnosis. The study also explored wellbeing content and its positive implications, including participant perceptions of mental health influencers and financial incentives associated with posting this type of content. The final aim was to understand perceptions of mental health influencers, including the ethics surrounding financial incentives for posting mental health content. There were four overarching themes that were generated from the data and thematic framework: (Theme 1) mixed perceptions towards symptom-based content on social media; (Theme 2) conflicting views on self-diagnosis: from encouraging misdiagnosis to pathways for clinical diagnosis; (Theme 3) questioning influencer authenticity and motivations for sharing mental health content; (Theme 4) the positive influence of wellbeing-based content and recommendations for those in crisis.

In theme one, participants shared an amalgam of thoughts regarding the symptom-based content they were exposed to. The participants openly discussed the positives they associated with the presence of this content online, such as its informative nature. Participants also spoke of how mental health content may reduce feelings of isolation, due to an understanding that others may have similar feelings to their own. These beliefs align with existing literature that details the supportive nature of mental health communities online (Alper et al., 2023; Gallagher, 2023; Kourkoulou, 2023; Prescot et al, 2020). This includes Milton et al (2023) whose participants similarly perceive mental health content to be positive as it fosters a unique opportunity to create supportive communities online. Furthermore, the participants' positive views surrounding mental health content also mirror findings by Kourkoulou (2023), who

reported that engaging with mental health content was a positive experience and led to a reduction in depressive symptoms for their participants. Participants in the current study revealed how they related to both the content shown within the study, but also how they relate to content they see when using their own platforms. It was discussed how having access to relatable mental health content online may prompt individuals to better understand themselves and symptoms which has also been noted by Roberts (2018), who found similar findings. However, participants in the current study raised concerns regarding the relatability of this content, as they believed that this may be overwhelming to those that are vulnerable. This echoes Milton et al., (2023) whose participants perceived that identifying with symptoms of mental health disorders can be 'overwhelming' for some. Schluchter (2024) also has reported that participants sometimes have anxiety about how fragile users may misinterpret this type of content, leading to negative feelings. However, the current study highlights that not everyone that engages with this content is overwhelmed, as the participants in the current study were not. Nevertheless, there were indications that some of the content they were exposed to did spark feelings of relatability, especially the ADHD focussed content.

The often-vague nature of some of the symptom-based content was also discussed in the current study, as it was suggested by participants that people may relate to this after exposure. Findings have further demonstrated that this may not necessarily be reflective of a mental health disorder but fleeting mood or trait personality. Perceptions of this content type were also discussed by Dewak (2023) whose participants expressed confusion surrounding the ambiguity of mental health content, including their uneasy thoughts, anger and anxiety about vague mental health content relating to self-diagnosis. Further, those that relate to this 'vague' content may then believe they have a disorder which aligns with those that self-diagnose from information they find on the internet (cyberchondria). The current study's findings echoed this, as some participants revealed their own relatability to the content shown, detailing that, even

after a single exposure point, relatability can be noted. The participants in the current study also discussed how individuals may relate to some of the symptoms, but not all of them, and may then begin to manifest symptoms, a concept known as a 'self-fulfilling prophecy,' or aligning themselves with a disorder they only slightly relate to (Foulkes & Andrews, 2023). However, some of the current study's participants showed self-efficacy in relation to this content, detailing that not all those that engage with this content will self-diagnose or relate to the content. It could also be argued that exposure to this content type online is likely to be due to the influence of the algorithms displaying popular content. One participant believed that even when someone may not want to intentionally view this content, that the algorithm may sometimes display content they do not want to see, as it is popular or trendy. Schluchter (2024) reflects this; their findings report that those that engage with mental health content on TikTok are exposed to varied degrees of content via the algorithm, regardless of a user's preferences. Symptom-based content may not be suitable for all and could trigger negative responses in some.

Findings from theme one show support in answering research question two, which was to understand the perceptions of symptom-based content. Although not stating this explicitly, participants discussed how they had mixed perceptions to symptom-based content with both positive and negative thoughts, but not how this compares to other content types.

Theme two described the participants' conflicting views surrounding self-diagnosis. It was discussed that self-diagnosis should ideally not be practiced; however, it was understood this did occur but should only be considered prior to seeking formal support. In contrast, Underhill and Foulkes (2024) suggest that their participants believe people have enough of an understanding of themselves and their symptoms to successfully self-diagnose. Their participants further note that diagnosis assessments are subjective and therefore are suitable for self-administration. Conversely, the current study's participants detailed self-diagnosis as being

problematic and suggested that those who are exposed to mental health content online should not be using it to construct a self-diagnosis. It was further emphasised by the current study's participants that information sourced online may not be factually correct or derived from somebody's lived experience, which was noted as problematic as the information may not be factually correct. The participants' concerns surrounding misdiagnosis are supported by Yeung et al. (2022), who found that over half the information they sourced from TikTok under #ADHD was misinformation. This is concerning as, according to Schluchter (2024), people do not regularly question the authenticity of mental health information they engage with on TikTok, leading to self-identification or incorrect insight. This was supported in part by the current study whereby participants also noted that they believed that some people who engage with this content may often self-diagnose from information sourced on social media. However, participants themselves explicitly questioned the authenticity of influencers and the information on the content shown, which contradicts findings by Schluchter (2024). Participants also held the belief that online self-diagnosis may be problematic due to the overlapping symptoms of some disorders, which has been recognised previously when considering the similar symptomology between BPD and ADHD (Matties & Philipsen, 2014; Philipsen, 2006), thus possibly leading to a confirmation bias (Ditrich et al., 2021), which could lead to dangerous practices such as self-treating and self-prescribing medication, legal or illegal (Monteith et al., 2024). Participants in the current study raised their own doubts about those that do not seek formal support and questioned the motivations for self-diagnosis and self-treating. It was also understood by participants that some people may also inflate their symptoms to align more effectively to the disorders they believe they have, which links to the notion of a self-fulfilling prophecy (Lamet al., 2016). The participants' perceptions of motivations for self-diagnosis were also discussed, such as financial gain or an emotional need. Furthermore, supportive communities that are associated with diagnosis suggest that

motivations for self-diagnosis may be due to the need to feel less alone and a part of a community (Gallagher, 2023; Prescot et al., 2020). This was reflected in the findings of the current study. Others may seek 'the diagnostic label' due to upward social comparisons (Festinger, 1954) from seeing others with the suspected diagnosis thriving online (through virality to gain financial rewards/popularity). Indeed, participants in the current study noted that some people may see other users gaining popularity from this content and may in turn replicate this behaviour. However, the participants advised that they applied caution to this content as they were not sure of the poster's intentions. Findings from theme two support with answering research question four, concerning people's perceptions of self-diagnosis. Participants discussed their feelings towards self-diagnosis and had both positive and negative perceptions of this. It was believed that self-diagnosis was a positive initial step to formal diagnosis, however concerns were raised around motivations for this practice, as well as misdiagnosis and self-treating. It can be noted, however, that the participants were aware that social media is rife with misinformation, indicating that not all social media users can be influenced into self-diagnosing through exposure to content.

Theme three focussed on mental health influencers, with particular emphasis on participant's perceptions of their authenticity and motivations for sharing mental health content. Mental health content online overall was seen as a positive due to its ability to combat stigma and promote awareness. This supports Pavlova and Borkers' (2022) work, who report positive outcomes associated with mental health awareness efforts, alongside Berryman and Kavka (2018) who report a perceived connectedness seen within influencer comments sections. It was indicated by participants in the current study that some of the content shared by influencers may not be factually correct, which aligns with Yeung et al., (2022) who revealed that over half of information shared about ADHD on the platform TikTok was misinformation. Influencers may also embellish their content to appear more 'real' or authentic (Berryman &&

Kavka, 2018). Participants in the current study noted that some influencers might be sharing this type of content to gain more attention from their followers, which may be due to upward social comparisons (Gerber et al., 2018; Kross, 2013) of other influencers that have gained popularity or 'clout' from sharing this type of content. However, participants in the current study also noted that they also see this type of content shared by people they know, detailing that this behaviour is not specific to influencers or content creators. Influencers may also share this type of content online for extrinsic financial motivations, with those that fabricate disorders for financial incentives viewed negatively by participants. Participants also questioned this type of behaviour and why a person would choose to share content unethically. However, they also advised that, if the content was shared with genuine intentions, they did not mind if a financial incentive was involved, which aligns with findings by Adeane and Stasiak (2024), who found similar outcomes; their participants reported that they understood that this was how some people made money (influencers) and did not mind the mental health aspect within the content. According to the online disinhibition effect (Suler, 2001), those that share content deceptively or for attention-based reasons may do because they are disinhibited. Some creators may be disinhibited to social norms or be unaware that their behaviour is seen as being negative (Wen & Miura, 2023). However, the findings from the current study suggest that people (such as the current study's participants) are aware that others may share this content under false pretences, which in turn created negative associations to sharing this content type going forward.

Furthermore, participants were also concerned about the marketisation of mental health online with influencers using their platforms to sell products relating to mental health. They were particularly concerned for those that are vulnerable or loyal followers, due to parasocial relationships and perceived connectiveness which may influence purchase intentions (Lou & Kim, 2019). This is echoes findings by Hebben (2019) who suggests that people were more likely to believe a message or agree with content from influencers that they like or follow.

However, unlike findings from Hebben (2019), participants in the current study showcase their cynicism. They reveal that they are aware this occurs and are not always susceptible to influence and have insight to this manipulation. Participants from Adene and Stasiak (2024) mirror these findings as their participants also shows self-efficacy by understanding that not all content created is authentic or factually correct, even if it is created by a 'professional'. Although it is not strictly related to selling products or to influencers, this also aligns with both Mukhra et al., (2019) and Bonifazi et al., (2022) who discussed 'TikTok trends' and the ability for users to be manipulated into dangerous behaviours such as self-harm and suicide after exposure to these trends. This in turn details how susceptible some users are to influence, even to the point of harming themselves (Khasawneh et al., 2020; Zhu et al., 2023). The current study, however, details that not everyone that is exposed to this content is susceptible to its influence, as participants are knowledgeable and not gullible to this type of manipulation. Overall, it can be suggested that there is no direct observation by participants in the current study about the perceived authenticity of mental health influencers, but more of a mixed view. Moreover, findings from theme three support with answering research question three which explores how people perceive mental health influencers. Participants indicated that there is a place online for mental health influencers and do not mind if there is an incentive involved if they are being genuine or authentic. Participants did, however, note that if content was deceptive, they did not believe that people should be incentivised and that this practice was unethical.

Theme four encompassed participants' perceptions of the wellbeing-based content and its positive influence. Participants felt that this content type prompted a more positive mood, aligning with Pavlova and Borkers (2022) who noted increases in positive mood after exposure to certain types of mental health framed content. Dale (2020) also noted benefits associated with online posts relating to recovery, support and overcoming obstacles. However, participants

detailed that this type of content may not be suitable for those that are unwell or experiencing a mental health crisis. Conversely, according to participants, this content could be beneficial for those in low level crisis or those that are low in mood. Positive behavioural change has been described previously by Freeman et al., (2015), as well as Koukoula (2023), who found decreases in anxiety and depression after engaging with mental health content. The feelings noted by participants in the current study may also be due to decreases in social isolation, due to the perceived connectiveness of online communities (Berryman & Kavka, 2018; Milton et al., 2023). These perceptions towards the wellbeing content might be as a result content relating to feelings rather than symptoms, as relating to symptoms is known to cause a negative perception of the self (Krosta & Harkness, 2008). Wellbeing-based content was also labelled by some participants in the current study as being 'cheesy' or unrelatable. This may be due to individual differences as some participants may not enjoy this type of content as much as others, suggesting that influencers could look to adapt content to be suitable for a wider audience. Furthermore, this aligns with Fueston and Piper (2018) who report that visual representations on social media could be interpreted in different ways depending on the lived experiences of the consumer; for example, someone who needed support may welcome the content whereas someone who does not may find this cheesy and unrelatable. Exposure to the wellbeing content also prompted conversations around the types of content that would be suitable for those in a mental health crisis, whereby participants noted that neither symptom content nor wellbeing content would be suitable. They described that their preferred choice of content would be directions to support services or pathways to support rather than self-help or diagnostic information. The findings from theme four also support research question two. It can be noted that, compared to the symptom-based content, there were mainly positive associations to the wellbeing-based content by participants.

5.4.2 Strengths, limitations, and recommendations for further research.

The present study and its findings have provided novel insight in a newly emerging area of research, with particular focus on perceptions of mental health content, online self-diagnosis and mental health influencers. This study had notable strengths. Firstly, the use of content exposure during interviews provided the participants with further prompts to elicit more in-depth responses. Furthermore, by providing participants with examples of content, this enabled the researcher to allow the participants to fully understand what was meant by each content type. In addition, participants were asked about mental health content they are exposed to, with some reporting that this was not something they engaged with. However, when being exposed to the content, participants revealed they do in fact engage with this content regularly. This demonstrates that without the prompts from the exposure, participants may not have known what is meant by mental health content (according to the current study), affecting their answers. The content also provided the participants with information as to how mental health content was conceptualised in the current study. Indeed, content exposure has been seen in previous research that also yielded notable findings such as the categorisation of content and understanding perceptions of mental health content reported by Milton et al., (2023). Although the current study drew inspiration from these categories, the current study went beyond just perceptions of mental health content and included those that distribute this content, such as mental health influencers. The current study also discusses implications of exposure to this content outside of feelings, perceptions and emotions, by exploring whether participants believe self-diagnosis was an outcome of exposure. Indeed, Dewak et al., (2023) did explore self-diagnosis content online but did not incorporate other types of mental health and wellbeing content. The current study on the other hand explored both diagnostic/symptom-based content and wellbeing-content. The addition of an exploration of well-being content (including affirmations) has provided a fuller picture of the perceptions of different types of content that

are not limited to one particular genre. Moreover, future research could look to extend these findings by incorporating the use of the participants' own social media. Exposure could be similar to Milton et al., (2023), but include an entire feed rather than a sample of content; this could then to tie in conversations about the content they engage with, as well as researcher selected content as seen in the current study. Another strength is that of recommendations for effective content. As well as reporting their perceptions of the content shown, and content the participants engage with on their own platforms, participants also discussed their own recommendations for content for those in a crisis. Findings confirm that participants preferred content with support services and pathways, which has not yet been inferred in existing research as the majority of other findings have related to content moderation, disclaimers and warnings (Milton et al., 2023; Dewak, 2023; Schluchter, 2024).

As well as methodological strengths, overall findings from the study also add value to the research area through in-depth discussions relating to mental health content, influencers and self-diagnosis. Furthermore, the mixed views surrounding symptom-based content was also highlighted. This adds value to the research area as there is a limited discussion around symptom-based content. Although other studies have discussed 'mental health content' or 'self-diagnosis content' (Dewak, 2023; Milton et al., 2023; Schluchter, 2024), the current study details this more explicitly and provided examples which existing research has yet to do. Moreover, online self-diagnosis research is limited, therefore the current study has provides further support for existing research that explored the phenomenon (Dewak, 2023; Gilmore et al., 2022; Schluchter, 2024). The examination of thoughts, feelings and perceptions towards symptom-based content revealed that this may contribute to self-diagnosis. Findings also report the participants' perceptions around positive motivations for self-diagnosis and negative reflections towards those that choose not to seek formal support, none of which have been investigated to this degree. Indeed, Dewak (2023) qualitatively explored participants'

perceptions of self-diagnosis content on social media, whilst the current study also investigated overall perceptions of self-diagnosis that are not specific to self-diagnosis content, including both motivations for it as well as the practice as a whole. This further extends the conversations surrounding mental health influencers; whilst research has been conducted regarding influencers (Adene & Stasiak, 2024; Berryman & Kavka, 2018; Gibson, 2016), this research is limited. The current study adds further insight into influencers in a mental health context, but also how people question the authenticity of those that post mental health content, particularly when financial incentives are involved. The findings from the current study build upon and align with findings reported by Adeane and Stasiak (2024), who also explored perceptions of mental health influencers. Information sourced from the current study provides support to how influencers can engage with their viewers, but also ways in which they can demonstrate their authenticity. The current study and its findings add further value by understanding that there is a perceived deficit in mental health literature, with some people using influencers to source health information online. However, the majority of participants themselves were educated (in psychology or research methods) and were able to note when content was factually incorrect, generic and vague. Moreover, the current study also provides evidence that not everyone is influenced by what they see online and that some people are able to show self-efficacy when being exposed to relatable content, which has not yet been explored to this extent.

There were, however, limitations to the current study, including the sample. The current study utilised both opportunity sampling and snowball sampling which meant that most of the sample were female, with only three of the 15 participants not being female. Further research should seek to utilise purposive sampling strategy and attempt to recruit individuals that do not identify as female. Sampling limitations also extend into how individuals were recruited. There were 10 participants recruited via the researcher's personal and professional networks through social media, work colleagues or university cohort, with five being psychology students

recruited from the BCU RPS Scheme. There were 11 participants that were educated within the realm of psychology from the supervising university or experienced in research methods. There is a small likelihood that a participant's education and understanding of research or psychological theory may play a role in their answers; this level of education could also be a reason as to why participants were able to show self-efficacy and self-awareness about the subjects discussed in the interviews. Future research could look to address this limitation by replicating with those that have no psychological education. This may yield different outcomes due to not having any previous educational knowledge of mental health disorders or research methods.

5.4.3 Implications and conclusion.

The findings from the current study also have implications for practice. As the findings suggest, engaging in symptom-based content could be confusing and overwhelming, particularly for those that are unsure about their own experiences. This provides support for the need for social media companies to provide content disclaimers (verbally or via in-post text) to content related to symptoms or subjective experiences. Furthermore, people may also question influencer authenticity, particularly if financial incentives are involved. Although there is no way to know if someone is being deceptive, influencers that wish to appear less deceptive could look to display the financial rewards from content they make; for example, TikTok provides disclaimers or ad notifications for their posts. Social media companies could look to implement similar strategies by notifying other users when someone is being paid for the content they are posting. Further, education surrounding social media information sourcing should be readily available and implemented onto platforms. For example, TikTok has pop-ups to advise when a user has been using the app for an extended period. This could also be spread via content creators or sponsored advertising across social media platforms. In addition, social media education could extend outside of social media. Educational materials which encompass

online information sourcing could be implemented into schools, universities or via GPs. Due to the sample used in the current study (versed in research methods or psychology), it could be speculated that education can play a role in self-efficacy. Users with varying degrees of education and insight who regularly use social media and understand that not all influencers are altruistic, or that not all content is factually correct, may support those that are more vulnerable to make more educated decisions. Furthermore, co-production of educational materials is regularly created through participant, stakeholder and researcher contributions (Grindell et al., 2022). This includes workshops where individuals will meet and support with designing materials through both lived experience and expert input. Future research endeavours could look to host a workshop to help co-produce these materials to be disseminated. The findings also show support for including contact information for support services and avenues for access within content for those that are in a crisis. Third sectors or charities could also look to embed themselves into social media platforms through sponsored advertisement or sharing posts to increase their engagement.

In summary, the current study effectively explored the perceptions of mental health content online, and investigated perceptions of mental health influencers, and their possible motivations for sharing this type of content or creating factitious content for extrinsic purposes. The current study also explored participant opinions about self-diagnosis and possible motivations for this practice. It was further suggested that symptom-based content or wellbeing content may not be the most suitable approach for those in a mental health crisis.

Chapter Six: Study three. Mixed methods analysis exploring the prevalence of, and interactions with mental health and ADHD data from TikTok.

6.1 Chapter introduction

The purpose of this chapter is to detail the aims and research questions that are applicable to study three. It will also outline the methodology used, and report and present the study findings. A discussion with then be presented which will highlight possible alignments with existing research, followed by strengths and limitations. The chapter will conclude with a discuss of the implications for policy and practice followed by concluding remarks.

6.1.2 Research rationale for study three

Whilst existing research has detailed some concerns surrounding TikTok, including misinformation, the addictive nature of the platform as well as risky 'TikTok trends' (e.g Blue Whale Challenge) (Khasawneh et al., 2020). There is limited evidence that has explored user interactions via the researcher API, through comment sections on mental health and ADHD related content. Indeed Gallagher (2022) has previously examined user behaviour within comment sections on the platform. Their findings were limited to 38 posts within one single time frame (2021). Other studies such as Schluchter (2024) also presented their limitations with using the API due to restricted access in their country, furthermore, their qualitative findings were not sourced from the API, only information about the platform itself. Equally, no research has yet to thoroughly understand motivations for self-diagnosis. Indeed, Underhill and Foulkes (2024) have previously examined subreddits (forum pages on the platform Reddit), with their findings suggesting mixed opinions on the practice. Motivations were also only limited to area level factors (access to services), and did not include more personal motivations, which this study aims to address by exploring the hashtag 'self-diagnosis' in an attempt to dissect possible motivations.

6.1.3 Research aims for study three

The overall aim for study three was to naturalistically explore how people engage with mental health (and ADHD) content on the social media platform TikTok via the application programme interface (API). As research into TikTok is still in the initial stages, study three aimed to address gaps in understanding by examining comment sections and data sourced by the API. It also aimed to understand motivations for posting mental health content and explore opinions on online self-diagnosis to support the findings from study two, and any alignment with existing research.

6.1.4 Research questions

The research questions applicable for study three are:

Research Question 4: What is the overall perception of, and motivations for self-diagnosis (including any links to symptom-based content)?

Research Question 5: How and why do people interact and engage with mental health content online?

6.2 Methodology.

6.2.1 Design

A mixed methods analysis of the TikTok API outputs was conducted. A descriptive quantitative analysis of data sourced from the API was used to investigate the popularity of each hashtag (#Anxiety; #Depression; #ADHD; #Mentalhealth; #Selfdiagnosis), across three-time points (1st July until 31st July for 2021, 2022, and 2023). The purpose for choosing multiple time points was to ensure a variety of different comments and opinions were included rather than limit data collection to one time point. The use of three time points across three years also allowed for a broader scope of data. This also provided an opportunity to explore the data for any changes in descriptive data across three time periods. The month of July was chosen as individuals use may social media more during the summer due to school, university and work

holidays. Anonymous biographical information (total likes, follower count and verified status) were also sourced. Comment sections from each video were also collected from the API, these were analysed using thematic analysis (Braun & Clarke, 2006; 2021).

6.2.2 Sample and procedure

An application was made on 30th September 2023 to TikTok to have obtain access to their research API. TikTok approved this application which enabled the lead researcher (KS) to have access to this interface between 26th October 2023 and 31st March 2024 (see appendix 7.1). Data is regularly collected and stored by TikTok via their terms of service (TikTok, 2023), therefore client access keys were provided by TikTok to access the data via a specific application made on programming software. The software used for this was Microsoft Visual Studio (VS). The API provides a unique set of codes that can be manipulated to collect specific data. This coding is then embedded into the application which provides a series of CSV files that can be cleaned and sorted and then imported into analytics software (see appendix 7.2 for details from the TikTok for developer's researcher website on how to collect data from the API).

The API allows for data to be sourced via the hashtags (#) within user generated content. Specifically, #mentalhealth, #depression, #anxiety, #ADHD, and #selfdiagnosis were chosen as data source points. These were selected as a key aim of study three, and the overall thesis, is to understand mental health content on social media, particularly anxiety and depression, as highlighted in chapter one. Further exploration was warranted due to the conflicting views around positive and negative affect and mental health content but also the perceptions and associations towards mental health content online. With some research dictating that access to mental health content is a positive experience by prompting feelings of support and connectiveness (Amato, 2022; Drillinger, 2022; Gallagher, 2023). There are also indications that accessing content overall can even promote increases in positive mood

(Kourkoulou, 2023) as well as promote awareness and stigma combatting conversations online (Dale et al., 2020; Kim, 2022; Pavlova & Borkers, 2020). Conversely, some types of content (e.g. body image, self-harm content) have been associated with adverse outcomes, such as decreases in mood as well as increases in anxiety when exposed to anxiety content (Taylor, 2023). Some mental health content has also made users feel 'overwhelmed', and can promote further negative outcomes (Dewak, 2023; Milton et al., 2023; Schluchter, 2024). The hashtags #mentalhealth, #anxiety, and #depression, were utilised to understand if conversations within the corresponding comments sections align with these findings. #Self-diagnosis was chosen due to the speculation that some types of content, particularly ADHD content, is promoting online self-diagnosis practices (Eaton, 2023; Gilmore et al., 2023). Online self-diagnosis research is limited and, by using this hashtag, it was hoped that clearer beliefs around self-diagnosis would emerge. Currently self-diagnosis can be seen as a positive for those seeking support and community (Lewis, 2016; Roberts, 2018), but some have felt self-diagnosis is 'dangerous' and questioned motivations for this practice (Underhill & Foulkes, 2024). #Self-diagnosis was also used to see if any motivations for the practice were discussed by those within the comment sections. #ADHD was selected due to developing research that explores the increase of those seeking an ADHD diagnosis, as well as its links with self-diagnosis (Gillmore et al., 2022), and it is hoped that further exploring the conversations on this hashtag would provide an insight as to whether people are also relating to this content.

A programmer known to the researcher (HS, see acknowledgements) offered their support voluntarily to set up the application to source the data from the API. This was set up on Microsoft Visual Studio, where initial test runs were conducted prior to data extraction under #test and #christmas to trial application reliability. The API outputs were downloaded into CSV files. The following data codes were sourced from the API: data from videos: total likes, video description, comments, shares, video ID, geographical location (GB & US). These locations

were selected to ensure that data retrieved was in an English language and translation software would not be required. The following data was sourced from the comment sections: comment wording, comment likes, video id, parent comment id, and from the individual profiles, overall like count, followers, following, bio.

The API allows for up to 100 random videos recorded for each hashtag at once, for a period of one month. The time periods used were: 01/07/2021-31/07/2021 and 01/07/2022-31/07/2022 and 01/07/2023-31/07/2023. For each of these videos, up to 1000 comments were also provided, as well as any replies to those comments. Each of the hashtags produced up to 100 videos per time point, and up to 1000 comments for each video within these time points. Descriptive data from profiles that were associated with these videos were also sourced, such as bios, follow count, and verified status. Data was provided on a series of CSV files and cleaned and sorted in preparation for analysis, such as checking for identifiable information which was removed prior to analysis, locating for any gaps in data, or missing data.

6.2.3 Ethical considerations.

Those users that opt to have an account with TikTok must agree to their terms of service. These terms provide the user with information on how their data is stored, and how this data can be accessed by a third party. Furthermore, users that publish content do so knowing this content is now part of the public domain. Therefore, consent from creators, posters and commenters was not necessary (Eysenbach & Till, 2001; Kenny et al., 2019; Lundin, 2017; Santarossa, Lacasse, et al., 2019; Herrick et al., 2022). Although the study received ethical approval by the supervising university (BCU), the process regarding accessing data and information was influenced by the Internet Research Ethical Guidelines 3.0 (Franzke et al., 2020). Only content that was accessed via the API was used and this content was sourced ethically from those that had consented to do so via their privacy settings; no identifiable

information was used in the analysis or discussed in the findings, to protect identities of commenters and posters.

6.2.4 Thematic Analysis

An inductive thematic analysis was utilised for the comment section data sets across the three time points for each hashtag. Braun and Clarke's (2006:2021) six-step process was followed: familiarisation with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; writing report. This method was preferred over other types of qualitative analysis as it is a more useful method when exploring subjective information that goes beyond personal experience and allows you to search for patterns of meanings across data sets (Crosley, 2021; Dawadi, 2020; Delve & Limpaecher, 2023). The data was organised, and colour coded into codes on the .CSV files; these codes were then sorted into corresponding themes. During analysis it was evident that the #Self-diagnosis had different themes from the other hashtags (anxiety, depression, ADHD, mental health), so two further themes were highlighted specifically for self-diagnosis, due to their relevance and support for the research aims and question (see Tables 12 and 13 for codes and corresponding themes).

6.3 Findings

Quantitative data sourced from the API was analysed using a narrative and descriptive analysis; following this a thematic analysis of the comment sections was conducted to explore generated themes and discussions within the comments sections under the hashtags.

6.3.1 Descriptive data and narrative analysis from TikTok API.

Table 10 - *Descriptive data for all time points, for all hashtags.*

Hashtag	Year	N	Comments	Likes	Views	Shares
Mental Health	2021	79	393	135,720	538,562	6191
	2022	79	631	12,739	134,491	252
	2023	59	142	13,550	10,182	24
Self-Diagnosis	2021	79	1818	1,371,670	6,497,168	25,326
	2022	56	1002	86,411	278,348	663

	2023	60	862	13,671	35,862	28
Anxiety	2021	83	498	1,106,527	8,866,349	220,625
	2022	83	610	8995	59,912	265
	2023	82	357	19,798	58,567	170
Depression	2021	84	400	4198	50,019	243
	2022	79	423	8798	35,958	112
	2023	70	325	214,273	201,131	70
ADHD	2021	83	773	106,434	823,016	17,186
	2022	89	857	516,248	2,845,561	48,784
	2023	89	454	246,003	1,849,887	13,222

Data sourced from the API can be seen in Table 10. In short, 9545 comments were sourced in total from videos from the API; 12.22% were for #Mentalhealth, 38.58% were for self-diagnosis, 15.35% were for Anxiety, 12.03% were for #Depression and 21.83% were for #ADHD, displaying that Self-diagnosis had the highest number of comments across the hashtags. 3,865,035 likes were recorded across the data sets and observation points; #Self-diagnosis was the most popular of the hashtags with a total of 1,471,752 likes (38.07%), followed closely by #Anxiety at 1,135,320 (29.37%), and #ADHD at 868,685 (22.4%). #Depression (4.19%) and #Mentalhealth (5.88%) had the lowest percentage of likes across the three years. There were 22,285,013 views in total across the hashtags and years; #Self-diagnosis has the highest views at 8,984,828 (40.32%), followed by #Anxiety at 6,811,378 (30.56%) and #ADHD at 5,518,464 views (24.76%). Videos were shared 333,161 times with #Anxiety having the highest number of shares at 221,060 (66.35), with #Depression only being shared 425 times (0.12%). This details that #Self-diagnosis was the most popular hashtag across the three years, followed by #Anxiety, and #ADHD, with #Anxiety being the most popular hashtag to be shared overall.

The most popular period for #Mentalhealth was 2021 (83.7% likes, 78.82% views and 95.73% share compared to #Self-Diagnosis (93.19% likes, 95.38% views and 93.47% shares),

and #Anxiety (77.14% likes, 98.68% views, and 99.8% shares). The most popular time point for the shares for #Depression (57.17%) was 2021. The most popular time point for #ADHD (59.42% likes, 51.56% views, and 61.60% shares) was 2022. The most popular timepoint for #Depression other than for shares (94.28% likes and 70.05% views) was 2023, detailing that overall, 2021 was the most popular timepoint and had the highest engagement compared to the other three years in all hashtags other than #Depression and #ADHD. #ADHD had the least amount of fluctuation over the three years compared to the other hashtags.

Table 11 - *Biographical user data per hashtag across the three observation points 2021-2023.*

Hashtag (#)	**Total users (*N*)**	**Verified (*N*)**	**Like Count (Total *N*)**	**Follower Count (Total *N*)**
Mental Health	273	2	139,277,021	5,719,324
Self-Diagnosis	208	0	683,138,235	18,187,111
Anxiety	226	1	1,242,797,770	5,991,114
Depression	216	0	57,703,844	2,294,246
ADHD	289	0	374,634,922	8,796,908

Biographical information was also sourced from the API, for those that shared content under the selected hashtags, (data can be found in Table 11). There were 1212 users in total. Each of the hashtags had very similar percentages of users: #Mental health was 22.52%; #Self-diangosis was at 17.16; #Anxiety was at 18.64%; #Depression was at 17.82% and #ADHD was at 23.84%. Only three of the 1212 users were verified, two for #Mentalhealth and one for #Anxiety. Users that included the hashtags in their posts showed a total of 2,497,551,792 likes; those that used the #Anxiety had the highest total number of overall likes at 1,242,797,770 (49.76%), with #Depression having the lowest total number of overall likes for users at 57,703,844 (2.3%). The overall follower count for those that included the hashtags in their content was at a total of 40,988,703 followers; those that used the #Self-diangosis in their posts had the highest total number of followers at 18,187,111 (44.37%), with those that use the #Depression having the lowest total number of followers 2,294,246 (5.60%).

6.3.2 Thematic analysis of TikTok comment sections.

Table 12 - *Generated themes and corresponding codes for study three.*

Theme	Code
1. Showing support and empathy towards posters	Empathetic, support, directing to services, directing to support, offering help.
2. Relatability of content, personal declarations, and experience coherence	Experiencing symptoms, sharing experiences, relating to content, self-expression, self-declaration.
3. Indirect and direct cries for help	Unhappy, mentioning own struggles, suicidal ideation, in pain, needing support.
4. Affirming those that self-diagnose	Self-diagnosis is valid, researching prior to diagnosis, self-diagnosis as precursor to diagnosis, understanding one's feelings.
5. Motivations for avoiding formal diagnosis.	Diagnosis is expensive, diagnosis is a long wait, diagnosis can lead to judgment, diagnosis can lead to lack of employment and lack of fostering/adoptions, distrust of medical staff, distrust of GP, not heard, not qualified, they know themselves better,
6. Negative perceptions of online self-diagnosis	r/Fakedisordercringe, faking for attention, romanticisation, glamourisation, miss-diagnosis, comorbidity, negative.

A thematic analysis of comment sections from each hashtag for each year was conducted from the CSV files pulled from the TikTok API. Seven types of comments were found through an inductive thematic analysis of 9545 comments extracted from the data sets (Braun & Clarke, 2006; 2021): (1) showing support and empathy towards posters; (2) relatability of content, personal declarations, and experience coherence; (3) indirect and direct cries for help; (4) supporting and affirming those that self-diagnose; (5) motivations for not seeking a formal diagnosis; (6) negative perceptions of online self-diagnosis and (7) blanks, emojis and unrelated comments or replies (not used in analysis). See Tables 12 and 13 for full descriptive data and corresponding themes.

Table 13 - *Descriptive data for comment sections per hashtag, per timepoint, and corresponding themes*

Hashtag (#)	Year	Total videos (*N*)	Comment total (N)	Corresponding themes.
Anxiety	2021	39	498	Showing support and Empathy towards posters.
	2022	43	610	Relatability of content, personal declarations, and experience coherence.
	2023	42	357	Indirect and direct cries for help.
Depression	2021	51	400	Showing support and Empathy towards posters.

	2022	48	423	Relatability of content, personal declarations, and experience coherence.
	2023	31	325	Indirect and direct cries for help.
Mental Health	2021	40	393	Showing support and Empathy towards posters.
	2022	38	631	Relatability of content, personal declarations, and experience coherence.
	2023	29	142	Indirect and direct cries for help.
ADHD	2021	55	773	Showing support and Empathy towards posters.
	2022	52	857	Relatability of content, personal declarations, and experience coherence.
	2023	38	454	Indirect and direct cries for help.
Self-diagnosis	2021	61	1818	Affirming self-diagnosis.
	2022	39	1002	Motivations for avoiding a formal diagnosis
	2023	43	862	Negative perceptions of online self-diagnosis.

6.3.2.1 Theme one: Showing support and empathy towards posters.

Comment sections within the hashtags demonstrated users' support and empathy towards those that post content relating to mental health. Some commenters opted to spread messages of kindness through affirmations. The ways in which this was communicated varied in nature from more simple words or sentences: '*I'm proud of you*!' (#Anxiety, 2021), '*Stay strong girly, I believe in you*.' (#Depression, 2021), '*Aww baby you've got this*.' (#Anxiety, 2023) to longer more in-depth messages to the poster:

'*Keep going, stronger than you think you are. as hard as it sounds don't let your past define your future, you got this will just take a little time*.' (#Mentalhealth, 2021).

'*I hope you can be gentle with yourself and give yourselves compassion and grace, you deserve that from yourself*.' (#ADHD, 2023). Although different in length and detail, these comments demonstrate the positive spaces and supportive environments that sit within these comment sections.

Some commenters were also likely to be more emotionally invested in those whose content they engage with regularly as some users went beyond expectations to provide direct personal one-on-one support to the poster in their time of need, especially for those that have an apparent history of self-harm behaviour:

'*Hang in there! you ever need someone to talk to feel free to message me (:*' (#Depression, 2022),

'*Honey please don't hurt yourself, I'm not a great comforter but I can always listen to your problems so you can get it off your chest*.' (#Depression, 2023).

Further, commenters also actively found ways to support the poster in a more tangible manner, with some commenters providing tips and ideas for the poster to attempt to alleviate their worries or symptoms particularly for those that may not have an adequate support system:

'*It sounds like maybe you have a lot to say/on your mind, and no one you trust enough to share it with. Try writing down how you feel and read it back.'* (#Anxiety, 2021).

Tangible support was also reflected by commenters who advised the poster to seek more formal or informal support, such as talking with friends or professionals:

'*Talk to someone, a therapist, a bartender, someone. It helps some*.' (#Anxiety, 2021). Some messages of support go beyond the TikTok space, with commenters offering personal information and formal support from themselves directly:

'*It sucks man. Talking about it helps. I volunteer at crisis hotline I'd be happy to share my number with you. We in this together man. Life's a bitch*.' (#Anxiety, 2021).

Commenters also spoke openly about how they welcomed this content and how they felt that posters discussing these disorders or feelings was positive, and that seeing these posts may help people to feel less alone:

'This is why it is so important to openly discuss our struggles w/mental health. The negative stigma had led so many to feel alone when they're not.' (#Mentalhealth, 2021).

It was also believed by commenters that having this information, and partaking in these conversations, is positive and that those spaces can provide an avenue to talk about disorders and spread awareness. Commentors applauded discussions of disorders that are becoming more recognised in contemporary society: '*Thank you for sharing how autism has always been here*.' (#Anxiety, 2023).

6.3.2.2 Theme two: Relatability of content, personal declarations, and experience coherence.

Commenters also went beyond the realm of simply providing support or affirmation. Comment sections further displayed how people actively used these spaces to not only discuss their own symptom and experiences, but also how they related to the content being shared. Relatability of content for some commenters was communicated through short and concise messages: '*I can totally relate'* (#Depression, 2022), *'WELCOME TO MY WORLD'* (#Depression, 2021), or *'I am right with you'* (#Anxiety, 2021). There were also commenters that were more detailed with their comments, thus demonstrating how some may feel more comfortable in sharing their own experiences publicly to show their support towards the poster:

'*Hate to see you suffering love and appreciate your honesty I suffer with anxiety which can send me loopy! sending hugs xxx.'* (#Mentalhealth, 2021)

'Mental illness is such a beast. To you and everyone else fighting the good fighting and winning, you are seen and so loved. We got this.' (#Anxiety, 2023). In essence, these expressions of solidarity signify how these comment sections are spaces where commenters can be comfortable to express themselves and detail their own lives whilst relating to the posters' lived experiences.

These comment sections also provided a space for commenters to offer more in-depth diagnostic information about themselves, which suggests that users not only relate to the

content but also illustrates that spaces have now been created where people can openly discuss their own mental health:

'*Hi, I got diagnosed with EUPD 2 years ago. I have just come to terms with it. I'm on the list for Complex Needs which it therapy in various forms*' (#Mentalhealth, 2021),

'*I had ptsd & alcohol abuse for over 20 yrs. passed from pillar to post with mental health services. I done the work myself with self-help books'* (#Mentalhealth, 2023),

Commenters feel that these videos are safe spaces in which to declare their own diagnosis, which in turn promotes positive experiences not only for those commenting, but potentially also for the poster and other users that are engaging with the posts, through shared lived experiences.

Conversations also emerged from comment sections that highlighted the users' experience coherence, whereby commenters would openly state that they resonate with the content they are engaging with:

'*Guess I'm not alone. I can absolutely relate. It all gets done eventually though*.' (#ADHD, 2022), '*Why is this me?'* (#Mentalhealth, 2021), *'So me!'* (#ADHD, 2021). Most of the relatable content emerged from the #ADHD comment sections, with some users detailing that the content they have viewed prompted thoughts, and they now suspect they may have a diagnosis:

'*OMG are you kidding me???? You are telling me I have ADHD? I knew it was not called multitasking'.* (#ADHD, 2022).

'*Me too! I just realized I have ADHD*.' (#ADHD, 2022), '*I just realized I might have this ... 50 years undiagnosed, great.*' (#ADHD, 2022) and '*I need to get a diagnosis ADHD this is me literally all day!!!!*' (#ADHD, 2022). Thus, relatable content may have led some commenters to believe they have a disorder due to how similar their experiences are to the poster. Due to the relatability of content, some commenters questioned their behaviour or

attributes as not being 'normal' which in turn prompted questions around medication use: '*Wait this is not normal should I be medicated?*' (#ADHD, 2022).

6.3.2.3 Theme three: Indirect and direct cries for help.

Analysis of the comment sections also revealed how commenters use these spaces to ask for help and support indirectly and directly, which was seen more frequently in the #Anxiety, #Depression and #Mentalhealth comments sections. Indirect cries for help were noted as those that expressed unhappiness or reflected on ongoing struggles:

'*I feel this so much, I want to leave my hometown so bad but it's not affordable. I feel stuck. It's hard but keep searching*.' (#Anxiety, 2022),

'*Breathe you are not alone in this I'm feeling it too and it's because of my job so I'm putting in my two weeks today.... hopefully it will help'* (#Depression, 2021)

'*I'm same way… deep down I'm unhappy and depressed but put on a smile and make myself go do stuff...when all I want to do is stay in bed'* (#Depression, 2021).

There were also incidents within comment sections across the hashtags that signalled more direct cries for help. These comments were similar to the indirect cries for help discussed previously but included a specific focus on a disorder, symptoms and emphasised more negative feelings from the commenter:

'*I have given up hope of a normal day, I would settle for a pain free happy day*' (#Anxiety, 2022),

'*I dissociated so much today. I hate that I can't even live normally*' (#Mentalhealth, 2021). Indeed, there are clear indications that these commenters are struggling and in turn may believe that by, detailing these experiences, other commenters may provide them with support and guidance as noted in theme one.

These direct cries for help also fell into the extreme, with some commenters using these comment sections to express their suicidal ideation. These displays of suicidal thoughts or

intent were more evident in the #Depression comment sections. Some users were more passive in their comments without specifically indicating that they wanted to end their lives but detailing their current anhedonia instead: '*I cant keep living like this beuh'* (#Depression, 2022), '*i don't wanna be here anymore'* (#Depression, 2023).

Other commenters were more much explicit in their suicidal ideation and spoke clearly about how they wanted to end their lives, or how they felt they were better off dead: '*Sometimes I just feel with the way things are on the world honestly I'm better off dead'* (#Depression, 2023).

'*I wanna die I'm sorry but I gotta go this might be my last post make mega man out'* (#Depression, 2023). The motivations of those who expressed their suicidal ideation within these comment sections was unclear. However, commenters may believe that by making these declarations they could gain social support and help for their thoughts and feelings. One commenter in particular claimed that TikTok was the only place that they gained support and that they wanted help for their suicidal thoughts:

'*No I'm going to ask you to help me and I will help you, because I don't want to be here anymore. I have no family, and just people I know on here'* (#Depression, 2023)

6.3.2.4 Theme four: Affirming self-diagnosis.

One of the key discussion points within the #selfdiagnosis comment sections was that commenters believed self-diagnosis is a valid practice. Commenters openly discussed their positive feelings towards self-diagnosis, with even those that have been formally diagnosed showing their support for the practice:

'*Self diagnosing is valid*' (#Self-diagnosis, 2022), '*self diagnosis is a valid diagnosis!*' (#Self-diagnosis, 2023), '*self diagnosing is valid -someone professionally diagnosed*' (#Self-diagnosis, 2022).

Commenters also displayed a degree of caution when it came to those that self-diagnose. It was clear from some comments that, although commenters agreed with the practice, accessing mental information from social media should not be the only method of diagnostic research:

'*Self diagnosis is totally ok!! If you do extensive research you can absolutely self diagnose, sometimes it's really hard to get an official diagnosis!'* (#Self-diagnosis, 2022).

'*if you do deep research like DEEEEEP then its okay to self diagnose*.' (#Self-diagnosis, 2022).

It was also emphasised by commenters that social media was not their only source of mental health information used to formulate their self-diagnosis. TikTok had provided them valuable insight, and that the self-diagnosis community on the platform provided them further evidence to support their speculations:

'*YES!! tiktok isn't a substitute for therapy or a "diagnosis encyclopaedia", it's about normalizing open discussions about mental health*.' (#Self-diagnosis, 2022)

'*Agreed!! Tiktok didn't diagnose me. The algorithm pushed me into a community like myself where I already had a lot of suspicions about myself*.' (#Self-diagnosis, 2021)

It was articulated by commenters that although they agree with the prospect of self-diagnosis, it was also believed that self-diagnosis cannot provide certain levels of support and medical intervention that formal support can, but can be a starting point to learn coping strategies:

'*self diagnosis can be a good preliminary step to getting a professional diagnosis or to implement non medical coping strategies*' (#Self-diagnosis, 2021).

Self-diagnosis was further affirmed by those that received a formal diagnosis after they speculated they had a particular disorder. These commenters provided insight into how they

believed that self-diagnosis was beneficial as it provided them with the information, they required to receive a formal diagnosis, and only verified their own suspicions:

'*i self dxed for over a year before getting dxed. i did enough research and got the type/specifiers accurate too'* (#Self-diagnosis, 2022).

'*I knew I had bipolar for years before I got an official diagnosis, when you know you know!*' (#Self-diagnosis, 2022).

'*I think after getting my adhd selfdx verified it's become easier to accept that if something seems different it probably is, which helps for asd too'* (#Self-diagnosis, 2021).

6.3.2.5 Theme five: motivations for avoiding a formal diagnosis.

Comments within #self-diangosis also included motivations for opting to self-diagnose, thus presenting as having more negative associations to formal diagnosis. It was evident that commentators that suspected they had a certain diagnosis, or had self-diagnosed disorders, feared the repercussions of a clinical diagnosis of a mental health or neurodevelopmental disorder in their medical records, such as applying for jobs or emigrating to another country:

'*My mother is hesitant about getting me diagnosed with anything because she doesn't want it to impede my ability to get a job*' (#Self-diagnosis, 2021).

'*Plus an official diagnosis would prevents emigrating to most countries &could impact jobs that require medical clearance'* (#Self-diagnosis, 2021).

'*Plus, some people don't want an official diagnosis because it might affect job opportunities*' (#Self-diagnosis, 2021). Indeed, these comments indicate how there is still a stigma attached to mental health, and how self-diagnosis may in fact be preferred in some incidences due to its anonymity.

There were also examples of how some commenters do not actively choose to self-diagnose, but their current circumstances may be a contributing factor to not being able to seek

a formal diagnosis or support. This was particularly pertinent when finances were involved, due to the expensive nature of healthcare for some:

'*And it would cost me like $2000 out of pocket for a diagnosis. $2000 for someone to tell me something I live with daily*' (#Self-diagnosis, 2021),

'*difficult to get diagnosed, meaning self diagnosis is the only option for some people. also the diagnosis process is extremely expensive!*' (#Self-diagnosis, 2022).

'*I'm self-diagnosed and I can't get a professional diagnosis because of money*' (#Self-diangosis, 2021).

Further motivations for self-diagnosis were also discussed such as the limited access to formal diagnosis and support. Commenters provided clarity that waiting times for support and treatment were a deterrent, with some users waiting lengthy periods before they received a diagnosis or support:

'I had to self diagnose with ocd before I was able to get an official diagnosis. 6 months later' (#Self-diagnosis, 2021).

A collective distrust of medical and mental health professionals was also noted in the comment sections. Commenters presented their suspicions towards their therapists or other medical professionals due to negative firsthand experiences when seeking a diagnosis, particularly when social media was involved:

'*not my psychiatrist misdiagnosing me with BPD and bipolar and telling me to get off tiktok when i mentioned autism*.' (#Self-diagnosis, 2023).

Although no explanation for this distrust was provided, some commenters had clear negative feelings towards 'uneducated' mental health providers and believed that self-diagnosis was a safer option than seeking formal support:

'*I no longer trust mental health providers as they're largely uneducated'* (#Self-diagnosis, 2023), *'*

'Also self-diagnosing can be safer then professional diagnosing' (#Self-diagnosis, 2023).

Furthermore, some commenters who are self-diagnosing, or suspect they have a diagnosis, believed that they know themselves better than a professional does, and in turn discount a professional's qualifications and experience:

'*oh yeah pshhh fuck that degree the doctors got to diagnose your properly! you know yourself well and all the disorder!! all you need is some google*' (#Self-diagnosis, 2022),

'*No one knows what you're dealing with more then you know yourself even medical professionals get it wrong'* (#Self-diagnosis, 2021) and

'*As someone with diagnoses the amount of times I've HATED therapists because they didn't listen to me I prefer people self diagnose*' (#Self-diagnosis, 2021). It could be suggested, however, that this distrust or self-belief may stem from feelings of being unheard or disregarded in previous experiences with professionals.

6.3.2.6 Theme Six – Negative perceptions of online self-diagnosis.

#Self-diagnosis comment sections also provided an insight into negative perceptions of those that self-diagnose. Some commentators questioned the motives underlying self-diagnosis and suggested that a self-diagnosis could be a means of seeking attention which was clearly seen as negative for some:

'*I do think people do it for attention sometimes. Like I see people say they have ADHD like it's cute but I can clearly tell they don't have it*' (#Self-diagnosis, 2022),

'*There's a fine line between safe self diagnosing or self diagnoses for attention*' (#Self-diagnosis, 2022),

'*the big problem i have with accepting self diagnosing is that its very easy for people to lie about. and happens far too often. i know way to many'* (#Self-diagnosis, 2022).

This also aligns with some conversations within the comment sections that discussed a particular Reddit subgroup (r/Fakedisordercringe) that was specifically created to discuss those that fake disorders online to gain attention. These comments also questioned the validity of self-diagnosis:

'*I love r/fakedisordercringe self diagnosis is almost never valid*' (#Self-diangosis, 2022)

'*R/fakedisordercringe and girls vs boys are just funny tbh, also I do have Diagnosed autism and ADHD, so I am aloud say this so stfu*.' (#Self-diangosis, 2022).

Some commenters were also quick to point out when other creators were possibly fabricating problems or illnesses for online attention. One user in particular discussed how this reflected their own experiences and how people should not continue to feed into the creator's narrative:

'*Then I suggest stop giving her the attention and encouraging her to seek therapy. She likely isn't getting some sort of mental need which can be met that way. I know because I have faked problems because of emotional neglect. I have since matured and performed introspection; I was 12*' (#Self-diagnosis).

Commenters also raised concerns around the possible romanticisation of mental illness that may result from the normalisation of self-diagnosis. They suggested that self-diagnosis undermined the lived reality of those with a formal diagnosis. Some commenters did not understand, and were concerned about this narrative and that people chose to present themselves as mentally ill when they were not:

'*actually so sad to see people WANTING to be mentally ill so bad*' (#Self-diagnosis, 2022),

'*it's just kinda gross to see mental illness being wanted and romanticized no matter which disorder it is*' (#Self-diagnosis, 2022),

'*I'm sick of people acting like BPD is some sort of quirky, edgy thing to have. It can be an absolute nightmare to live with*' (#Self-diagnosis, 2023), '

Self-diagnosis was also problematised by some due to the complex symptomatology of mental health and neurodevelopmental disorders. Overlapping symptoms are typical within these disorders and there were concerns raised by commenters for those that self-diagnose due to this factor:

'*self diagnosis should be taken with a grain of salt and the first step. many diagnosis have very similar or overlapping symptoms'* (#Self-diagnosis, 2022) and

'*A lot of things have similar symptoms. ADHD, autism, anxiety, GAD, these "diagnosis" videos are dangerous'* (#Self-diagnosis, 2021).

It was also speculated by commenters that, as well as overlapping symptomology, those that opt to self-diagnose may also fall victim to either manifesting symptoms or moulding themselves to their speculated disorder:

'*Yes but a lot of traits trickle into each other and in actual fact be something completely different also a lot of people will mould them self into that disorder'* (#Self-diagnosis, 2021).

It was also noted that the complexity of mental health and neurodevelopmental disorders further extends into the diagnosis procedures. It was believed that self-diagnosis cannot provide the same level of assurance that a professional diagnosis can, particularly in the case of disorders such as autism:

'*The only way to know if you have autism is to get a Professional diagnosis is nearly impossible to diagnose yourself with a neurological developmental disorder*' (#Self-diagnosis, 2022).

6.4 Discussion

6.4.1 Overall findings and comparison to existing literature.

Research Question 4: What is the overall perception of, and motivations for self-diagnosis (including any links to symptom-based content)?

Research Question 5: How and why do people interact and engage with mental health content online?

The purpose of study three was to explore data sourced from TikTok researcher API to understand how social media users interact with mental health content on TikTok. A further aim was to examine common trends within the conversations occurring in these comment sections in relation to mental health, self-diagnosis and ADHD. Quantitative data was first sourced from the API to examine the popularity of each hashtag for each observation point, as well as the total number of likes, views, and shares for each of the hashtags. Narrative findings indicated that 2021 was the most popular year for content in all hashtags other than #Depression and #ADHD. This time period aligns with the COVID-19 pandemic, so it can be speculated that this increased social media usage, including likes, views, and shares, is likely due to lockdown restrictions (Loades et al., 2020). This popularity across hashtags may also be due to the increase in the popularity of TikTok in 2021, compared to when the platform first launched (Haltigan et al, 2023). Findings also indicate that #Self-diagnosis was the most popular hashtag across all three observation points. A speculation for this may be due to aspects of social learning theory (Bandura, 1977); some social media users may see content under this hashtag as being popular or 'viral', and in turn replicate this behaviour, by making their own content under the hashtag as well. Online self-diagnosis has also seen to be increasing in relation to the platform TikTok as seen in findings by Gillmore et al. (2022) and Dewak (2023) who have all reported an increase in self-diagnosing after exposure to content online. As more people are self-diagnosis, more people will be creating content under the #self-diangosis. In addition, due

to the vast amount of information readily available about mental health on TikTok (Saha et al., 2019; Zenone et al., 2021), it can be easy for social media users to access this information. By repeatedly accessing the information, the algorithm may continue to present this content type to them, intentionally or unintentionally (Swart, 2021). Moreover, due to the communities seen on TikTok, users may continue to comment, share and like these posts to embed themselves deeper into these communities (Ostendorf et al., 2020). Lewis (2016) discusses how being involved in these communities is a positive experience, one that promotes a sense of belonging. Next, the lowest engagement from social media was seen under #Depression. Due to the symptomology associated with having depression (anhedonia, lack of motivation), it could be inferred that individuals with depression may not want to use social media as much (Chesney et al., 2014; Correll et al., 2017; Vaccarino et al., 2020), or be more passive users who are known to be less engaged on social media (Kresnova, 2013; Verduyn et al., 2020). This may result in lower engagement under the hashtag relating to depression. The hashtag with the least amount of fluctuation across the three observations points was #ADHD. Although there were still some noted differences across time points, #ADHD had the least amount of fluctuation when compared to the other hashtags. A reason for this could be that ADHD is at the forefront of online self-diagnosis research (Eaton, 2023; Gilmore et al., 2022), indicating that a high volume of social media users may self-identify with ADHD which in turn promotes engagement of the hashtag. Reflections of this can also be noted outside of the virtual world due to the lengthy waiting times for ADHD diagnosis in the UK (ADHD UK, 2023; Foster, 2024). The consistency of these lengthy waiting lists, along with findings from self-diagnosis research provide support for the ADHD hashtags engagement remaining relatively stable across the three years in relation to other hashtags that have a higher fluctuation in engagement.

Data was also sourced from the comment sections for each of the corresponding hashtags. The purpose if this was to qualitatively explore how people engage with mental

health, ADHD and self-diagnosis content on the platform TikTok. The data was analysed thematically through an inductive framework which presented six overarching themes: (1) showing support and empathy towards posters; (2) relatability of content, personal declarations, and experience coherence. (3) indirect and direct cries for help; (4) affirming those that self-diagnose; (5) motivations for avoiding formal diagnosis; (6) negative perceptions of online self-diagnosis.

When exploring how people engage with this type of content, data from theme one revealed that people in the current study engage with content in these hashtags in a supportive manner. This was mainly through messages of affirmation and support to the content creator via the comment sections. This type of engagement aligns with previous findings that show that a positive aspect of social media is that it facilitates connectedness and support (Alper et al., 2023; Gallagher, 2023; Kourkoulou, 2023; Prescot et al., 2020). The current study highlights that these comment sections are seen to create motivating spaces for those that wish to share their stories in an attempt to combat stigma and spread awareness, thus, aligning with Pavlova and Borkers (2022), who also found that sharing awareness-based content was experienced positively by their participants, who also continued on to share their own stories. In addition, findings in the current study provide evidence that there are users that actually relate to the content shared under these hashtags; findings reveal different forms of expression ranging from brief messages of relatability to those that were longer and more detailed in nature. Longer message of relatability tended to be in relation to the commenter's own experiences of mental illness and ADHD. It could be inferred that, due to the supportive nature of these communities, users may feel comfortable sharing their own experiences and discussing how they relate to the creator’s symptoms and experiences on a personal level. This aligns with existing findings that have also shown that these communities foster spaces where people feel comfortable in sharing their own stories (Naslund et al., 2020; Zsila & Reyes, 2020). As

previously mentioned, some comments were also more in-depth and personal when it came to how they related to the content. Although it is likely that the intention of these comments is to facilitate emotional support (Andalibi et al., 2018), they also align with problematic online behaviours. For example, vaguebooking has been reported as a way in which social media users elicit attention from other users through vague posts or status updates (Buehler, 2017). This type of behaviour can be seen in the current study in relation to both the vague messages of support to those who post the content, but also the indirect cries for help from the commenters. Social media users in the current study also align with problematic social media usage (PSMU) behaviours (Bányai et al., 2017; Shannon et al., 2022), whereby people use social media 'problematically'; examples include using social media when they should be at work or school, or to post degrading, volatile or extremely personal information. PSMU relates to the current study due to the direct cries for help and suicidal ideation seen within the comment sections. The behaviours of the commenters within the current study also correspond with the online disinhibition effect (Suler, 2004; Wen & Miura, 2023). Some of the comments shared are very personal in nature, and commenters often shared information they may not share outside of the online world. Likewise, there are also indications that social media users may be commenting as a form of self-surveillance; by relating to the content and seeing others discussing these topics, they may try to adapt to the perceived 'social norms' depicted within these comment sections by other users (Alutaybi et al., 2020; Servido et al., 2021).

Findings displayed in theme two revealed that those that commented within the #ADHD hashtag were likely to display a form of experience coherence. These findings align with Gillmore et al. (2022) who report that those that were exposed to ADHD based content on TikTok were likely to then believe they had this disorder, which those within the current study also did through their own statements of relatability in relation to the ADHD hashtag. In addition, Taylor (2023) also found exposure to anxiety content promoted more anxiety-based

symptoms. Therefore, it is possible that exposure to ADHD related content may have supported the manifestation of some ADHD-like behaviours in the current study. For note, similar behaviour has been previously reported in relation the effect of mass sociogenic illness in Tourette's disorder, whereby people present with symptoms on mass after viewing tic-related content on TikTok (Müller-Vahl et al., 2022). This may translate into the behaviours seen within the comment sections in the current study. For example, commenters may have been exposed to ADHD related content which has prompted a manifestation of symptoms. As a result, commenters may now relate to the ADHD content they are seeing, which has prompted them to make a statement about this within the comment sections. Correspondingly, findings from the current study also align with social learning theory (Bandura, 1977; Strasser-Burke & Symonds, 2020; Villamil & King, 2024); commenters openly discussed that they shared similarities to the creators' experiences and diagnoses regarding mental health and ADHD. Therefore, it could be inferred that, due to over exposure to this content and the similarities observed, viewers may begin to replicate these behaviours. This is noted in the current study through the reported experience coherence and similarities in behaviours between the those that post the content, and those within the comment sections. However, there is also a possibility that commenters may be declaring their experience coherence due to low levels of self-esteem, which may prompt them to comment about how they relate to receive acceptance from others (Arnani & Nindhita, 2024; Kırcaburun, 2016; Raymer, 2015). Self-esteem has been previously reported to be an indicator for online self-presentation but also has links to those that desire attention and popularity within the virtual world (Arnani & Nindhita, 2024), suggesting that those in the current study that comment about their relatability, may be doing so for either attention-based reasons, or to create a desirable online identity due to their low self-esteem. Nevertheless, people in these comment sections may also simply have ADHD or simply relate to the poster’s lived experience without any other explanation. On the contrary,

#ADHD was the only hashtag in the current study whereby people discussed their experience coherence, suggesting that people maybe more likely to relate to ADHD based content than other mental health related content. Furthermore, participants in the current study also discussed that they felt their own behaviour was not normal after seeing ADHD related content. This prompted commenters to start thinking about whether this meant they now needed to take medication for their suspected ADHD. This may be problematic as users who are not able to get medication legally may attempt to source this elsewhere. Indeed, evidence suggests that some users may source medication online illegally when they speculate that they have ADHD (Monteith et al., 2024). ADHD medication is also known to trigger first episode psychosis, which is particularly prevalent in those that use amphetamines (Pasha et al., 2022). Then again, participants in the current study did not speak of how they were planning to begin taking medication just that they may need this.

Findings from theme three describe how some commenters used the comment sections as a place to ask for help or support (indirectly or directly). These were seen more frequently in the #Anxiety, #Depression and #Mentalhealth comments sections. It is likely that social media users feel safe to share their requests for support within these virtual spaces due to feelings of community and connectedness, as seen in existing literature (Milton et al., 2023). An example of this can be noted by Gallagher (2023); they report that mental health communities on TikTok are known to provide positive spaces for users to feel empowered to share their stories and raise awareness. Similarly, Prescot et al. (2020) and their findings report that peer-peer support online can decrease feelings of isolation. These existing findings suggest that TikTok users in the current study could also feel this perceived connectiveness and in turn feel comfortable in sharing their own struggles and to seek support. This was clearly seen within the comment sections whereby people spoke of their own struggles with mental health, in an open an honest manner. Findings from the current study could also help to understand

possible motivations for posting this type of comment other than for supportive purposes. The behaviour seen within these comment sections also aligns with notions such as FOMO, as commenters may feel as if they are missing out on support from this comminty and in turn post their own plea for support (Alutaybi et al., 2020; Servido et al., 2021). FOMO could be suggested in those that post comments that were sympathetic to the poster but also used the space to speak about their own struggles synonymously (e.g. '*I'm same way… deep down I'm unhappy and depressed but put on a smile and make myself go do stuff...when all I want to do is stay in bed'* [#Depression, 2021]). However, as previously discussed, commenters in the current study may simply desire support from others within these comment sections. Similarly, problematic social media usage (PSMU) behaviours, such as the online disinhibition effect (Suler, 2004), could also relate to this behaviour as PMSU behaviours are typically derived from an innate need for attention. Those that are disinhibited online are likely to not conform to social norms and post content that is best 'kept in private' or taboo (Uridge et al., 2023). It may also be speculated that commenters in the current study who share comments in this way, may have observed others gain attention from this type of content and have replicated this behaviour in order to elicit the same attention for themselves (Bandura, 1977; Marx & Ko, 2012; Strasser-Burke & Symonds, 2020), or to gain a form of instant gratification (Ostendorf et al., 2020).

Analysis also revealed that comment sections contained expressions of suicidal ideation, how users were 'better off dead' [#Depression2022] or were planning to end their lives. As with the more indirect comments, those that present their suicidal ideation in these comment sections are likely trying to elicit social support or attention from this community (Amato, 2022; Andalibi et al., 2018; Drillinger, 2022; Kourkoulou, 2023). However, these types of declarations could be seen as problematic due to their associations with replicative behaviours, with indications that exposure to self-harm or suicidal content may promote these

feelings in others (Khasawneh et al., 2020; Zhu et al., 2023), thus, being detrimental to those that are emotionally vulnerable as they may be more susceptible to influence from this content (Bonifazi et al., 2022; Mukhra et al., 2019). Indeed, self-harm and suicide 'TikTok trends' are common, such as the Blue Whale challenge, whereby social media users were influenced into self-harm and suicidal behaviour (Khasawneh et al., 2020). Nevertheless, there was no indication from the data in the current study that these expressions of suicidal intent had affected others within the comment sections. However, there is no way to know from the data whether users were affected but did not chose to comment about this publicly. Further, comment sections are not typically moderated so those users that post suicidal content may not be seen by the app's moderators. Those users that post suicidal comments are also not required to display trigger warnings and may only be removed by the original poster, which could be dangerous for vulnerable people within these comment sections (Vera, 2023; Zenone et al., 2021). Overall, themes one, two and three are seen to effectively answer research question five. The combined findings revealed that social media users on the platform TikTok engage with metal health content for a multitude of reasons. These include, but are not limited to, support, affirmation, to discuss their relatability, but also to use as a means to 'cry for help' both directly and indirectly.

Theme four uncovered a narrative that explored the commenters perceptions of online self-diagnosis. Firstly, those that commented on content within #self-diangosis both affirmed and presented self-diagnosis as a valid practice. This aligns with findings that detail that any form of diagnosis is shown to yield benefits such as promoting help seeking behaviours and an increased quality of life (Roberts, 2018). This can be reflected in the current study whereby commenters discussed that self-diagnosis was a positive step towards getting a formal diagnosis. Gilmore et at. (2022) also affirmed self-diagnosis with their findings displaying that self-declaration was a positive experience as it increased their participants quality-of-life post

self-diagnosis. Participants in the current study also detail how they were correct in their self-diagnosis after being formally diagnosed. This aligns with Rutter (2023); their participants were reported to be correct in their self-diagnosis in relation to anxiety and depression when using self-reported diagnostic measures. Then again, this was not the case for more complex mood disorders such as bipolar disorders. This suggests that although some commenters in the current study were correct in their self-diagnosis, this is not always the case. In contrast, Ahmed and Samuel (2017) also note a support for self-diagnosis. Their findings reveal that self-diagnosis promoted a clear sense of self and increased empathy for participants in their study. This is seen to align with the current study's findings as they also spoke of how self-diagnosis is a valid practice. However, it was also described in the current study how the people who chose to self-diagnosis should only being engaging in this practice after they have done extensive research.

Theme five highlights reasons why people within the current study may choose to self-diagnose; their motivations included increased waiting lists for support and/or a diagnosis. Indeed, the waiting list for the NHS can be over five years in the UK for an ADHD diagnosis (ADHD UK, 2023; Foster, 2024). This was also clearly noted in the current study with commenters noting the lengthy time periods in which they had to wait for a diagnosis. The financial burden of treatment and access to services was also discussed as reasons for self-diagnosis, which is echoed in findings of the research by Underhill and Foulkes (2024), who also note that self-diagnosis is sometimes a person's only option. The current study aligns with this; commenters spoke openly about the cost of services and how they are not able to seek a formal diagnosis due to money. Participants also spoke of how they did not believe that it was fair to pay a large fee for someone to diagnose them with a disorder they already knew they had. Correspondingly, motivations for self-diagnosis in the current study also stem from a lack of trust for mental health professionals. Although not clearly understood due to lack of research

in the area, Underhill and Foulkes (2024) highlight that a distrust for medical professionals is a current barrier to seeking treatment and support. This was a clear motivator for self-diagnosis for those in the current study. Participants openly discussed their own interactions with mental health professionals and how this had prompted them to self-diagnose. It was apparent that those in the #self-diagnosis comment sections felt that self-diagnosis may be a safer option that seeking a formal diagnosis, due mainly to a lack of trust. Moreover, the distrust of mental health professions may also stem from a fear of not being perceived as being 'sick enough' as indicated by Sheikhan et al., (2023). However this was not indicated in the current study, as participants mainly feared not being heard or their health care professional blaming social media for their suspicions surrounding a diagnosis. Furthermore, distrust of mental health professionals in the current study was also attributed to how they felt that some professionals are 'uneducated'. Indeed, Bargiela et al. (2016) mirror this, as they report that females with ASD are often not diagnosed due to them being often overlooked by medical professionals and only male gender stereotypes being observed at the point of diagnostic assessment. Occurrences such as those discussed by Bargiela et al. (2016) may promote feelings of distrust, therefore supporting the opinions of some commenters, who also did not trust mental health professionals. As well as fears surrounding education of mental health professionals, findings also revealed that distrust stemmed from an inflated self-belief. Commenters believed that they knew and understood themselves better than a professional ever could. This aligns with findings by Underhill and Foulkes (2024) which demonstrate how people believe they are better suited to make diagnostic decisions about themselves than a professional.

Theme six describes other negatives associated with self-diagnosis reported by commenters. As with other forms of self-declaration, commenters detailed their concerns about people fabricating a 'self-diagnosis' to elicit attention. This can also be reflected in behaviours such as FOMO, as people may create a self-diagnosis in order to find a sense of belonging

within their online community and, through creating similar content, believe this will alleviate their fears of missing out (Zhang et al, 2021; Astleitner et al., 2023). Furthermore, problematic social media behaviours (PSMU), such as online disinhibition effect (Suler, 2004), may also be contributing why someone may post deceptive content. As the online disinhibition effect notes, people do not recognise social norms and feel no remorse for their actions online and feel they have done nothing wrong in engaging in this behaviour (Suler, 2004). This can be reflected in those that may be deceptive in their approach to creating self-diagnosis content. This behaviour may also serve to help construct their own virtual identity and a 'self-diagnosis' could be an attempt to try on a new identity, in the hope that they will be accepted by their audience (Hollenbaugh, 2021). Those who desire attention online may also have lower levels of self-esteem and use social media to gain acceptance (Arnani & Nindhita, 2024; Kırcaburun, 2016; Raymer, 2015). Some commenters did report that other users may only be creating content or being 'self-diagnosed' for attention. Equally, these users may have also conducted self-surveillance via social comparisons and have replicated this behaviour to elicit a similar response (Alutaybi et al., 2020; Servido et al., 2021). Those that fabricate a 'self-diagnosis' may have done so for an extrinsic benefit and therefore capitalise on content that is more popular or 'trendy' (due to high traffic likes, shares, and comments) (Clark, 2023).

Participants also discussed a sub-Reddit that is dedicated to those that fabricate mental health disorders, r/fakedisordercringe. This subreddit has been previously discussed by Chestnut (2022); the subreddit is designed to examine or 'call out' those that fabricate disorders online (Deligent & Klonaris, 2024; Chestnut, 2022). Commenters were also concerned for the possible romanticization of mental health disorders and how negative this can be. This type of behaviour is a popular narrative on social media and has been in practice since Tumblr was popular in the early 2000's (Issaka et al., 2024; Shrestha, 2018; Tiidenberg et al., 2021; Vidamaly & Li Lee, 2021). This narrative is also reflective within mainstream media,

highlighting its prevalence in contemporary social media in the form of POV videos (Elivra et al., 2023; McGorry, 2022). Comments openly expressed that they did not agree with people presenting mental illness in a desirable manner as it takes away from those that actually have these disorders.

Self-diagnosis may also be problematic due to the complexity of mental health disorders and overlapping symptomology, as highlighted within this theme. Commenters in the current study openly spoke about the often-complex comorbidities and overlapping symptomologies within disorders and how people should apply caution if they self-diagnose. This can be reflected in the comorbidities seen between ADHD and BPD, both similar in presentation but different in treatments and outcomes (Matties & Philipsen, 2014; Philipsen, 2006). Concerns were also raised by commenters about the possible manifestation of symptoms, particularly for those that self-diagnose aligning with the notion of self-fulfilling prophecy (Lam et al., 2016), which commenters viewed negatively. Commenters in the current study believed that people accessing this content, or those who speculate they have a disorder, may not actually present with all the symptoms, or they align themselves with someone else's lived experience (Clarke, 2023; Pringsheim et al., 2021). Some users believed that access to mental health or ADHD content may persuade people to manifest symptoms to fit into a diagnostic category. Overall findings from themes four, five and six are seen to effectively align with research question four. These themes combined provide information about the perceptions of self-diagnosis through social media users on TikTok.

Overall, findings suggest that people engage with mental health content, and those who create mental health content, supportively through words of kindness and positive affirmations. However, people may also use these spaces to discuss their own issues, disorders and suicidal ideation. Commenters also relate heavily to the content, even to the point of recognising symptoms of disorders in their own behaviours. These comment sections also provide a

detailed narrative around self-diagnosis and motivations for this. The comment sections also explained some of the perceived benefits of self-diagnosis but also highlighted some of the more problematic associations it may have.

6.4.2 Strengths, limitations, and recommendations for further research.

The current study and its findings have provided further insight into the ways in which users communicate within social media comment sections. This further extends into the realm of mental health content and what types of conversations occur around this content. This empirical study has produced a myriad of interesting findings, particularly due to its use of the researcher API. As the API has only been readily available for application since August 2023 for those in the UK, published studies using this method of data collection are limited. The use of a mixed methods approach further displays the pragmatist methodological paradigm that this thesis encompasses overall. The choice to use both quantitative and qualitative data for this study have yielded notable outcomes. The narrative data examined the popularity of this content type via the amounts of likes and shares, with the qualitative element then exploring the types of conversations occurring within this content type. Although existing research has collected data via TikTok through conscious searching and popular posts (Gallagher, 2022; Herrick et al., 2021; Munro et al., 2024), this study went beyond these findings by sourcing videos randomly from the included time points. For clarity, the search function on TikTok may typically present more popular or 'viral' content rather than provide a fair distribution of random content. The present study also adds value due to its naturalistic data collection methods. Unlike interviews and focus groups, sourcing existing data from social media provides more naturally occurring data that is not likely to be influenced by confounds such as bias or anticipating an outcome via demand characteristics and effects (Corneille & Lush, 2023). Naturalistic data also proves raw and unfiltered opinions and expressions which have

added a novel insight into opinions around online self-diagnosis, symptom-based content, experience coherence with disorders, as well as the popularity of content.

A key finding from the current study was how commenters expressed their distrust of mental health services and GPs when it came to their suspected diagnosis. This notion has rarely been discussed previously and thus provides a pathway for further research to explore this barrier to seeking a diagnosis. There are also indications from the data reported in the current study that investigating initial primary care conversations could provide further insight as to why people are not feeling 'heard' or 'understood', as well as opportunities for training and resources. The current study also highlights the pattern of self-expression relating to suicidal ideation posted in an unsolicited manner. This could be vital for further research that explores suicidal ideation and self-expression on social media platforms. There are also indications that people may suspect they may have a diagnosis, in particular that of ADHD, when they have interacted with online content which supports existing evidence regarding self-diagnosis practices (Dewak, 2023; Gillmore., 2022; Milton et al., 2023). This highlights the need for further exploration into the 'research' lay social media users are undertaking prior to their self-diagnosis, including considerations for intervention and supportive resources for those that do not wish to seek a clinical diagnosis.

The current study also had limitations. The TikTok researcher API only allowed for small quantities of data to be sourced at a time. This meant that only certain time points (periods shorter than four weeks) of data could be sourced at a time. Using other time points (e.g. over Christmas or exam periods) may have sourced different data and outcomes. Further research could seek to understand if data sourced from the API during winter periods provides different data than the summer months. Moreover, limitations for data sourcing were more prominent for the narrative quantitative analysis rather than the qualitative aspects; the qualitative data outputs were rich in data with 9545 comments being sourced from the API. In addition, due to

the anonymity of the API, there was no way to locate the source video, meaning that assumptions needed to be made by reviewing the 'video description' and comment section to make sure the video and its comments were suitable for analysis. Videos that were not related to mental health, ADHD or self-diagnosis were discarded prior to analysis due to this (e.g. Emojis/blanks). Further, not all users utilise hashtags for their content, so further research could explore video content whereby the creator discusses mental health, ADHD and self-diagnosis without the use of hashtags. This may produce different outcomes; however, it is anticipated that themes will likely be the similar to the current study. The current study also only recognised terms and not algospeak, which is an online language used to avoid algorithms and content moderation, particularly within self-harm communities. (Vera, 2023); future research could also explore hashtags that are using these terms rather than the diagnostic label or recognised terms, as this may provide different outcomes or further insight to these online communities. Finally, due to selective-self presentation (Arnani & Nindhita, 2024; Paliszkiewicz & Madra-Sawicka, 2016) there was no way to know the age, gender, or ethnicity of the sample. Further research could look to be more selective in recruitment of creators to understand if demographics could be a contributing factor to perception, engagement and feelings towards online self-diagnosis.

6.4.3 Implications and conclusion.

The findings from the current study provide evidence to support implications for practice. The data from the API details that social media users are utilising the comment sections to discuss their suicidal ideation. Social media companies should be aware that this occurs and may wish to put contingencies in place to safeguard users. These companies could reach out to those users that discuss suicidal intent and provide support services. The findings also warrant conversations around social media education for users. It is evident from the current study's findings that people are likely to relate to content they see or use content to self-

diagnose. Providing education around information sourcing may prompt users to be more critical in their thinking or consult scientifically backed sources regarding their suspicions. Findings from the current study also detail a distrust for mental health professionals which may prevent someone from seeking help or support. In addition, the current study indicates that there is a need for further insight around social media information sourcing; as people are seen to relate to online content, social media users should be provided further information on directions for support if they relate to disorders they see online. Furthermore, social media companies could also consider disclaimers such as those used in advertisements. This means that influencers are able to inform their viewers that the content they are engaging with is their own experience and not necessarily indicative of a disorder. Although there is no definitive way to know if someone is being deceptive. Social media users should also be made aware that some creators are not posting with altruistic intent and that they may be posting certain types of content for reactions to gain financial incentives.

Overall, the findings in the current study highlight that there are a multitude of ways in which people interact with mental health content online, including offering and seeking support and empathy. The findings also indicate how communities within comment sections provide a safe space for people to make mental health and ADHD self-disclosures. However, these comment sections are also spaces in which users can highlight their suicidal ideation and intent, which may be harmful to vulnerable users. Narrative descriptive analysis details that there are large quantities of mental health and ADHD content being distributed across the platform, with only speculation and scepticism separating authenticity from those that post for extrinsic purposes. The study findings also describe possible motivations for self-diagnosis and how finance, waiting lists and distrust of health care providers could account for why some people avoid seeking formal diagnosis. It also infers that some people see self-diagnosis as a valid practice, but also that people may do this in a factitious manor. Findings further highlight that

using the TikTok research API in data collection provides a novel insight into social media users experiences, thoughts and perceptions in a naturalistic manner.

Chapter Seven: Overall discussion, implications, and conclusion.

7.1 Chapter introduction and overall aim.

The purpose of this chapter is to review and synthesise the findings across all three studies, as well as reflect on how effectively these findings answer the research questions and aims of the thesis. Limitations and strengths of the entire thesis will be discussed as well as recommendations for further research. Finally, implications for policy and practice will be considered. The thesis will close with concluding remarks.

The aim of the thesis was to understand how people engage and interact with mental health (and ADHD) content on social media, with a particular focus on symptom-based content and its effect on mood. To explore this effectively, it was deemed necessary to also examine other factors that may have had a connection to mental health content. These factors included mental health influencers, financial incentives for 'clout,' online self-diagnosis (including motivations for the practice) and other types of content including positive affirmations and 'wellbeing' content.

7.2 Findings in relation to research questions.

7.2.1 Research question one: What effect does symptom-based content have on mood compared to other content types?

Research question two: What is the perception of symptom-based content compared to other content types?

When examining the effect that mental health content has on mood, and the overall perception of these content types, the outcomes from study one effectively answer these research questions. In relation to research question one, the mixed ANOVAs in study one did not yield any significant main effects. This suggests that no content type effects positive or negative mood more than another, but also that positive or negative mood did not fluctuate significantly before and after exposure. Although research question one considers that different

content may impact mood differently, the findings effectively answer research question one by detailing that a single exposure point is not enough to warrant significant mood changes between the content conditions. Further, findings from study one do not align with *some* existing literature, however the reported findings are inconsistent. Some initial findings have reported that access to mental health content had negative implications; for example, Akil et al. (2022) reported that exposure to depression memes increased depressive mood after exposure compared to a neutral content, which was not reflected in the study one where participants showed no significant differences in mood either pre- and post-exposure, nor between content conditions. Further, Milton et al. (2023) suggest that mental health content seen on TikTok via the For You page can be 'overwhelming' for some users. This also aligns with Schluchter (2024) who discusses how their participants revealed that some who view mental health content may experience negative emotional responses. Further, Taylor (2023) revealed that increases in anxiety were observed following exposure to anxiety-based content. Although these studies were used to inform hypotheses three (a) and (b), such impacts were not recorded in the current study, manifest in the lack of significant mood changes from the main effects of the mixed ANOVAs. The findings also contradict the predictions informed by Social Learning Theory (Bandura, 1977), as it was hypothesised that those that engage with and relate to the symptom-based content may replicate these symptoms, and in turn report decreases in positive mood. It was further theorised that relating to the vague symptoms in mental health content may promote feelings of self-stigma, as noted previously by Krosta and Harkness (2008). However, this effect was not observed, suggesting in the short term that exposure to mental health content does not impact mood but may influence other factors. This is also reflected at the other end of the spectrum. Mental health content has also been known to influence people in a positive manner. For example, Kourkoulou (2023) reports that viewing

mental health content can have a positive outcome for some, detailing decreases in depressive symptoms.

Moreover, chi-squared tests of associations for self-reported perception revealed there were significant negative associations to the symptom-based content. This details how the participants perceived the symptom-based content to be significantly more negative than the other content, or than those that reported this to be neutral or positive, effectively answering research question two. Indeed, participants may have related to the 'generic' and relatable symptoms in the symptom-based content condition, with this coherence also leading to feelings of health anxiety (Tekdemir et al., 2022; White & Horvitz, 2009; Vissmara et al., 2020), cyberchondria (Starcevic et al., 2020) and a self-fulfilling prophecy (Foulkes & Andrews, 2023). Negative perceptions may also be a result of self-stigma or stigma of experiencing mental illness, meaning that people may have perceived the content negatively due to this (Krosta & Harkness, 2008). However, it is also likely that participants simply just felt that this content was more negative than it was positive or neutral as it discussed symptoms of mental illness.

Study two also effectively supports in answering research question two. Participants in study two were exposed to the same content from study one and were asked their perception of this content. As with study one, participants noted mixed perceptions of the symptom-based content; some reported negative perceptions and speculated that this content type may have links to self-diagnosis. Participants expressed concern that people would relate to this symptom-based content and formulate a self-diagnosis from this exposure, which may prompt negative thoughts in some as they may believe they have a mental health disorder (Krosta & Harkness, 2008). Further, participants expressed concern that people may begin to replicate these behaviours or pretend to have these disorders in an attempt gain popularity from this type of content. Participants in study two also believed that over exposure to this type of content

may be overwhelming for some, particularly those that may not choose to engage with this content. This is reflective of Milton et al., (2023) who also found that over exposure to mental health content on the TikTok 'For You page' was overwhelming for their participants, due to the intensity of the algorithm. Schluchter (2024) also discusses how some mental health content on TikTok may trigger negative responses in some, as demonstrated in the current study, all of which were described in study two with participants concerned that over exposure to symptom-based content may be overwhelming and confusing, particularly in those that are vulnerable.

When examining the wellbeing-based content (content that encompasses self-help, positive affirmations and support), it has also previously been associated with increases in wellbeing scores (Arquiza, 2020). However, this was not the outcome of the current study. Nevertheless, significant positive associations for the chi square test of association for self-reported perception were noted for those in the wellbeing-content group, with participants reporting that they perceive the wellbeing-based content to be significantly more positive than neutral or negative. This supports that those that engage with content that details self-help strategies and support have positive associations to it (Taylor et al., 2021). This is also reflective of Dale (2020), who noted positive associations and increased inspiration for those that engage with content that expressed support and stories of recovery. Study two also provides support to answer research question two, as participants also had positive associations with the wellbeing content; it was acknowledged that seeing these strategies and affirmations could promote wellbeing and support those having a bad day or in low level crisis. Participant also noted how they preferred this content type that the symptom-based content.

Overall, findings suggest that, in the short term, symptom and wellbeing content do not have a significant effect on mood, nor does symptom-based content impact mood any more than any other content type. This effectively answers research question one which considered if symptom-based content influenced mood more than another type of content, which was not

observed in study one. Furthermore, study one did not align with either hypothesis three (a) or (b) which predicted there would be significant differences in mood across the content conditions, which was not the case. However, hypothesis four and research question two are effectively answered and supported via the chi-squared texts of association in study one, as they did reveal significant associations towards the three content conditions; symptom-based content was reported as being negative, with wellbeing having a more positive associations from participants. Research question two is also supported by study two via the subjective perception revealed by participants, who reported mixed perceptions towards the symptom-based content, but symptom-based content was perceived more negatively than wellbeing-based content.

7.2.2 Research question three: What are people's perceptions of mental health influencers, including receiving monetary incentive for posting mental health content online?

When aiming to understand social media users' perceptions of mental health influencers, including participants thoughts on financial incentives for posting mental health content, findings from study two and study three effectively answer this question. Further, the findings detailed participants' presumed motivations for sharing this type of content. Firstly, findings from study two reported that people like and enjoy mental health content being online, and that having this type of content online was seen as positive overall, due to its ability to support awareness efforts and combat stigma. These findings align with Kim (2022), who found positive behaviour change in relation to mental health awareness efforts in their participants. Correspondingly, Dale (2020) reports that there were increases in positive mood after exposure to mental health content that was related to overcoming obstacles and effectively navigating recovery. Further, Kourkoulou (2023) revealed that access to mental health content online was also a considered to be positive, with their results demonstrating a decrease in self-reported depression in their participants. All of this supports the findings from study two and,

in part, answer research question three. The positive experience of interacting with mental health content shared by influencers online might be furthered by the increased sense of community and support (previously noted by Amato [2022] and Drillinger [2022]). This experience is manifest in the data analysed in study three, where TikTok users' comments in comment sections under 'mental health' posts by TikTok creators are demonstrably supportive and affirming. This access to online support has been detailed by Prescot et al. (2020) as being a positive experience as it helps to diminish feelings of loneliness and is reflected in the current thesis in study two and three.

Nevertheless, some participants in both study two and three reported their concerns that some mental health influencers may only post content that could increase their popularity online. These findings align with social comparison theory, more particularity upwards social comparisons (Festinger, 1954; Gerber et al., 2018; Kross, 2013), whereby people relate their own success to the success of others and are found wanting. This may incentivise some influencers to create similar content to gain the same level of popularity. This notion was not considered positively by participants and may even deter them from engaging with these influencers. Indeed, participants in study two reported that they did not engage with mental health content anymore as they were unsure of the intentions of the influencer. This is also similarly reflected by Adeane and Stasiak (2024), who report speculation by their participants towards the authenticity of influencers that share mental health content on social media; they too did not fully understand their motivations for sharing this type of content.

The authenticity of influencers has been previously reported important; Berryman and Kavka (2018) described how authenticity is an important attribute for some influencers to create parasocial connections with their viewers. However, participants in study two reported that they questioned the authenticity of influencers, especially where mental health content is concerned. Likewise, Adeane and Stasiak (2024) reported that participants highlighted the

importance of influencer authenticity and had mixed views about creators receiving a financial incentive for posting mental health content. This was also noted by participants in study two who reported they had no objections to creators receiving a financial incentive if the mental health or ADHD content being shared was authentic. However, study two participants did not agree with creators receiving financial incentives if content being created was deceptive or solely for financial gain. Although Adene and Stasiaks (2024) participants did reveal their distaste for those that shared mental health content for financial gain, their participants also reported that influencer culture is just how people choose to make an income in the modern world, and that people need to accept that this will happen regardless. This was not highlighted in the current study as participant only saw deceptive content as being negative and without condonement. In addition, participants in study three considered that some creators post content that may glamourise or romanticise mental illness, a notion that is supported in existing research (Issaka et al., 2024; Shreshra, 2018; Vidamaly & Li Lee, 2021). Participants in both study two and three spoke of how they did not agree with glamorising and romanticising mental illness as it takes away from the lived experienced of those that are struggling. Issaka et al. (2024) support these claims; online discourse sourced from their study suggests that portraying mental illness in a desirable manner directs attention away from the symptoms that are more authentic to true lived experience. Furthermore, Adeane and Stasiak's (2024) research reported that participants were concerned that influencers displaying their distress through mental health content may unintentionally promote severe mental health symptoms as positive or desirable.

Participants questioned the motivations for influencers sharing mental health related content. This behaviour appears to violate social norms, particularly when it comes to self-disclosure of mental health disorders and ADHD, which aligns with phenomenon such as vaguebooking (Buehler, 2017), problematic social media usage and the online disinhibition effect (Bányai et al., 2017; Shannon et al., 2022; Suler, 2004). Motivations for sharing mental

health content as a mental health influencer may also align with Social Learning Theory (Bandura, 1977) and the replication of behaviours seen by others which they share similarities with (Lockwood & Kunda, 1997; Marx & Ko, 2012; Strasser-Burke & Symonds, 2020; Villamil & King, 2024) such as other influencers or their peers online. Equally, findings from studies two and three suggest that the popularity of mental health and ADHD content may incentivise some social media users to manifest symptoms to enable them to present themselves as being mentally unwell to create online content. Evidence of this can be seen within research relating to mass sociogenic illness, whereby some social media users had begun to display tic like behaviours after exposure to Tourette's-based content (Giedinghagen, 2023; Müller-Vahl et al., 2022). Indeed, participants in study two highlighted their concern that people would begin to manifest symptoms, so they are able to create content or self-diagnose.

The manifestation of symptoms may also relate to a self-fulfilling prophecy, whereby people may begin to manifest symptoms of disorders when only displaying a handful of symptoms initially (Foulkes & Andrews, 2023). Participants in study two and three reported concerns that some social media users may begin to manifest symptoms after exposure to mental health content. Social media users may engage in this behaviour to either fit into their desired narrative of being a mental health influencer, or they may simply be influenced by the content shared to manifest the symptoms they are exposed to. Moreover, participants also suggested that some prospective influencers might see other mental health influencers gaining popularity from sharing this content (crying videos etc.) and may replicate this behaviour, in a deceptive manner, to reap the same rewards. Indeed, participants in study two discussed how appalled they were that people would fake disorders for financial reasons or for online popularity. Chestnut (2022) report that others mirror this disapproval in their study, comprised of observations of the sub-Reddit r/Fakedisordercringe, a page on Redditt that is dedicated to 'outing' and disapproving of those that fake disorders for attention on social media (Deligent

& Klonaris, 2024; Chestnut, 2022). This sub-Reddit was also discussed among comments in study three, when participants did not believe a poster was being authentic in relation to the mental health or ADHD content they were sharing.

Overall, the thesis findings and related literature display that there are mixed perceptions surrounding mental health influencers. Indeed, by posting this content, creators are claiming to display 'real' versions of themselves but there is no way to effectively know if these experiences are authentic. Findings from the current thesis also indicate that social media users trust in their own self-efficacy in identifying inauthentic behaviour on social media. Findings support the potential value of mental health influencers in promoting awareness and creating a supportive community within their followers. However, considerations should also be made for those that replicate this behaviour factitiously to gain virality or financial rewards. Overall, this effectively answers research question three by detailing that there is not an overall perception of these influencers, and that there are both positive and negative perceptions of mental health influencers.

7.2.3 Research question four: What is the overall perception of, and motivations for self-diagnosis, (including any links to symptom-based content)?

Findings from study two and study three effectively answer this research question by sourcing opinions and beliefs surrounding self-diagnosis from participants from study two, and naturalistic qualitative data from study three. The findings from studies two and three also provide key insight into possible motivations for self-diagnosis, as well as overall perceptions and links to symptom-based content.

Firstly, when examining overall perceptions of self-diagnosis, study two highlights that participants understood that self-diagnosis did occur and that it may be the only option for some (for example, due to financial burden and long waiting lists). Participants also considered that self-diagnosis may be a positive first step towards seeking formal support. However,

participants also reported possible negative outcomes associated with self-diagnosis, due to the belief that some people may only self-diagnose to gain attention or financial rewards for posting popular content. These findings are supported in part by Underhill and Foulkes (2024) who examined user comments on subreddit forums relating to self-diagnosis. Their findings revealed negative perceptions towards those that chose to self-diagnose mental health and neurodevelopmental disorders on Reddit. Secondary data sourced from Reddit comment sections demonstrated how Reddit users viewed self-diagnosis as flawed and inaccurate, and believed that people often fake these disorders to receive attention online (Underhill & Foulkes, 2024). This aligns with findings in study two, where participants expressed their concerns about people pretending to have these disorders to gain popularity online.

In contrast, some of the commenters in study three affirmed self-diagnosis efforts and saw this as a valid practice. Study three participants also discussed that when they received a formal diagnosis, this aligned with their initial self-diagnosis, a notion that can be echoed in findings by Rutter (2023), who reported that people are often correct in their self-diagnosis when compared to self-reported formal diagnostic measures. However, this was only applicable for anxiety and depression and not more complex mood disorders such as bipolar disorder, suggesting that not all those that self-diagnose are correct in their suspicions, particularly for more complex disorders. Research by Gillmore et al. (2022) states that users often self-diagnose after they have been exposed to content from social media, particularly for ADHD. This can be supported in part by Fueston and Piper (2018) who note that those who suspected they had a disorder used social media and the internet to support their suspicions about the disorder. However, this was not used to self-diagnose, only to gather information prior to seeking aa formal diagnosis. This was echoed in study three as commenters stated that their purpose for using TikTok was to access a community of likeminded people, rather than to gain information for a diagnosis.

Positive outcomes associated with self-diagnosis have previously been noted by Gallagher (2022), who report that those who partake in selective self-disclosure of their self-diagnosis report feelings of empowerment. Further, self-diagnosis can also link to online self-diagnosis communities that are host to likeminded individuals and provide practical and emotional support, combatting loneliness (Alper et al., 2023; Gallagher, 2022). This aligns with Roberts (2018), who found that diagnosis (formal or otherwise) has positive outcomes such as understanding oneself and symptoms, which in turn promoted help-seeking efforts. Similarly, study three provided evidence to support these findings through the supportive comments that were seen in the comment sections under the self-diagnosis hashtag. These comments affirmed self-diagnosis and provided its users with a virtual space where they felt safe to explore self-diagnosis. In contrast, findings from study two and study three reveal more negative perceptions of self-diagnosis. Participants in study two believed that self-diagnosis could be problematic, particularly due to the information people may have used to formulate their diagnosis. Indeed, participants reported their concerns about the increase in misinformation in relation to mental health and ADHD on social media; this aligns with Yeung et al. (2022); they assessed that over half the information shared under #ADHD was misinformation and not shared by influencers who were healthcare professionals. They also reported that, although the content was easy to understand, the content was often generic and could potentially lead to incorrect self-identification of ADHD. Concerns surrounding misinformation were also raised by commenters in study three, whereby commenters discussed how some of the information that creators share is not always correct and may be based more on lived experience. Commenters were worried about misinformation and content creators reporting biased subjective experiences as generalised symptoms, meaning that people may self-diagnose with the incorrect disorder, or promote self-treatment (discussed later in the discussion). These findings were mirrored also; concerns were raised within both study two and three, where

participants and commenters discussed the complexity and comorbidities seen within mental health disorders (for example, the similarity in symptomology between ADHD and BPD [EUPD] who share similarities in symptomology (Matties & Philipsen, 2004; Philipsen, 2006). Participants in study two expressed concern that people may self-diagnose with an incorrect disorder due to this, which may result in them not receiving effective treatment, due to a confirmation bias (Ditrich et al., 2021)

Findings from study two revealed that participants related to the content they were exposed to both in study two and online particularly for content that related to ADHD. Participants who reported that they aligned with some of the symptoms in the ADHD related content did not have an ADHD diagnosis. Participants recognised that self-diagnosis is a good first step for those who relate to mental health or ADHD content online but should be followed by seeking a formal diagnosis. However, participants did not consider the impact of this advice on access to support and services; by recommending all those that potentially erroneously suspect they have ADHD (or other disorders) seek professional help, they may inadvertently add to the already inflated waiting lists for diagnostic assessment. Indeed, waiting lists for ADHD assessment can be up to five years in some areas of the UK (ADHD UK, 2023; Foster, 2024), which may result in some paying privately for an assessment. However, there is a difference in simply relating to online content and suspecting that they may *have* the disorder. Those within comment sections in study three both suspected they may have ADHD after exposure but also just spoke of how they aligned with some of the behaviours seen by the creators under the mental health and ADHD hashtags. Participants in study three did highlight a possible need for medication due to their suspected ADHD. It could be possible that those who self-diagnose disorders may attempt to self-treat, which may include purchasing medication from overseas or online (Monteith et al., 2024). Self-prescription can be via the use of over-the-counter supplements, legal or illegal drugs such as amphetamines and cocaine, which are known to

have addictive properties if not regulated or used correctly (Zuddas & Carucci, 2023). Indeed, some over the counter supplements may contain serotonin which, if not used as directed or used in conjunction with SSRIs, can lead to serotonin syndrome which can be fatal (Maffei, 2020; Volpi-Abadie et al., 2013) ,and some ADHD medication can lead to first episode psychosis in those that are not dosed correctly (Björkenstam et al., 2020; Pasha et al., 2022).

Findings from study two revealed that participants believed symptom-based content could be a contributing factor to self-diagnosis. For note, some of the content that was used in the study, but also what people access online, is often vague or generic and can be applied to individuals not experiencing a mental illness. This, in turn, could make the content more relatable and therefore could be used to formulate a self-diagnosis. Dewak (2023) support this, as their findings detail that people may often relate to mental health content that they see on their social media, particularly when symptoms are generalised and relative to normal human experiences. Findings from study three revealed that people were more likely to relate to content and experience coherence with videos and comments posted within the #ADHD than the other hashtags used in the analysis, resulting in commentors believing they may have ADHD. For note, ADHD was the only hashtag under which users discussed experience coherence in relation to believing they had a disorder. Other hashtags such as #Mentalhealth, #Depression and #Anxiety indicated that commenters also experienced or had been diagnosed with this disorder, but not that the commenters now suspected they had any of the disorders following exposure to the content. This is supported by findings by Gillmore et al. (2022), who conducted a content analysis on twitter using the terms ADHD and TikTok and revealed that people often self-diagnosed with ADHD after exposure to ADHD content on TikTok. However, study three also indicated that users do not solely use TikTok or other forms of social media to support with a self-diagnosis, with those embedded within these communities stating that they have done extensive research away from the platform. This is not reflected in previous

literature; indeed Gilmore et al. (2022) report that people do use information sourced from social media to support a self-diagnosis (particularly for ADHD). Participants in study two disagree with social media users sourcing diagnostic information from mental health social media content, however findings across study two and three demonstrate that some social media users will utilise information sourced from online content creators to support a self-diagnosis. However, as findings from study two and three reveal, participants and commenters are sceptical of sourcing diagnostic information exclusively from social media and use other sources to gain their information. It may be the case that the spoken intention to utilise multiple sources to support a mental health diagnosis is not sufficient to motivate behaviour change, due to the comparative effort of sourcing reliable diagnostic materials, and the positive opinions of self-diagnosis typified by the comment sections within the ADHD hashtag (Ajzen, 1991).

Findings from study two and three also explored the possible motivations for self-diagnosis. Data sourced within study three indicates that some are motivated by the cost of, and access to, services. As noted, ADHD waiting lists can be up to five years in the UK (ADHD UK, 2023; Foster, 2024; Starcevic et al., 2020), and this may be a deterrent for those seeking formal support. Those within the comment section in study three indicated that there is a distrust of health care professionals, including GP's and mental health practitioners, although no current research has examined the relationship between self-diagnosis and distrust of medical professionals. These findings align with previous reports that distrust of medical professionals is a barrier to seeking formal support (Underhill & Foulkes, 2024). It was commonplace in these comment sections to trust one's own perception over a professional's. Participants report that due to the subjective nature of diagnostic assessments, their belief that they understand themselves and their symptoms better than anyone else, meaning that they are better suited to make these assessments than a mental health professional. Underhill and Foulkes (2024) support these claims as their findings reveal that some Reddit users believe

themselves to be better equipped to diagnose themselves due to having a better understanding of their own lived experiences and of themselves. Correspondingly, other motives for self-diagnosis that were highlighted in study three included that some people do not feel 'heard' and are regularly dismissed by their healthcare providers, resulting in self-diagnosis being their only option. This was supported by Sheikhan et al., (2023), who describe a fear of 'not being sick enough' as a barrier to seeking help and support for mental health in their participants. This could also present as a barrier for seeking a diagnosis.

Findings from study two and three also suggest that people may be self-diagnosing for attention, for financial gain or otherwise, and that this may result from the 'glamorisation' or 'romanticisation' of mental illness online (Dunn, 2017; Issaka et al., 2024; Shrestha, 2018; Vidamaly & Li Lee, 2021) or witnessing others gaining popularity for posting self-diagnosis content. People may then engage with upward social comparisons and begin to manifest symptoms of mental illness (Bandura, 1977; Festinger, 1954; Gerber et al., 2018; Kross, 2013). Equally, social media users may be exposed to self-diagnosis content or influencers via their For You Page algorithm, which may yield fears of missing out (Zhang et al, 2021; Astleitner et al., 2023) and may in turn prompt users to create similar content, or self-diagnose, to create a sense of belonging (Alutaybi et al., 2020; Servido et al., 2021). Indeed, participants in study two suspected that the purpose for self-diagnosis in some may be due to a desire to understand themselves more (Roberts, 2018), to elicit social support (Andalibi et al., 2018) or to feel a sense of belonging (Lewis, 2016). However, participants also believed that some users are motivated by a financial reward and may make self-diagnosis content or proclaim to have self-diagnosed solely for a monetary incentive.

Overall, findings do effectively answer research question four. Findings reveal that, according to participants, self-diagnosis is neither entirely negative nor positive. However, participants did question motivations for the practice, and some revealed their own barriers to

formal diagnosis, such as access to and cost of services. Analyses revealed that people are likely to self-diagnose if they do not trust healthcare professionals, and/or anticipate being dismissed, particularly when they believe that they understand themselves and their symptoms better than a professional could. Participants raised concerns surrounding financial or social motivations for self-diagnosing' especially when this was done in a deceptive manner. It was assumed by participants that some people may relate to symptom-based content and formulate a diagnosis from this, which was considered problematic due to potential misinformation, overlapping symptomologies and incorrect self-diagnosis.

7.2.4 Research question five: How do people interact and engage with mental health content online?

When exploring how people interact and engage with mental health content online, study one and study three effectively answer this research question. Descriptive statistics within study one illustrate that social media users may not engage with mental health content online regularly, with participants reporting only seeing a handful of posts. This was unexpected as it contradicts recent reports of 'billions' of posts on TikTok relating to ADHD (Yeung et al, 2022). However, the quantitative data sourced from the API within study three details that there are millions of mental health related posts on TikTok from only ninety-three days' worth of content being sourced. These millions of posts also were noted to have billions of likes, comments and shares within these ninety-three days, detailing that in fact engagement on these types of posts is remarkably high. However, in relation to the billions of reported TikTok users (Dean, 2024), mental health content represents a fraction of the content being shared and disseminated. It is possible that those in study one may not be regularly exposed to or engage with mental health content online. Evidence suggests that this may be due to social media algorithms; if users are not seeking this type of content, they may not be exposed to this content on their 'For You' pages or newsfeeds (Agung & Darma, 2019; Marret, 2020; Koç, 2023). Indeed, those recruited

in study one may not want to engage with mental health content and this is reflected in their algorithm-prescribed social media feeds. Nevertheless, participants in study two also reported that they did not see mental health content often either but, after the exposure to the research stimuli, they reported that they actually do see this content quite often. This illustrates how some users may not realise what is meant by 'mental health content' until they have been provided examples.

Study three detailed in-depth and naturalistic observations on how users interact with mental health content on TikTok. These findings suggest that those who engage with mental health related content on the application may do so to elicit support and empathy (Gallagher, 2023; Kourkoulou, 2023). Equally, comment sections were also viewed as a safe place for social media users to speak freely about their own struggles, and to find support. This aligns with Andalibi et al., (2018) who found self-disclosure on social media to be a positive experience for their participants, and Gallagher (2023) who found that social media was considered as a space which provides a sense of community and support. This was reflected in the analysis of study three with observations of supportive and affirming comments. However, findings within the current thesis also display that people can often use these spaces to disclose their suicidal ideation, although it could be inferred that social media users may do this as a 'cry for help' or to elicit support (Berryman & Kavka, 2018; Gallagher, 2023; Prescot et al., 2020). However, self-disclosing suicidal ideation for attention, or to be manipulative, are also common behaviours and are associated with the online disinhibition effect (Suler, 2004), PSMU (Bányai et al., 2017; Shannon et al., 2022) and vaguebooking (Buehler, 2017). This type of behaviour is particularly concerning due the number of vulnerable and young people that use this application, especially when Zhu et al., (2023) presents evidence that these users may be influenced into engaging with self-harm and suicidal behaviour, such as those that participated in the 'Blue Whale Challenge'. This challenge saw social media users replicated

self-harm and suicidal behaviours after exposure to this on social media (Khasawneh et al., 2020). Indeed, participants in study two showed self- efficacy in relation to identifying misinformation presented in mental health content but this may not be extended to identifying dangerous trends. As Khasawneh et al., (2020) and Zhu et al., (2023) note, there are still considerations for those social media users who are more vulnerable and susceptible to influence.

Study three also illustrates how emotionally invested social media users are in those that post mental health content. Correspondingly, Hebben (2019) details how emotionally invested some people can be in parasocial relationships with influencers and other social media content creators. Indeed, in study three, it was observed that some users used the comment sections on mental health and ADHD related content to share the ways in which they manage their symptoms, spread words of encouragement, offer support and discuss their own experience coherence. Similarly, Gilmore et al., (2022) reported how their participants also expressed their experience coherence after exposure to ADHD related content. Findings indicate that social media can be a place where people can speak openly about their thoughts and feelings, regardless of whether this conforms to social norms. Although discussing self-diagnosis and mental health in such detail may be seen as outside of social norms, there are advantages to this including increases in community, the positives of online self-disclosure and a sense of belonging (Alper et al., 2023; Gallagher, 2022; Milton et al., 2023; Ostendorf et al., 2022; Schluchter, 2024).

Overall mental health content online was seen as positive, although concerns were raised about symptom-based content due to its links with self-diagnosis, as well as suicidal ideation behaviour online. People engage with this type of content regularly, but the sample from study one may not engage was much as those in study three. Study three also revealed that social media users on TikTok often use comment sections on mental health posts to offer

messages of support and affirmation, or to discuss their own struggles with mental health, through direct and indirect cries for help.

7.3 Overall summary of findings

Previous research has provided evidence for conflicting views and outcomes after exposure to mental health-based content on social media. On one hand, it has been revealed that viewing this content has positive outcomes, such as an increased sense of community (Amato, 2022; Drillinger, 2022; Milton et al., 2023), decreases in depressive mood (Kourkoulou, 2023) and reports that engaging with mental health awareness efforts on social media was experienced positively (Dale, 2020; Pavlova & Borkers, 2020). On the other hand, research has also reported negative outcomes, such as increases in anxiety symptoms after exposure to anxiety related content (Taylor, 2023), increases in depressive mood after exposure to depression memes (Akil et al., 2022), feeling overwhelmed (Milton et al., 2023), and feeling anger and anxiety (Dewak, 2023). Overall, findings within this thesis suggest that exposure to symptom-based content in the short term does not appear to have any negative implications on mood. Nevertheless, findings did reveal negative perceptions observed after exposure to symptom-based content in studies one and two. Participant interviews revealed that some social media users believe that symptom-based content influences self-diagnosis of mental health and neurodevelopmental disorders. This is consistent with previous research that found that mental health content relating to symptoms had a negative impact on viewers, such as increases in anger, anxiety and feelings of being overwhelmed (Dewak, 2023; Gilmore et al., 2022; Milton et al., 2023). Although the findings within the thesis suggest that self-diagnosis is not entirely negative nor positive, study three revealed complex motivations for this, including poor access to services and distrust of medical professionals. Comparatively, self-diagnosis was viewed as positive by some as it allowed them to access a community of likeminded individuals, facilitating social and emotional support (Andalibi et al., 2018), manifestly in study three.

However, concerns were raised by participants surrounding questionable motivations for self-diagnosis, such as fabricating an illness for extrinsic motivations (to be able to share 'popular' content). These practices were seen as innately negative; participants in study two and three did not support this and wondered about the possible motivations for those that fabricated illness for attention. Motivations for this behaviour were not thoroughly discussed but research indicates that possible theoretical explanations of this behaviour include PSMU (Bányai et al., 2017; Shannon et al., 2022), FOMO (Astleitner et al., 2023; Zhang et al, 2021), Social Learning Theory (Bandura, 1977), online disinhibition effect (Suler, 2004) and Social Comparison Theory (Festinger, 1954). Likewise, social media influencers were discussed in study two, where participants questioned the authenticity of these self-proclaimed mental health influencers in relation to posting mental health content (Adeane & Stasiak, 2024) and in study three where commenters spoke of the 'glamorisation' and/or 'romanticisation' of mental illness by influencers (Dunn, 2017; Issaka et al., 2024; Shrestha, 2018; Vidamaly & Li Lee, 2021). Indeed, it is possible that people may use these platforms with malicious intent, such as fabricating disorders for financial gain and popularity (Ayyer & Sousa, 2014; Foulkes & Andrews, 2024; Giedinghagen, 2023; Pullman & Taylor, 2012). However, findings from study three indicate that this scepticism is suspended in comment sections where users are typically very supportive of one another and use these spaces to share experiences and promote wellbeing. This is reflected in existing research where social media online communities relating to mental health are noted as being positive, due to their supportive and affirming nature (Alper et al., 2023; Gallagher, 2023; Kourkoulou, 2023; Prescot, Rathbone & Brown, 2020). Although some participants across the thesis detail their concerns about how content or influencers may manipulate vulnerable users or promote feelings of relatability the participants reported and awareness of this manipulation and confidence in their ability to identify it. This provided evidence that not all users of social media are easily coerced or manipulated, as noted by

Hebben (2021). Overall, it can be noted that the findings of this thesis effectively answer the corresponding research questions (as seen in 6.2.1-6.2.4).

7.4 Strengths, limitations, and recommendations for further research.

Although strengths have been reported for the individual studies that comprise this thesis, the thesis also has notable strengths as a whole. Firstly, to reflect on sample size and robustness of the research design. For study one 220 people took part in the study, which was above the recommended sample size required through power analysis (n = 171) (Cohen, 2002). Study two recruited 15 participants for the qualitative interviews, where data saturation had been reached at 10 participants. Recruiting an extra five people allowed for a deeper and more nuanced exploration. In addition, study three included over 9545 comments from the TikTok API thematic analysis, which yielded a broad data sample. Such large data samples data meant that the thesis had not only sufficient qualitative and quantitative data for an effective analysis, but also that data was varied and from a variety of sources. Observational, subjective and naturalistic data yielded a variety of perspectives presented within the results, which added strength to the thesis. Indeed, the strong validity manifest in the qualitative data is extended to the quantitative data; study one utilised validated scales and measures (Li et al., 2016; Lin et al., 2014l; Wardenaar et al., 2010; Watson et al., 1988) which demonstrated excellent reliability in the current study. The pragmatic nature of the thesis and mixed methods design adds value by utilising both objective quantitative findings from validated scales and qualitative, subjective and naturalistic data from studies two and three. The current thesis is the first of its kind to quantitatively explore self-reported perceptions and mood using a control group (image only) and the two experimental groups (wellbeing and symptom-based content). By having such a broad range of areas of exploration, through a multitude of methodologies, the findings of this thesis not only add to existing knowledge, but they have also provided new insight into an emerging area of research. The mixed methods approach also allowed for a convergence of

data and knowledge from a variety of sources. Indeed, this thesis is the first of its kind to explore mental health content, self-diagnosis, and mental health influencers collectively, but also in relation to mental health content that relates specifically to symptoms of disorders.

Certainly, the strengths of the present thesis also lie in its novelty; the TikTok API analysis in study three provides new insight into online communities that have not yet been explored to this degree, due to the access to the API for TikTok only being available in the UK since August 2023. This thesis is one of the first studies in the UK to use this API within research and to use this tool to analyse comment sections thematically. This is compelling as, not only is the data novel and relevant to the thesis research questions, but using naturalistic data collection methods may have also eliminated confounds such as demand characteristics/effects that may be present in primary data collection methods (Corneille & Lush, 2023). Therefore, the findings we have sourced through this data are unfiltered and directly from the population in question (e.g. social media users, people that have self-diagnosed). Indeed, outcomes from the API analysis added to our understanding of the phenomena of self-diagnosis following social media exposure by exploring motivations for self-diagnosis such as distrust for medical professionals. Although some findings of the thesis align with existing research, this thesis is timely, adding to recent findings by Adeane and Stasiak (2024) who also found that there were mixed perceptions towards influencers that post mental health content. This thesis extended this to provide further insight to the complicated phenomenon, particularly through incorporating conversations specifically relating to content that discusses symptoms of disorders. A further insight the present thesis presents is into the subjective self-efficacy of social media users in identifying misinformation or deceptive content creators; participants in study two regularly questioned influencer authenticity and expressed their concerns about misinformation and impact on other users. Although Adeane and Stasiak (2024) revealed that people question influencer authenticity in relation to financial incentive and profiting from mental health, the

current study built on this by providing insight into the social media user self-efficacy. Participants reported self-efficacy in relation to identifying misinformation and awareness that some people create content solely for attention, where Adeane and Stasiak (2024) did not. Prior to the conception and completion of this thesis there was limited research that explored the influence that mental health content may have on mood. Only one such study existed; Akil et al. (2022) found that exposure to depression memes increased depressive mood post-exposure compared to a neutral content group. Study one aimed to address the gaps highlighted by Akil et al. (2022), such as expanding beyond simply exploring depression and depressive mood and extending to explore other mental health disorders. It also aimed to add further context by exploring mood via the PANAS (Watson et al., 1998), which explores negative (e.g. upset, irritable, afraid) and positive affect (e.g. proud, strong, excited) rather than just depressive mood. Although no significant main effects were reported in study one, the findings still add strength and novel data to the research area by revealing that viewing content relating to mental illness symptoms and wellbeing has no impact on negative and positive mood following a single exposure point. Future research may explore this longitudinally.

Aswell as notable strengths, the current thesis has its limitations. Studies one and two utilised still images as stimuli, however the use of moving images may have provided different outcomes (Su et al., 2021). Future research could examine video media such as TikTok videos and YouTube shorts to see if there are different outcomes or perceptions to those in this thesis that were exposed to still images. Further research could also utilise both still and moving images in data collection. A further practical limitation was that of the single 10 second exposure to stimuli in study one. No significant main effects were noted through pre- and post-exposure to the assigned content conditions, which may be due the data collection being at a single exposure point. At the time of conception, a longitudinal study was not deemed necessary as significant findings had been reported in the literature following a single exposure

point (Taylor, 2023). Correspondingly, study two participants recognised that over exposure is likely to be an influencing factor to mood. Such limitations yield a gap in the literature to explore longitudinal data collection methods and the impact on observed mood-related outcomes.

Finally, the sample only considered those that were over 18, due to the problematic nature of data collection for minors, such as due informed consent issues and differences in cognition due to frontal lobe development (Mercurio et al., 2020). Those that are under 18 and are in more key developmental stages and may be more vulnerable to influence and therefore may perceive content differently than their older counterparts (Carbonell & Panova, 2016; Orben, 2020; Taylor, 2023). Although not deemed suitable for the current thesis, further research could look to understand perception of mental health content by social media users under the age of 18.

7.5 Practical Implications

As noted in individual discussions for each study, findings suggest that there are some possible negative implications of exposure to symptom-based content. Although study one suggests that a single exposure to symptom-based content does not impact mood in the short term, study two and three highlight its possible relationship with self-diagnosis. Self-diagnosis is not seen to be innately negative or a harmful practice by participants within the thesis however, findings do suggest that this could be enabling those with malicious intent to manufacture this content to gain financial rewards. Social media companies should be aware of this; those that financially benefit from creating and distributing this content could be required to post disclosures about receiving financial rewards. Conversely, some social media users post content that is based on their lived experience and, although this is likely being shared to raise awareness or to be supportive, the subjective nature of this content could be confusing and misleading to those that are vulnerable or are suffering a mental health crisis.

Equally, social media companies could also look to implement content warning or labels for those that wish to share this content, so that those that engage with this are aware that this is a subjective experience and not to use this content to self-diagnose. Further, findings from this thesis could inform National Health Service (UK), global health services and education. Social media is an integral part of daily life for most (Dean, 2024; Siddiqui & Singh, 2016), therefore, educational materials could be created that outline some of the possible negative implications of the overuse of social media. This could be via content creators or distributed through schools, universities or workplaces. Moreover, the coproduction of training materials and interventions through participant, stakeholder and researcher involvement could support the development of evidence-based materials to distribute (Grindell et al., 2022). Health literacy should incorporate information about understanding influencers and targeted advertisement, the possible dangers of misinformation and self-prescribing. Those that are young or vulnerable may not be able to navigate social media and their algorithms objectively and may need support to understand this further.

Findings from study three discuss motivations for not seeking a formal diagnosis and that this may be due to the distrust of medical professionals. These findings highlight the need for services, such as GP's and crisis teams, to understand that those that may come and seek their support may be distrusting of them. Such comments may be influencing others to not seek out formal support due to a perception of medical professionals. Healthcare centres or organisations such as the NHS, could investigate ways to promote their workers' job roles and responsibilities through social media to combat this. Indeed, social media posts from corporations that have included their employees are known to increase brand engagement from consumers (Kaoud & Elbolok, 2024). Further, misinformation has been reported as a concern through throughout the thesis; healthcare organisations could also look to implement evidence-based knowledge through social media to support those that suspect they have a disorder or

self-diagnose. Although it has been indicated that psychologists are taking to TikTok in attempt to disseminate accurate information (Smith, 2022; McCashin & Murphy, 2023), people are more likely to subscribe to personable, relatable content rather than scientific content (Choi et al., 2021). Therefore, healthcare organisations could share content on social media that is more relatable, and therefore more engaging, to support those that are searching for accurate information.

7.6 Conclusion

Mental health is a top burden of disease globally. Social media has received both scrutiny and praise for its influence on mental health awareness, but also its possible contributions to poor mental health outcomes. In an extension from this, mental health content is becoming increasingly popular on social media, with conflicting outcomes about the possible benefits and detriments of exposure to this content. The overall aim of the thesis was to explore mental health content on social media, particularly symptom-based content, and its effect on mood, and overall perceptions of this content, those that post mental health content, and online self-diagnosis of mental health disorders and ADHD. In summary, the current thesis has provided insight and valuable findings within the topic of social media, mental health content, self-diagnosis and social media influencers, but also how people interact and engage with mental health content online through TikTok comment sections. Further, the findings have added to under-researched areas and promoted further research explorations through its pragmatic approach. It has also provided evidence for the mixed perceptions relating to symptom-based content, and self-diagnosis, and that these should be explored further. It also indicated that a single point of exposure to content is not enough to influence mood scores, warranting longitudinal exploration in the future. Overall, the findings from this thesis are both novel and insightful and effectively answer each of the research questions.

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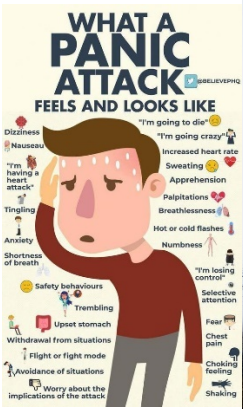
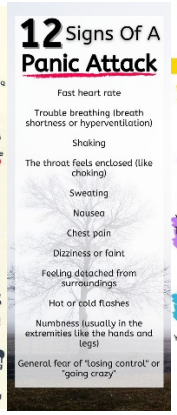
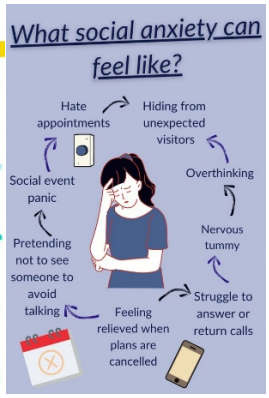
APPENDICES

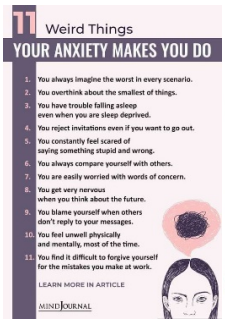
1. Appendix one: Content used in study one and two.

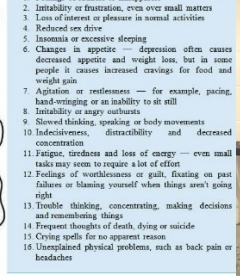
1.1 Symptom-based content:

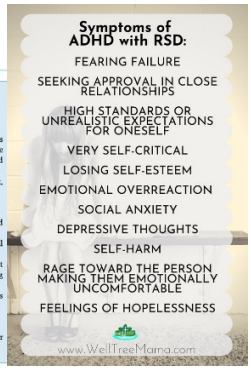




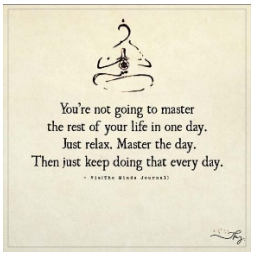


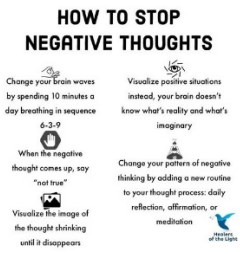


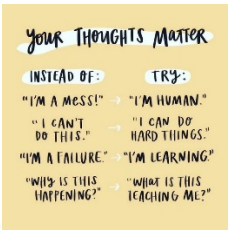


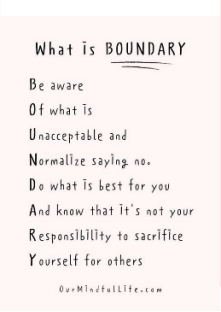


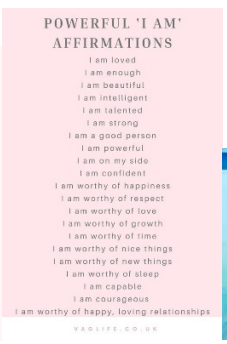
1.2 Wellbeing-Based Content











1.3 Image Only Content

2.0 Appendix two: List of random words for image-only content

Cat, dog, bird, zebra, tree, roses, car, motorbike, palm tree, mountain, moon, sun, planet, river, cheese, bread, olives, boat, fireplace, coffee, cookie, leaves, pencil, ocean, whale.

3.0 Appendix three: Moodboosting URL

https://www.youtube.com/embed/xbm2hZwj8X0

4.0 Appendix four: Participant facing materials for study one.

4.1 Participant information sheet.

PARTICIPANT INFORMATION

A Study looking at the effect social media content has on mood.

STUDY BACKGROUND

You have been invited to take part in a study looking at the effect that social media content has on mental health and mood. This study has been given approval by BCU's Business, Law, and Social Science Ethics Committee.

WHAT WILL YOU NEED TO DO?

You have been invited to take part in this study, this study will look at the influence of social media on mental health and well-being.

The study will consist of a series of different tasks, the first is a series of questionnaires looking at mood and social media usage. You will then be exposed to a selection of social media content and how this makes you feel, please be completely honest as there is no right or wrong answer, after this a debrief sheet will be provided. Please read through the debrief sheet carefully before you leave.

HOW LONG WILL THE STUDY LAST?

The questionnaire will take around 30 minutes.

WHO IS ELIGIBLE TO TAKE PART?

There are no limitations regarding race/ethnicity, sexual orientation, or gender for this study, please be advised that for demographic purposes you will be asked to disclose your gender and age.

Because of ethical implications, only those 18 or over can participate in this study.

Only those that have the capacity to give informed consent can take part in this study.

Current mental health diagnosis is a factor that will be disclosed during this study, there are no exclusions to those with a mental health disorder, however if you are currently in a mental health crisis do not take part in this study.

ARE THERE ANY RISKS OF TAKING PART?

As this is a study looking into mental health, there may be sections of this study that some people find distressing, you are able to leave at any time, trigger warnings are found throughout and also below. There are support service contact information provided on this sheet as well as at the end of the study if any of the content is triggering or upsetting.

Disclaimer: At the beginning of this study, you will be asked to provide information regarding your mental health status. This includes if you have a diagnosis or not. This can be via a health care professional or via self-diagnosis. If you do not feel comfortable disclosing this information, please do not take part in the study, if you do not have a mental illness, you can still partake as there is also an option for this.

PLEASE NOTE: The content/questions used in this study should not be used for diagnostic purposes, they are to look at current state of mind during the study and for no other purpose.

You will be asked questions such as:

What is your current mental health status?

In the last two weeks how often have you felt:

- Worried about a lot of things
- Felt pessimistic about the future.
- Had pain in my chest.
- Etc…

Disclaimer: some of the content in this experiment may be distressing to those in a mental health crisis, some of the content you may be exposed to is:

- Detailed symptoms of both anxiety/ depression and attention deficit hyperactivity disorder (ADHD)/ borderline personality disorder (BPD). **Please do not use these as a source of information to self-diagnose, these are only used as a tool for the experiment.**
- Details of someone's struggles with mental health – **No mention or details of self-harm or suicide/ suicide attempts will be used in this experiment**.
- As well as others that people in mental health crisis may find distressing.

If any of this information may cause you distress you are urged to not partake in the study, if you feel like you are in a mental health crisis, please contact the support services below.
The questionnaires used in this study will be used to look at mood/ personality and symptoms of anxiety. Some of the questions asked may be triggering or cause distress, so if you feel that these types of questions may cause you distress, please do not partake in the study.
You will be provided with details of mental health support services and helplines at the end of the study, so you are aware of the support available, should you require it.

ARE THERE ANY BENEFITS OF TAKING PART?

Although there are no direct benefits from taking part, it is hoped that this research will provide a steppingstone for further research and an insight into social medias influence on mental health.

YOUR RIGHT TO WITHDRAW AND WITHHOLD INFORMATION

Participation in this study is entirely voluntary and there is no obligation to take part. In line with the regulations outlined by the British Psychological Society, you can stop being a part of the study at any time without explanation up until data collection is complete. You are still entitled to the same benefits as an individual who completes the study.
If after completing the study, you decide you would like to withdraw, please contact the researcher *before the 30th November 2023.* During the study, you also have the right to leave at any time by exiting the screen. Any data collected until this point will be deleted securely.
Please contact katie.saunders@mail.bcu.ac.uk if you require any further information or wish to withdraw. Remember, you will need to provide your participant ID if you would like to withdraw your data.

YOUR RIGHT TO CONFIDENTIALITY/ANONYMITY

The study will not involve the collection of any personal information about you except your age, gender and other demographic information including your mental health status. Any personal information given will be unidentifiable to an external party – Your data will be stored confidentially, using a personalised anonymous participant ID code that you will create (you will be given instructions on how to produce this at the beginning of the study).
Your data will be stored on a password-protected laptop, on a password-protected University OneDrive folder, which will only be accessible to those within the research team.

FURTHER GUIDANCE

Please see the below contacts if you feel distressed by anything you see or experience during this study. These will also be provided on the debrief sheet.

Support services – BCU STUDENTS ONLY:

BCU Mental Health & Wellbeing Team offers appointments to students between the hours of 9-5pm, Monday to Friday (excluding bank holidays) 51 weeks of the year. We also offer a small number of evening appointments.

Any students who wish to access **OUT OF HOURS SUPPORT** can utilise the support of external services that operate extended or 24/7 opening hours.

If you have any questions or concerns, contact us:

- Telephone: 0121 331 5188
- sa.wellbeing@bcu.ac.uk

FURTHER SUPPORT SERVICES

If you feel that you are in a severe mental health crisis and are having thoughts of self-harm or suicide, please call 119 or go to A&E for immediate help and assistance.

- Samaritans. To talk about anything that is upsetting you, you can contact Samaritans 24 hours a day, 365 days a year. You can call 116 123 (free from any phone), email jo@samaritans.org or visit some branches in person. You can also call the Samaritans Welsh Language Line on 0808 164 0123 (7pm–11pm every day).
- SANEline. If you're experiencing a mental health problem or supporting someone else, you can call SANEline on 0300 304 7000 (4.30pm–10.30pm every day).
- National Suicide Prevention Helpline UK. Offers a supportive listening service to anyone with thoughts of suicide. You can call the National Suicide Prevention Helpline UK on 0800 689 5652 (open 24/7).
- Campaign Against Living Miserably (CALM). You can call the CALM on 0800 58 58 58 (5pm–midnight every day) if you are struggling and need to talk. Or if you prefer not to speak on the phone, you could try the CALM webchat service.
- The Mix. If you're under 25, you can call The Mix on 0808 808 4994 (3pm–midnight every day), request support by email using this form on The Mix website or use their crisis text messenger service.
- Papyrus HOPELINEUK. If you're under 35 and struggling with suicidal feelings, or concerned about a young person who might be struggling, you can call Papyrus

HOPELINEUK on 0800 068 4141 (weekdays 10am-10pm, weekends 2pm-10pm and bank holidays 2pm–10pm), email pat@papyrus-uk.org or text 07786 209 697.

- Nightline. If you're a student, you can look on the Nightline website to see if your university or college offers a night-time listening service. Nightline phone operators are all students too.
- Switchboard. If you identify as gay, lesbian, bisexual or transgender, you can call Switchboard on 0300 330 0630 (10am–10pm every day), email chris@switchboard.lgbt or use their webchat service. Phone operators all identify as LGBT+.
- C.A.L.L. If you live in Wales, you can call the Community Advice and Listening Line (C.A.L.L.) on 0800 132 737 (open 24/7) or you can text 'help' followed by a question to 81066.
- Helplines Partnership. For more options, visit the Helplines Partnership website for a directory of UK helplines. Mind's Infoline can also help you find services that can support you. If you're outside the UK, the Befrienders Worldwide website has a tool to search by country for emotional support helplines around the world.

WHO IS ORGANISING THE RESEARCH?

The study is part of the researchers PhD project.

Department of Psychology

School of Social Sciences

Birmingham City University

The Curzon Building

4 Cardigan Street

Birmingham B4 7BD

The primary research team are Katie Rose Saunders, Dr. Athfah Akhtar, Dr. Elle Boag and Dr. Mariel Marcarno-Olivier.

Lead Researcher: Katie Rose Saunders PhD Psychology Student (Lead Researcher)

Contact: Katie.saunders@mail.bcu.ac.uk

Dr. Athfah Akhtar: Athfah.Akhtar@bcu.ac.uk, Dr. Mariel Marcano-Olivier: Mariel.Marcano-Olivier@bcu.ac.uk & Dr. Elle Boag: Elle.Boag@bcu.ac.uk.

If you are unhappy at any point in the study, or if there is a problem, please contact the Business, Law & Social Sciences faculty ethics committee directly at blssethics@bcu.ac.uk

4.2 Participant consent form (STUDY ONE)

CONSENT

A study looking at the relationship between social media content and mental health diagnosis.

BRIEF SUMMARY OF PROJECT

You are being invited to take part in a research study looking at the relationship between social media content, mental health diagnosis and personality. This study has been given approval by Birmingham City University Ethics Committee.

In order to participate in this study, we need to ensure that you understand the nature of the research, as outlined on the Participant Information page.

Please tick the following boxes to provide informed consent:

1. I confirm that I have read the participant information above for this study and have had the opportunity to consider the information.
2. I understand that in order to take part in this study, I should be at least 18 years old.
3. I understand the information that has been provided to me and what the project entails.
4. I understand that I can stop the project at any time by exiting the screen or emailing the researcher to withdraw.
5. I give my consent for my data to be used for the purpose of this project and understand that I will remain completely anonymous at all times and will be stored securely on the university server.
6. I understand that personal data about me will be collected for the purposes of the research study including gender, age and mental health status/diagnosis, and that these will be processed in accordance with the information presented in the participant information.
7. I understand that my participation is voluntary and that I am free to withdraw up until 30th November 2023 without my legal rights being affected.
8. I understand that the study findings (including anonymised data extracts) this project will be presented at academic conferences, research articles and published in peer reviewed journals.

4.3 Participant debrief (STUDY ONE)

Thank you for taking part in the study.

The purpose of this study was to see if different types of mental health-based content on social media has an effect on mood.

The reason for the disclosure of mental health status is to see if someone with a diagnosed illness perceives content differently to someone who doesn't.

We are expecting to see that those with diagnosed mental health conditions perceive content more

negatively and those without a diagnosis less so. We are also anticipating certain types of mental health content will be perceived as negative/positive compared to others across the board regardless of diagnosis.

Some of the content that you were interacting with may have been triggering or sensitive. If you need any assistance with your mental health, or any thoughts of feelings you, may be having that maybe uncomfortable or distressing please see the following support services.

Support services:

- If you feel that you are in a severe mental health crisis and are having thoughts of self-harm or suicide, please call 119 or go to A&E for immediate help and assistance.
- Samaritans. To talk about anything that is upsetting you, you can contact Samaritans 24 hours a day, 365 days a year. You can call 116 123 (free from any phone), email jo@samaritans.org or visit some branches in person. You can also call the Samaritans Welsh Language Line on 0808 164 0123 (7pm–11pm every day).
- SANEline. If you're experiencing a mental health problem or supporting someone else, you can call SANEline on 0300 304 7000 (4.30pm–10.30pm every day).
- National Suicide Prevention Helpline UK. Offers a supportive listening service to anyone with thoughts of suicide. You can call the National Suicide Prevention Helpline UK on 0800 689 5652 (open 24/7).
- Campaign Against Living Miserably (CALM). You can call the CALM on 0800 58 58 58 (5pm–midnight every day) if you are struggling and need to talk. Or if you prefer not to speak on the phone, you could try the CALM webchat service.
- The Mix. If you're under 25, you can call The Mix on 0808 808 4994 (3pm–midnight every day), request support by email using this form on The Mix website or use their crisis text messenger service.
- Papyrus HOPELINEUK. If you're under 35 and struggling with suicidal feelings, or concerned about a young person who might be struggling, you can call Papyrus HOPELINEUK on 0800 068 4141 (weekdays 10am-10pm, weekends 2pm-10pm and bank holidays 2pm–10pm), email pat@papyrus-uk.org or text 07786 209 697.
- Nightline. If you're a student, you can look on the Nightline website to see if your university or college offers a night-time listening service. Nightline phone operators are all students too.
- Switchboard. If you identify as gay, lesbian, bisexual or transgender, you can call Switchboard on 0300 330 0630 (10am–10pm every day),

email chris@switchboard.lgbt or use their webchat service. Phone operators all identify as LGBT+.

- C.A.L.L. If you live in Wales, you can call the Community Advice and Listening Line (C.A.L.L.) on 0800 132 737 (open 24/7) or you can text 'help' followed by a question to 81066.
- Helplines Partnership. For more options, visit the Helplines Partnership website for a directory of UK helplines. Mind's Infoline can also help you find services that can support you. If you're outside the UK, the Befrienders Worldwide website has a tool to search by country for emotional support helplines around the world.

Your data and right to withdraw:

You have the right to withdraw from the online study at any time. If you do not complete the study and exit the window you will be considered a withdrawal, and your data will be deleted in a secure manor. The final date for withdrawal is 30th November 2023. This is when all the data will be collected, and analysis will begin. Due to the sensitive nature of the experiment withdrawals after this will be considered on a case-by-case basis. Contact myself or the supervisory team if you wish to withdraw.

If you complete the study your data will stored securely until February 2025, 6 months after the experiment and thesis is complete. All data provided will be completely anonymous, you are only recognised by the participant ID that you created. Demographic information will also be collected, this will not be analysed.

Researcher: Katie Rose Saunders – Contact email: Katie.saunders@mail.bcu.ac.uk

Supervisory team:

Dr Athfah Akhtar, Dr Mariel Marcano-Olivier & Dr Elle Boag.

If you need their contact information, please contact myself and I will pass on the email addresses.

5.0 Appendix 4: Materials for Study 2.

5.1 Participant information sheet (STUDY 2).

PARTICIPANT INFORMATION SHEET .

Do certain types of social media content affect mood and mental wellbeing?

STUDY BACKGROUND

You have been invited to take part in a study looking at the effect that certain types of social media content have on mood and mental wellbeing. This study has been given approval by the BCU Business, Law, and Social Science Ethics Committee.

WHAT WILL YOU NEED TO DO?

The study will consist of a short interview via Microsoft teams – this interview is recorded, but camera usage is optional and will not affect your rights, during this interview you will be asked a series of question about your social media usage, and the types of content you interact with. You will also be shown a series of images sourced from social media that your will give you opinion on, you can skip any questions you do not wish to answer. There will be a consent form provided that will ask for demographic information including your age, gender, and your current mental health diagnosis (this is optional).

HOW LONG WILL THE STUDY LAST?
The interviews are expected to last approximately 30-40 minutes, these could take a little longer depending on the length of your responses, there is no upper time limit so this gives you the opportunity to be as detailed as you would like.

ARE THERE ANY RISKS OF TAKING PART?
There is a minimal risk of taking part in this study. Due to the nature of the research, you may feel distressed or uncomfortable at times.

Disclaimer: At the beginning of this study, you will be asked to provide information regarding your mental health status. This includes if you have a diagnosis of either anxiety/ depression or similar. This can be via a health care professional or via self-diagnosis this is via a consent form so you will not need to discuss this with the researcher directly but can do if you wish to do so. If you do not feel comfortable disclosing this information, this is not an issue as this is optional, if you do not have a mental illness, you can still partake as there is also an option for this.

Some of the content in this interview may be distressing to those in a mental health crisis, some of the content you may be exposed to is:

- Detailed symptoms of both anxiety/ depression and attention deficit hyperactivity disorder (ADHD)/ borderline personality disorder (BPD). **Please do not use these as a source of information to self-diagnose, these are only used as a tool for the study.**
- As well as others that people in mental health crisis may find triggering or distressing.

If any of this information may cause you distress you are urged to not partake in the study, if you feel like you are in a mental health crisis, please contact the support services below.

You have the right to stop the interview at any time, you also have the right to not answer and question you do not wish to answer.

You will be provided with details of mental health support services and helplines at the end of the study, so you are aware of the support available, should you require it.

ARE THERE ANY BENEFITS OF TAKING PART?
Although there are no direct benefits from taking part, it is hoped that this research will provide a steppingstone for further research and an insight into social medias influence on mental health.

YOUR RIGHT TO WITHDRAW AND WITHHOLD INFORMATION
Participation in this study is entirely voluntary and there is no obligation to take part. In line with the regulations outlined by the British Psychological Society, you can stop being a part of the study at any time without explanation. You are still entitled to the same benefits as an individual who completes the study.

If after completing the study, you decide you would like to withdraw, please contact the researcher before [15th December 2023]. During the study, you also have the right to leave at any time by advising the interviewer you no longer wish to take part.

Please contact katie.saunders@mail.bcu.ac.uk if you require any further information or wish to withdraw.

YOUR RIGHT TO CONFIDENTIALITY/ANONYMITY
The study will not involve the collection of any personal information about you except your age, gender, and other demographic information such as mental health status if disclosed. Any personal information given will be unidentifiable to an external party – Your data will be stored confidentially, using a personalised anonymous pseudonym that the research team will create, any identifiable information you provide in the interview will be anonymised and redacted.

Your data will be stored on a password-protected laptop, on a password-protected University OneDrive folder, which will only be accessible to those within the research team. As the interview will be recorded for transcription, the recording will also be stored securely until transcription has taken place, these interviews will then be deleted securely.

FURTHER GUIDANCE
Please see the below contacts if you feel distressed by anything you see or experience during this study. These will also be provided on the debrief sheet.

Support services BCU students only:

BCU Mental Health & Wellbeing Team offers appointments to students between the hours of 9-5pm, Monday to Friday (excluding bank holidays) 51 weeks of the year. We also offer a small number of evening appointments.

Any students who wish to access **OUT OF HOURS SUPPORT** can utilise the support of external services that operate extended or 24/7 opening hours.

If you have any questions or concerns, contact us:

- Telephone: 0121 331 5188
- sa.wellbeing@bcu.ac.uk

If you feel that you are in a severe mental health crisis and are having thoughts of self-harm or suicide, please call 119 or go to A&E for immediate help and assistance.

- Samaritans. To talk about anything that is upsetting you, you can contact Samaritans 24 hours a day, 365 days a year. You can call 116 123 (free from any phone), email jo@samaritans.org or visit some branches in person. You can also call the Samaritans Welsh Language Line on 0808 164 0123 (7pm–11pm every day).
- SANEline. If you're experiencing a mental health problem or supporting someone else, you can call SANEline on 0300 304 7000 (4.30pm–10.30pm every day).
- National Suicide Prevention Helpline UK. Offers a supportive listening service to anyone with thoughts of suicide. You can call the National Suicide Prevention Helpline UK on 0800 689 5652 (open 24/7).
- Campaign Against Living Miserably (CALM). You can call the CALM on 0800 58 58 58 (5pm–midnight every day) if you are struggling and need to talk. Or if you prefer not to speak on the phone, you could try the CALM webchat service.

WHO IS ORGANISING THE RESEARCH?
The study is part of the researchers PhD project.

Department of Psychology
School of Social Sciences
Birmingham City University
The Curzon Building
4 Cardigan Street
Birmingham B4 7BD

The primary research team are Katie Rose Saunders, Dr. Athfah Akhtar, Dr. Elle Boag and Dr. Mariel Marcarno-Olivier.

Lead Researcher: Katie Rose Saunders PhD Psychology Student (Lead Researcher)
Contact: Katie.saunders@mail.bcu.ac.uk

Supervisory team:
Dr. Athfah Akhtar: Athfah.Akhtar@bcu.ac.uk, Dr. Mariel Marcano-Olivier: Mariel.Marcano-Olivier@bcu.ac.uk & Dr. Elle Boag: Elle.Boag@bcu.ac.uk.

If you are unhappy at any point in the study, or if there is a problem, please contact the Business, Law & Social Sciences faculty ethics committee directly at blssethics@bcu.ac.uk

If you have any questions, comments, or concerns about how we use or handle your information please contact the Data Protection Officer at: Data Protection Officer, Information Management Team, Birmingham City University, University House, 15 Bartholomew Row, Birmingham B5 5JU, email informationmanagement@bcu.ac.uk or call +44 (0) 121 331 5288.

5.2 Participant Consent Form (STUDY 2).

CONSENT FORM – Study Two (Qualitative Study).

A study looking at the relationship between social media content and mental health diagnosis.

BRIEF SUMMARY OF PROJECT

You are being invited to take part in a research study looking at the relationship between social media content, mental health diagnosis and mood. This study has been given approval by Birmingham City University Ethics Committee.

In order to participate in this study, we need to ensure that you understand the nature of the research, as outlined on the Participant Information page.

Please tick the boxes to indicate that you understand and agree to the following conditions.

☐ I confirm that I have read the participant information sheet for this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

☐ I understand that in order to take part in this study, I should be at least 18 years old.

☐ I understand that I need to able to understand and speak English in order to conversate in the interview or provide a translator.

☐ I understand that I need to complete the online demographic questionnaire located at the bottom of this consent form.

☐ I understand that personal data about me will be collected for the purposes of the research study including gender, and age, and mental health status if I wish to disclose this and that these will be processed in accordance with the information sheet.

☐ I understand that my participation is voluntary and that I am free to withdraw up until 15th December 2023 without giving any reason, without my legal rights being affected.

☐ I understand that my data is anonymous and will be stored on secure university servers.

☐ I understand that the audio from this interview will be recorded via Microsoft Teams and transcribed, and that the recording will be deleted securely after the transcription has taken place.

☐ I understand that the researcher's screen will be recording the Microsoft discussion via Teams, and I have the option to have my camera turned off during the interview if I wish to.

☐ I understand that the study findings (including anonymised data extracts) of this project will be presented at academic conferences and research articles, published in peer reviewed journals.

☐ I fully understand the risks that are involved in taking part in this study, and I am still happy to take part.

☐ I agree to take part in this study.

Demographic information:

Age:

What best describes your gender:

☐Female (including transgender females)

☐Male (including transgender males)

☐Prefer not to say.

☐I prefer to self-describe: _____

Mental health diagnosis (Optional):

☐Diagnosed (by health care professional)

☐Diagnosed (self-diagnosed)

☐Unsure/ suspected diagnosis.

☐No diagnosis

BCU students only – please provide your RPS code here:

Participant initials:

Date:

WHO IS ORGANISING THE RESEARCH?
The study is part of the researchers PhD project.

Department of Psychology
School of Social Sciences
Birmingham City University
The Curzon Building
4 Cardigan Street
Birmingham B4 7BD

The primary research team are Katie Rose Saunders, Dr. Athfah Akhtar, Dr. Elle Boag and Dr. Mariel Marcarno-Olivier.

Lead Researcher: Katie Rose Saunders PhD Psychology Student (Lead Researcher)

Contact: Katie.saunders@mail.bcu.ac.uk

Dr. Athfah Akhtar: Athfah.Akhtar@bcu.ac.uk, Dr. Mariel Marcano-Olivier: Mariel.Marcano-Olivier@bcu.ac.uk & Dr. Elle Boag: Elle.Boag@bcu.ac.uk.

If you are unhappy at any point in the study, or if there is a problem, please contact the Business, Law & Social Sciences faculty ethics committee directly at blssethics@bcu.ac.uk

5.3 Participant debrief (STUDY 2)

Debrief sheet.

Birmingham city university – Psychology department.

Thank you for taking part in this interview.
The purpose of this interview was to see if different types of mental health-based content that can be seen on social media may affect mood, mental health, and overall well-being.

The reason for the optional disclosure of mental health status is to see if someone with a diagnosed (by health care professional or self-diagnosed) mental health illness perceives content differently to someone who doesn't. We are expecting to see that those with diagnosed mental health conditions perceive content more negatively and those without diagnosis less so. We are also anticipating certain types of mental health content will be perceived as negative compared to others across the board regardless of diagnosis.

Some of the content that you were interacting with may have been upsetting or sensitive. If you need any assistance with your mental health, or any thoughts of feelings you may be having that might be uncomfortable or distressing please see the following support services.

Support services (FOR BCU STUDENTS ONLY):

BCU Mental Health & Wellbeing Team offers appointments to students between the hours of 9-5pm, Monday to Friday (excluding bank holidays) 51 weeks of the year. We also offer a small number of evening appointments. Any students who wish to access OUT OF HOURS SUPPORT can utilise the support of external services that operate extended or 24/7 opening hours.

If you have any questions or concerns, contact us:

· Telephone: 0121 331 5188 · sa.wellbeing@bcu.ac.uk

FURTHER SUPPORT SERVICES:

· If you feel that you are in a severe mental health crisis and are having thoughts of self-harm or suicide, please call 119 or go to A&E for immediate help and assistance.

· Samaritans. To talk about anything that is upsetting you, you can contact Samaritans 24 hours a day, 365 days a year. You can call 116 123 (free from any phone), email jo@samaritans.org or visit some branches in person. You can also call the Samaritans Welsh Language Line on 0808 164 0123 (7pm–11pm every day).

· SANEline. If you're experiencing a mental health problem or supporting someone else, you can call SANEline on 0300 304 7000 (4.30pm–10.30pm every day).

· National Suicide Prevention Helpline UK. Offers a supportive listening service to anyone with thoughts of suicide. You can call the National Suicide Prevention Helpline UK on 0800 689 5652 (open 24/7). · Campaign Against Living Miserably (CALM). You can call the CALM on 0800 58 58 58 (5pm–midnight every day) if you are struggling and need to talk. Or if you prefer not to speak on the phone, you could try the CALM webchat service. · The Mix. If you're under 25, you can call The Mix on 0808 808 4994 (3pm–midnight)

Your data and right to withdraw:

You have the right to withdraw from the online study at any time up until data collection is complete. If you do not complete the study and exit the window you will be considered a withdrawal, and your data will be deleted in a secure manor. The final date for withdrawal is [15th December 2023]. This is when all transcribing would have competed, and analysis will begin. Due to the sensitive nature of the experiment withdrawals after this will be considered on a case-by-case basis. Contact myself or the supervisory team if you wish to withdraw.

All data provided will be completely anonymous. Demographic information you provided will not be analysed, it is only for demographic purposes, this is, gender and age.

Researcher: Katie Rose Saunders – Contact email: Katie.saunders@mail.bcu.ac.uk

Supervisory team: Dr. Athfah Akhtar: Athfah.Akhtar@bcu.ac.uk, Dr. Mariel Marcano-Olivier: Mariel.Marcano-Olivier@bcu.ac.uk & Dr. Elle Boag: Elle.Boag@bcu.ac.uk.

If you need their contact information, please contact myself and I will pass on the email addresses.

If you are unhappy at any point in the study, or if there is a problem, please contact the Business, Law & Social Sciences faculty ethics committee directly at blssethics@bcu.ac.uk

If you have any questions, comments, or concerns about how we use or handle your information please contact the Data Protection Officer at: Data Protection Officer, Information Management Team, Birmingham City

University, University House, 15 Bartholomew Row, Birmingham B5 5JU, email informationmanagement@bcu.ac.uk or call +44 (0) 121 331 5288

5.4 Interview schedule for Study 2.

Interview schedule

Qualitative phase of PhD project – Katie Saunders

Current research working title [For current phase]: The exploration of social media content relating to mental health: does this content impact mood and well-being?

Prior to the interview participants will be sent copies of the participant information sheet and consent form which need to be returned prior to interview, a debrief will be provided after the interview takes place or if a participant withdraws. These forms will give the participant the option to disclose their mental health status and diagnosis if they chose to.

Preamble:

[RESEARCHER:] As part of my PhD project, I will be looking at social media content to see if different types of content can impact mood, and general wellbeing. The purpose of this interview today is to show you some different types of content and speak with you about your thoughts and opinions on this type of content, I will now ask a series of consent-based questions before the interview starts.

There may be some parts of this content that may not be suitable for those that are in a mental health crisis and can be triggering for some. For example, there will be photos that are discussing symptoms of disorders, you have already provided consent for this interview to take place, however I would just like to confirm that after the further information I have provided, are you still happy take part?

You are currently not being recorded, MS teams allows for conversations to be recorded, which I will need to do in order to transcribe our conversation, this recording will be deleted securely once the conversation has been transcribed, any identifiable information will be redacted or anonymised. I want to make you aware that you have the option to turn off your camera or keep this on, the choice

will not affect your interview outcome. Also, just to remind you again that you can stop the interview at any point without having to explain why, and you can withdraw your data from the study after the interview if you feel that you'd like to, up until [INSERT PROJECTED TRANSCRIPTION DATE] once transcription is complete. The interview will take around 30-40 minutes but could possibly run a little longer, are you happy to continue?

[Wait for verbal consent] – To advise, the recording will begin now – [Begin recording and interview]

1. Can you please explain your current social media usage, by this I mean how often each day would you say you spend online, and what applications do you favour more?
2. When using social media what types of content do you tend to interact with?
3. Do you see a lot of content about mental health? – If you are not sure I can provide some verbal examples - If yes:
    a) What types of content do you see, could you describe it to me?
    b) How does seeing this content make you feel?

I will now share my screen and show you some images, you will have 10 seconds to look at each image, there are 10 images in total, are you ready? [Await acknowledgment of readiness] [Proceed to show Symptom based content]

4. Can you please provide your opinion on the content you have just been shown, how does it make you feel?
5. Do you feel this content would benefit or not benefit someone in a mental health crisis? – Can you explain your answer?
6. Do you encounter this type of content often?
7. What is your opinion on someone using this type of content to self-diagnose?
8. Would you like to see more of this content on social media? – explain why?
9. Please provide any further information you would like to add about the content you have been shown.

Thank you, we will now move onto a different type of content [Show neutral images]

10. How did you feel about this content?
11. Do you encounter this type of content on social media often?
    - If yes continue to (12)
    - If no a) what type of content do you see on social media most often?
12. Would you like to see more of this content on social media? – explain why?
13. Do you have anything further to add about this content?

Thank you, I will now share my screen and show you the final round of images, same as before you have 10 seconds to look at each image, there are 10 images in total. [Proceed to show the intervention-based images].

14. How did this content make you feel?
15. Do you encounter this type of content on social media often?
16. Would you like to see more of this content on social media? – Explain why?
17. Do you feel this content would benefit or not benefit someone in a mental health crisis? Can you explain your answer?
18. Please provide any further information you would like to add about the content you have been shown.

Thank you so much for taking the time to go through these images and answer my questions, I am now just going to ask some final questions about mental health-based content on social media in general.

19. Please tell me your opinion on people disclosing their struggles with mental health online.
    a) Do you think this is helpful or not helpful for both the poster and the viewer.
20. Can you please detail for me what type of content you think would be helpful for those in a mental health crisis?
21. What is your opinion on the access to content that relates to symptoms of mental health disorders?
22. Please can you explain your own personal opinion regarding using online content to self-diagnose.
23. What is your opinion on people possibly using mental health struggles for monetary incentives (ether real or fake)– for example payment from Instagram/TikTok for high levels of likes/views and shares?
24. What is your opinion on maybe censoring mental health content on social media?
25. Finally, overall, what is your personal opinion about mental health-based content on social media platforms?

Thank you so much for taking the time to go through this interview with me. I have provided you with a debrief sheet that details all your right for withdrawal and any further information you need for myself, the rest of the study team as well as any support services you may require.

[Recording stops] [Interview terminates]

6.0 Appendix 6: Ethical Approval.

6.1 Ethical Approval for Study one: Saunders /#10002 /sub4 /R(B) /2022 /Jul /BLSS FAEC

Faculty of Business, Law & Social Sciences Research Office
Curzon Building, 4 Cardigan Street
Birmingham
B4 7BD

BLSSethics@bcu.ac.uk;

01/Aug/2022

Miss Katie Saunders
katie.saunders@mail.bcu.ac.uk

Dear Katie,

Re: Saunders /#10002 /sub4 /R(B) /2022 /Jul /BLSS FAEC - STUDY ONE - Mental health social media content: does it affect mood?

Thank you for your application and documentation regarding the above activity. I am pleased to take Chair's Action and approve this activity.
Provided that you are granted Permission of Access by relevant parties (meeting requirements as laid out by them), you may begin your activity.
Please note that this is contingent on the following proviso which should be addressed before collecting data:
- The Wk 1&2 debrief form still refers to a unique ID code that comprises "first 3 digits of your surname and the last 3 digits of your phone number". Please update this
and check all debrief forms.
I can also confirm that any person participating in the project is covered under the University's insurance arrangements.
Please note that ethics approval only covers your activity as it has been detailed in your ethics application. If you wish to make any changes to the activity, then you must
submit an Amendment application for approval of the proposed changes.
Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or
change of Project Lead.
Please also note that the Business, Law and Social Sciences Faculty Academic Ethics Committee should be notified of any serious adverse effects arising as a result of
this activity.
If for any reason the Committee feels that the activity is no longer ethically sound, it reserves the right to withdraw its approval. In the unlikely event of issues arising

which would lead to this, you will be consulted.
Keep a copy of this letter along with the corresponding application for your records as evidence of approval.
If you have any queries, please contact BLSSethics@bcu.ac.uk;
If you would like to provide feedback on the ethics process, please complete the feedback form using this link.
I wish you every success with your activity.

Yours Sincerely,
Dr Emma Bridger

On behalf of the Business, Law and Social Sciences Faculty Academic Ethics Committee

6.2 Ethical Approval for study two: Saunders /#10950 /sub2 /R(B) /2023 /Apr /BLSS FAEC

Faculty of Business, Law & Social Sciences Research Office
Curzon Building, 4 Cardigan Street
Birmingham
B4 7BD

BLSSethics@bcu.ac.uk;

02/May/2023

Miss Katie Saunders
katie.saunders@mail.bcu.ac.uk

Dear Katie ,

Re: Saunders /#10950 /sub2 /R(B) /2023 /Apr /BLSS FAEC **-** Qualitative study - The outcomes of exposure to mental health based content on social media
Thank you for your application and documentation regarding the above activity. I am pleased to take Chair's Action and approve this activity.
Provided that you are granted Permission of Access by relevant parties (meeting requirements as laid out by them), you may begin your activity.
I can also confirm that any person participating in the project is covered under the University's insurance arrangements.
Please note that ethics approval only covers your activity as it has been detailed in your ethics application. If you wish to make any changes to the activity, then you must
submit an Amendment application for approval of the proposed changes.
Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or
change of Project Lead.
Please also note that the Business, Law and Social Sciences Faculty Academic Ethics Committee should be notified of any serious adverse effects arising as a result of
this activity.
If for any reason the Committee feels that the activity is no longer ethically sound, it reserves the right to withdraw its approval. In the unlikely event of issues arising
which would lead to this, you will be consulted.
Keep a copy of this letter along with the corresponding application for your records as evidence of approval.
If you have any queries, please contact BLSSethics@bcu.ac.uk;
If you would like to provide feedback on the ethics process, please complete the feedback form using this link.
I wish you every success with your activity.

Yours Sincerely,
Dr Natalie Kelly

On behalf of the Business, Law and Social Sciences Faculty Academic Ethics Committee

6.3 Ethical approval for study 3: Saunders /#12432 /sub2 /R(A) /2023 /Dec /BLSS FAEC.

Faculty of Business, Law & Social Sciences Research Office
Curzon Building, 4 Cardigan Street
Birmingham
B4 7BD

BLSSethics@bcu.ac.uk;

19/Dec/2023

Miss Katie Saunders

katie.saunders@mail.bcu.ac.uk

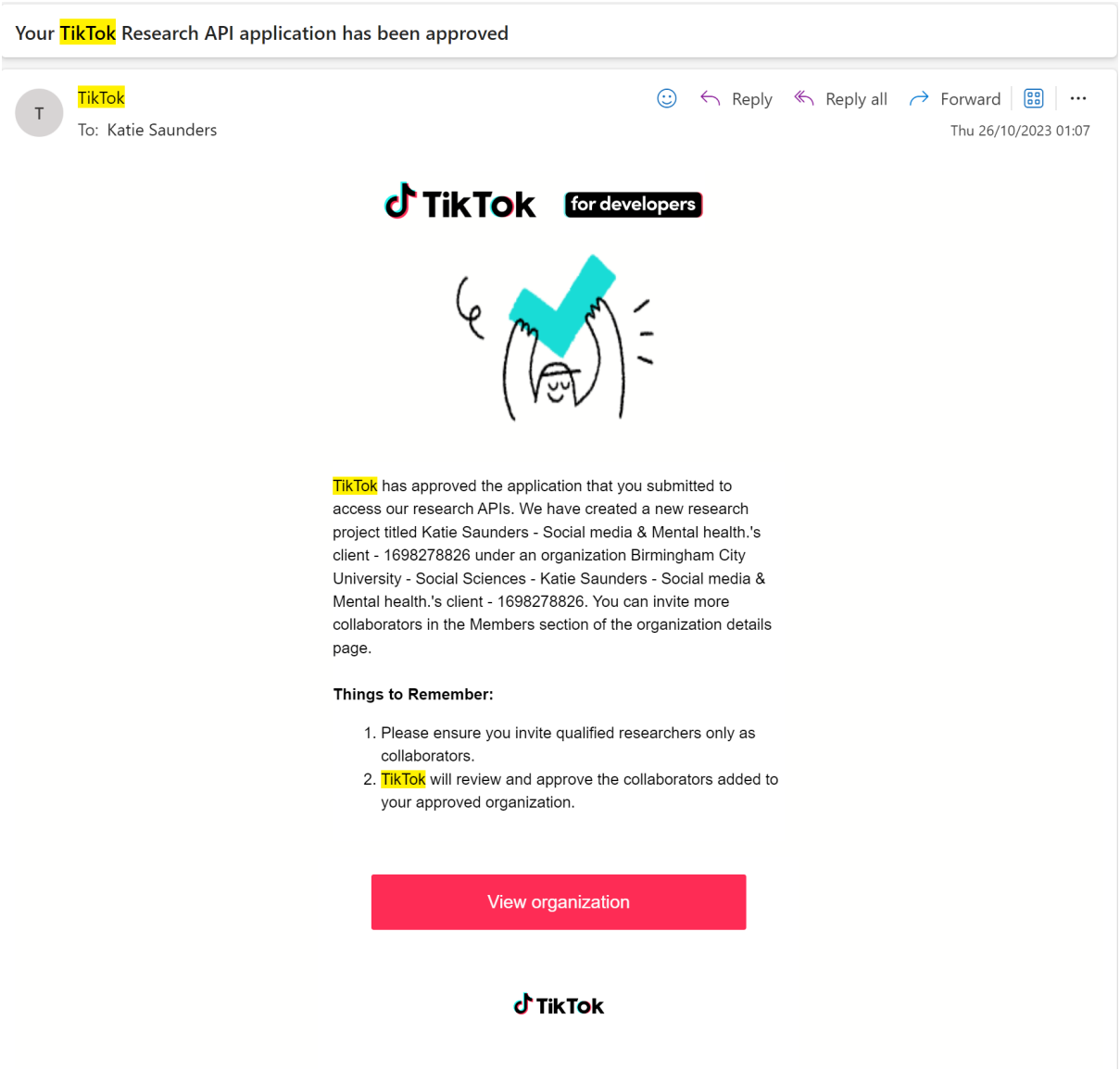
Dear Katie ,
Re: Saunders /#12432 /sub2 /R(A) /2023 /Dec /BLSS FAEC - Content analysis of TikTok Research Application Programming Interface (API)
Thank you for your application and documentation regarding the above activity. I am pleased to take Chair's Action and approve this activity.
Provided that you are granted Permission of Access by relevant parties (meeting requirements as laid out by them), you may begin your activity.
I can also confirm that any person participating in the project is covered under the University's insurance arrangements.
Please note that ethics approval only covers your activity as it has been detailed in your ethics application. If you wish to make any changes to the activity, then you must
submit an Amendment application for approval of the proposed changes.
Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or
change of Project Lead.
Please also note that the Business, Law and Social Sciences Faculty Academic Ethics Committee should be notified of any serious adverse effects arising as a result of
this activity.
If for any reason the Committee feels that the activity is no longer ethically sound, it reserves the right to withdraw its approval. In the unlikely event of issues arising
which would lead to this, you will be consulted.
Keep a copy of this letter along with the corresponding application for your records as evidence of approval.
If you have any queries, please contact BLSSethics@bcu.ac.uk;
If you would like to provide feedback on the ethics process, please complete the feedback form using this link.
I wish you every success with your activity.

Yours Sincerely,
Dr Natalie Kelly

On behalf of the Business, Law and Social Sciences Faculty Academic Ethics Committee

7.0 TikTok Researcher Application Programmer Interface (API)

7.1 Outcome and Approval letter from TikTok for researchers.


Your TikTok Research API application has been approved

T TikTok

To: Katie Saunders

Reply Reply all Forward

Thu 26/10/2023 01:07

TikTok for developers

TikTok has approved the application that you submitted to access our research APIs. We have created a new research project titled Katie Saunders - Social media & Mental health.'s client - 1698278826 under an organization Birmingham City University - Social Sciences - Katie Saunders - Social media & Mental health.'s client - 1698278826. You can invite more collaborators in the Members section of the organization details page.

Things to Remember:

1. Please ensure you invite qualified researchers only as collaborators.
2. TikTok will review and approve the collaborators added to your approved organization.

View organization

TikTok

7.2 API Interface and coding pathway.

Getting Started

This guide will show you how to use the Research API. Learn how to use the Research API to query video data and fetch public TikTok account data in the following use case example .

View your client registrationOnce your application is approved, a research client will be generated for your project. You can view your approved research projects here. Select a project from the list to see the research client details.

The provided **Client key** and **Client secret** are required to connect to the Research API endpoints. The client key and secret are hidden by default but can be displayed by clicking the **Display** button (eye icon).

The client secret is a credential used to authenticate your connection to TikTok's APIs. Do not share this with anyone!

Obtain a client access token

Once you have obtained the client key and secret for your project, generate a client access token. Add this access token in the authorization header of the http requests to connect to the Research API endpoints.

Query TikTok public content data

The cURL command below shows an example of how you can query the TikTok ID and like count of videos created in the US or Canada with the keyword `hello world` in the video description.

```
curl -X POST \
  'https://open.tiktokapis.com/v2/research/video/query/?fields=id,like_count' \
  -H 'authorization: bearer clt.example12345Example12345Example' \
  -d '{
          "query": {
              "and": [
                   { "operation": "IN", "field_name": "region_code", "field_values": ["US", "CA"]
},
                   { "operation": "EQ", "field_name": "keyword", "field_values": ["hello world"] }
               ]
          },
          "start_date": "20220615",
          "end_date": "20220628",
          "max_count": 10
}'
```

Query condition

Similar to the WHERE clause in SQL, a condition can be used to filter data returned in a query operation. The above request is equivalent to the following SQL query:

```
 SELECT id,like_count FROM video_table WHERE region_code IN ["US",
"CA"] AND create_date > 20220615
```

Key	Type	Description	Example	Required?
field_name	string	The field name this condition is restricting	"region_code"	TRUE
operation	string	The comparison logic of this condition. One of: "EQ", "IN", "GT", "GTE", "LT", "LTE"	"GT"	TRUE
field_values	list[string]	A list of values to be compared with	["US", "IN"]	TRUE

Note: approximate string matching (or fuzzy string searching) is used to match conditions.

field_name

The following are the `field_name` values:

- `keyword`
- `create_date`

- `username`
- `region_code`
- `video_id`
- `hashtag_name`
- `music_id`
- `effect_id`
- `video_length`

operation

The following are the `operation` values:
`IN`: Tests if an expression matches any value in a list of values.`EQ`: Tests if an expression matches the specified value.`GT`: Tests if an expression is strictly greater than the specified value.`GTE`: Tests if an expression is greater than or equal to the specified value.`LT`: Tests if an expression is strictly less than the specified value.`LTE`: Tests if an expression is less than or equal to the specified value.

AND, OR or NOT

Conditions are grouped by the following boolean operators:

`AND`: Displays a record if all the conditions separated by `AND` are `TRUE`.`OR`: Displays a record if any of the conditions separated by `OR` is `TRUE`.`NOT`: Displays a record if all the conditions separated by `NOT` are `FALSE`.

Pagination
If the total number of videos that match the query criteria is larger than the max number of videos that can be returned in a single request, the response data will be returned with different requests.

Field	Type	Description	Example	Required?
max_count	number	The max count of TikTok videos in response. default: 10, max: 100	12	FALSE
cursor	number	The starting index of TikTok videos in response. default: 0	100	FALSE
search_id	string	The ID of a previous search to provide sequential calls for paging	"7167072234702738478"	FALSE

First page
When you send the first request, you do not need to set the `search_id` or `cursor` in the request body. In the http response, `cursor` and `search_id` are returned, which are used in the subsequent requests.

Try out this request:

```
curl -X POST \
  'https://open.tiktokapis.com/v2/research/video/query/?fields=id,like_count' \
```

```
  -H 'authorization: bearer clt.example12345Example12345Example' \
  -d '{
          "query": {
              "and": [
                   { "operation": "IN", "field_name": "region_code", "field_values": ["US", "IN"]
},
                   { "operation": "GT", "field_name": "hashtag_name", "field_values": ["hello"] }
               ]
          },
          "start_date": "20220615",
          "end_date": "20220628",
          "max_count": 10
}'
```

The following example data is returned from the response.

```
{
    "data": {
        "cursor": 10,
        "has_more": true,
        "search_id": "7160776277492814854",
        "videos": [
            ...
        ]
    },
    "error": {
        ...
    }
 }
```

With the cURL command below, you can get the next page of query results.

```
curl -X POST \
  'https://open.tiktokapis.com/v2/research/video/query/?fields=id,like_count' \
  -H 'authorization: bearer clt.example12345Example12345Example' \
  -d '{
          "query": {
              "and": [
```

```
                    { "operation": "IN", "field_name": "region_code", "field_values": ["US", "IN"]
},
                    { "operation": "GT", "field_name": "hashtag_name", "field_values": ["hello"] }
                ]
            },
            "max_count": 10,
            "cursor": 10,
            "start_date": "20220615",
            "end_date": "20220628",
            "search_id": "7160776277492814854",
}'
```

The following example data is returned from the response.

```
{
    "data": {
        "cursor": 20,
        "has_more": true,
        "search_id": "7160776277492814854",
        "videos": [
            ...
        ]
    },
     "error": {
        ...
    }
}
```

Query TikTok public account information

With the cURL command below, you can query public TikTok account information by a TikTok handle.

```
curl --location --request POST
'https://open.tiktokapis.com/v2/research/user/info/?fields=display_name,bio_description,avatar_url
,is_verified,follower_count,following_count,likes_count,video_count' \

--header 'Authorization: bearer {{access_token}}' \

--header 'Content-Type: text/plain' \

--data-raw '{

    "username": "joe1234567"

}'
```

Key	Type	Description	Example	Required?
username	string	TikTok user's username	"Joe123"	FALSE

The following example data is returned from the response.


```
{
    "data": {
        "username": "joe1234567",
        "video_count": 64,
        "avatar_url": "https://my-awesome-avatar",
        "display_name": "joe 1234567",
        "follower_count": 111,
        "likes_count": 4146,
        "bio_description": "joe joe",
        "following_count": 103,
        "is_verified": false
    },
    "error": {
            ...
    }
}
```

SUPPLIMENTARY MATERIALS

a. SPSS Output for Study one.

Explore

Notes

Output Created		03-AUG-2024 11:22:58
Comments		
Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.
Syntax		EXAMINE VARIABLES=MASQ_GD MASQ_AD MASQ_AA BY GROUP /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:04.61
	Elapsed Time	00:00:02.52

```
[DataSet3] C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental
Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
```

GROUP

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	GROUP	N	Percent	N	Percent	N	Percent
MASQ_GD	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%
MASQ_AD	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%
MASQ_AA	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%

	Control	74	100.0%	0	0.0%	74	100.0%

Descriptives

	GROUP			Statistic	Std. Error
MASQ_GD	Symptom	Mean		25.9634	1.00936
		95% Confidence Interval for Mean	Lower Bound	23.9551	
			Upper Bound	27.9717	
		5% Trimmed Mean		25.8916	
		Median		26.0000	
		Variance		83.542	
		Std. Deviation		9.14012	
		Minimum		10.00	
		Maximum		46.00	
		Range		36.00	
		Interquartile Range		15.25	
		Skewness		.048	.266
		Kurtosis		-1.030	.526
	Wellbeing	Mean		25.3281	.96390
		95% Confidence Interval for Mean	Lower Bound	23.4019	
			Upper Bound	27.2543	
		5% Trimmed Mean		25.1667	
		Median		25.5000	
		Variance		59.462	
		Std. Deviation		7.71116	
		Minimum		10.00	
		Maximum		42.00	
		Range		32.00	
		Interquartile Range		9.75	
		Skewness		.297	.299
		Kurtosis		-.549	.590
	Control	Mean		25.8919	1.01663
		95% Confidence Interval for Mean	Lower Bound	23.8658	
			Upper Bound	27.9180	
		5% Trimmed Mean		25.6081	
		Median		26.0000	
		Variance		76.481	
		Std. Deviation		8.74536	
		Minimum		10.00	
		Maximum		48.00	
		Range		38.00	
		Interquartile Range		13.00	
		Skewness		.351	.279
		Kurtosis		-.412	.552
MASQ_AD	Symptom	Mean		27.4390	.93770
		95% Confidence Interval for Mean	Lower Bound	25.5733	
			Upper Bound	29.3048	
		5% Trimmed Mean		27.2818	
		Median		27.0000	
		Variance		72.101	
		Std. Deviation		8.49124	
		Minimum		13.00	
		Maximum		46.00	
		Range		33.00	
		Interquartile Range		14.25	
		Skewness		.196	.266
		Kurtosis		-.944	.526
	Wellbeing	Mean		28.0781	.91621
		95% Confidence Interval for Mean	Lower Bound	26.2472	
			Upper Bound	29.9090	
		5% Trimmed Mean		28.1319	
		Median		28.0000	
		Variance		53.724	
		Std. Deviation		7.32966	
		Minimum		12.00	
		Maximum		42.00	
		Range		30.00	
		Interquartile Range		11.75	

		Skewness		.001	.299
		Kurtosis		-.688	.590
	Control	Mean		28.7568	.88444
		95% Confidence Interval for Mean	Lower Bound	26.9941	
			Upper Bound	30.5194	
		5% Trimmed Mean		28.7492	
		Median		28.0000	
		Variance		57.885	
		Std. Deviation		7.60823	
		Minimum		10.00	
		Maximum		44.00	
		Range		34.00	
		Interquartile Range		11.25	
		Skewness		.072	.279
		Kurtosis		-.510	.552
MASQ_AA	Symptom	Mean		19.1951	.71134
		95% Confidence Interval for Mean	Lower Bound	17.7798	
			Upper Bound	20.6105	
		5% Trimmed Mean		18.7398	
		Median		19.0000	
		Variance		41.492	
		Std. Deviation		6.44145	
		Minimum		10.00	
		Maximum		39.00	
		Range		29.00	
		Interquartile Range		9.00	
		Skewness		.908	.266
		Kurtosis		1.156	.526
	Wellbeing	Mean		19.0469	.88288
		95% Confidence Interval for Mean	Lower Bound	17.2826	
			Upper Bound	20.8112	
		5% Trimmed Mean		18.6701	
		Median		17.5000	
		Variance		49.887	
		Std. Deviation		7.06305	
		Minimum		10.00	
		Maximum		39.00	
		Range		29.00	
		Interquartile Range		10.50	
		Skewness		.765	.299
		Kurtosis		-.143	.590
	Control	Mean		21.0270	.95317
		95% Confidence Interval for Mean	Lower Bound	19.1274	
			Upper Bound	22.9267	
		5% Trimmed Mean		20.6877	
		Median		18.5000	
		Variance		67.232	
		Std. Deviation		8.19952	
		Minimum		10.00	
		Maximum		41.00	
		Range		31.00	
		Interquartile Range		12.50	
		Skewness		.552	.279
		Kurtosis		-.670	.552

Tests of Normality

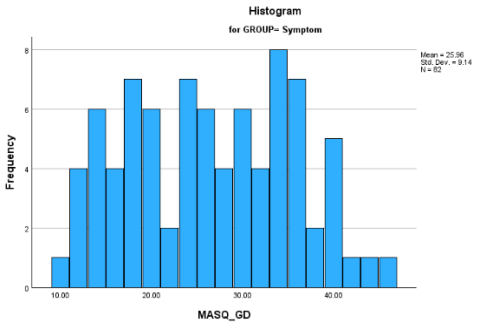
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	GROUP	Statistic	df	Sig.	Statistic	df	Sig.
MASQ_GD	Symptom	.084	82	.200*	.968	82	.037
	Wellbeing	.068	64	.200*	.976	64	.255
	Control	.073	74	.200*	.977	74	.199
MASQ_AD	Symptom	.102	82	.035	.968	82	.037
	Wellbeing	.078	64	.200*	.982	64	.460
	Control	.078	74	.200*	.985	74	.527

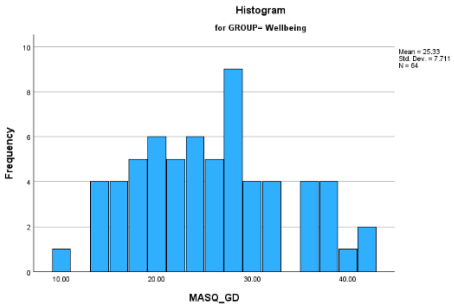
MASQ_AA	Symptom	.084	82	.200*	.935	82	<.001
	Wellbeing	.120	64	.023	.930	64	.001
	Control	.144	74	<.001	.941	74	.002

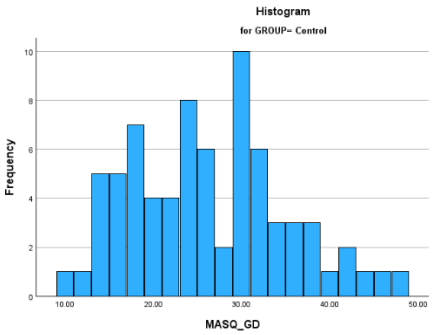
*. This is a lower bound of the true significance.

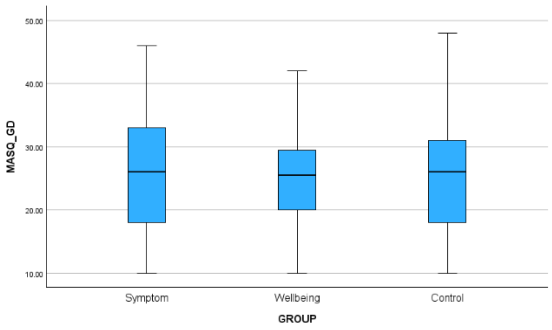
a. Lilliefors Significance Correction

MASQ_GD
Histograms

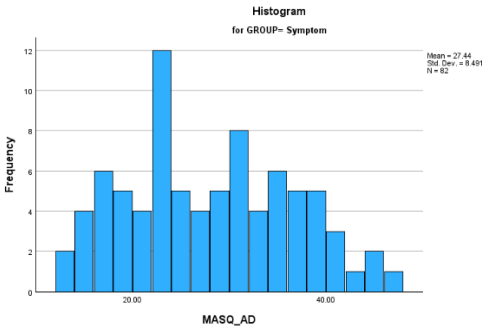


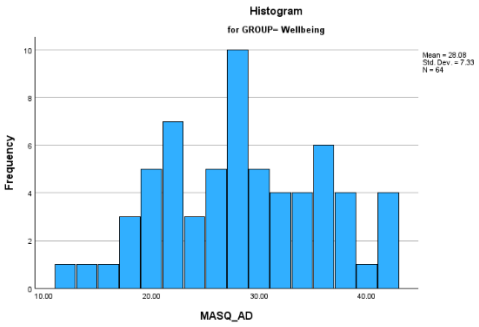


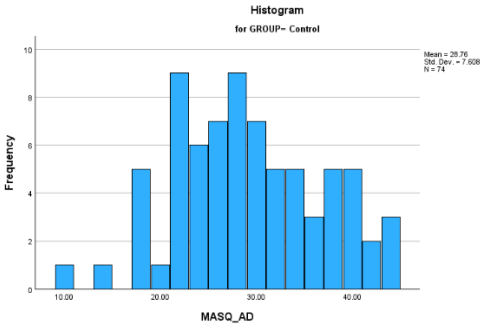


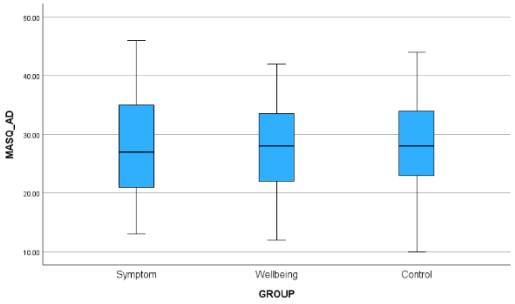


MASQ_AD
Histograms

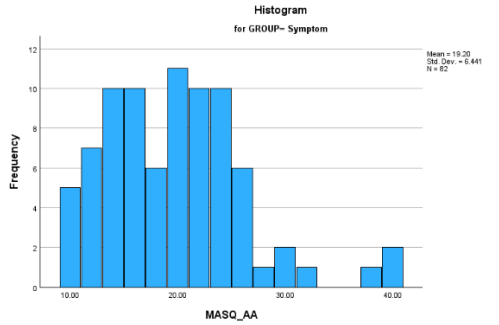


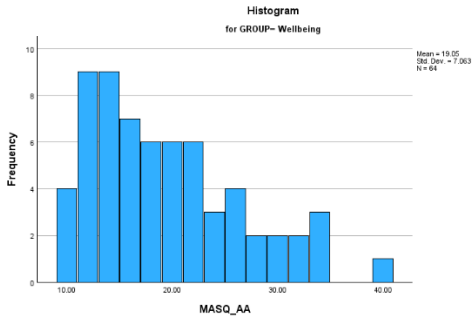


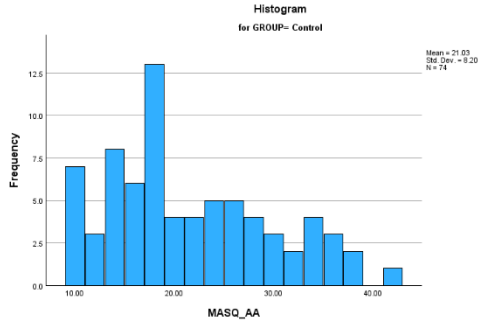


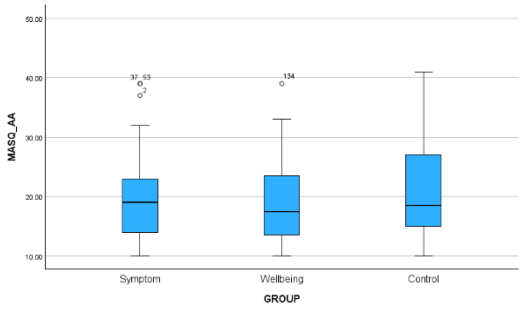


MASQ_AA
Histograms









Explore

Notes

Output Created		03-AUG-2024 11:41:22
Comments		
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Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.
Syntax		EXAMINE VARIABLES=PNPRE_PV PNPST_PV PNPRE_NG PNPST_NG BY GROUP /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
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	Elapsed Time	00:00:02.74

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	GROUP	N	Percent	N	Percent	N	Percent
PNPRE_PV	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%
PNPST_PV	Symptom	82	100.0%	0	0.0%	82	100.0%

	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%
PNPRE_NG	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%
PNPST_NG	Symptom	82	100.0%	0	0.0%	82	100.0%
	Wellbeing	64	100.0%	0	0.0%	64	100.0%
	Control	74	100.0%	0	0.0%	74	100.0%

Descriptives

	GROUP			Statistic	Std. Error
PNPRE_PV	Symptom	Mean		32.4390	.88806
		95% Confidence Interval for Mean	Lower Bound	30.6721	
			Upper Bound	34.2060	
		5% Trimmed Mean		32.8442	
		Median		34.5000	
		Variance		64.669	
		Std. Deviation		8.04171	
		Minimum		12.00	
		Maximum		44.00	
		Range		32.00	
		Interquartile Range		13.00	
		Skewness		-.652	.266
		Kurtosis		-.442	.526
	Wellbeing	Mean		31.5625	.81646
		95% Confidence Interval for Mean	Lower Bound	29.9309	
			Upper Bound	33.1941	
		5% Trimmed Mean		31.6979	
		Median		33.0000	
		Variance		42.663	
		Std. Deviation		6.53167	
		Minimum		15.00	
		Maximum		45.00	
		Range		30.00	
		Interquartile Range		8.75	
		Skewness		-.393	.299
		Kurtosis		-.332	.590
	Control	Mean		31.8378	.77183
		95% Confidence Interval for Mean	Lower Bound	30.2996	
			Upper Bound	33.3761	
		5% Trimmed Mean		31.9414	
		Median		32.0000	
		Variance		44.083	
		Std. Deviation		6.63950	
		Minimum		17.00	
		Maximum		50.00	
		Range		33.00	
		Interquartile Range		10.25	
		Skewness		-.150	.279
		Kurtosis		-.222	.552
PNPST_PV	Symptom	Mean		30.7927	1.02641
		95% Confidence Interval for Mean	Lower Bound	28.7504	
			Upper Bound	32.8349	
		5% Trimmed Mean		30.9932	
		Median		32.0000	
		Variance		86.389	
		Std. Deviation		9.29455	
		Minimum		11.00	
		Maximum		47.00	
		Range		36.00	
		Interquartile Range		13.50	
		Skewness		-.362	.266
		Kurtosis		-.760	.526
	Wellbeing	Mean		30.2344	.97685
		95% Confidence Interval for Mean	Lower Bound	28.2823	
			Upper Bound	32.1865	

		5% Trimmed Mean		30.1944	
		Median		31.5000	
		Variance		61.071	
		Std. Deviation		7.81481	
		Minimum		15.00	
		Maximum		48.00	
		Range		33.00	
		Interquartile Range		13.00	
		Skewness		-.063	.299
		Kurtosis		-.746	.590
	Control	Mean		30.8378	.82178
		95% Confidence Interval for Mean	Lower Bound	29.2000	
			Upper Bound	32.4756	
		5% Trimmed Mean		30.8363	
		Median		31.0000	
		Variance		49.973	
		Std. Deviation		7.06918	
		Minimum		18.00	
		Maximum		50.00	
		Range		32.00	
		Interquartile Range		10.75	
		Skewness		.071	.279
		Kurtosis		-.514	.552
PNPRE_NG	Symptom	Mean		24.3780	.90077
		95% Confidence Interval for Mean	Lower Bound	22.5858	
			Upper Bound	26.1703	
		5% Trimmed Mean		24.2263	
		Median		25.5000	
		Variance		66.534	
		Std. Deviation		8.15686	
		Minimum		10.00	
		Maximum		41.00	
		Range		31.00	
		Interquartile Range		15.00	
		Skewness		.030	.266
		Kurtosis		-1.105	.526
	Wellbeing	Mean		23.5313	1.03916
		95% Confidence Interval for Mean	Lower Bound	21.4547	
			Upper Bound	25.6078	
		5% Trimmed Mean		23.3194	
		Median		21.5000	
		Variance		69.110	
		Std. Deviation		8.31325	
		Minimum		10.00	
		Maximum		42.00	
		Range		32.00	
		Interquartile Range		15.00	
		Skewness		.375	.299
		Kurtosis		-.933	.590
	Control	Mean		25.0270	.99944
		95% Confidence Interval for Mean	Lower Bound	23.0351	
			Upper Bound	27.0189	
		5% Trimmed Mean		24.6336	
		Median		24.0000	
		Variance		73.917	
		Std. Deviation		8.59750	
		Minimum		11.00	
		Maximum		50.00	
		Range		39.00	
		Interquartile Range		12.25	
		Skewness		.601	.279
		Kurtosis		.295	.552
PNPST_NG	Symptom	Mean		22.8902	1.04966
		95% Confidence Interval for Mean	Lower Bound	20.8018	
			Upper Bound	24.9787	
		5% Trimmed Mean		22.5081	
		Median		21.0000	
		Variance		90.346	

		Std. Deviation		9.50504	
		Minimum		10.00	
		Maximum		45.00	
		Range		35.00	
		Interquartile Range		16.00	
		Skewness		.408	.266
		Kurtosis		-.954	.526
	Wellbeing	Mean		20.8750	1.01489
		95% Confidence Interval for Mean	Lower Bound	18.8469	
			Upper Bound	22.9031	
		5% Trimmed Mean		20.5104	
		Median		20.0000	
		Variance		65.921	
		Std. Deviation		8.11915	
		Minimum		10.00	
		Maximum		40.00	
		Range		30.00	
		Interquartile Range		14.00	
		Skewness		.478	.299
		Kurtosis		-.711	.590
	Control	Mean		22.6216	1.06398
		95% Confidence Interval for Mean	Lower Bound	20.5011	
			Upper Bound	24.7421	
		5% Trimmed Mean		22.0661	
		Median		21.0000	
		Variance		83.773	
		Std. Deviation		9.15274	
		Minimum		10.00	
		Maximum		47.00	
		Range		37.00	
		Interquartile Range		12.25	
		Skewness		.883	.279
		Kurtosis		.156	.552

Tests of Normality

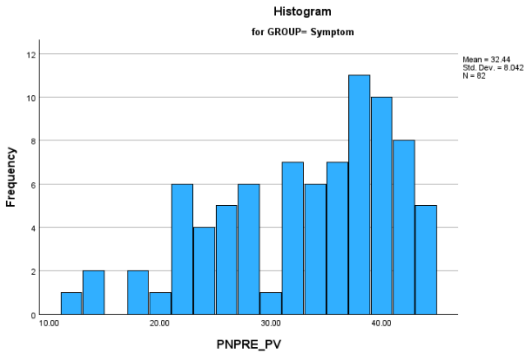
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	GROUP	Statistic	df	Sig.	Statistic	df	Sig.
PNPRE_PV	Symptom	.129	82	.002	.938	82	<.001
	Wellbeing	.130	64	.009	.975	64	.228
	Control	.075	74	.200*	.977	74	.209
PNPST_PV	Symptom	.089	82	.159	.963	82	.019
	Wellbeing	.091	64	.200*	.974	64	.200
	Control	.077	74	.200*	.976	74	.173
PNPRE_NG	Symptom	.104	82	.029	.953	82	.004
	Wellbeing	.133	64	.007	.949	64	.010
	Control	.075	74	.200*	.967	74	.051
PNPST_NG	Symptom	.138	82	<.001	.932	82	<.001
	Wellbeing	.101	64	.173	.944	64	.006
	Control	.124	74	.006	.927	74	<.001

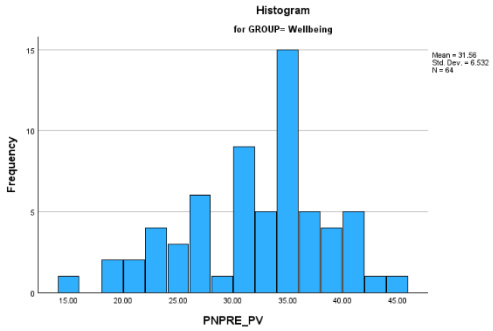
*. This is a lower bound of the true significance.

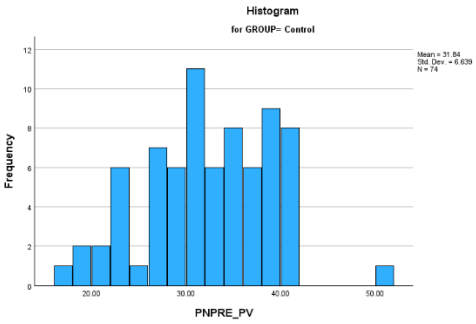
a. Lilliefors Significance Correction

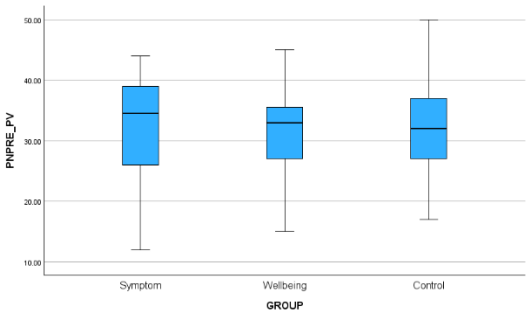
PNPRE_PV

Histograms

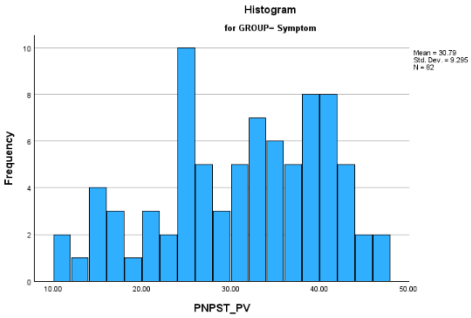


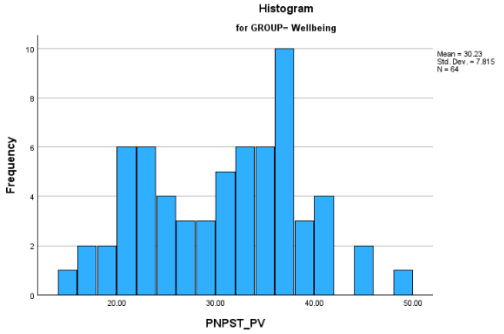


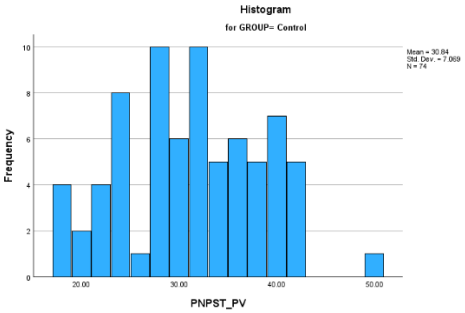


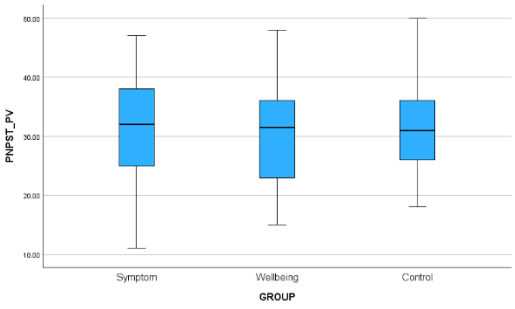


PNPST_PV
Histograms









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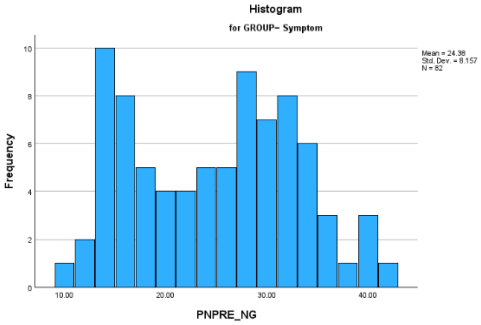
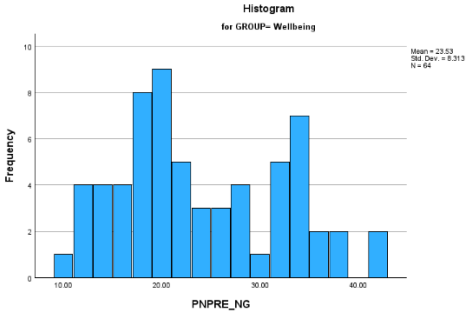
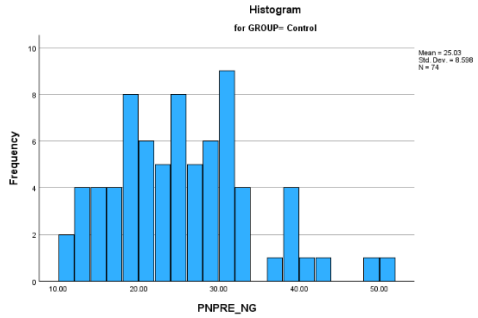
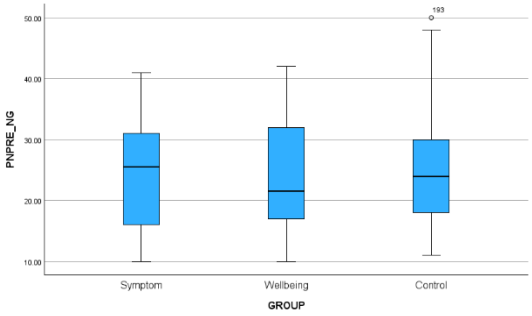
Histograms









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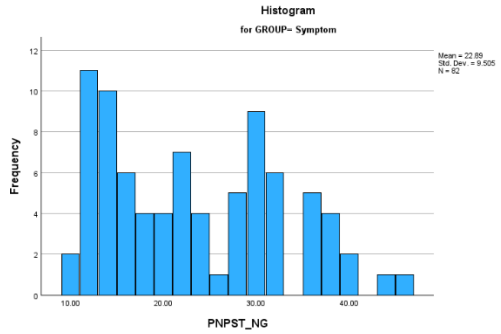
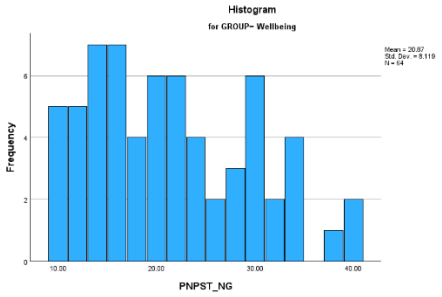
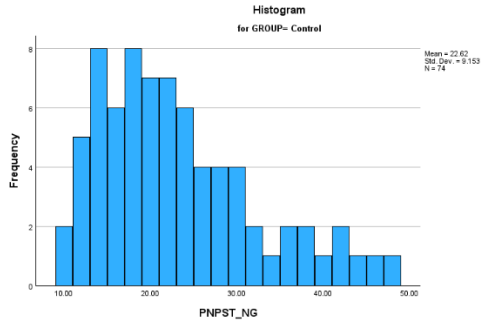
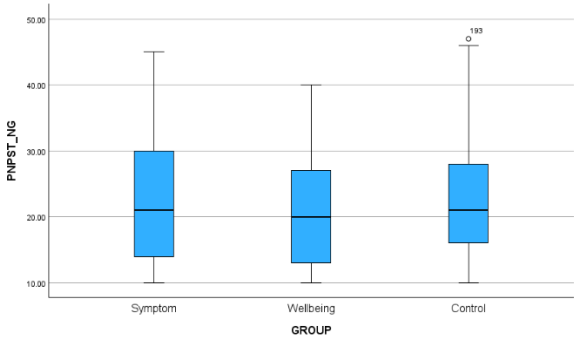
Histograms









Nonparametric Tests

Notes

Output Created		03-AUG-2024 11:42:40
Comments		
Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
	Active Dataset	DataSet3
	Filter	<none>
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	N of Rows in Working Data File	231
Syntax		NPTESTS /INDEPENDENT TEST (MASQ_GD MASQ_AD MASQ_AA) GROUP (GROUP) /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE /CRITERIA ALPHA=0.05 CILEVEL=95.
Resources	Processor Time	00:00:00.53
	Elapsed Time	00:00:00.96

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of MASQ_GD is the same across categories of GROUP.	Independent-Samples Kruskal-Wallis Test	.902	Retain the null hypothesis.
2	The distribution of MASQ_AD is the same across categories of GROUP.	Independent-Samples Kruskal-Wallis Test	.553	Retain the null hypothesis.
3	The distribution of MASQ_AA is the same across categories of GROUP.	Independent-Samples Kruskal-Wallis Test	.348	Retain the null hypothesis.

a. The significance level is .050.

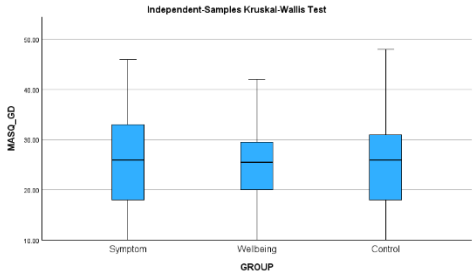
b. Asymptotic significance is displayed.

Independent-Samples Kruskal-Wallis Test
MASQ_GD across GROUP

Independent-Samples Kruskal-Wallis Test Summary

Total N	220
Test Statistic	.207[a]
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.902

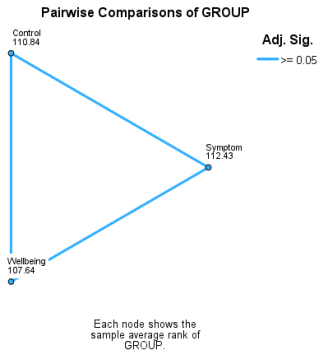
a. The test statistic is adjusted for ties.



Pairwise Comparisons of GROUP

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Wellbeing-Control	-3.197	10.858	-.294	.768	1.000
Wellbeing-Symptom	4.786	10.609	.451	.652	1.000
Control-Symptom	1.589	10.199	.156	.876	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

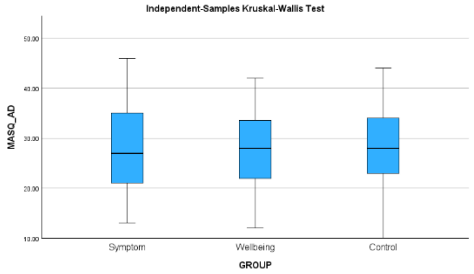


MASQ_AD across GROUP

Independent-Samples Kruskal-Wallis Test Summary

Total N	220
Test Statistic	1.183[a]
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.553

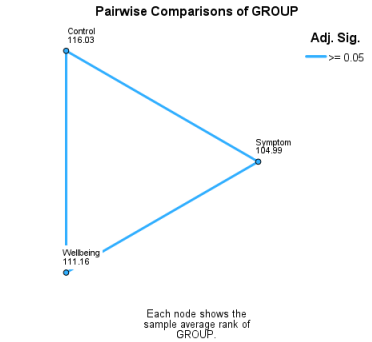
a. The test statistic is adjusted for ties.



Pairwise Comparisons of GROUP

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Symptom-Wellbeing	-6.176	10.608	-.582	.560	1.000
Symptom-Control	-11.046	10.197	-1.083	.279	.836
Wellbeing-Control	-4.870	10.856	-.449	.654	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

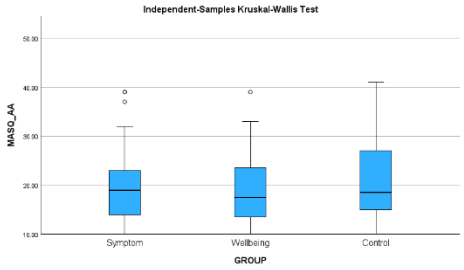


MASQ_AA across GROUP

Independent-Samples Kruskal-Wallis Test Summary

Total N	220
Test Statistic	2.109[a]
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.348

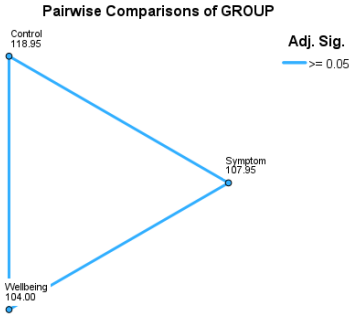
a. The test statistic is adjusted for ties.

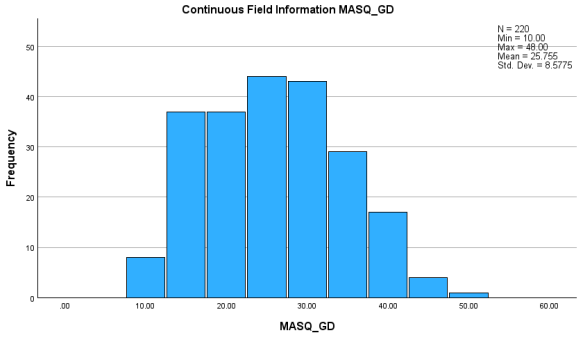


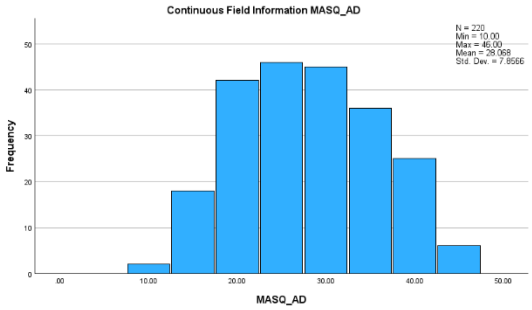
Pairwise Comparisons of GROUP

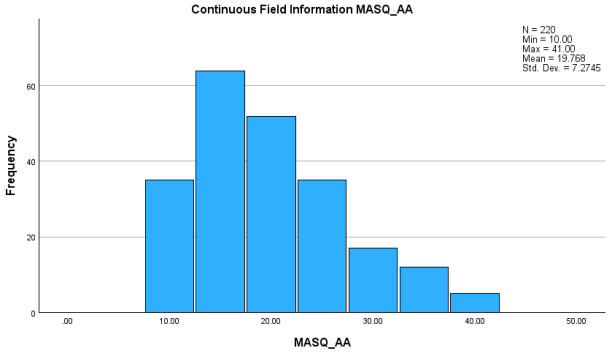
Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Wellbeing-Symptom	3.945	10.604	.372	.710	1.000
Wellbeing-Control	-14.953	10.852	-1.378	.168	.505
Symptom-Control	-11.008	10.194	-1.080	.280	.841

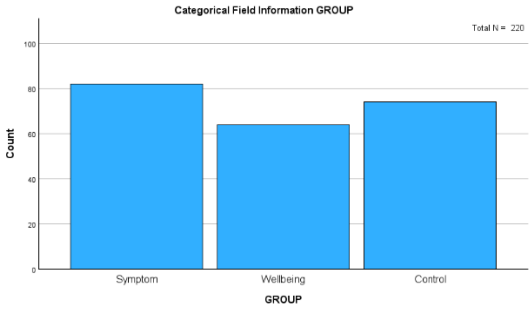
Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.











Nonparametric Tests

Notes

Output Created		03-AUG-2024 11:45:40
Comments		
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	Filter	<none>
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	N of Rows in Working Data File	231
Syntax		NPTESTS /RELATED TEST(PNPRE_PV PNPST_PV GROUP) FRIEDMAN(COMPARE=PAIRWISE) /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE /CRITERIA ALPHA=0.05 CILEVEL=95.
Resources	Processor Time	00:00:00.17
	Elapsed Time	00:00:00.28

Warnings

npar: The nominal variable(s) GROUP can not be applied to the specified RELATED tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distributions of PNPRE_PV and PNPST_PV are the same.	Related-Samples Friedman's Two-Way Analysis of Variance by Ranks	<.001	Reject the null hypothesis.

a. The significance level is .050.

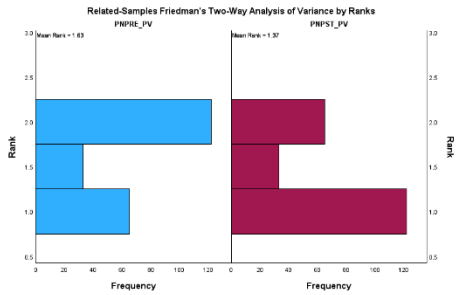
b. Asymptotic significance is displayed.

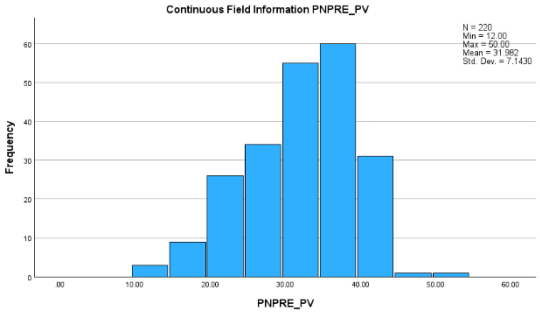
Related-Samples Friedman's Two-Way Analysis of Variance by Ranks
PNPRE_PV, PNPST_PV

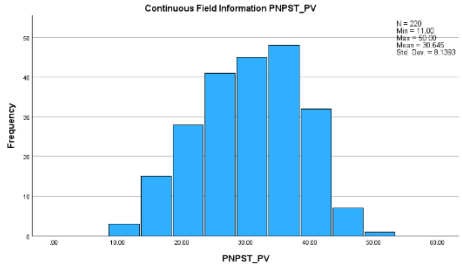
Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary

Total N	220
Test Statistic	17.374[a]
Degree Of Freedom	1
Asymptotic Sig.(2-sided test)	<.001

a. Multiple comparisons are not performed because there are less than three test fields.







General Linear Model

Notes

Output Created		03-AUG-2024 12:13:27
Comments		
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	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax		GLM MASQ_GD MASQ_AD MASQ_AA BY GROUP /WSFACTOR=factor1 3 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES(GROUP*factor1) COMPARE(GROUP) ADJ(BONFERRONI) /EMMEANS=TABLES(GROUP*factor1) COMPARE(factor1) ADJ(BONFERRONI) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /PLOT=SPREADLEVEL /CRITERIA=ALPHA(.05) /WSDESIGN=factor1 /DESIGN=GROUP.
Resources	Processor Time	00:00:00.36
	Elapsed Time	00:00:00.53

Within-Subjects Factors

Measure: MEASURE_1

factor1	Dependent Variable
1	MASQ_GD
2	MASQ_AD
3	MASQ_AA

Between-Subjects Factors

		Value Label	N
GROUP	1.00	Symptom	82
	2.00	Wellbeing	64
	3.00	Control	74

Descriptive Statistics

	GROUP	Mean	Std. Deviation	N
MASQ_GD	Symptom	25.9634	9.14012	82
	Wellbeing	25.3281	7.71116	64
	Control	25.8919	8.74536	74
	Total	25.7545	8.57754	220
MASQ_AD	Symptom	27.4390	8.49124	82
	Wellbeing	28.0781	7.32966	64
	Control	28.7568	7.60823	74
	Total	28.0682	7.85658	220
MASQ_AA	Symptom	19.1951	6.44145	82
	Wellbeing	19.0469	7.06305	64
	Control	21.0270	8.19952	74
	Total	19.7682	7.27452	220

Box's Test of Equality of Covariance Matrices[a]

Box's M	15.757
F	1.286
df1	12
df2	208185.456
Sig.	.218

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + GROUP
Within Subjects Design: factor1

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[d]
factor1	Pillai's Trace	.597	160.219[b]	2.000	216.000	<.001	.597	320.438	1.000
	Wilks' Lambda	.403	160.219[b]	2.000	216.000	<.001	.597	320.438	1.000

	Hotelling's Trace	1.484	160.219[b]	2.000	216.000	<.001	.597	320.438	1.000
	Roy's Largest Root	1.484	160.219[b]	2.000	216.000	<.001	.597	320.438	1.000
factor1 * GROUP	Pillai's Trace	.018	.976	4.000	434.000	.420	.009	3.903	.309
	Wilks' Lambda	.982	.975[b]	4.000	432.000	.421	.009	3.899	.309
	Hotelling's Trace	.018	.973	4.000	430.000	.422	.009	3.894	.309
	Roy's Largest Root	.017	1.834[c]	2.000	217.000	.162	.017	3.668	.380

a. Design: Intercept + GROUP
Within Subjects Design: factor1
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.
d. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
factor1	.535	135.091	2	<.001	.683	.692	.500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.
a. Design: Intercept + GROUP
Within Subjects Design: factor1

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
factor1	Sphericity Assumed	8035.788	2	4017.894	67.896	<.001	.238	135.792	1.000
	Greenhouse-Geisser	8035.788	1.365	5886.067	67.896	<.001	.238	92.693	1.000
	Huynh-Feldt	8035.788	1.384	5807.951	67.896	<.001	.238	93.940	1.000
	Lower-bound	8035.788	1.000	8035.788	67.896	<.001	.238	67.896	1.000
factor1 * GROUP	Sphericity Assumed	99.860	4	24.965	.422	.793	.004	1.687	.149
	Greenhouse-Geisser	99.860	2.730	36.573	.422	.719	.004	1.152	.130
	Huynh-Feldt	99.860	2.767	36.088	.422	.721	.004	1.167	.130
	Lower-bound	99.860	2.000	49.930	.422	.656	.004	.844	.118
Error(factor1)	Sphericity Assumed	25682.979	434	59.177					
	Greenhouse-Geisser	25682.979	296.253	86.693					
	Huynh-Feldt	25682.979	300.238	85.542					
	Lower-bound	25682.979	217.000	118.355					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	factor1	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]

factor1	Linear	3882.141	1	3882.141	171.465	<.001	.441	171.465	1.000
	Quadratic	4153.647	1	4153.647	43.397	<.001	.167	43.397	1.000
factor1 * GROUP	Linear	74.388	2	37.194	1.643	.196	.015	3.286	.344
	Quadratic	25.472	2	12.736	.133	.875	.001	.266	.070
Error(factor1)	Linear	4913.092	217	22.641					
	Quadratic	20769.887	217	95.714					

a. Computed using alpha = .05

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
MASQ_GD	Based on Mean	1.948	2	217	.145
	Based on Median	1.942	2	217	.146
	Based on Median and with adjusted df	1.942	2	214.743	.146
	Based on trimmed mean	1.956	2	217	.144
MASQ_AD	Based on Mean	1.965	2	217	.143
	Based on Median	1.943	2	217	.146
	Based on Median and with adjusted df	1.943	2	216.773	.146
	Based on trimmed mean	1.938	2	217	.146
MASQ_AA	Based on Mean	4.018	2	217	.019
	Based on Median	2.723	2	217	.068
	Based on Median and with adjusted df	2.723	2	204.900	.068
	Based on trimmed mean	3.729	2	217	.026

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + GROUP
Within Subjects Design: factor1

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	392901.376	1	392901.376	5581.546	<.001	.963	5581.546	1.000
GROUP	161.796	2	80.898	1.149	.319	.010	2.298	.251
Error	15275.265	217	70.393					

a. Computed using alpha = .05

Nonparametric Correlations

Notes

Output Created		03-AUG-2024 12:23:37
Comments		
Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
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	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.

Syntax		NONPAR CORR /VARIABLES=MASQ_GD MASQ_AD MASQ_AA /PRINT=SPEARMAN TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00
	Number of Cases Allowed	524288 cases[a]

a. Based on availability of workspace memory

Correlations

			MASQ_GD	MASQ_AD	MASQ_AA
Spearman's rho	MASQ_GD	Correlation Coefficient	1.000	-.357**	.642**
		Sig. (2-tailed)	.	<.001	<.001
		N	220	220	220
	MASQ_AD	Correlation Coefficient	-.357**	1.000	-.072
		Sig. (2-tailed)	<.001	.	.286
		N	220	220	220
	MASQ_AA	Correlation Coefficient	.642**	-.072	1.000
		Sig. (2-tailed)	<.001	.286	.
		N	220	220	220

**. Correlation is significant at the 0.01 level (2-tailed).

Explore

Notes

Output Created		03-AUG-2024 12:54:17
Comments		
Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.
Syntax		EXAMINE VARIABLES=MASQ_GD MASQ_AD MASQ_AA AGE SNAIS /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:00.91
	Elapsed Time	00:00:01.35

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MASQ_GD	220	95.2%	11	4.8%	231	100.0%
MASQ_AD	220	95.2%	11	4.8%	231	100.0%
MASQ_AA	220	95.2%	11	4.8%	231	100.0%
AGE	220	95.2%	11	4.8%	231	100.0%
SNAIS	220	95.2%	11	4.8%	231	100.0%

Descriptives

			Statistic	Std. Error
MASQ_GD	Mean		25.7545	.57830
	95% Confidence Interval for Mean	Lower Bound	24.6148	
		Upper Bound	26.8943	

	5% Trimmed Mean		25.5859	
	Median		26.0000	
	Variance		73.574	
	Std. Deviation		8.57754	
	Minimum		10.00	
	Maximum		48.00	
	Range		38.00	
	Interquartile Range		13.75	
	Skewness		.216	.164
	Kurtosis		-.707	.327
MASQ_AD	Mean		28.0682	.52969
	95% Confidence Interval for Mean	Lower Bound	27.0242	
		Upper Bound	29.1121	
	5% Trimmed Mean		28.0404	
	Median		28.0000	
	Variance		61.726	
	Std. Deviation		7.85658	
	Minimum		10.00	
	Maximum		46.00	
	Range		36.00	
	Interquartile Range		12.75	
	Skewness		.091	.164
	Kurtosis		-.758	.327
MASQ_AA	Mean		19.7682	.49045
	95% Confidence Interval for Mean	Lower Bound	18.8016	
		Upper Bound	20.7348	
	5% Trimmed Mean		19.3384	
	Median		18.5000	
	Variance		52.919	
	Std. Deviation		7.27452	
	Minimum		10.00	
	Maximum		41.00	
	Range		31.00	
	Interquartile Range		10.00	
	Skewness		.758	.164
	Kurtosis		-.010	.327
AGE	Mean		25.3182	.66217
	95% Confidence Interval for Mean	Lower Bound	24.0131	
		Upper Bound	26.6232	
	5% Trimmed Mean		24.0152	
	Median		21.0000	
	Variance		96.465	
	Std. Deviation		9.82163	
	Minimum		18.00	
	Maximum		68.00	
	Range		50.00	
	Interquartile Range		8.00	
	Skewness		2.157	.164
	Kurtosis		4.624	.327
SNAIS	Mean		43.3955	.68000
	95% Confidence Interval for Mean	Lower Bound	42.0553	
		Upper Bound	44.7356	
	5% Trimmed Mean		43.2677	
	Median		43.0000	
	Variance		101.729	
	Std. Deviation		10.08607	
	Minimum		22.00	
	Maximum		76.00	
	Range		54.00	
	Interquartile Range		15.00	
	Skewness		.206	.164
	Kurtosis		-.272	.327

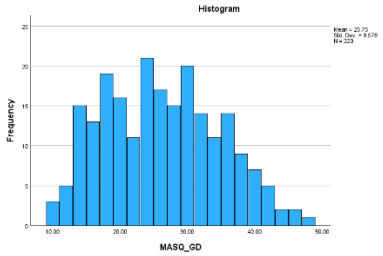
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MASQ_GD	.072	220	.008	.981	220	.004
MASQ_AD	.062	220	.040	.985	220	.018

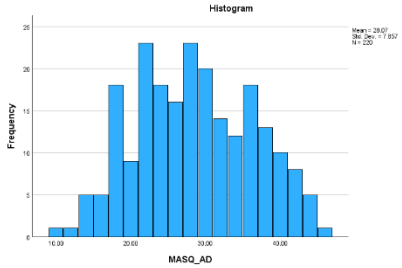
MASQ_AA	.098	220	<.001	.940	220	<.001
AGE	.264	220	<.001	.696	220	<.001
SNAIS	.055	220	.200*	.991	220	.195

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

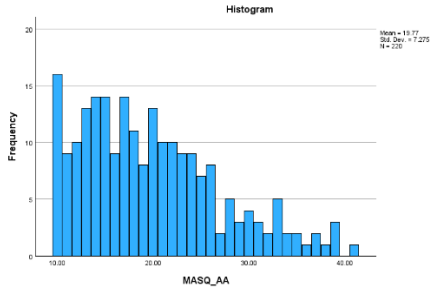
MASQ_GD



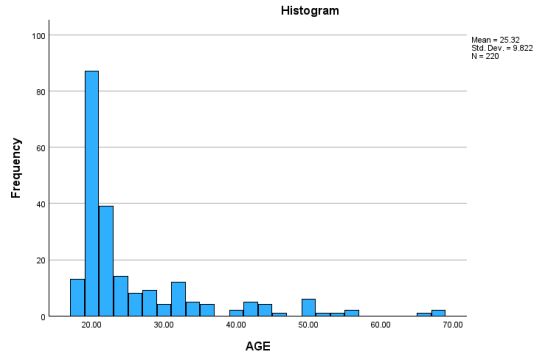
MASQ_AD



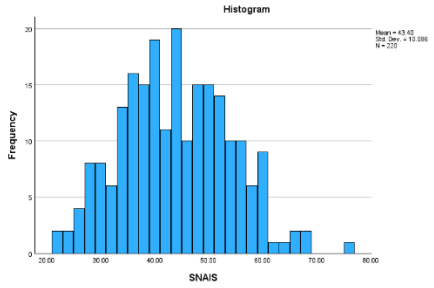
MASQ_AA



AGE



SNAIS



Regression

Notes

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	Cases Used	Statistics are based on cases with no missing values for any variable used.
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	Memory Required	4944 bytes
	Additional Memory Required for Residual Plots	848 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
SNAIS	43.3955	10.08607	220
MASQ_GD	25.7545	8.57754	220
MASQ_AD	28.0682	7.85658	220
MASQ_AA	19.7682	7.27452	220
AGE	25.3182	9.82163	220

Correlations

		SNAIS	MASQ_GD	MASQ_AD	MASQ_AA	AGE
Pearson Correlation	SNAIS	1.000	.075	.053	-.029	.047
	MASQ_GD	.075	1.000	-.356	.649	.011
	MASQ_AD	.053	-.356	1.000	-.085	.092
	MASQ_AA	-.029	.649	-.085	1.000	-.008
	AGE	.047	.011	.092	-.008	1.000
Sig. (1-tailed)	SNAIS	.	.134	.218	.332	.245
	MASQ_GD	.134	.	.000	.000	.436
	MASQ_AD	.218	.000	.	.105	.087
	MASQ_AA	.332	.000	.105	.	.456
	AGE	.245	.436	.087	.456	.
N	SNAIS	220	220	220	220	220
	MASQ_GD	220	220	220	220	220
	MASQ_AD	220	220	220	220	220
	MASQ_AA	220	220	220	220	220
	AGE	220	220	220	220	220

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method

1	MASQ_AA, MASQ_AD, MASQ_GD[b]	.	Enter
2	AGE[b]	.	Enter

a. Dependent Variable: SNAIS
b. All requested variables entered.

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.167[a]	.028	.014	10.01275	.028	2.073	3	216	.105	
2	.170[b]	.029	.011	10.03062	.001	.231	1	215	.631	1.683

a. Predictors: (Constant), MASQ_AA, MASQ_AD, MASQ_GD
b. Predictors: (Constant), MASQ_AA, MASQ_AD, MASQ_GD, AGE
c. Dependent Variable: SNAIS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	623.476	3	207.825	2.073	.105[b]
	Residual	21655.120	216	100.255		
	Total	22278.595	219			
2	Regression	646.743	4	161.686	1.607	.174[c]
	Residual	21631.852	215	100.613		
	Total	22278.595	219			

a. Dependent Variable: SNAIS
b. Predictors: (Constant), MASQ_AA, MASQ_AD, MASQ_GD
c. Predictors: (Constant), MASQ_AA, MASQ_AD, MASQ_GD, AGE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	36.845	3.985		9.246	<.001	28.991	44.699			
	MASQ_GD	.264	.113	.224	2.337	.020	.041	.486	.075	.157	.157
	MASQ_AD	.152	.094	.119	1.618	.107	-.033	.338	.053	.109	.109
	MASQ_AA	-.229	.125	-.165	-1.832	.068	-.475	.017	-.029	-.124	-.123
2	(Constant)	36.177	4.226		8.560	<.001	27.847	44.508			
	MASQ_GD	.260	.113	.221	2.298	.023	.037	.484	.075	.155	.154
	MASQ_AD	.147	.095	.115	1.553	.122	-.040	.334	.053	.105	.104
	MASQ_AA	-.226	.125	-.163	-1.807	.072	-.473	.021	-.029	-.122	-.121
	AGE	.033	.069	.033	.481	.631	-.103	.170	.047	.033	.032

a. Dependent Variable: SNAIS

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	AGE	.033[b]	.481	.631	.033	.988

a. Dependent Variable: SNAIS
b. Predictors in the Model: (Constant), MASQ_AA, MASQ_AD, MASQ_GD

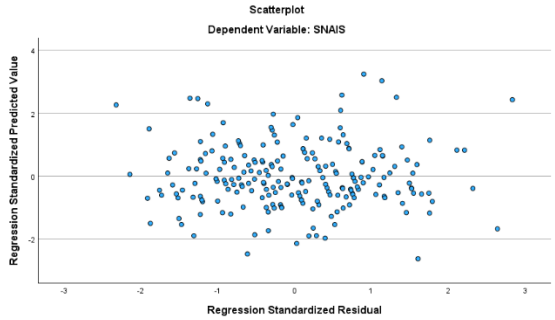
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	38.8894	48.9682	43.3955	1.71848	220
Residual	-23.28802	28.42613	.00000	9.93859	220
Std. Predicted Value	-2.622	3.243	.000	1.000	220

Std. Residual	-2.322	2.834	.000	.991	220

a. Dependent Variable: SNAIS

Charts



General Linear Model

Notes

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Comments		
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	Cases Used	**Statistics are based on all cases with valid data for all variables in the model.**
Syntax		**GLM PanasPRE_PV PanasPST_PV BY Content_Condition MASQGROUP /WSFACTOR=Panas_PV 2 Polynomial /METHOD=SSTYPE(3) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Panas_PV /DESIGN=Content_Condition MASQGROUP Content_Condition*MASQGROUP.**
Resources	**Processor Time**	**00:00:00.05**
	Elapsed Time	**00:00:00.00**

[DataSet1] /Users/katiesaunders/Downloads/Data Final v1.sav

Within-Subjects Factors

Measure: MEASURE_1

Panas_PV	Dependent Variable
1	PanasPRE_PV
2	PanasPST_PV

Between-Subjects Factors

		Value Label	N
Content_Condition	1.00	Symptom	82
	2.00	Wellbeing	64
	3.00	Control	74
MASQGROUP	1.00	Low	116
	2.00	High	104

Descriptive Statistics

	Content_Condition	MASQGROUP	Mean	Std. Deviation	N
PanasPRE_PV	Symptom	Low	33.1892	8.01678	37
		High	31.8222	8.09963	45
		Total	32.4390	8.04171	82
	Wellbeing	Low	31.3333	6.96734	39
		High	31.9200	5.90847	25
		Total	31.5625	6.53167	64
	Control	Low	32.0000	6.15192	40
		High	31.6471	7.26086	34
		Total	31.8378	6.63950	74
	Total	Low	32.1552	7.04100	116
		High	31.7885	7.28434	104
		Total	31.9818	7.14300	220
PanasPST_PV	Symptom	Low	31.1351	9.13529	37
		High	30.5111	9.51702	45
		Total	30.7927	9.29455	82
	Wellbeing	Low	30.2051	7.77371	39
		High	30.2800	8.03907	25
		Total	30.2344	7.81481	64
	Control	Low	30.9000	6.68638	40
		High	30.7647	7.59609	34
		Total	30.8378	7.06918	74
	Total	Low	30.7414	7.83650	116
		High	30.5385	8.50120	104
		Total	30.6455	8.13930	220

Box's Test of Equality of Covariance Matrices[a]

Box's M	46.961
F	3.054
df1	15
df2	167502.737
Sig.	<.001

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: Panas_PV

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
Panas_PV	Pillai's Trace	.103	24.466[b]	1.000	214.000	<.001	.103	24.466	.998
	Wilks' Lambda	.897	24.466[b]	1.000	214.000	<.001	.103	24.466	.998
	Hotelling's Trace	.114	24.466[b]	1.000	214.000	<.001	.103	24.466	.998
	Roy's Largest Root	.114	24.466[b]	1.000	214.000	<.001	.103	24.466	.998
Panas_PV * Content_Condition	Pillai's Trace	.005	.581[b]	2.000	214.000	.560	.005	1.163	.146
	Wilks' Lambda	.995	.581[b]	2.000	214.000	.560	.005	1.163	.146
	Hotelling's Trace	.005	.581[b]	2.000	214.000	.560	.005	1.163	.146
	Roy's Largest Root	.005	.581[b]	2.000	214.000	.560	.005	1.163	.146
Panas_PV * MASQGROUP	Pillai's Trace	.000	.075[b]	1.000	214.000	.785	.000	.075	.059
	Wilks' Lambda	1.000	.075[b]	1.000	214.000	.785	.000	.075	.059
	Hotelling's Trace	.000	.075[b]	1.000	214.000	.785	.000	.075	.059
	Roy's Largest Root	.000	.075[b]	1.000	214.000	.785	.000	.075	.059
Panas_PV * Content_Condition * MASQGROUP	Pillai's Trace	.004	.431[b]	2.000	214.000	.650	.004	.862	.119
	Wilks' Lambda	.996	.431[b]	2.000	214.000	.650	.004	.862	.119
	Hotelling's Trace	.004	.431[b]	2.000	214.000	.650	.004	.862	.119
	Roy's Largest Root	.004	.431[b]	2.000	214.000	.650	.004	.862	.119

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: Panas_PV

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Panas_PV	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.
a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: Panas_PV

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Panas_PV	Sphericity Assumed	194.519	1	194.519	24.466	<.001	.103	24.466	.998
	Greenhouse-Geisser	194.519	1.000	194.519	24.466	<.001	.103	24.466	.998
	Huynh-Feldt	194.519	1.000	194.519	24.466	<.001	.103	24.466	.998
	Lower-bound	194.519	1.000	194.519	24.466	<.001	.103	24.466	.998
Panas_PV * Content_Condition	Sphericity Assumed	9.243	2	4.621	.581	.560	.005	1.163	.146
	Greenhouse-Geisser	9.243	2.000	4.621	.581	.560	.005	1.163	.146
	Huynh-Feldt	9.243	2.000	4.621	.581	.560	.005	1.163	.146
	Lower-bound	9.243	2.000	4.621	.581	.560	.005	1.163	.146
Panas_PV * MASQGROUP	Sphericity Assumed	.595	1	.595	.075	.785	.000	.075	.059
	Greenhouse-Geisser	.595	1.000	.595	.075	.785	.000	.075	.059
	Huynh-Feldt	.595	1.000	.595	.075	.785	.000	.075	.059
	Lower-bound	.595	1.000	.595	.075	.785	.000	.075	.059
Panas_PV * Content_Condition * MASQGROUP	Sphericity Assumed	6.853	2	3.426	.431	.650	.004	.862	.119
	Greenhouse-Geisser	6.853	2.000	3.426	.431	.650	.004	.862	.119
	Huynh-Feldt	6.853	2.000	3.426	.431	.650	.004	.862	.119
	Lower-bound	6.853	2.000	3.426	.431	.650	.004	.862	.119
Error(Panas_PV)	Sphericity Assumed	1701.392	214	7.950					
	Greenhouse-Geisser	1701.392	214.000	7.950					
	Huynh-Feldt	1701.392	214.000	7.950					
	Lower-bound	1701.392	214.000	7.950					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Panas_PV	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Panas_PV	Linear	194.519	1	194.519	24.466	<.001	.103	24.466	.998

Panas_PV * Content_Condition	Linear	9.243	2	4.621	.581	.560	.005	1.163	.146
Panas_PV * MASQGROUP	Linear	.595	1	.595	.075	.785	.000	.075	.059
Panas_PV * Content_Condition * MASQGROUP	Linear	6.853	2	3.426	.431	.650	.004	.862	.119
Error(Panas_PV)	Linear	1701.392	214	7.950					

a. Computed using alpha = .05

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
PanasPRE_PV	Based on Mean	1.623	5	214	.155
	Based on Median	1.164	5	214	.328
	Based on Median and with adjusted df	1.164	5	204.492	.328
	Based on trimmed mean	1.473	5	214	.200
PanasPST_PV	Based on Mean	1.695	5	214	.137
	Based on Median	1.455	5	214	.206
	Based on Median and with adjusted df	1.455	5	203.912	.206
	Based on trimmed mean	1.672	5	214	.143

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: Panas_PV

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	416877.476	1	416877.476	3735.552	<.001	.946	3735.552	1.000
Content_Condition	37.140	2	18.570	.166	.847	.002	.333	.076
MASQGROUP	9.758	1	9.758	.087	.768	.000	.087	.060
Content_Condition * MASQGROUP	31.430	2	15.715	.141	.869	.001	.282	.071
Error	23881.818	214	111.597					

a. Computed using alpha = .05

General Linear Model

Notes

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	N of Rows in Working Data File	220
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax		**GLM PanasPRE_NG PanasPST_NG BY Content_Condition MASQGROUP /WSFACTOR=PANAS_NG 2 Polynomial /METHOD=SSTYPE(3) /PLOT=PROFILE(Content_Condition*MASQGROUP) TYPE=LINE ERRORBAR=NO MEANREFERENCE=NO YAXIS=AUTO /EMMEANS=TABLES(OVERALL) /EMMEANS=TABLES(Content_Condition) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES(MASQGROUP) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES(PANAS_NG) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*MASQGROUP) COMPARE(Content_Condition) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*MASQGROUP) COMPARE(MASQGROUP) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*PANAS_NG) COMPARE(Content_Condition) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*PANAS_NG) COMPARE(PANAS_NG) ADJ(BONFERRONI) /EMMEANS=TABLES(MASQGROUP*PANAS_NG) COMPARE(MASQGROUP) ADJ(BONFERRONI) /EMMEANS=TABLES(MASQGROUP*PANAS_NG) COMPARE(PANAS_NG) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*MASQGROUP*PANAS_NG) COMPARE(Content_Condition) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*MASQGROUP*PANAS_NG) COMPARE(MASQGROUP) ADJ(BONFERRONI) /EMMEANS=TABLES(Content_Condition*MASQGROUP*PANAS_NG) COMPARE(PANAS_NG) ADJ(BONFERRONI) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=PANAS_NG /DESIGN=Content_Condition MASQGROUP Content_Condition*MASQGROUP.**
Resources	**Processor Time**	**00:00:01.26**
	Elapsed Time	**00:00:01.00**

Within-Subjects Factors
Measure: MEASURE_1

PANAS_NG	Dependent Variable
1	PanasPRE_NG
2	PanasPST_NG

Between-Subjects Factors

		Value Label	N
Content_Condition	1.00	Symptom	82
	2.00	Wellbeing	64
	3.00	Control	74
MASQGROUP	1.00	Low	116
	2.00	High	104

Descriptive Statistics

	Content_Condition	MASQGROUP	Mean	Std. Deviation	N
PanasPRE_NG	Symptom	Low	18.1081	5.35819	37
		High	29.5333	6.22531	45
		Total	24.3780	8.15686	82
	Wellbeing	Low	21.2051	7.22634	39
		High	27.1600	8.73060	25
		Total	23.5312	8.31325	64
	Control	Low	21.8000	7.74994	40
		High	28.8235	8.06591	34
		Total	25.0270	8.59750	74
	Total	Low	20.4224	7.01446	116
		High	28.7308	7.48621	104
		Total	24.3500	8.33545	220
PanasPST_NG	Symptom	Low	15.8649	5.33418	37
		High	28.6667	8.21030	45
		Total	22.8902	9.50504	82
	Wellbeing	Low	18.7179	6.96967	39
		High	24.2400	8.76204	25
		Total	20.8750	8.11915	64
	Control	Low	18.6500	7.14879	40
		High	27.2941	9.12715	34
		Total	22.6216	9.15274	74
	Total	Low	17.7845	6.63562	116
		High	27.1538	8.74312	104
		Total	22.2136	9.00303	220

Box's Test of Equality of Covariance Matrices[a]

Box's M	37.785
F	2.457
df1	15
df2	167502.737
Sig.	.001

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: PANAS_NG

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[c]
PANAS_NG	Pillai's Trace	.260	75.047[b]	1.000	214.000	<.001	.260	75.047	1.000
	Wilks' Lambda	.740	75.047[b]	1.000	214.000	<.001	.260	75.047	1.000
	Hotelling's Trace	.351	75.047[b]	1.000	214.000	<.001	.260	75.047	1.000
	Roy's Largest Root	.351	75.047[b]	1.000	214.000	<.001	.260	75.047	1.000
PANAS_NG * Content_Condition	Pillai's Trace	.017	1.827[b]	2.000	214.000	.163	.017	3.654	.379
	Wilks' Lambda	.983	1.827[b]	2.000	214.000	.163	.017	3.654	.379
	Hotelling's Trace	.017	1.827[b]	2.000	214.000	.163	.017	3.654	.379
	Roy's Largest Root	.017	1.827[b]	2.000	214.000	.163	.017	3.654	.379
	Pillai's Trace	.013	2.834[b]	1.000	214.000	.094	.013	2.834	.388

PANAS_NG * MASQGROUP	Wilks' Lambda	.987	2.834[b]	1.000	214.000	.094	.013	2.834	.388
	Hotelling's Trace	.013	2.834[b]	1.000	214.000	.094	.013	2.834	.388
	Roy's Largest Root	.013	2.834[b]	1.000	214.000	.094	.013	2.834	.388
PANAS_NG * Content_Condition * MASQGROUP	Pillai's Trace	.014	1.499[b]	2.000	214.000	.226	.014	2.998	.317
	Wilks' Lambda	.986	1.499[b]	2.000	214.000	.226	.014	2.998	.317
	Hotelling's Trace	.014	1.499[b]	2.000	214.000	.226	.014	2.998	.317
	Roy's Largest Root	.014	1.499[b]	2.000	214.000	.226	.014	2.998	.317

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: PANAS_NG

b. Exact statistic

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
PANAS_NG	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.
a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: PANAS_NG

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects
Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
PANAS_NG	Sphericity Assumed	514.311	1	514.311	75.047	<.001	.260	75.047	1.000
	Greenhouse-Geisser	514.311	1.000	514.311	75.047	<.001	.260	75.047	1.000
	Huynh-Feldt	514.311	1.000	514.311	75.047	<.001	.260	75.047	1.000
	Lower-bound	514.311	1.000	514.311	75.047	<.001	.260	75.047	1.000
PANAS_NG * Content_Condition	Sphericity Assumed	25.038	2	12.519	1.827	.163	.017	3.654	.379
	Greenhouse-Geisser	25.038	2.000	12.519	1.827	.163	.017	3.654	.379
	Huynh-Feldt	25.038	2.000	12.519	1.827	.163	.017	3.654	.379
	Lower-bound	25.038	2.000	12.519	1.827	.163	.017	3.654	.379
PANAS_NG * MASQGROUP	Sphericity Assumed	19.421	1	19.421	2.834	.094	.013	2.834	.388
	Greenhouse-Geisser	19.421	1.000	19.421	2.834	.094	.013	2.834	.388
	Huynh-Feldt	19.421	1.000	19.421	2.834	.094	.013	2.834	.388
	Lower-bound	19.421	1.000	19.421	2.834	.094	.013	2.834	.388
PANAS_NG * Content_Condition * MASQGROUP	Sphericity Assumed	20.545	2	10.273	1.499	.226	.014	2.998	.317
	Greenhouse-Geisser	20.545	2.000	10.273	1.499	.226	.014	2.998	.317
	Huynh-Feldt	20.545	2.000	10.273	1.499	.226	.014	2.998	.317
	Lower-bound	20.545	2.000	10.273	1.499	.226	.014	2.998	.317
Error(PANAS_NG)	Sphericity Assumed	1466.582	214	6.853					
	Greenhouse-Geisser	1466.582	214.000	6.853					
	Huynh-Feldt	1466.582	214.000	6.853					
	Lower-bound	1466.582	214.000	6.853					

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	PANAS_NG	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
PANAS_NG	Linear	514.311	1	514.311	75.047	<.001	.260	75.047	1.000
PANAS_NG * Content_Condition	Linear	25.038	2	12.519	1.827	.163	.017	3.654	.379
PANAS_NG * MASQGROUP	Linear	19.421	1	19.421	2.834	.094	.013	2.834	.388
PANAS_NG * Content_Condition * MASQGROUP	Linear	20.545	2	10.273	1.499	.226	.014	2.998	.317
Error(PANAS_NG)	Linear	1466.582	214	6.853					

a. Computed using alpha = .05

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
PanasPRE_NG	Based on Mean	2.752	5	214	.020
	Based on Median	2.382	5	214	.040
	Based on Median and with adjusted df	2.382	5	199.318	.040
	Based on trimmed mean	2.704	5	214	.022
PanasPST_NG	Based on Mean	2.687	5	214	.022
	Based on Median	2.208	5	214	.055
	Based on Median and with adjusted df	2.208	5	195.964	.055
	Based on trimmed mean	2.730	5	214	.021

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Content_Condition + MASQGROUP + Content_Condition * MASQGROUP
Within Subjects Design: PANAS_NG

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	231644.210	1	231644.210	2253.657	<.001	.913	2253.657	1.000
Content_Condition	140.322	2	70.161	.683	.506	.006	1.365	.164
MASQGROUP	7793.884	1	7793.884	75.826	<.001	.262	75.826	1.000
Content_Condition * MASQGROUP	765.458	2	382.729	3.724	.026	.034	7.447	.678
Error	21996.186	214	102.786					

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
23.339	.492	22.370	24.308

2. Content_Condition

Estimates
Measure: MEASURE_1

Content_Condition	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	23.043	.795	21.475	24.611
Wellbeing	22.831	.918	21.021	24.641
Control	24.142	.836	22.494	25.790

Pairwise Comparisons

Measure: MEASURE_1

(I) Content_Condition	(J) Content_Condition	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a] Lower Bound	Upper Bound
Symptom	Wellbeing	.212	1.215	1.000	-2.719	3.144
	Control	-1.099	1.154	1.000	-3.883	1.686
Wellbeing	Symptom	-.212	1.215	1.000	-3.144	2.719
	Control	-1.311	1.242	.877	-4.308	1.686
Control	Symptom	1.099	1.154	1.000	-1.686	3.883
	Wellbeing	1.311	1.242	.877	-1.686	4.308

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Contrast	70.161	2	35.080	.683	.506	.006	1.365	.164
Error	10998.093	214	51.393					

The F tests the effect of Content_Condition. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

3. MASQGROUP

Estimates
Measure: MEASURE_1

MASQGROUP	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Low	19.058	.666	17.745	20.370
High	27.620	.723	26.194	29.045

Pairwise Comparisons

Measure: MEASURE_1

(I) MASQGROUP	(J) MASQGROUP	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Low	High	-8.562*	.983	<.001	-10.500	-6.624
High	Low	8.562*	.983	<.001	6.624	10.500

Based on estimated marginal means

***. The mean difference is significant at the .05 level.**

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Contrast	3896.942	1	3896.942	75.826	<.001	.262	75.826	1.000
Error	10998.093	214	51.393					

The F tests the effect of MASQGROUP. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

4. PANAS_NG

Estimates

Measure: MEASURE_1

PANAS_NG	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	24.438	.493	23.467	25.409
2	22.239	.522	21.209	23.269

Pairwise Comparisons

Measure: MEASURE_1

(I) PANAS_NG	(J) PANAS_NG	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	2.199*	.254	<.001	1.699	2.700
2	1	-2.199*	.254	<.001	-2.700	-1.699

Based on estimated marginal means

***. The mean difference is significant at the .05 level.**

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Pillai's trace	.260	75.047[a]	1.000	214.000	<.001	.260	75.047	1.000
Wilks' lambda	.740	75.047[a]	1.000	214.000	<.001	.260	75.047	1.000
Hotelling's trace	.351	75.047[a]	1.000	214.000	<.001	.260	75.047	1.000
Roy's largest root	.351	75.047[a]	1.000	214.000	<.001	.260	75.047	1.000

Each F tests the multivariate effect of PANAS_NG. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

5. Content_Condition * MASQGROUP

Estimates
Measure: MEASURE_1

Content_Condition	MASQGROUP	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	Low	16.986	1.179	14.663	19.310
	High	29.100	1.069	26.994	31.206
Wellbeing	Low	19.962	1.148	17.699	22.224
	High	25.700	1.434	22.874	28.526
Control	Low	20.225	1.134	17.991	22.459
	High	28.059	1.229	25.635	30.482

Pairwise Comparisons

Measure: MEASURE_1

MASQGROUP	(I) Content_Condition	(J) Content_Condition	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a] Lower Bound	Upper Bound
Low	Symptom	Wellbeing	-2.975	1.645	.216	-6.945	.995
		Control	-3.239	1.635	.147	-7.184	.707
	Wellbeing	Symptom	2.975	1.645	.216	-.995	6.945
		Control	-.263	1.613	1.000	-4.156	3.629
	Control	Symptom	3.239	1.635	.147	-.707	7.184
		Wellbeing	.263	1.613	1.000	-3.629	4.156
High	Symptom	Wellbeing	3.400	1.788	.176	-.915	7.715
		Control	1.041	1.629	1.000	-2.890	4.972
	Wellbeing	Symptom	-3.400	1.788	.176	-7.715	.915
		Control	-2.359	1.889	.639	-6.916	2.199
	Control	Symptom	-1.041	1.629	1.000	-4.972	2.890
		Wellbeing	2.359	1.889	.639	-2.199	6.916

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

MASQGROUP		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Low	Contrast	244.848	2	122.424	2.382	.095	.022	4.764	.478
	Error	10998.093	214	51.393					
High	Contrast	186.471	2	93.236	1.814	.165	.017	3.628	.376
	Error	10998.093	214	51.393					

Each F tests the simple effects of Content_Condition within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

6. Content_Condition * MASQGROUP

Estimates
Measure: MEASURE_1

Content_Condition	MASQGROUP	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	Low	16.986	1.179	14.663	19.310
	High	29.100	1.069	26.994	31.206
Wellbeing	Low	19.962	1.148	17.699	22.224
	High	25.700	1.434	22.874	28.526

Control	Low	20.225	1.134	17.991	22.459
	High	28.059	1.229	25.635	30.482

Pairwise Comparisons

Measure: MEASURE_1

Content_Condition	(I) MASQGROUP	(J) MASQGROUP	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Symptom	Low	High	-12.114*	1.591	<.001	-15.249	-8.978
	High	Low	12.114*	1.591	<.001	8.978	15.249
Wellbeing	Low	High	-5.738*	1.837	.002	-9.359	-2.118
	High	Low	5.738*	1.837	.002	2.118	9.359
Control	Low	High	-7.834*	1.672	<.001	-11.130	-4.538
	High	Low	7.834*	1.672	<.001	4.538	11.130

Based on estimated marginal means

***. The mean difference is significant at the .05 level.**

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

Content_Condition		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Symptom	Contrast	2979.481	1	2979.481	57.975	<.001	.213	57.975	1.000
	Error	10998.093	214	51.393					
Wellbeing	Contrast	501.667	1	501.667	9.761	.002	.044	9.761	.875
	Error	10998.093	214	51.393					
Control	Contrast	1127.859	1	1127.859	21.946	<.001	.093	21.946	.997
	Error	10998.093	214	51.393					

Each F tests the simple effects of MASQGROUP within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

7. Content_Condition * PANAS_NG

Estimates
Measure: MEASURE_1

Content_Condition	PANAS_NG	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	1	23.821	.797	22.250	25.392
	2	22.266	.845	20.599	23.932
Wellbeing	1	24.183	.920	22.369	25.996
	2	21.479	.976	19.555	23.403
Control	1	25.312	.838	23.660	26.963
	2	22.972	.889	21.221	24.724

Pairwise Comparisons
Measure: MEASURE_1

PANAS_NG	(I) Content_Condition	(J) Content_Condition	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a] Lower Bound	Upper Bound
1	Symptom	Wellbeing	-.362	1.217	1.000	-3.299	2.576
		Control	-1.491	1.156	.596	-4.281	1.299
	Wellbeing	Symptom	.362	1.217	1.000	-2.576	3.299

		Control	-1.129	1.244	1.000	-4.132	1.874
	Control	Symptom	1.491	1.156	.596	-1.299	4.281
		Wellbeing	1.129	1.244	1.000	-1.874	4.132
2	Symptom	Wellbeing	.787	1.291	1.000	-2.329	3.902
		Control	-.706	1.226	1.000	-3.666	2.253
	Wellbeing	Symptom	-.787	1.291	1.000	-3.902	2.329
		Control	-1.493	1.320	.778	-4.678	1.692
	Control	Symptom	.706	1.226	1.000	-2.253	3.666
		Wellbeing	1.493	1.320	.778	-1.692	4.678

Based on estimated marginal means
a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

PANAS_NG		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
1	Contrast	91.038	2	45.519	.882	.415	.008	1.764	.201
	Error	11041.828	214	51.597					
2	Contrast	74.322	2	37.161	.640	.528	.006	1.280	.156
	Error	12420.941	214	58.042					

Each F tests the simple effects of Content_Condition within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

8. Content_Condition * PANAS_NG

Estimates
Measure: MEASURE_1

Content_Condition	PANAS_NG	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	1	23.821	.797	22.250	25.392
	2	22.266	.845	20.599	23.932
Wellbeing	1	24.183	.920	22.369	25.996
	2	21.479	.976	19.555	23.403
Control	1	25.312	.838	23.660	26.963
	2	22.972	.889	21.221	24.724

Pairwise Comparisons

Measure: MEASURE_1

Content_Condition	(I) PANAS_NG	(J) PANAS_NG	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Symptom	1	2	1.555*	.411	<.001	.745	2.365
	2	1	-1.555*	.411	<.001	-2.365	-.745
Wellbeing	1	2	2.704*	.474	<.001	1.769	3.638
	2	1	-2.704*	.474	<.001	-3.638	-1.769
Control	1	2	2.340*	.432	<.001	1.489	3.191
	2	1	-2.340*	.432	<.001	-3.191	-1.489

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

Content_Condition		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Symptom	Pillai's trace	.063	14.328[a]	1.000	214.000	<.001	.063	14.328	.965
	Wilks' lambda	.937	14.328[a]	1.000	214.000	<.001	.063	14.328	.965
	Hotelling's trace	.067	14.328[a]	1.000	214.000	<.001	.063	14.328	.965
	Roy's largest root	.067	14.328[a]	1.000	214.000	<.001	.063	14.328	.965
Wellbeing	Pillai's trace	.132	32.497[a]	1.000	214.000	<.001	.132	32.497	1.000
	Wilks' lambda	.868	32.497[a]	1.000	214.000	<.001	.132	32.497	1.000
	Hotelling's trace	.152	32.497[a]	1.000	214.000	<.001	.132	32.497	1.000
	Roy's largest root	.152	32.497[a]	1.000	214.000	<.001	.132	32.497	1.000
Control	Pillai's trace	.121	29.361[a]	1.000	214.000	<.001	.121	29.361	1.000
	Wilks' lambda	.879	29.361[a]	1.000	214.000	<.001	.121	29.361	1.000
	Hotelling's trace	.137	29.361[a]	1.000	214.000	<.001	.121	29.361	1.000
	Roy's largest root	.137	29.361[a]	1.000	214.000	<.001	.121	29.361	1.000

Each F tests the multivariate simple effects of PANAS_NG within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Exact statistic

b. Computed using alpha = .05

9. MASQGROUP * PANAS_NG

Estimates
Measure: MEASURE_1

MASQGROUP	PANAS_NG	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Low	1	20.371	.667	19.056	21.686
	2	17.744	.708	16.349	19.139
High	1	28.506	.725	27.077	29.934
	2	26.734	.769	25.218	28.249

Pairwise Comparisons

Measure: MEASURE_1

PANAS_NG	(I) MASQGROUP	(J) MASQGROUP	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
1	Low	High	-8.135*	.985	<.001	-10.076	-6.193
	High	Low	8.135*	.985	<.001	6.193	10.076
2	Low	High	-8.989*	1.045	<.001	-11.049	-6.930
	High	Low	8.989*	1.045	<.001	6.930	11.049

Based on estimated marginal means

***. The mean difference is significant at the .05 level.**

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests
Measure: MEASURE_1

PANAS_NG		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
1	Contrast	3517.601	1	3517.601	68.174	<.001	.242	68.174	1.000
	Error	11041.828	214	51.597					

2	Contrast	4295.704	1	4295.704	74.011	<.001	.257	74.011	1.000
	Error	12420.941	214	58.042					

Each F tests the simple effects of MASQGROUP within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

10. MASQGROUP * PANAS_NG

Estimates
Measure: MEASURE_1

MASQGROUP	PANAS_NG	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Low	1	20.371	.667	19.056	21.686
	2	17.744	.708	16.349	19.139
High	1	28.506	.725	27.077	29.934
	2	26.734	.769	25.218	28.249

Pairwise Comparisons

Measure: MEASURE_1

MASQGROUP	(I) PANAS_NG	(J) PANAS_NG	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Low	1	2	2.627*	.344	<.001	1.949	3.305
	2	1	-2.627*	.344	<.001	-3.305	-1.949
High	1	2	1.772*	.374	<.001	1.036	2.508
	2	1	-1.772*	.374	<.001	-2.508	-1.036

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

MASQGROUP		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Low	Pillai's trace	.214	58.336[a]	1.000	214.000	<.001	.214	58.336	1.000
	Wilks' lambda	.786	58.336[a]	1.000	214.000	<.001	.214	58.336	1.000
	Hotelling's trace	.273	58.336[a]	1.000	214.000	<.001	.214	58.336	1.000
	Roy's largest root	.273	58.336[a]	1.000	214.000	<.001	.214	58.336	1.000
High	Pillai's trace	.095	22.501[a]	1.000	214.000	<.001	.095	22.501	.997
	Wilks' lambda	.905	22.501[a]	1.000	214.000	<.001	.095	22.501	.997
	Hotelling's trace	.105	22.501[a]	1.000	214.000	<.001	.095	22.501	.997
	Roy's largest root	.105	22.501[a]	1.000	214.000	<.001	.095	22.501	.997

Each F tests the multivariate simple effects of PANAS_NG within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Exact statistic

b. Computed using alpha = .05

11. Content_Condition * MASQGROUP * PANAS_NG

Estimates

Measure: MEASURE_1

Content_Condition	MASQGROUP	PANAS_NG	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Symptom	Low	1	18.108	1.181	15.780	20.436
		2	15.865	1.252	13.396	18.334
	High	1	29.533	1.071	27.423	31.644
		2	28.667	1.136	26.428	30.905
Wellbeing	Low	1	21.205	1.150	18.938	23.472
		2	18.718	1.220	16.313	21.123
	High	1	27.160	1.437	24.328	29.992
		2	24.240	1.524	21.237	27.243
Control	Low	1	21.800	1.136	19.561	24.039
		2	18.650	1.205	16.276	21.024
	High	1	28.824	1.232	26.395	31.252
		2	27.294	1.307	24.719	29.870

Pairwise Comparisons

Measure: MEASURE_1

MASQGROUP	PANAS_NG	(I) Content_Condition	(J) Content_Condition	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
							Lower Bound	Upper Bound
Low	1	Symptom	Wellbeing	-3.097	1.648	.185	-7.075	.881
			Control	-3.692	1.638	.076	-7.645	.262
		Wellbeing	Symptom	3.097	1.648	.185	-.881	7.075
			Control	-.595	1.616	1.000	-4.495	3.306
		Control	Symptom	3.692	1.638	.076	-.262	7.645
			Wellbeing	.595	1.616	1.000	-3.306	4.495
	2	Symptom	Wellbeing	-2.853	1.748	.313	-7.072	1.366
			Control	-2.785	1.738	.331	-6.978	1.408
		Wellbeing	Symptom	2.853	1.748	.313	-1.366	7.072
			Control	.068	1.714	1.000	-4.069	4.205
		Control	Symptom	2.785	1.738	.331	-1.408	6.978
			Wellbeing	-.068	1.714	1.000	-4.205	4.069
High	1	Symptom	Wellbeing	2.373	1.792	.560	-1.950	6.697
			Control	.710	1.632	1.000	-3.229	4.648
		Wellbeing	Symptom	-2.373	1.792	.560	-6.697	1.950
			Control	-1.664	1.892	1.000	-6.230	2.903
		Control	Symptom	-.710	1.632	1.000	-4.648	3.229
			Wellbeing	1.664	1.892	1.000	-2.903	6.230
	2	Symptom	Wellbeing	4.427	1.900	.062	-.159	9.012
			Control	1.373	1.731	1.000	-2.805	5.550
		Wellbeing	Symptom	-4.427	1.900	.062	-9.012	.159
			Control	-3.054	2.007	.389	-7.897	1.789
		Control	Symptom	-1.373	1.731	1.000	-5.550	2.805
			Wellbeing	3.054	2.007	.389	-1.789	7.897

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

MASQGROUP	PANAS_NG		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Low	1	Contrast	297.975	2	148.988	2.888	.058	.026	5.775	.560
		Error	11041.828	214	51.597					
	2	Contrast	200.290	2	100.145	1.725	.181	.016	3.451	.360
		Error	12420.941	214	58.042					
High	1	Contrast	90.960	2	45.480	.881	.416	.008	1.763	.201
		Error	11041.828	214	51.597					
	2	Contrast	315.920	2	157.960	2.721	.068	.025	5.443	.534
		Error	12420.941	214	58.042					

Each F tests the simple effects of Content_Condition within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

12. Content_Condition * MASQGROUP * PANAS_NG

Estimates

Measure: MEASURE_1

Content_Condition	MASQGROUP	PANAS_NG	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Symptom	Low	1	18.108	1.181	15.780	20.436
		2	15.865	1.252	13.396	18.334
	High	1	29.533	1.071	27.423	31.644
		2	28.667	1.136	26.428	30.905
Wellbeing	Low	1	21.205	1.150	18.938	23.472
		2	18.718	1.220	16.313	21.123
	High	1	27.160	1.437	24.328	29.992
		2	24.240	1.524	21.237	27.243
Control	Low	1	21.800	1.136	19.561	24.039
		2	18.650	1.205	16.276	21.024
	High	1	28.824	1.232	26.395	31.252
		2	27.294	1.307	24.719	29.870

Pairwise Comparisons

Measure: MEASURE_1

Content_Condition	PANAS_NG	(I) MASQGROUP	(J) MASQGROUP	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
							Lower Bound	Upper Bound
Symptom	1	Low	High	-11.425*	1.594	<.001	-14.567	-8.283
		High	Low	11.425*	1.594	<.001	8.283	14.567
	2	Low	High	-12.802*	1.691	<.001	-16.134	-9.469

		High	Low	12.802*	1.691	<.001	9.469	16.134
Wellbeing	1	Low	High	-5.955*	1.840	.001	-9.582	-2.327
		High	Low	5.955*	1.840	.001	2.327	9.582
	2	Low	High	-5.522*	1.952	.005	-9.369	-1.675
		High	Low	5.522*	1.952	.005	1.675	9.369
Control	1	Low	High	-7.024*	1.676	<.001	-10.326	-3.721
		High	Low	7.024*	1.676	<.001	3.721	10.326
	2	Low	High	-8.644*	1.777	<.001	-12.147	-5.141
		High	Low	8.644*	1.777	<.001	5.141	12.147

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

Content_Condition	PANAS_NG		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Symptom	1	Contrast	2650.513	1	2650.513	51.369	<.001	.194	51.369	1.000
		Error	11041.828	214	51.597					
	2	Contrast	3327.688	1	3327.688	57.333	<.001	.211	57.333	1.000
		Error	12420.941	214	58.042					
Wellbeing	1	Contrast	540.219	1	540.219	10.470	.001	.047	10.470	.896
		Error	11041.828	214	51.597					
	2	Contrast	464.543	1	464.543	8.004	.005	.036	8.004	.804
		Error	12420.941	214	58.042					
Control	1	Contrast	906.605	1	906.605	17.571	<.001	.076	17.571	.987
		Error	11041.828	214	51.597					
	2	Contrast	1373.247	1	1373.247	23.660	<.001	.100	23.660	.998
		Error	12420.941	214	58.042					

Each F tests the simple effects of MASQGROUP within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

13. Content_Condition * MASQGROUP * PANAS_NG

Estimates
Measure: MEASURE_1

Content_Condition	MASQGROUP	PANAS_NG	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Symptom	Low	1	18.108	1.181	15.780	20.436
		2	15.865	1.252	13.396	18.334
	High	1	29.533	1.071	27.423	31.644
		2	28.667	1.136	26.428	30.905
Wellbeing	Low	1	21.205	1.150	18.938	23.472
		2	18.718	1.220	16.313	21.123
	High	1	27.160	1.437	24.328	29.992
		2	24.240	1.524	21.237	27.243
Control	Low	1	21.800	1.136	19.561	24.039
		2	18.650	1.205	16.276	21.024
	High	1	28.824	1.232	26.395	31.252
		2	27.294	1.307	24.719	29.870

Pairwise Comparisons

Measure: MEASURE_1

Content_Condition	MASQGROUP	(I) PANAS_NG	(J) PANAS_NG	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Symptom	Low	1	2	2.243*	.609	<.001	1.044	3.443
		2	1	-2.243*	.609	<.001	-3.443	-1.044
	High	1	2	.867	.552	.118	-.221	1.955
		2	1	-.867	.552	.118	-1.955	.221
Wellbeing	Low	1	2	2.487*	.593	<.001	1.319	3.656
		2	1	-2.487*	.593	<.001	-3.656	-1.319
	High	1	2	2.920*	.740	<.001	1.461	4.379
		2	1	-2.920*	.740	<.001	-4.379	-1.461
Control	Low	1	2	3.150*	.585	<.001	1.996	4.304
		2	1	-3.150*	.585	<.001	-4.304	-1.996
	High	1	2	1.529*	.635	.017	.278	2.781
		2	1	-1.529*	.635	.017	-2.781	-.278

Based on estimated marginal means

***. The mean difference is significant at the .05 level.**

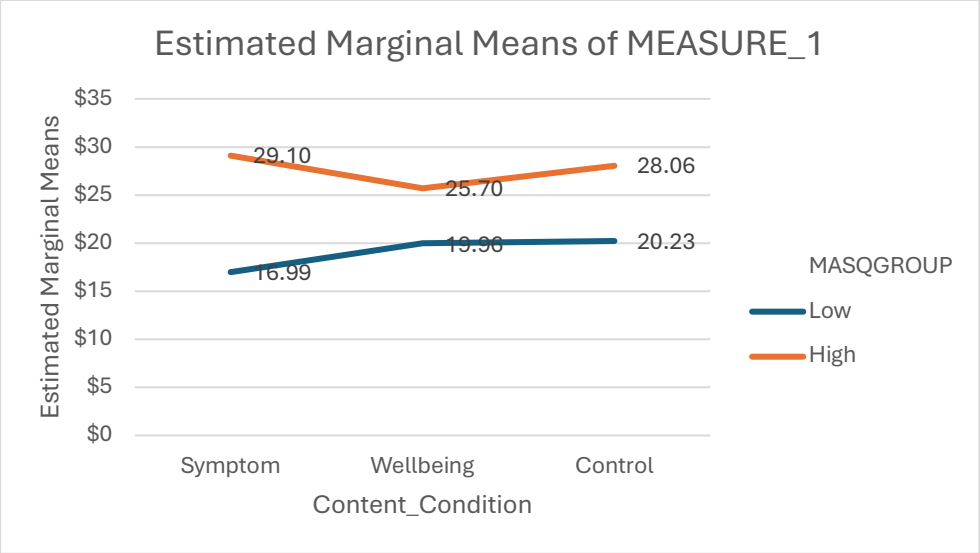
b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

Content_Condition	MASQGROUP		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Symptom	Low	Pillai's trace	.060	13.584[a]	1.000	214.000	<.001	.060	13.584	.956
		Wilks' lambda	.940	13.584[a]	1.000	214.000	<.001	.060	13.584	.956
		Hotelling's trace	.063	13.584[a]	1.000	214.000	<.001	.060	13.584	.956
		Roy's largest root	.063	13.584[a]	1.000	214.000	<.001	.060	13.584	.956
	High	Pillai's trace	.011	2.466[a]	1.000	214.000	.118	.011	2.466	.346
		Wilks' lambda	.989	2.466[a]	1.000	214.000	.118	.011	2.466	.346
		Hotelling's trace	.012	2.466[a]	1.000	214.000	.118	.011	2.466	.346
		Roy's largest root	.012	2.466[a]	1.000	214.000	.118	.011	2.466	.346
Wellbeing	Low	Pillai's trace	.076	17.602[a]	1.000	214.000	<.001	.076	17.602	.987
		Wilks' lambda	.924	17.602[a]	1.000	214.000	<.001	.076	17.602	.987
		Hotelling's trace	.082	17.602[a]	1.000	214.000	<.001	.076	17.602	.987
		Roy's largest root	.082	17.602[a]	1.000	214.000	<.001	.076	17.602	.987
	High	Pillai's trace	.068	15.552[a]	1.000	214.000	<.001	.068	15.552	.975
		Wilks' lambda	.932	15.552[a]	1.000	214.000	<.001	.068	15.552	.975
		Hotelling's trace	.073	15.552[a]	1.000	214.000	<.001	.068	15.552	.975
		Roy's largest root	.073	15.552[a]	1.000	214.000	<.001	.068	15.552	.975
Control	Low	Pillai's trace	.119	28.957[a]	1.000	214.000	<.001	.119	28.957	1.000
		Wilks' lambda	.881	28.957[a]	1.000	214.000	<.001	.119	28.957	1.000
		Hotelling's trace	.135	28.957[a]	1.000	214.000	<.001	.119	28.957	1.000
		Roy's largest root	.135	28.957[a]	1.000	214.000	<.001	.119	28.957	1.000
	High	Pillai's trace	.026	5.802[a]	1.000	214.000	.017	.026	5.802	.669
		Wilks' lambda	.974	5.802[a]	1.000	214.000	.017	.026	5.802	.669
		Hotelling's trace	.027	5.802[a]	1.000	214.000	.017	.026	5.802	.669
		Roy's largest root	.027	5.802[a]	1.000	214.000	.017	.026	5.802	.669

Each F tests the multivariate simple effects of PANAS_NG within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Exact statistic
b. Computed using alpha = .05

Profile Plots



Correlations
Notes

Output Created		05-OCT-2024 13:08:20
Comments		
Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=PNPRE_PV PNPRE_NG /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav

Correlations

		PNPRE_PV	PNPRE_NG
PNPRE_PV	Pearson Correlation	1	-.171*
	Sig. (2-tailed)		.011
	N	220	220
PNPRE_NG	Pearson Correlation	-.171*	1
	Sig. (2-tailed)	.011	
	N	220	220

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations
Notes

Output Created		05-OCT-2024 13:08:59
Comments		

Input	Data	C:\Users\katie\OneDrive - Birmingham City University\PhD - Social media and Mental Health\Studies\Experiment 1 - QUANT\Data\SPSS\data final.sav
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	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=PNPST_PV PNPST_NG /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Correlations

		PNPST_PV	PNPST_NG
PNPST_PV	Pearson Correlation	1	-.186**
	Sig. (2-tailed)		.006
	N	220	220
NPST_NG	Pearson Correlation	-.186**	1
	Sig. (2-tailed)	.006	
	N	220	220

**. Correlation is significant at the 0.01 level (2-tailed).

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
GROUP * PERWK_1	220	95.2%	11	4.8%	231	100.0%

GROUP * PERWK_1 Crosstabulation

			PERWK_1			
			Positive	Negative	Neutral	Total
GROUP	Symptom	Count	9	45	28	82
		% within GROUP	11.0%	54.9%	34.1%	100.0%
		% within PERWK_1	8.1%	95.7%	45.2%	37.3%
		% of Total	4.1%	20.5%	12.7%	37.3%
	Wellbeing	Count	49	2	13	64
		% within GROUP	76.6%	3.1%	20.3%	100.0%
		% within PERWK_1	44.1%	4.3%	21.0%	29.1%
		% of Total	22.3%	0.9%	5.9%	29.1%
	Control	Count	53	0	21	74
		% within GROUP	71.6%	0.0%	28.4%	100.0%
		% within PERWK_1	47.7%	0.0%	33.9%	33.6%
		% of Total	24.1%	0.0%	9.5%	33.6%
Total		Count	111	47	62	220
		% within GROUP	50.5%	21.4%	28.2%	100.0%
		% within PERWK_1	100.0%	100.0%	100.0%	100.0%
		% of Total	50.5%	21.4%	28.2%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	111.877[a]	4	<.001
Likelihood Ratio	130.295	4	<.001
Linear-by-Linear Association	24.174	1	<.001
N of Valid Cases	220		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.67.

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Contingency Coefficient	.581			<.001
Interval by Interval	Pearson's R	-.332	.064	-5.201	<.001[c]
Ordinal by Ordinal	Spearman Correlation	-.380	.067	-6.072	<.001[c]
N of Valid Cases		220			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

b. Interview Transcripts for study two.

Participant 1: 'SASHA'

KS: Could you please explain for me your current social media usage? And by this I mean how often each day would you save spend online and what applications do you favour more?

SASHA: Um, I'm not really big social media user, and really I'm if you're just few types of content, first of all. Then I'm quite fond of art that so I'm following quite a few artists at Instagram and YouTube videos especially they also they can put some of the free tutorials. So I really like to watch this type of Instagram or YouTube users and social media and also my cat has Instagram account and I really like some animal related. And especially cats related video. Also, it's might be. Yeah. You know, I feel it's quite therapeutic just to watch. Something you know normal happening and animals playing tricks. So it's something, something soothing. I, I find it for myself. It's something helping to relax. And secondly, which I find the I start getting a bit more into the field, I mean field type of content is. As you obviously can hear from my accent, I'm not from the originally, not from the UK and. Ohh, I'm originally from Russia and obviously the war in the Ukraine is affected quite a lot. Me and, and I find the telegram content is quite not just interesting because I think it's wrong. It's quite, It's quite important for me just to follow the news despite the news are just so dramatic. But I guess I keep working and listening. Now listen, just to try to find maybe something positive happening finally. So that's really the type of content, social media contents I like more, mainly interested in.

KS: And when? Um, so do you see a lot of content about mental health? And if you're not sure, I can provide some examples.

SASHA: Um. I'm I'm not really watching special content about mental health. I'm. I'm. I'm Samaritans volunteer, so obviously I'm quite interested in mental health related to suicide and self-harm, but it's not. I'm not really getting information from the social media about this type of content, so it's not really at the top of my agenda, just to follow social media about this type of the information. So I prefer to gain the information from different sources.

KS: Yeah, I get what you mean, Um, So what I'm going to do that is, I'm I'm going to share my screen with you. I'm gonna show you some images and there's 10 images in total and you've got 10 seconds per image. I've just pulled that through. Can I? Could you please provide your opinion on the content that you've just been shown and how does it make you feel.

SASHA: I would say the content is quite into your face and. It's really categorising all the feelings and just trying to bring all the so many bits together in one page. But I. But which I quite I find quite difficult to watch this. Not exactly difficult. I think it's wrong word. I find it quite um. Intimidating for the people to watch this, you know diagrams because in some sort of way it might look a bit more scientific than it is. Obviously, I didn't have time to read through all the statements we made, how scientific they are, but I think for the usual person, including me, when you see in the diagrams the screen separated into the two parts which should do not do or diagram type, it's sort of making me feel like it's more. Scientific and sort of statement of the fact. So, making me more belief into the content.

KS: Okay. And do you feel that this content would benefit somebody in a mental health crisis, and could you please explain your answer.

SASHA: I think yes, but I think again it needs to be careful in my personal opinion because. Ohh. It's difficult to find the balance between bombarding with lots of little information because. Ohh person may decide to do self diagnosis. realizing the elements and all. Actually I'm not feeling very well today and including me then my think that OK probably I have the anxiety or my polar disorder or something. So, in some sort of way but at the same time different type of content like bit more encouraging or affirmation. Positive affirmation might be. Positive because in the short, concise form you reading. The information about something and it making you feel good. So I think it's it depend

on the content. And how it is situated on the page and really how much information provided and in which the audience it's sort of provided without being too much technical or diagnostic. Just providing the positive affirmation, that's personal opinion about the.

KS: Yeah. And I think you've already proved briefly touched on this, but what's your opinion on people using this type of content to self-diagnose?

SASHA: That's that's really that's really the problem with social media, I guess and putting this type of leaflet not exactly leaflet. OK, it's like this type of information this formulated in this way. And as I said bit more looking a bit more scientific and making me feel like actually I'm the Doctor myself and I've been able to diagnose because what doctors can do, they doctors can just read symptoms and then the diagnosing so I can do the same thing. I can read my symptoms on this one page and I find irritability, tick, feeling upset, tick. And then actually, I'm diagnosed, diagnosed myself with depression or anxiety or having the panic attack. So that's a major issue I think.

KS: And do you encounter this type of content often online?

SASHA: Yes, actually I am as I mentioned before, I'm normally not drawn to this type of content, but I noticed recently even my cat's Instagram, which is normally only related to cats images and animal images or something, adverts start popping up and it's related to the mental health and it's related to this type of the content. So, I guess it's becoming really popular on the social media, let's say Instagram and because of popularities going into the advert pages or like. Bit more prolific. Let's say even in my cats Instagram pages. So even for the person who don't really following like me. Of this type of the content, you can still see it.

KS: Yeah. And would you like to see more of this type of content online?

SASHA: As I said it depends? I think it need to be careful that probably in a way whom this content targets and if the targets in adolescence or young girl also, it's probably not a good idea because again, they might get different idea that could diagnose themselves or in some sort of way decided or actually having some sort of mental health disorder. And it's allowing me to do things because I'm not

very well, I can do it. Ohh. But in some sort of way I think as I was mentioning before that bit more positive type of affirmation, something about the positive thoughts or positive feelings, probably it would be beneficial for them. As I said, younger users or even myself and I have. You know. Pretty bad day it. Sometimes it's nice to read this positive affirmation. So I guess it's the same depends on the content.

KS: Would you like to provide any further information on the content that that particular content that you've been shown?

SASHA: Ohh no, I think. I think we touched on this too. Everything really. As I said, I'm, I'm. Find it a bit overwhelming.

KS: Hmm.

SASHA: In some sort of way. Then the page is fully loaded with scientific information and the colours, attractive colours, attractive right and the pictures which is drawing my attention to the issues which I probably would not notice before. For example, I wouldn't be thinking about the mental health before, but then actually I'm noticing this bit. Maybe I am, maybe I have issues. Because I have the period in my life when I was. Let's say. I had a busy life and. I had panic attack which I didn't realise was a panic attack, so I went to my GP and explained my symptoms and because I was thinking maybe I having the heart issues or something so. And then GP actually, have you been thinking about point that it's probably look like a panic attack? So really, for example, I would be knowing the symptoms prior. I would be properly start diagnosing myself and thinking about this thing before going to, I would say. Sticking to positive affirmation is one thing but providing an information which might lead to self-diagnosis. Completely different.

KS: Okay. So I'm going to move on to a different type of content now. So I'm just going to share my screen again with you. So I won't be in moment if you just let me know when that comes [SHARES CONTENT 2]. So, I'm just gonna stop sharing the screen again. How did this content make you feel?

SASHA: It's probably the type of content, majority of the pictures would be probably the type of content I would choose for my own page because as I mentioned before, I love painting, so the landscape painting, the nature painting and um I'm using lots of photographs and also a lot. I love to do photographs of nature, and everything is also. So really, it's, it's my type of content. And again cats, dogs, animal, landscapes, even the photographs of cheese. I can see how beautiful the colours are distributed around so yellow and brown and edged wooden surface so. I'm noticing this one little bit more because probably they're related to my interests.

KS: Yep. And I know you've briefly touched on this before. Do you encounter this type of content often on social media?

SASHA: Yes, it's, it's probably because as I said, majority of my own content is related to this type and obviously subscribe to the Instagram users who also interested in photograph. Landscapes, travel, or animals. So that's the type of content mainly on my page. And really that's as I mentioned before. Ohh, watching the pictures of cats and beautiful landscape is really soothing me and just making it to relax a little bit after the long day or giving me ideas for my future travel or given ideas for my future paintings.

KS: Lovely. And would you like to see more of this content on social media?

SASHA: Yes, I think I would like to see more content more this this type of content, at least this is say personally for me it's I guess it's difficult for different generation because as. The time belonged to the all the generation and probably I would be less interested in the celebrity, so at least just my personal interest. So, it's and other people. So, but at least this type of content is not. Bring in the worrying thoughts.

KS: And do you have anything further that you'd like to add about this type of content?

SASHA: No, I think it's. I think we spoke about it. Quite in details, because it's as I said, you could find a lot more than just for example picture of the mountain. You can see the combination of colours

which could be suitable for artists and the contrasts and again. Also thinking about it would be suitable for people who like travelling, so it's it's very versatile I would say.

KS: Lovely So what I'm going to do is I'm going to show the final round of images now for you. So just get those up on the screen. One moment. And again, if you can just let me know when that comes [SHOWS CONTENT 3] I'm gonna stop sharing my screen now. And how did this type of content make you feel?

SASHA: Ohh I think I like this type of content and I think we were talking exactly about the same thing when we was talking about the first type of content because I was comparing first type of contact to. This. Positive information I think I even used the same words really, and I find it quite. Um. As I said, not just. It's helping me in the short words and the, you know, nice, even like a little cuddly bears or something? Helping me just to unwind a little bit and, and, you know, short words, positive attitude and I think that would be more helpful than self-diagnosing and find all the issues in my Mental health or attitude or anything. So, I think that's the type of contact I think should be. More. On them social media than the first type of the content which you was showing before, I was think it bring in much more positive attitude and more positive feelings to people. Just focusing on the positive things, not focusing on what all this what. Happening in your brain.
Because we all might have a bad day. Yeah, but it doesn't mean that have depression. It's just. I think it's the that's the issue. When the general attitude was some anxiety and depression like my mom who is belonged to all the generations, she always saying ohh I also feel depressed today I just could be good as it's slightly different, slightly a bit more serious issue than just feeling. Bit. Could be bothered to do anything today. Everybody could have a day like this. I think. These positive affirmation from the field content is really helpful when you having them. They like this. It's feeling not exactly lonely, upset or just having a bad day.

KS: And do you encounter this type of content very often on social media?

SASHA: Yes, quite often, yes, I can see it again. I'm subscribed to the Instagram is as I said, and quite often I can see this one especially. I can see a lot of this type of content on Pinterest. I don't know if

they're classified as a social media. Yeah, but I can see quite a lot of this one mixed up with. Let's see. Pictures of cats and paintings. So that's quite often popping up.

KS: And would you like to see more of this type of content on social media and can you please explain why?

SASHA: Yes, I think I would like to see a little bit more of this type of contact as I said short words of encouragement and positive affirmation. I think sometimes they're doing more good than trying to self-diagnose yourself and just, reminding. Sometimes because sometimes I feel like I forget in that it's OK to be not talking, you know, not OK all the time. And doesn't mean that it's something horrible wrong with me, but it's just. I'm just not OK. And just little bit of cat videos and little bit of positive thoughts that everything will be alright tomorrow. It's helped me to recover and start the new day tomorrow.

KS: And do you feel this content would benefit or not benefit someone in a mental health crisis? And can you please explain your answer?

SASHA: Yes, I feel like it would benefit. I think it would. I, I definitely feel like it would benefit the somebody with a mental health because. As I said, it was a period of my life. Then Ohh Although wasn't diagnosed with anxiety or but it was just a period of my life when I wasn't feeling like. Not. Quite difficult, period. Let's say like this. And I feel like it's helped. It would help me to just to go through. One day, when you have in the issues during the day and then you're watching this short words of encouraging, especially if there is an aid, these your own faults, it's helps to actually, for example, when sometimes I thinking I'm not having enough time to do everything and I'm just useless and I can't because I can't finish this job. I can't finish this job. I can't finish this one. And for example, at the end of the day, you see in the content saying actually it's okay not to be okay. Or you're not the machine, you just human, or try to accept this. So if you see in this type of the. Content which resonate with my own thought. It's making me to believe my own thoughts more. If you understand what I mean. So I think that's short version of encouragement and the positive affirmation I think they might be really beneficial for people going through difficult time and. Having self-doubts or mental

health issues. Especially for people who have been self-doubts and suffering with the confidence issues.

KS: And would you like to provide any further information about the content that you've been shown?

SASHA: Ohh as I mentioned before is out of three type of content second and third probably might let's say my type of content and. I. Quite my, my attitude is quite positive, especially when I see him on my own Instagram or other accounts like Pinterest accounts and I feel. That it's. I think it's one of the benefits of social media. And I think it's one of the. Soothing techniques which I try to use for myself. And unfortunately, not the first type of the content. I prefer. As I said, I prefer to if I need some information about my own mental health, I would rather go to the GP than try to read through social media and try to self-diagnosis. But second, the field are probably. The best for me.

KS: So that's all of the questions about the content. So what I'm gonna do is just ask you some general questions now about mental health content on social media. So the first one is, could you please tell me, in your own opinion what you think about people disclosing their personal struggles with mental health online?

SASHA: Again, I think it's a complicated issue depend who depend on the type of social media it's disclosed. For example, I understand that it's pretty brave thing just to talk about the personal issue. With somebody. Um, who knowing your who don't know you. So it's, it's pretty brave thing and people probably feeling better after they shared in this type of information. It's like unloading yourself, you having so many heavy thoughts. In your brain all the time. It's like as I. Ohh if like you have in the carrier bag full of heavy shopping and eventually if you keep putting all this on. Heavy shopping in the carrier bag that handles will snap. So if you head overloaded with all the heavy thoughts, but probably. You would start having issue, but I think if sharing it at the social media it's might help you unload. But I also feel that sometimes it might. Prop might be In some sort of way benefiting you, but at the same time. When you revealing it to social media, you might be the subject of bullying and people might not understand you correctly or. I'm not saying that people generally cruel, but I think that people behaving in the social media because sometimes anonymity giving you

that type of freedom you should know. Ohh being let's say bit . Evil towards each other. Which you would not be doing in your everyday life. So just people, especially if I think like younger generation like other adults say they might be a bit cruel towards each other. Ohh so. As I said from one side, it might be beneficial to unload, but it's inflict. Stigma, bullying. All the other things, but also feel that it would be. And depending on who is a target audience, especially if the vulnerable person or young adult or the adolescent would be reading all these type of contact we are talking about self-harm. And I think if the. You know teenager would be doing about the self-harm. Somebody and somebody shared in the story about the self-harm on some serious suicide issues that might be affected, not just you, it might be affected your reader. So, I feel it needs to be very careful about. Shared in this type of contact, it's not just about your own health, it's about. How it will affect? Your audience, people. Who is you sharing it with.

KS: And what's your opinion on? I think we've already briefly talked, touched on this is what's your opinion on the access to content that relates to symptoms?

SASHA: I think they need to be. Yeah, I think it need to be age restricted personally, because I think as majority of the social media sites are available to the. Adolescence I think 13 years of age, majority of them, and I think it's quite vulnerable age. Especially. Puberty and. I think it definitely need to be to be restricted and I think the focus probably should be. Um, not encourage to share the symptoms on the social media, but probably if you have something. Which worried you talk to the parents or medical professions now, not just sharing it at the social media. So, I think that should be probably the focus for that. Audience, like sli-, slightly shifting their focus of their attention from sharing your feelings to. You know, if you feel something wrong. Talk to somebody, but it's as I said, parents. Or. If you if you need type of special, you know agencies or doctor so somebody who can be. Helpful.

KS: And again, we've already briefly touched this on this before. What's your opinion on people using online content to self-diagnose?

SASHA: That's a major issue because. Sometimes. People who have been like my late mother-in-law, she, she had the Macmillan book with all the illnesses, and I feel sometimes she's running through it

through it and self-diagnosed just herself. So, I think it's very dangerous. Because people might decide that they're qualified doctors themselves, they read the symptoms and OK, well, doctors, doctors no different from me. They also reading the same books or same symptoms and they could do the same thing. What I did. So, I think that might be given the wrong impression. Ah, that we can portray ourselves as we are doctors, and we can do as good a job as a psychiatrist, psychologist of GPS.

KS: And what type of content do you think would be beneficial to somebody in a mental health crisis?

SASHA: I think this mental I think the type of content which is given the. Um. God. Let's say information about agencies or somebody who can help you not information about as we talk about diagnosis, diagnosis or given the symptoms or anything, but just provide more information about which organisation charities. Providing this type of information, for example for the children or mental health like mind probably or who whom I can go. For example, I have issues and I feeling something wrong with me whom I can call. So that's the type of the content I feel would be beneficial for people and obviously of course. The harm harmful harmless content, which is, you know, positive affirmation which can't basically harm in the other way like good day or something. Something about something positive or soothing content like. Kittens or helping this mindfulness or something. So I think this type of content would be better than providing information about the diagnosis and symptoms.

KS: And what's your opinion on people using their mental health struggles, either real or fake, for monetary incentives? So, for example, getting payment from social media platforms like Instagram and TikTok for high levels of likes and views.

SASHA: I think this is a general problem with the social media because. Um, that's. Now I guess it's a main source of income for certain bloggers or certain influencers, and I feel. Um, that's sometimes we forget in that the whole purpose of the Instagram, you know, of the social media originally, it's not being charitable organisation. It's made to as a business model. But sometimes you are forgetting that bit. Ohh and we start viewing it as a. Hmm. Source of information about everything and we not critically reviewing this information. For example, we find the and if the influencer posting something

about the social media about, about mental health. We generally believe in this influencer. If you thinking that it's his. But if you believe in this and influence before, no matter what, this one influencer post, and we believe in anything but again we forget and that sometimes it's just business. So, I feel it should be restriction on influencers posting. Sensitive contents. For the. Does not gain. I don't have a problem with influencer posted something about the makeup or and if any household advice or something, whatever it is, because it's not the harmful content and this will influence earning money. But if you talking about. Information which might cause serious harm. Then it should be restriction.

KS: And what's your personal opinion on people posting videos of themselves crying to social media platforms?

SASHA: Sorry crying.

KS: Yes, I like they videoed themselves crying and posting it.

SASHA: Ohh, it's again. We talk about it when we talk about revealing them. Mental. Health issues. Again, it's. It's really difficult to decide because sometimes when you haven't, you know people feeling like it's if I share it with more people that are having a deeper emotions that properly might be beneficial. The feeling it. But at the same time. You know, we forget and that we might be subject of bullying and everything, but at the same time, it's also if it's just the. I think it's it's. As I said, it's difficult topic because again it would be posted not just there from the sincerity of the heart and sincerity of the feeling. It also could be the part of the manipulation. Which is. Which is, let's say, not just not very honourable thing to do, but it's also quite dangerous for the viewers and. Your audience, This is sad to think that the social media we sometimes forget then that it was organised as a business model, not the charity. And we start viewing it as our friend and helper and not as a supplier of the. Content in relation to the. Business.

KS: And what's your opinion on maybe censoring certain types of mental health content online?

SASHA: I feel like I feel like it's necessary, especially the especially vulnerable people. I think sometimes when you in the that situation, you're critical thinking might be slightly. Goes down. And you would be most susceptible to the type of content, content which is resonating with your own feeling and you would be more easily manipulated. By certain information you get in a certain influencer you follow. So I think the sensitive is very important thing. I don't know how if, but honestly I'm not sure how it could be done because you can have age restriction to the content which obviously can help. To limit the access of. Young and vulnerable people, they're young. They're lessons to this one content, but again. People might be just going through the difficult time no matter what age they are, so I'm not sure how it's practically possible to, to do. So it's, it's again, it's practicality against the idealistic views.

KS: And then finally, overall, what's your personal opinion about mental health or let me try that again, mental health based content on social media.

SASHA: Ohh, I feel mental health. Yes, I think it as, as, as we talked before. I think it should be limit on the type of the content because. I feel mental health, like all illnesses. Have you know, for example, I, I feel sometimes that we. No putting on the mental health of putting. Slightly different view. Then you know you know then to other physical illnesses. For example, we know Putin. AI feel like ohh, I don't know. Maybe they are like. No pictures of the surgery, so videos of the surgery which internal surgery or all of this on information that the social media, which is I think it's quite very inappropriate. But we feel like it's OK to provide all information and about the mental health. So, we sort of using them. Different type of approach, but I think the whole part of the same issue, physical health, mental health, it's all goes together. So I think we should be having the same approach to. Limitation about. Physical health explicit images. Let's say, as I said, videos of surgeries or something, which is quite, quite bit not very. Easy to watch. Then the similar type of the mental health I think so I think it needs to be limitation on the type of the content and I think as I said, in order to help. And in order to protect vulnerable people, it's would be more information about where to source the help and not what type of mental health issues or what symptoms are there. But just you know where you can get the help.

KS: Lovley. So, thank you so much for taking the time to go through this interview with me. I will provide you with a debrief sheet. I'll try and get that sent out straight away today, but it might be a couple of days before it comes through, but I'll try and get it sorted and this has all your rights with for withdrawal on any further information that you need for myself and the rest of the study team, as well as any support services that you might require. And I'm just going to turn off the recording now.

Participant 8: 'ASHLEY'

KS: Lovely. So that's recording now, I think. Yeah. So, could you please explain your current social media usage? And by this, I mean, how often each day would you say you spend online, and which applications do you favour more?

ASHLEY: Yeah. So, I'd say I probably spent around three to four days a week actually looking at sort of social media on a heavy basis. But daily, I'd, I'd probably say three to four hours each day and normally, using Instagram quite often and sometimes use Facebook, but not as, not as regular and spend quite a lot of time scrolling through videos on TikTok and then occasionally used Twitter for sort of business. Use more than anything. And, and then I've got a LinkedIn profile that I would say I check once a week and probably around 10 to 15 minutes each week. Just sort of checking it, updating it, anything like that. And yeah.

KS: Lovely and when using social media. What types of content do you tend to interact with?

ASHLEY: And I'd say it's very split. So, in, in terms of sort of the professional side and I'd say a lot of it is around job adverts and things like that, and usually on LinkedIn, is, is sort of job adverts. Sometimes on Twitter is, is sort of promoting other people's work and things like that. But then in terms of personal. Um a lot of it is fitness related things on, on Instagram and on TikTok and, and then yeah, just generally looking at different videos on sometimes even on like how to make content and things like that as well and just sort of getting an idea and sort of trying to increase the amount of followers I've got on each, each platform.

KS: Do you see a lot of content about mental health and if you're not sure, I can provide some examples.

ASHLEY: Yeah, I'd say recently and there has been a lot more content in terms of what their, their used to be on, on social media and I think. Yeah, especially personal side of things and not the professional side. I'd, I'd say there's a lot more on raising awareness of mental health. And but then there's you also get the negative side of it as well and occasionally, so yeah, I'd say it's a lot more prolific than what it used to be.

KS: And what does this seeing this called type of content? How does that make you feel?

ASHLEY: And very mixed. I'd say sometimes it's, it's really positive and when you've got people that are sort of promoting sort of mental health days and things like that where it's, it's like personal wellbeing, looking after yourself, I'd say they're, they're really positive. I's say there's, there's definitely some where it's, it's sort of advocating for the wrong kind of thing and that that can make you feel a little bit isolated sometimes. I'd say it also, it can make you feel quite. And. Quite alone in those, those situations, particularly when it's sort of and negative face on the on the outlook and the way that people are, it's the way that people frame it. I think a lot of the time. So, it depends on whether it's more positive or more negative. And that then depends on how it makes you sort of feel related to it.

KS: Yeah. Lovely so, I'm now gonna share my screen and show you some images. You'll have 10 seconds to look at each image, and there are 10 images in total. [SHARES CONTENT 1] So, can you please provide your opinion on the content that you've just been shown and how does it make you feel?

ASHLEY: Yeah, I'd say that there is. There's two sides to it and a lot of it. I've personally related to so sort of seeing some of those things pop up. I was like, yeah, that's definitely me that, you know, I, I feel that a lot of the time and things and, and I think that's in a way can be a really positive thing if you're sort of looking for help at that time or you're in a sort of a mental state where you're, you're

like, yeah, I definitely need some affirmation that it's not just me. And, and things like that and but then I think the flipside of it is a lot of those feelings are things that everyone feels or, or most people would go through day-to-day basis. And yes, while they, they might be related to some of the labels that were given there. And I feel like we're almost pushing people into a, a diagnosis if that makes sense. And yeah, because personally I, I sort of looked at those and I was like I do, I do. I have anxiety. Then if I feel like that or, or, you know, do I have bpd? If, if some of those relate to me and I feel like sometimes that's a real positive, but sometimes there's a real negative spin on that where that can lead you down a rabbit hole of almost. Do I need to get tested for these kinds of things? Do I? Is this something that actually I need to look into more and isn't sort of normal thing because there's that label associated with it.

KS: And do you feel this type of content would benefit someone in a mental health crisis? And could you explain your answer?

ASHLEY: Yeah, I think I think it very much depends on the person. I think sometimes it, it could be really beneficial and just to feel like you're not the only one and to feel like you're, you're heard, and other people are feeling the same thing. And but I also feel like if you then are identifying with that it can become really overwhelming and you know all, all of those feelings are, are normal feelings in certain situations. And I think it massively depends on what that person's going through at that time as to how they might react to it. And sometimes I think if there's a positive spin on it. Where afterwards it's like an and here's some help or something like that that could really, really support, but I feel like just showing that image as it is can be really detrimental.

KS: And do you encounter this type of content often on social media?

ASHLEY: Yeah, I'd say it's something that every time I, I go on it, I see something similar to that and particularly on either TikTok or Instagram. I'd say it's on there every single time I click on.

KS: And we may have, I think we've already briefly covered this, but what's your opinion on someone using this type of content to self-diagnose?

ASHLEY: Yeah. So, I think it's, it's difficult because. When you're, you're sort of self-diagnosing it, it might be that, but it might not be that completely. And, and I think it's, yeah, if, if that's being put out to as the purpose of being to self-diagnose and support people to do that, I would say I wouldn't agree with it at all because they're feelings that everyone goes through at some stage and everyone feels often. But then I feel like if somebody. Is close to having a diagnosis or, or something like that, or is currently going through the process that could definitely be beneficial to, to sort of feel like they're not alone with it.

KS: And would you like to see more of this content on social media?

ASHLEY: And I think with the amount that it's on there at the moment, I think it, it doesn't need to be as much. I think definitely if it was sort of once a week it, it came up on my feed, I think I'd be OK with it. But I think with the amount that it's on there at the minute, it can become really overwhelming, and you almost feel like you definitely then do have that that thing and you almost do self-diagnose with that label purely because of the amount that it's coming up.

KS: And do you have any further information that you would like to provide about the content that you've just been shown?

ASHLEY: Yeah, I think it, it can be really disheartening. Definitely I, I feel like if you're, you're seeing that content day in day out and, and you know you're, you're you start to associate yourself with it purely because it's, it's all you're seeing you're, you're then sort of thinking, OK well actually is that me and you know do I need to seek help for it because of that and then that can lead you into almost a lower state in terms of your mental health and you know, although most of the time I'd say it's out there for. For a positive reason or also for two shows support for people, I'd say actually sometimes it's, it's doing the complete opposite of that.

KS: Lovely. So, the next a lot of images. Then I'm gonna share the screen [SHARES CONTENT 2] And how did you feel about this content?

ASHLEY: I would say it's, it's really positive and I'd say you, you sort of look at it and your mind starts to wander a little bit it like takes you to a happy place almost and, and personally with, with some of those images, I was sort of taken back to a holiday that I've been on recently. So, it like it. It really sat well with me and yeah and, and looking at them, I feel so much more positive just by seeing those images and they all looked really professionally taken as well. I think that did make quite a big, quite big difference.

KS: And do you encounter this type of content often on social media?

ASHLEY: I would say not as often as what it used to be. I'd say it's definitely still there, but it's nowhere near as regular as, as what it used to be.

KS: And would you like to see more of this type of content?

ASHLEY: Yeah, I think it's that. If that was there, it would be so much more of a, a positive space.

KS: And do you have anything further to add about this type of content?

ASHLEY: Um not really. I, I just think it's. Yeah, it's, it's really positive. It's something that. And I feel you can resonate in more positive way with, with that. And like I said it, it brings that connection there which is, is nice.

KS: Lovely. And so I'm just going to show the final round of images now sort of share my screen. And again, just let me know when that comes up on the screen. [SHARES CONTENT 3] And how did this content make you feel?

ASHLEY: I think it was really positive and if it put that positive spin on the, the, the sort of the things that again we, we all feel while I think we all feel day in day out it, it put that positive spin on it was more of a these are some actions you can take it was much more informative as well. And I feel like a lot of those things you can put into place and even just the positive affirmations just sort reading them. It was like, OK, and you, it sort of resonates a lot more with you and it. Yeah, it puts that positive frame of mind set on instead of the negative.

KS: And do you encounter this type of content very often on social media?

ASHLEY: Um I'd say I do, but because of everything else, it then becomes drowned out a little bit. And I'd say it is, it is on there, but you don't look at it anywhere near as much you, you just sort of scroll past it instead of sitting and actually reading through it because of the other things that are on there instead.

KS: And would you like to see more of this content on social media?

ASHLEY: Yeah, I think it, it definitely supports. It definitely helps. Um and I, I think. Personally, in in terms of sort the, the friendship group that I have, the people that I have on social media, and I think there's, there's a lot of positive things that are on there in on, in terms of my feed and. Yeah. No, I think it does really help. I think it, it makes a massive change to, to sort of the way that you even just go about your day. I think it puts those, those positive lenses on.

KS: And do you feel that this type of content would benefit someone in a mental health crisis? And could you please explain your answer?

ASHLEY: Yeah, I think it's, it's a difficult one because I think some people could see it and, and sort of really struggle with it because they, they sort of don't feel like they can resonate at all with it and, and you know, they're sometimes you're in that mental frame where it's like I don't want to see that purely because I'm. I'm not feeling that at the moment and that's, that's not supportive. But then at the same time, I also feel like sometimes you can, if it's if it's not quite the crisis level. And it, it can be really beneficial, but I think it, you know, if somebody was in in crisis level, I can't see it being that's supportive and that helpful. I feel like you, you would just scroll straight past it.

KS: And could you provide any further information that you would like to mention about this particular type of content?

ASHLEY: Yeah, I think it's it is really good, and I think the again the, the sort of the meaning behind it is really positive. And I just think that. It's difficult sometimes where everything else sometimes is, is so negatively framed trying to sort, pick out and view those positives can be really difficult.

KS: So, thank you for looking at the content with me. So, um, I'm just gonna ask you a few final questions, just about mental health content and social media in general. So please could you tell me your opinion on people disclosing their struggles with mental health online?

ASHLEY: Yeah. And I think it's, it's a difficult one because I think it does all depend on the type of platform that you're disclosing it on. And I think if, if you've only got sort of close people to you on, on that platform, I think it can be beneficial and you can use it almost as a. I reach out for help. Where you, you don't really know where else to turn in that stage and but then again, I, I think it, it can have a particularly if you're doing it on like a professional thing like LinkedIn or something like that. I think it could have a, a negative stamp almost put next to your name. Um, yeah, particularly if there's professionals viewing your, your profile and things like that. And you know, if you've got coming up for a job or anything, and employers look at it, I think it can. It could have a detrimental effect and but then I think if you know, if you're, you're only reaching out to, to sort to family or to friends. And I think it could be beneficial and can get a more positive response and support.

KS: And do you think it's more helpful for the viewer or the poster?

ASHLEY: And I would say it's definitely both. I think the in terms of the viewer, they, they might be able to then to, to resonate it with it and, and sort of, yeah, it might sit well with them to know that then they're not feeling alone and there's other people like that as well. And it can also form that start of a conversation for that person who might not be ready to make that step to reach out yet. But then. That's, that's great. And you know, I think that can be really beneficial to them, particularly if they're getting the support on that platform that they, they might need or, or that they're, they're looking for. Then I think it can be really beneficial.

KS: And could you please detail for me what type of content you think would be beneficial for somebody in a mental health crisis?

ASHLEY: I think definitely. And things like, like the images there, but the that also have a part on it that's say and, and you know here is where you can get some help if you need it. And here's places to sort of reach out to even if it's something like in your local area this is what's available to you. And, and knowing that you're, you're not a burden on the service as well, cause I know that sometimes it, it can feel like, you know you, you don't want to reach out purely because you might not feel that you're, you're bad enough to be reaching out for support. And so, I think, yeah, if, if there was more information on actual support where you can seek to find that. And, and yeah, I think that would be much more beneficial than, than just sort of the positive affirmation on its own. Although I, I think that can be useful, I think it needs that extra layer to, to just sort of back it up and support.

KS: And again, we've already mentioned this briefly before, but what's your own personal opinion on people using content on social media to self-diagnose?

ASHLEY: Yeah. So, I think it's, it's a difficult one. And purely because sometimes in, in that moment all you all you might feel that you need is to just feel OK and to feel accepted. So, I think if you're, you're sort of self-diagnosing that at that point in time, you're dealing with anxiety for example or something like that. I think that can be really useful. But at the same time, I feel like if you're long term diagnosed, self-diagnosing yourself with that thing based on. And a post that you've seen or, or something like that. Then I think that's, that's not really the right way to go about it there. There should be in that content there should be if you're feeling any of these, please reach out to you know this person or that person. And I feel like that would be much more beneficial.

KS: And what is your opinion on people possibly using mental health struggles, either fake or real, for monetary incentives? For example, payment from Instagram or Tick Tock for high levels of views and likes and shares?

ASHLEY: And I would say I, I don't agree with it at all, purely because.The whole the whole reason, in my opinion, is, is there to resonate with people and if, if actually, that person's not resonated at all with, with anybody, it's, it's just sort of there and they're making gain of it then I think that's, that's not the right approach to take and because then I think as soon as somebody in that is in a mental health crisis sees that you're sort of making money off of it and things like that. I think that would, would make the situation so much worse and. Purely because in when in that mind frame or, or in that crisis state, I think it, it just wouldn't support anybody at all.

KS: And what is your opinion on maybe censoring certain types of mental health-based content?

ASHLEY: And I think that would be really positive if, if it was censored and, and you know if, if it was something like. Yeah. If there's something that not everybody should be looking at, for example, it's only at a, a targeted audience that I think definitely. That calls for a censor to be added to it, um or even if it's a sensor where you're, you're able to select whether you view it or not. I think that could be really beneficial because based on each person, you know everything is individual that that we do, and everyone might react differently to certain content. And so, because of that, I think there needs to almost be like a warning, for example, that this might include this, or it could have a trigger warning or things like that. I think that's definitely useful.

KS: And what's your opinion on people sharing crying videos on Instagram and TikTok?

ASHLEY: And I would say it's two ways. Again, I would, I would say one of them is, is definitely negative because in in my personal experience, I've, I've had people doing it purely for attention-based reasons and not actually being in a crisis or anything like that. It's, it's just something that they're doing for attention-based reasons. And I don't think that's beneficial for anybody. And even the person that's within that state because it's not. What's in them to, to actually deal with what they're dealing with or providing any support for them and. But then at the same time, I'd say if it is a genuine reason for it and that's the way that they, they feel they're, they're able to. Um. Seek support and, and they're able to, to reach out in that way. Then I'd say that's really beneficial, and you know people that

are viewing that content should then be able to, to reach out to that person and, and provide support where they can.

KS: And finally overall, what is your personal opinion on mental health content on social media overall?

ASHLEY: So overall, I I'd say at the moment it's quite negatively framed, and I'd say it definitely needs to have much more of a, a positive frame to it. And, and those sort of affirmations and things like that, I'd say need to be more, much more regular than, than the negative frame. And I do understand though sometimes the negative frame is useful and sort of having that there on an occasional basis is absolutely fine. And, but then again, I also feel like it's. All down to who you follow as well and, and what content is coming up on your feed is usually based on what you're you tend to view. So, you know the, the more you view mental health content and things like that the, the more regular it's going to come up. And I think sometimes that can be an issue because sometimes if you are in a crisis state and you need that support, if you're clicking on it regularly, when you then do come out of that crisis state, it's still gonna be there. And I think that can be massive. Have a massive impact, especially if it's negatively framed. And that's not really gonna support anybody at all. But then. The positive side of it, I think is beneficial because it is a platform sometimes that allows people to seek support where usually they might not if it wasn't there and. So, I've been giving people that that platform to be able to do that can be really beneficial and, and can help quite a lot of people. And because of the. Sometimes the wide reach you can get almost anyone reaching out to you and, and you're, you're much more likely than to have somebody who's who can resonate with it and who has been through similar experiences and, and can talk, and sometimes from personal experience, which helps a lot as well in that state. Yeah.

Participant 15 'ROSIE'

KS: OK. So, first question then, can you please explain that your current social media usage, so by this, I mean how often each day would you say you spend online and what applications do you favour more?

ROSIE: It's a typically between an hour or two a day. Uh preferences on Instagram. Um partial on Facebook. I don't know if you include messenger or something slightly different. Oh. Yeah, that the main ones.

KS: Lovely. And when using social media, what types of content do you tend to interact with?

ROSIE: Uh normally photos posted by people I know or random reels of videos.

KS: Lovely, and do you see a lot of content about mental health?

ROSIE: Not a lot, no.

KS: I'm gonna start by sharing my screen and I going show you some images. So, you'll have 10 seconds to look at each image and there are 10 images in total.

ROSIE: Okay.

[SHOWS CONTENT 1]

KS: Could you please provide your opinion on the content that you've just been shown and how does it make you feel?

ROSIE: Um, the content, some of which I know, some of which I don't. Um, it's interesting to see each thing classified under a mental health title when a lot of it's quite generic stuff that anyone could say that they have irrespective of whether they've got they're mental health condition or such and like wanting to be control about something doesn't necessarily mean you've got a mental health condition. It just might mean you like to be prepared. Um, so it's quite interesting to see everything grouped together. As such.

KS: Okay. And do you feel this content would benefit or not benefit someone in a mental health crisis? And can you explain your answer?

ROSIE: I think it could do in the sense of helping them understand the way that they feel, because it's something that always irritates me personally when I know I'm feeling a kind of way about something, but I don't know why I'm feeling that way. So, if someone was in a. Bad state themselves if they know why they feel bad sometimes that's helpful. But then there's also the negative side of. Potentially manifesting something that might not actually be their release, making it seem worse than it might actually be as well. So, I guess there's positives and negatives to it.

KS: Okay. And do you encounter this type of content often online?

ROSIE: No. Very rare.

KS: Okay and what is your opinion on someone using this type of content to self-diagnose?

ROSIE: I believe that the more you read about something, the more you can believe it, so it doesn't necessary same way that if you read about a physical. Um, condition that you might have, and they say that like a symptom may be that you'll get a tingling sensation somewhere all of a sudden you can start to think you've got a tingling sensation. It's the same thing with mental health that. They think that the out of the 5 symptoms, they've got three, but they don't have the other two, all of us and they might start to pick up on things that could then fit into those buckets and then miss self-diagnosed.

KS: OK. And would you like to see more of this content on social media and can you explain why?

ROSIE: I think that would probably be a dangerous thing to do, to publicise that too much, because if someone is a bad mental place, they might not want to see it and they might make them worse. And, and I doubt it's the reason that most people would go on to social media to see that kind of content. And so again, that might put them in a bad position even if they weren't in a bad mental state when they went on to social media.

KS: Okay, and can you provide any further information that you would like to add about that the content that you've seen?

ROSIE: I could understand that that sort of content being posted in certain places and being available in certain places. Um and some places would make sense to publicise such information absolutely. If someone's going to a doctors surgery or something like that would make sense for that information to be available. Um, I think the other thing with social media is. It all ages have access to social media and so if. That impression is being made to younger children that can influence them quite negatively as well. Um, so that I mean by itself is concerning when you start to influence young minds to think. To think things are so. Out there.

KS: Cool, right? So now we're gonna move on to a different type of content at same principles apply with this one. Tell images 10 seconds per image. Then just let me know when that comes on again.

ROSIE: Yep. [SHARES CONTENT 2]

KS: So how did you feel about this content?

ROSIE: Bit more peaceful. Yeah, it seems like the sort of content that people put out there of what they want people to see about them and their lives, so positive high points if you like.

KS: And do you encounter this type of content on social media very often?

ROSIE: Yes.

KS: Yeah. And would you like to see more of this type of content on social media and can you explain why?

ROSIE: I personally like content like that because I find it interesting to see what people get up to. I understand that other people will have a different opinion because. I think other people sometimes struggle with just seeing the highlights of people's lives, and then they'd never get to see the downsides, and then they compare that to their own lives and think that their life is a bit more. Um has

looked more low moments and the high moments you can see on social media, but I've personally can distinguish the difference and I enjoy to see people's high points and take inspiration for that for myself or things I could do. But I understand what other people would have other opinions.

KS: Okay. And do you have anything further to add about this content?

ROSIE: Um not in particular, kind of the stuff I post so.

KS: And now I'm gonna share my screen. Then for the final round of images. And again, if you just let me know when it comes up.

ROSIE: Yeah. [SHARES CONTENT 3]

KS: So how did this content make you feel?

ROSIE: Um more positive because instead of it being focused, the first set was sort of very focused on negative and symptoms, whereas this is more how you can better your life and how you can make your you feel better about situation and by a lot of the time that that content was focusing on the little things you can do rather than trying to tackle massive things in one goes, it makes it seem more achievable as well. Um, yeah, all round a bit better.

KS: Lovely and do you encounter this type of content on social media very often?

ROSIE: Yeah, sometimes, yeah. I've definitely. More often the first batch probably not as often as the second batch, but yeah, I do.

KS: And would you like to see more of this type of content on social media and can you explain why?

ROSIE: This would be better to see more of, I think where the. Um. So. What's the word? Um where the calculations are done on social media where you see the like content? The trouble is you don't need see that sort of content. If you look at that sort of content before, whereas people that don't get to see that kind of content if they haven't been looking at it, then they might be missing out on

something. But it would be good if that there was more awareness of the little things that can be done rather than being overwhelmed by bigger things.

KS: And do you feel this content would benefit or not benefit someone in a mental health crisis? And can you please explain your answer?

ROSIE: Depending on the definition of crisis, because if they're, they're in such a bad state, it might not be in, depending on what the issue is and with their mental health, it this might be. A way to get them through the day, but it might not ultimately help. Their issues that are going on, so it'll probably help in the short term, but they'll need further support. To get them out of that situation.

KS: And could you please provide any further information you would like to add about the content, that you've just been shown?

ROSIE: Aside from the fact that we need more of it.

KS: Alright, so now I'm just gonna move on and talk about some final questions. Just about mental health-based content on social media in general. Um so could you please tell me your opinion on people disclosing their struggles with mental health online?

ROSIE: Um. Generally, I have. It depends on the person. It depends on the situation. I think a lot of the time. It can come out as a cry for help that they want someone to reach out to them to ask them how they're doing. I also think that a lot of the time, some of the people doing it aren't necessarily in as bad of a position as they're maybe proclaiming to do, which isn't doesn't give. Mental health issues the right. The right sort of platform, because then people will sort of.
Exaggerate how they feel when the people that genuinely do have issues and need support, they kind of drowned out in the noise. Um. And I'd like to think that if someone was struggling that much, that they would have someone to reach out to. It's just whether they feel strong enough to do so.
And I guess is why people end up using social media to do so because they don't have the strength to reach out to an individual or wouldn't know who to contact or who would be willing to listen. And it's

like I, I mean I'm imagine that's why people post such sort of content. [REDACTED INFORMATION]

KS: And do you think that this is helpful or not helpful for both the poster and the viewer?

ROSIE: I think it can be helpful for the viewer to know that there's potentially something going on. So, to know that if they have the capacity themselves, they can reach out. And the poster might feel a sense of relief after getting it out there, even without directly talking to somebody. Although I can also see it having negative impacts on viewers that are looking at the content themselves because. If it's not especially if it's not someone you're particularly close to, to see such negative content that they can then have the reverse impact on you as well. So, I think it depends on who it is. That's seen it and the relationship that they have with the individual and also the frequency because if this is a one-off post. Then a lot of time. That's a particular scenario. That's gone on if it's something that they're posting every couple of weeks. Then you go into the sort of stage of. Social media posts are probably not the way to go to make them feel better.

KS: And what is your opinion on the access to content that relates to symptoms of mental health disorders?

ROSIE: Within social media, or just in general?

KS: social media.

ROSIE: On social media. I wouldn't trust it. Um, I a lot of content that's made on social media can be made by people that are not qualified to be able to comment on such situations so I wouldn't trust anything that I found on social media. Um, I would if I was in a situation where I wanted more information, I'd probably be looking more reliable resources. And again, that would then be an issue for um younger users of social media, if they're reading that sort of content on social media and then believe it, and it's not coming from reliable source and isn't correct, that also can have damaging impacts as well.

KS: Um and following on. Can you please explain your own personal opinion regarding using this type of content to self-diagnose?

ROSIE: It shouldn't be done, no, not from anything that you find on social media, because even when people say that they're a doctor that practices. Um, if it's in an emergency, how it emergency ward or wherever it is, there's still no way of that being 100% true that they might have, they might have been a doctor and in a hospital years ago and no longer anymore and not up to speed with the current um Information that we have on mental health disorders. And so, I personally wouldn't recommend anyone to self-diagnose with information that they find on social media. And I think that anything. The positive kind of content you can do in terms of like the third set of pictures that we looked at in terms of the little things that can be done if that's helping you great do that. But when it comes to diagnosis, don't use the content.

KS: And what could you provide me some detail on what type of content you would think would be helpful for someone in a mental health crisis.

ROSIE: Advice on where to go because that's not content you see a lot. Um, I think that I think is it better help the company that has therapists that they have a lot of sponsored adverts that have been cropping up at the moment that I've seen. Um. That's a company that's probably trying to make money, so that's not necessarily the right kind of content either. But content on where to go, where to find advice from reliable resources? I think that's the direction we should be. Trying to encourage people to do rather than. Um. Giving misleading information.

KS: And what is your opinion on people possibly using mental health struggles to monetary incentives, either real or fake? For example, payment from Instagram or TikTok for high levels of likes of views and shares?

ROSIE: The I think there's a lot of influences that are taking money, for example, for advertising CBD products and, for example, to try and help with anxiety. Um and a lot of the time, aside from them being able to comment on their own personal experiences and not qualified to be able to say

that's the correct way of helping someone, because that could also have a negative impact on someone, it could mean that they're giving incorrect medical advice and to individuals and they're definitely just not in a position to be able to provide that kind of advice. So, I personally don't like seeing that content. Um, because. If that was an option someone wanted to use, they should be made aware of it through their appropriate channels, and that's not from influencers trying to make some money.

KS: And what is your opinion on maybe censoring mental health content on social media?

ROSIE: I think it's hard censoring any kind of information on social media respective of what that content is, because there will always be someone that makes the post and then a delay in finding such cut types of content and updating algorithms that sit in the background. Um, it would be nice to see a bit more positive information being shared. Um, I don't personally see a lot of negative posts or information being shared, but then I don't know whether that's to do with my social media algorithm not showing me that kind of content cause I make a point of not clicking on certain things so that it doesn't. I don't end up continuing to see that in sort of information. Um, but anyone is. Sharing anything harmful in the mental health space should obviously be held accountable when there should be some kind of blockers. Just try and stop that sort of content getting out there because they're susceptible to it.

KS: And what is your thoughts that people may? The manufacturing mental health disorders in order to gain likes, shares popularity and financial incentive.

ROSIE: I think that sometimes. There is a power in feeling like we're part of a community. Um, I did not just in the mental health space either, I think. People get a level of comfort from thinking that they're not alone and that there's other people in a similar position. And I, I think that. It's seen as a sort of. Benefit of being as a part of a minority group, and I think sometimes it's it can be manifested for sure. Um. Which isn't good, because then that putting themselves in a bucket that doesn't necessarily mean that they're a part of and it won't help them going forward.

But there I guess if you are. Uh, saying benefit from it personally and you're not negatively impacting

anyone else like I guess there's no harm in it in that such. Um, so long as it's not impeding their own ability to live their life the way that they should be.

KS: And then overall, what is your personal opinion about mental health-based content on social media platform overall?

ROSIE: Overall and not enough positivity on in terms of how to. Deal with the day-by-day stuff and where to go and potentially too much around. Bouncing off on each one, bouncing off one another in terms of. I felt this way because of this and then someone else times in that they have felt similar ways and that sometimes creates a negative circle as well. Um, but in general and anything more positivity out there and for the mental health space for those that have it and the people that don't have any mental health conditions, it's the same for everyone.

KS: Lovely. So, thank you very much for taking time to go to this interview with me. I have provided you with a debrief sheet which I'll send to you via e-mail in the next 24 hours and any further information you need from myself, or the rest of the study team will be on there as well for you. So, I'm now gonna stop the recording.

c. Screen shot of the themes and quotes from study 2.

Opinions on Symptom based content (SBC)			Opinions on wellbeing based content (WBC)		The problematic nature of self-diagnosis (SD)		The ambiguity of 'mental health influencers' and monetary incentives from mental health posts.		
Positive opinions of SBC	Negative opinions of SBC	Opinions on access to SBC as an influencer for SD	Positive opinions on WBC on social media	Opinions on WBC as a support for people in low level crisis	Self-diagnosis as a pathway to clinical diagnosis	Peoples thoughts on how problematic SD can be without clinical diagnosis	Spreading the word and combatting stigma	Questioning the authenticity of mental health influencers.	The probelmatic nature of monetary incentive for 'clout' on mental health posts.
I think it can be quite informative and so for example like. Um the different symptoms you can realise that maybe that if you're experiencing certain things like that, you can feel as if or maybe that might be what I have. So, it might be quite helpful to help identify thing. (P2) Um, yeah, because again it could help people who don't know why they feel like they do. And if they saw something like that, they could probably understand why they feel and understand themselves better (P12)	As I said, I'm, I find it a bit overwhelming in some sort of way. That the page is fully loaded with scientific information and the colours, attractive colours, attractive right and the pictures which is drawing my attention to the issues which I probably would not notice before. For example, I wouldn't be thinking about the mental health before, but then actually I'm noticing this bit. Maybe I am, maybe I have issues (P1)	As I said it depends? I think it needs to be careful that probably in a way whom this content targets and if the targets in adolescence or young girls also, it's probably not a good idea because again, they might get different idea that could diagnose themselves or in some sort of way decided or actually having some sort of mental health disorder. (P1) So, these things potentially start with someone who says Ohh I think I have ADHD and I do this because of it. So, these are all now symptoms of ADHD and then they posted it and now people self diagnose with someone else's self diagnosis. Um, not great, but yeah (P7)	Positive affirmations I think I even used the same words really, and I find it quite. Um. As I said, not just... It's helping me in the short words and the, you know, nice, even like a little cuddly bears or something? Helping me just to unwind a little bit and, and, you know, short words, positive attitude and I think that would be more helpful than self-diagnosing and find all the issues in my Mental health or attitude or anything. So, I think that's the type of cotent I think should be more on the social media than the first type of the content which you was showing before. (P1)	Yes, I feel like it would benefit. I think it would. I, I definitely feel like it would benefit the somebody with a mental health... One day, when you have the issues during the day and then you're watching this short words of encouraging, especially if... these are your own faults, it's helps to actually, for example, when sometimes I thinking I'm not having enough time to do everything and I'm just useless and I can't because I can't finish this job...And for example, at the end of the day, you see in the content saying actually it's okay not to be okay. Or you're not the machine, you just human, or try to accept this... I think they might be really beneficial for people going through difficult time. (P1).	I think it definitely need to be to be restricted and I think the focus probably should be. Um, not encourage to share the symptoms on the social media, but probably if you have something which worries you talk to the parents or medical professions now, not just sharing it in the social media. .. like sli-, slightly shifting their focus of their attention from sharing your feelings to you know, if you feel something wrong talk to somebody, but it's as I said, parents or if you if you need type of special, you know agencies or doctor so somebody who can be helpful. (P1)	That's that's really that's really the problem with social media I guess.... OK, it's like this type of information this formulated in this way.... and making me feel like actually I'm the Doctor myself and I've been able to diagnose because what doctors can do, they doctors can just read symptoms and then the diagnosing so I can do the same thing. I can read my symptoms on this one page and I find irritability, tick, feeling upset, tick. And then actually, I'm diagnosed, diagnosed myself with depression or anxiety or having the panic attack. So that's a major issue I think. (P1)	I definitely think it's very good for bringing awareness and also helping people to feel like they're not alone.... But I think on the whole, it's good to bring awareness and make people feel like they're not alone and reduces the stigma as well.' (P2) In general, brilliant. Keep sharing it. Keep getting the messages out there. That mental health is real because there are still people in this century that don't believe it exists. Um, so I don't know how they're thinking or feeling or what they think that is. Um. But I think you know the mental health content again. Brilliant. (P3)	And depending on who is a target audience, especially if the vulnerable person or young adult or the adolescent would be reading all these type of contact if they are talking about self-harm. And I think if the - you know teenager would be doing about the self-harm. Somebody and somebody shared in the story about the self-harm or some serious suicide issues that might be affected, not just you, it might be affected your reader. So, I feel it needs to be very careful about sharing in this type of contact, it's not just about your own health, it's about. How it will affect your audience, people. Who is you sharing it with. (P1)	Um, that's sometimes we forget in that the whole purpose of the Instagram, you know, of the social media originally, it's not being charitable organisation. It's made to as a business model...and we start viewing it as a hmm, source of information about everything and we do not critically reviewing this information. For example, we find them and if the influencers posting something about... mental health we generally believe in this influencer... but again we forget and that sometimes it's just business. (P1)
I mean, I relate to it. Mainly the anxiety, depression kind of ones that was a few things that I read on there that I didn't realise were actually anxiety related that I do. There was a few ADHD ones as well. That I was a bit worried about because I do a lot of the things on there, but I didn't, I don't think I have ADHD. Well, I might do. But. But the, the bingo, When have a quick scan I thought I do a lot of these. Yeah. But they're all quite informative, I think. (P4)	Um, I think at first it was quite like eye opening when I was first, like coming across a lot of them. But I think it can be a bit draining and after a little while cause if cause obviously the algorithm like changes to how many videos you watch. So, the more they were coming up, it can be a bit draining on different things. So sometimes it can be informative, but other times it can be a bit draining (P2)	And so for example, you might not have originally thought that maybe you had a anything and you might think all that might trigger you to go and get it diagnosed or look into it a bit more. But sometimes I think because there is a lot of like comorbidity across different mental health issues and sometimes the same thing will pop up a few times and you might think you've got something, whereas might not necessarily. So, it can be informative, but it also could be in certain circumstances it might be a bit harmful. (P2)	I think it just gives you a bit more of, as it, as I say it, because it makes you feel a bit more uplifted. It gives you a bit more, um sort of courage, just, sort of just if you're having difficulties it just gives you a bit more courage to just sort of feel like you can take it a bit more in your stride or just the things will pass that sort of thing? (P2)	Think in terms of just having a bad mental health day rather than a crisis. It's probably more beneficial. But either way. It's beneficial that is there, if that makes sense. I know I've just sort of contradicted myself. But in an actual crisis mode, while it's beneficial that it's there, it's so much easier to go ohh get lost, you know, and just swipe off, throw your phone out the window. Not wanna speak to anyone. And it's almost when your on that come down from that crisis. You'll maybe look at it and think. You know what, I kind of get that now. But I didn't in the crisis mode. (P3)	I know sometimes that, as I said, there's a lot of misinformation and I have thought..I've got that or I've got this as well. And then when I've looked into it, it's not actually exactly what I thought ... I think I was wrong about that. So, I definitely think self-diagnosis like is good. So, it can bring awareness. You might not have been aware that you have all different symptoms, but it's definitely best as a springboard to look into it yourself or go, like, get it diagnosed or just sort of look into it so you can probably self-diagnose from an official website sort of thing. (P2)	And yeah, I think because cause I have that opinion of don't self diagnose, I very much would rather you didn't use and illustrations like you've shown to do that. Though sometimes it's easier, especially with all the wait lists that we have at the moment. I mean, I mean the even getting hold of the GP is ridiculous at the moment. And so yeah, I can totally understand why someone would use it to self diagnosed. But I'm also a bit wary of people wary, wary of people doing that. (P3)	Again, the less busy ones, so definitely like the mind map about BPD, the illustrated ones about anxiety, and what it might look like, how it might feel. I think it's definitely important to have what you see, what I feel um and other relatable posts like that, because then it spreads that awareness. (P3) There's potentially more just to raise awareness, but possibly from pages which actually know what they're talking about. (P7)	As I said, it's difficult topic because again it would be posted not just there from the sincerity of the heart and sincerity of the feeling. It also could be the part of the manipulation. Which is, which is, let's say, not just, not a very honourable thing to do, but it's also quite dangerous for the viewers and your audience. (P1) So, I think when it comes to sharing on social media, people do have a different perspective depending on who it is. Um so. I wouldn't necessarily say that people who post on social media are looking for attention, but I know that there are other people that do it for that exact reason. (P3)	I really don't, I don't like that, that it's particularly making money off it as well. I have seen I think adverts before TikTok or Instagram about mental health and different things like that. And I do think it definitely lowers the authenticity of it and I do think sometimes particularly if that's the main source of the content depends, it depends if it's giving people good life skills and trying to help you cope with it. But if it's more like focusing on the negative side its definitely not the best to be monetary, um, um monetary incentive. (P2)
I think from the creators is that of educating people and it seemed to be focused on here are different mental health diagnosis here are potential symptoms that are associated. And I think you know and I have seen some of those images before and in fact I do follow a couple of those accounts. So I think that I I read them as the intent is in it, in attempt to educate and almost an I wouldn't say an attempt to normalise, but perhaps in some cases you know to perhaps encourage people to feel that these are some common symptoms, and if you're feeling them then then it's not. It's nothing different. (P6)	...for example, what anxiety looks like and feels. And yeah it was a good visual representation, but it's also overwhelmingly busy, so I think that would actually exacerbate people's anxiety just by looking at it. (P3) So my concern about some of that content would be there will be people out there who are consuming it via social media that are unable to determine what is truth and what is acting, what is accurate and what is not. (P6)	People posting different ones, like all of this, is signs of autism. This is signs of this that get missed. But I also think part of it encourages people to almost self-diagnose themselves. Which? It's nice to know that you might have this condition, but actually getting diagnosed you can get access to so much more and like actual help with to deal with the condition like it's good for awareness.But I feel like some people will then just be like, oh, I probably have that, and then they'd leave it at that (P4)	So I really like this kind of content. I think just again from the working in mental health side, it gives me some different things to use in my sessions, but it also does make me change my perspective on things like if I'm having a bad day and something like that crops up, I think okay, maybe I can work on changing to maybe thinking that thought instead of this one. (P3) They're nice and like, especially I think if like you've had a hard day and it's just like, oh, you've got this like a little, like, nice little feel-good post. It's that like it's almost like a little bit comforting, which now sounds a bit silly, but yeah. (P5)	Um. I think in terms of like mental health content as beneficial, it would be things like that final content that you showed in the, the self-help the self-care. I know a lot of people do get a little bit ohh, feel a little bit dismissive when they see things like have a cup of tea, have a bath. That that information's not there for people in a crisis. I don't think because they're, they're too restless to do something like that. That's for when they're coming down from it and can maybe think a little bit more rationally. (P3)	Personally, I don't like self diagnosis, but I'm also very aware that it happens a lot and I think in terms of relating to it and maybe then pushing further to go to the GP or getting an actual diagnosis, there's more beneficial. (P3) Umm. I think it's a good base of like if you want to find out, but I won't solely use it as a diagnosis. But it's good to like keep track of and then maybe go to the doctor's and be like I have a lot of these symptoms and I'm a bit worried I may have um say like ADHD, but I don't think it's good to self-diagnose. (P4)	People I know who I associate with the social media who are attributing these diagnoses to themselves because they've seen this type of content and they go ohh, that's me. Now, in itself that isn't a problem. If it helps them feel better about themselves or understand themselves a bit better, I think that's okay, but. If. I. How do I put this; I don't see the benefit in attributing a label to yourself unless it's going to change something. (P6)	I think if it's, it's genuine like the, it's genuine, their struggles. I think it is good for people, right, especially like celebrities or big accounts or whatever they are called to show it because a lot of the time they show off all that. I'm doing this today. And sometimes you forget that these are real people. And it almost encourages other people to be like, oh, I also have these similar issues. Maybe I should also take a break or whatever it is that they're doing. (P4)	...but I think the only problem it is, is if sometimes there might be a bit of misinformation. I know sometimes I've seen somebody disolosing things and that they might have slightly given misinformation or yeah, just not described in exactly the best way. (P2) Again, a TikTok thing with like they've had a surge of people saying they've got torrettes or like some sort of tic disorder. Because people have gotten popular for it on like TikTok and then. People have gone oh well. If I pretend to have this, I can also get popular on TikTok and you've got people coming out now and saying, yeah, I lied about having this disorder just to get views and likes. (P5)	I think that is disgusting, to be honest, I think if it's, if it's a real thing that they're, you know... they have actually got mental health difficulties, they're struggling... Yeah, still that doesn't sit easily with me at all. Think if you're that, if you're struggling that much, you don't care about money, you don't care about you, you don't care if your financial difficulties, mag be part of your struggles. But you shouldn't use it for a game. If you need, if you need support, you need support. Fake... Don't get me started. I could rant on and on if people use it as a fake thing because me- mental health is not to be faked. It's not to be used for monetary gain. (P3)
I guess if you have someone who is perhaps, um, perhaps their mental health is deteriorating for the first time, and they don't have a lot of experience, particularly with something like anxiety where some of the symptoms can be very physical and they might not associate them, then that might perhaps open their eyes a little bit, but it's reliant on that person to have some level of insight. (P6)	But sometimes it feels a bit like oh, you don't really know what you're talking about though do you? like. They'll be a post about like specific disorders. And it will be a bit like, kind of, that's misinformation or like the other one I noticed recently that really grinds me a bit, it's like on TikTok and things where you'll get people who are like oh put your fingers down if you do these things and it will be like oh if you find a loud spaces really overwhelming. It'll be like if you put five or more fingers down you've got autism and it's, no, no, it's like and it's things like that, that really kind of frustrates me. (P5)	I just think tools like that on aren't the best, because I'd say it takes away a lot of the, I guess depths to what mental health is. And they're very like surface level. So, I think it's very easy like from what, what you showed me I could say oh right okay. So, I have I have ADD I've ADHD I also have a personality disorder now. Oh yeah, I can get really depressed as well so, so it's like if you self-diagnosed like I could probably sit and go through the DSM and diagnose myself with loads of things and it's not because I have them. It's. Because I show a lot because I show the symptoms, but actually the symptoms aren't the extent where it's a problem. (P5)	I think the main thing that I just want to say is that I love those ones that say maybe rather than thinking this, think that, again while it's so difficult, it then gives you an alternative perspective to follow, which is so important whether you're having a bad mental health day or an actual crisis. Um, I mean a bad mental health day could be a crisis. Again, It depends on the individual. And but yeah, I think that sort of content like I've said before is so important to have, whether you ignore it or not. And the fact that the options there for it is just fantastic. (P3)	In a crisis, I say probably not. Again, it's like it's nice and I think it can definitely help like de-escalate a situation. But I think if you've got someone at crisis point. It's kind of past that point, a little bit like. You know, saying oh we'll take a deep breath you've got this. They're like, well, I haven't though, have I? Like, I'm past that point now. Um. So, I think it's, it's difficult. I think if you get someone at the right time before they hit that point, things like that might help. I think once they've hit crisis, it's probably. A bit redundant. Because yeah, I think they need something a bit more solid at that point. (P5)	... I tend to look at self-diagnosis more as relation. So can you relate to these posts? OK, how much by, maybe think about speaking to your GP sort of thing? And rather than again, yeah. And cause it may just be that that's how you're feeling in that particular moment, rather than how you're feeling during, you know, a so-called good day or normal day for you. Um, so yeah, I don't like the fact that people use them for self-diagnosis, but also yeah, just aware that it happens. We, we can't help it if we relate to something that's strongly. And that preferably they'd go and get a diagnosis from a GP or a mental health professional (P3)	Heres the problem with people self-diagnosing. What are they going to do with it? You either need a diagnosis because you need to act on it, and even if that's about learning about things a bit more, but I am very concerned with people using this kind of content to self-diagnose and they're not going on to seek further support. I think that's problematic. (P6) Ohh I don't think so, I don't, I don't think it's negative content. I think it can be, Um helpful in the right environment, but it shouldn't be the only thing that people look at in order to get diagnosed or answer their questions. (P9)	But it's always good to have awareness of mental health, even if you don't have the condition, you can always learn about it and learn how maybe these stereotypes, like especially people with schizophrenia, there's a lot of stereotypes that all of them like, hearing voices telling them to do bad things and all those, some of that is true. It's not all true. And I think even if you don't have schizophrenia, it's always good to maybe read some of these posts that tell you what it is. So you learn a bit more. (P4)	And again, I think it can be positive in terms of like it gives people that little glimpse of like of the reality. But. I also think. again, it's that risk of people seeing it and going well. They've got clicks and views and attention. If I go online and say XYZ and I'm crying. Then I'm going to get the same views clicks attention. Um, and again, I think it's kind of that. It's, it's a really difficult thing because it's like on one hand it can be really positive because people spreading and understanding and awareness. But then does it also encourage people? To kind of use those things in a negative way and try to. Kind of. I guess you use these things as. You know a way of gaining whatever, whether it be money, attention. (P5)	If it's genuine, then it is always good to share whatever you have, if you gain some monetary value from it, I guess that's all right. I mean If you have depression, get something out of it, I guess. But if you just posting it, say because I'll, I'll get a sponsor from this or are people will relate to it, so I'll just post it anyways. I, I really don't like that because obviously it almost feels like they're taking advantage of these situations like real people have these problems and Instead of maybe possibly spreading awareness, she just saying, oh, I have depression and then using it for maybe attention or sponsors or whatever people get so. (P4)

d. Screen shot of the TikTok Thematic analysis themes from study 3.

	A	B	C	D	E	F	G	H	I
1	Showing support			Loaded comments			Personal declarations		
2	Comment	Hastag	Year	Comment	Hastag	Year	Comment	Hastag	Year
3	You are fantastic the way you are.	Anxiety	2021	I'm right with you	Anxiety	2021	I never experienced anxiety til I got old. Now I don't know what to do.	Anxiety	2021
4	That's so awesome! I'm so happy for you! I could have never done that! You are amazing!	Anxiety	2021	I'm done with TikTok again feeling attacked lol	Anxiety	2021	so many dark doors to explore , just make sure you knock befkre entering my disorder lol.	Anxiety	2021
5	you go girl!!! be proud of who you are wherever you are!!! you are beautiful inside and out!!!	Anxiety	2021	ik can relate I'm soo anxious thinking I'm going to fail all of them	Anxiety	2021	I got anxiety when I looked at a roller coaster at six flags yesterday.	Anxiety	2021
6	Thank you! I'm proud of you too! Anxiety is a bootyhead for sure	Anxiety	2021	That happens to me when ever I have a panic/ anxiety attack I know exactly how u feel.	Anxiety	2021	Dude how did you post this right as I was using TikTok to dissociate from my panic attack?	Anxiety	2021
7	You got this! Youâ€™re great! Just have fun!	Anxiety	2021	I'm proud of you for managing it though! I kinda know how it feels	Anxiety	2021	You sure? My brain has a bajillion thoughts running at once. It can surely handle those two.	Anxiety	2022
8	TOU GOT THIS. If I had one wish. I wish you never had anxiety, stress, self doubt and all that negativity. You mean the world to me.	Anxiety	2021	Thank you!!! It means a lot ! I went though a lot in my life and mental health struggles! Thank you.	Anxiety	2022	it's one of the biggest problems of today's society but literally goes unnoticed or ignored.	Anxiety	2022
9	ur beautiful! u deserve all the happiness in the world.	Anxiety	2022	I feel this so much, I want to leave my hometown so bad but it's not affordable. I feel stuck. It's hard but keep searching.	Anxiety	2022	I have anxiety attacks mostly at my old school I still can't forget it	Anxiety	2022
10	Im proud of you!	Anxiety	2022	I know exactly how you feel, trying to make it on your own feels impossible, I'm still trying myself but we got this!!	Anxiety	2022	I have given up hope of a normal day, I would settle for a pain free happy day	Anxiety	2022
11	IM LITERALLY SO FREAKING PROUD OF YOU SIS OMGGGGGGGG	Anxiety	2022	breathe you are not alone in this I'm feeling it too and it's because of my job so I'm putting in my two weeks today.... hopefully it will help	Depression	2021	When people think you're being weird but really having an anxiety attack, they'll never understand âĭ¸	Anxiety	2022
12	I'm sorry if you wanna talk I'm here	Anxiety	2022	hey it's okay :) I know how it feels it fuckin sucks, but you can get through this I believe in you and I'm proud of you for being so strong,	Depression	2021	So, I have been diagnosed with autism. Recently. And I am autistic. I'm meant to (want to). do a bunch of research about what it is.	Depression	2021
13	That's all you can do In life work towards what you want a day at a time and it'll all work out. here if you need to talk!	Anxiety	2022	I'm same way.. deep down I'm unhappy and depressed but put on a smile and make myself go do stuff...when all I want to do is stay in bed	Depression	2021	People who dont suffer w anxiety and depression will never understand the struggle.	Depression	2021
14	It sounds like maybe you have a lot to say/on your mind, and no one you trust enough to share it with. Try writing down how you feel and read it back	Anxiety	2022	I wish u was really happy all the time. I know how it feels. I go through it myself	Depression	2021	my psychologist said TikTok is the best thing that ever happened to me	Depression	2021
15	Talk to someone, a therapist, a bartender, someone. It helps some	Anxiety	2022	I know all too well. The struggle is real. Always here if you need someone to talk to. Smile your tt family loves you!	Depression	2021	i cant keep living like this beuh	Depression	2022
16	It sucks man. Talking about it helps. I volunteer at crisis hotline id be happy to share my number with you. We in this together man. Life's a bitch.	Anxiety	2022	thas how I feel every day of my life	Depression	2021	my depression started when I was born you see me crying out loud?	Depression	2022
17	Our environment often adds to our sadness. Have you tried to change it or talk to someone. Being open about it is the first step.	Anxiety	2022	WELCOME TO MY WORLD	Depression	2021	I don't know about other people but sometimes its hard to remember all the needed basic things that need to be done when in a bad space.	Mental Health	2021
18	I love you sister, keep your head up! Your gonna find a way and get the clarity you need in life. I promise	Depression	2021	oh so it's not just me that struggles to remember?	Depression	2021	I work with clients who have personality disorders. Its not easy task to adjust your behaviour. I'm sure you feel internally tortured. Good luck.	Mental Health	2021
19	Stay strong girly! I believe in you!	Depression	2021	I can totally relate.	Depression	2022	Hi, I got diagnosed with EUPD 2 years ago. I have just come to terms with it. I'm on the list for Complex Needs which it therapy in various forms.	Mental Health	2021
20	If only you could see yourself through our eyes! You are beautiful, you are smart, you are worth it!!!! tomorrow is a new day.	Depression	2022	I totally understand how you're feeling! I'm beyond frustrated & stressed with this move I've cried every single day since we've moved!	Depression	2022	I have been querying whether I have bipolar Iâ€™ve just looked at the symptoms of personality disorder they will have it PMT definitely has an impact	Mental Health	2021
21	hang in there! you ever need someone to talk to feel free to messege me (:	Depression	2022	I feel you. Major Depression Disorder for 46 years	Depression	2022	I have lost people as well and it's hard and the ones that can stay strong are the ones that need to be strong not only for others but your self.	Mental Health	2021
22	you are worthy and important and never forget that	Depression	2022	Hi lovely I have bpd if u ever need to talk.	Mental health	2021	I dissociated so much today. I hate that I can't even live normally	Mental Health	2021
	Keep going, stronger than you think you are. as hard as it sounds dont let your past define your future, you got this will just take a			hate to see you suffering love and appreciate you honesty I suffer with			I'm somewhat a burn survivor my hair caught fire but I'm now at least 60%		

	A	B	C	D
1	Self-Diagnosis.			
2	Year	Benefits of self-Diagnosis	The problematic nature of self-diagnosis	Year
3	2023	self diagnosis is a valid diagnosis! if it wasn't for me self diagnosing my son with autism how would my doctors have known and agreed ðŸ˜ðŸ½â€™ï¸	I'm sick of people acting like BPD is some sort of quirky, edgy thing to have. It can be an absolute nightmare to live with	2023
4	2023	not my psychiatrist misdiagnosing me with BPD and bipolar and telling me to get off tiktok when i mentioned autism	Thank you, I have 2 diagnosed ASD kids one with SPD as well. The other with mental health struggles. Itâ€™s not a status itâ€™s a struggle	2023
5	2023	I got into a heated argument with my friend when I told them I had autism all because I self diagnosed.	Itâ€™s all these put a finger down to different things on this app x so kids are doin them and then self diagnosing themselves and telling their parents	2023
6	2023	yeah I'm self diagnosed autism:3	I have a severely disabled boy and my other son is being tested for autism and adhd. Itâ€™s so hard ðŸ˜I should never self diagnose x	2023
7	2023	Also self diagnosing can be safer then professional diagnosingâl¼ï,â€¼ï,	say it louder for those in the back as a parent with 3 neurodivergent adults who I raised alone it's mocking them and others ðŸ¥´	2023
8	2023	Thanks, it's just that sometimes I could have all the proof I need, but I still feel like I'm faking it for attention	Yessss so many people claim to have bpd now and have absoloutly no clue !!! Same with adhd itâ€™s a joke	2023
9	2023	bad people found my instagram that i put autistic in, so ive been feeling shit. this made me wanna move /pos	Unfortunately my friend it seems to be fashionable to claim mh	2023
10	2023	Self-diagnosis is not much more than a hypothesis. If you are wrong and still tolerate the arduous process to find out (unlikely), no real harm done.	too many liars on this app ruining lives for their own gain. need to rot in hell . ðŸ¤¯ facts!!	2023
11	2023	What does that mean? I'm saying why would people WANT a highly stigmatised disorder? Whether they in fact have it or not no one WANTS it.	I struggle with autism, and you have my upmost respect for sticking up for you daughter. People who self diagnose have no idea how hard it truly is.	2023
12	2023	Hi, just a self identified autistic, mental health therapist, here to say SELF DIAGNOSIS IS VALID. â˜ï¸,	Well said mate I have autism and I remember seeing someone acting like there autistic for attention it's disgusting well said mate ðŸ‘ ðŸ‘	2023
13	2023	I love TikTok for medical advice. However, I need to confirm it by doing research and not just trusting a creator.	people want either the money or not to go to work too many people having issues that are none extinct	2023
14	2023	I no longer trust mental health providers as theyâ€™re largely uneducated	Sheâ€™s already self diagnosed herself with autism	2023
15	2023	Tt helped me with just a few videos. Something my dr could not do in constant vists.	I am also against self diagnosing tic disorders! And someone with a TD does not have the right to diagnose either.	2023
16	2023	Iâ€™m now officially diagnosed with both and have learnt more about myself from social media and other NDs	And itâ€™s difficult to diagnose your self bc of the fact that so many things have similar presentations /Comorbid symptoms	2023
17	2023	I'm more knowledgeable about my psychological presentation than my therapist AND psychs at this point. Audhd, DID, ADHD, EDS, CPTSD, list goes on	You need to be diagnosed my a medical professional instead of just assuming you have something. Self diagnosing isnâ€™t good	2022
18	2023	I let tiktok convince me that I might have adhd and be willing to ask about it	iâ€™m talking about self diagnosing yourself then treating yourself based what you diagnosed yourself with. itâ€™s not safe	2022
19	2022	Self diagnosing isnâ€™t the same as self treating. A self diagnosis allows you to seek proper medical assistance efficiently	If you had the credentials to give this kind of â€œadviceâ€ youâ€™d likely be out of compliance with your professional code of ethics for spreading this.	2022
20	2022	Most people are not lying about mental illness for attention. Itâ€™s a minority who do	Thereâ€™s a fine line between safe self diagnosing or self diagnoses for attention	2022

e.

f. Descriptive data for TikTok API analysis.

538,562		6191			
134,491	3.07	252	1.92	273	22.52
10,182		24		208	17.16
6,497,168		25,326		226	18.64
278,348	30.56	663	7.89	216	17.82
35,862		28		289	23.84
8,866,349		220,625		1212	
59,912	40.32	265	66.35		
58,567		170			
50,019		243			
35,958	1.29	112	0.12	5,719,324	
201,131		70		18,187,111	
823,016		17,186		5,991,114	
2,845,561	24.76	48,784	23.76	2,294,246	
1,849,887		13,222		8,796,908	
22,285,013				40,988,703	

				139,277,021	
538,562	78.82	6191	95.73	683,138,235	
134,491	19.68	252	3.9	1,242,797,770	
10,182	1.49	24	0.37	57,703,844	
683,235		6467		374,634,922	
				2,497,551,792	
6,497,168	95.38	25,326	97.34		
278,348	4.09	663	2.55		
35,862	0.53	28	0.1		
6,811,378		26,017			
8,866,349	98.68	220,625	99.8		
59,912	0.66	265	0.12		
58,567	0.65	170	0.07		
8,984,828		221,060			
50,019	17.42	243	57.17		
35,958	12.52	112	26.35		
201,131	70.05	70	16.47		
287,108		425			
823,016	14.91	17,186	21.7		
2,845,561	51.56	48,784	61.6		
1,849,887	33.52	13,222	16.7		
5,518,464		79,192			

g. Materials for Study one: scales and surveys.

1. PANAS-GEN (Watson et al., 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you GENERALLY feel this way, that is how you feel ON AVERAGE.

Use the following scale to record your answers.	**Very slightly or not at all**	**A little**	**Moderately**	**Quite a bit**	**Extremely**
Interested	□	□	□	□	□
Distressed	□	□	□	□	□
Excited	□	□	□	□	□
Upset	□	□	□	□	□
Strong	□	□	□	□	□
Guilty	□	□	□	□	□
Scared	□	□	□	□	□
Hostile	□	□	□	□	□
Enthusiastic	□	□	□	□	□
Proud	□	□	□	□	□
Irritable	□	□	□	□	□
Alert	□	□	□	□	□
Ashamed	□	□	□	□	□
Inspired	□	□	□	□	□
Nervous	□	□	□	□	□
Determined	□	□	□	□	□
Attentive	□	□	□	□	□
Jittery	□	□	□	□	□
Active	□	□	□	□	□
Afraid	□	□	□	□	□

2. MASQ D-30 (Wardenaar et al., 2010)

In the last 2 weeks have you felt...

	Not at all	**A Little Bit**	**Moderately**	**Quite a Bit**	**Extremely**
Felt confused					
Startled easily					
Felt successful					
Felt worthless					
Felt nauseous					
Felt really happy					
Felt irritable					
Felt dizzy or light-headed					
Felt optimistic					
Felt hopeless					
Felt like I was having lots of fun					
Blamed myself for lots of things					
Felt dissatisfied with everything					
Felt like I accomplished a lot of things					
Was trembling or shaking					
Felt like I had a lot to look forward to					

Felt pessimistic about the future					
Had pain in my chest					
Felt really talkative					
Had hot or cold spells					
Was short of breath					
Felt really 'up' or lively					
Felt inferior to others					
Muscles were tense or sore					
Had trouble making decisions					
Felt like I had a lot of energy					
Heart was racing or pounding					
Worried about a lot of things					
Felt really good about myself					
Had trouble swallowing					

3. **Adapted SNAIS (Li et al., 2016)**

How do you spend most of your time on social media?

- Smartphone or Tablet.
- Laptop or PC
- Other.

What social media platform do you use the most.

- Facebook.
- Instagram.
- Snapchat.
- TikTok.
- Reddit.
- Twitter.
- Other.

What is your main purpose of using social media?

- Entertainment.
- Communicating with friends or family.
- To make new friends.
- Other.

How long have you used social media for?

- Less than 3 months.
- 3-6 months.
- 7-12 months.

- 1-2 years.
- More than 2 years.

On average how long do you spend on social media per day?

- Less than 10 minutes.
- 11-30 minutes.
- 31-60 minutes.
- More than 60 minutes.

How many social media friends/ followers do you have?

- Less than 50.
- 51-100
- 101-200
- 201-400
- More than 400.

How often have you performed the following online social networking activities in the last month?

	None at all	A little	A moderate amount	A lot	A great deal
Sent messages to friends on message board.					
Chatted with friends via instant messaging function.					
Replied to comments made by social networking friends.					
Commented on friends' status, logs, and photos.					
Shared/Forwarded content.					
Browsed others' logs/photos/statuses/albums.					
Updated self-status.					
Posted photos/videos on personal web profile.					
Wrote on a blog/ Vlog.					
Decorated personal web profile.					
Surfed entertainment/current news.					
Watched video/listened to music.					
Played games/applications.					
Bought/gave virtual goods.					

How often do you encounter content on social media relating to mental health.

- Not at all.
- A little.
- Moderately.
- A lot.
- Always.

On average, how many mental health-based posts do you see in a day?

- None
- 1-3
- 3-5
- More than 5.