EARLY MALADAPTIVE SCHEMAS AND THEIR ASSOCIATION WITH THE MENTAL HEALTH AND ACADEMIC EXPERIENCE OF PSYCHOLOGY STUDENTS

Sara Dowsett

(Student number: 16029712)

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Department of Psychology, Faculty of Health and Life Sciences
University of the West of England, Bristol

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Abstract

Introduction

This study evaluated the extent to which early maladaptive schemas are evident in a sample of 100 undergraduate psychology students. Schema theory is a central notion within psychology research which explains how knowledge and experience is cognitively stored, represented and used (Eisenberg, Gollust, Golberstein & Hefner, 2007). When individuals are exposed to certain types of early experiences, schemas can become heightened and can manifest in a more pervasive and maladaptive way (Young et al., 2003). Earlier negative relational experiences, in conjunction with complex psychopathology are often considered the contributing cause of the development of early maladaptive schemas (Mason, Platts & Tyson, 2005). Little research had been done on the role of prior early maladaptive schemas within the UK higher educational setting and how the presence of earlier life experiences might impact on such factors as academic experience, student mental health and academic-self efficacy in undergraduate psychology students.

Methodology

A quantitative approach was used to examine the prevalence of EMSs among 100 undergraduate psychology students and identified how such findings are related to measures of anxiety, depression, psychology student experience and academic self-efficacy. The initial statistical examination was followed by an in-depth qualitative exploration and interpretative phenomenological analysis was used to explore the impact that negative earlier life events have had on the experiences of four undergraduate psychology students whilst studying at university.

Results

Statistical analyses highlighted key early maladaptive schemas such as ‘self-sacrifice’ and ‘unrelenting standards’. The findings also explored the presence of severe anxiety symptoms (23%), depressive symptomology, psychology student experience and the impact of such factors on the ratings of academic self-efficacy. The qualitative findings provided examples of how negative childhood experiences have subsequent adverse

consequences on student mental health and student experiences at university. The findings highlight specific characteristics of undergraduate psychology students and contribute towards the wider literature surrounding student mental health.

Discussion

Suggestions for future research position the present findings in the context of the wider concerns regarding student mental health, a topic of concern that is at the forefront of the political agenda (Brown, 2016; Mars et al, 2019). Schema theory and schema therapy may have a future role to play in the work of university counselling services in supporting student mental wellbeing.

Introduction

This thesis used a mixed-method design to explore the utility of the schema theoretical framework within the higher educational setting. The study evaluated the applicability of Young et al.'s (2003) schema framework and explored the extent to which Early Maladaptive Schemas (EMSs) are evident in a sample of undergraduate psychology students and how far earlier life experiences can go on to impact on a student's experiences whilst they are studying at university.

Whilst several studies have gone some way towards demonstrating the benefits of using the schema theoretical framework for the treatment of psychological distress and symptomology (such as anxiety or depression) the findings are usually framed within a clinical context and do not refer to, more specifically, psychology students (Harris & Curtin, 2002; Wright, Crawford, & Castillo, 2009). No studies were identified which adopted a mixed-methods design to highlight the prevalence of EMSs within the higher educational setting specifically for psychology students and qualitatively explore students' lived experiences and the impact that earlier life events had on their experiences whilst studying at university.

It is anticipated that through understanding the applicability of Young et al.'s (2003) schema theoretical framework within the higher educational setting that university lecturers and university counselling services could become better equipped to develop more effective and appropriate ways of working with undergraduate psychology students.

This literature review will reflect on the following areas of the current related research and highlight gaps within that research which this present study aimed to address:

1. The development of schemas
2. Self-schemas
3. Academic self-efficacy
4. Development of early maladaptive schemas
5. Early maladaptive schemas and mental health

6. Early maladaptive schemas and mental health of students
7. Mental Health of psychology students
8. Mental health of university students and support services
9. Using EMS theory as a therapy intervention – the development of schema therapy
10. The effectiveness of schema therapy for the treatment of mental health disorders
11. Counselling service interventions within higher education
12. Applicability and relevance for counselling psychology

Literature Review

The Development of Schemas

The notion of "schema" can be traced back as far as Aristotle and Plato and has been a commonly discussed concept in psychology for almost a century (Marshall, 1995). However, Kant (1929) is widely acknowledged as the first to consider that schemas represent organised structures which are essential to our perceptions of the world (Johnson, 1987). Schemas have often been referred to as describing the way knowledge is represented in hierarchical neurological association networks. Kant theorised that a schema is a process that mediates the outside world and its connection with internal cognitive processes. Individual experiences were acknowledged as being a vital part of the schema structuring process. An example of this is Bartlett's (1932) 'War of the Ghosts' study, which investigated how the function of memory is affected by the notion of schematic processing. The study asked British participants to recall a native American story that was intentionally filled with unfamiliar cultural concepts. The study found that a variety of cognitive distortion processes took place when recalling the story including assimilation, levelling and sharpening. Participants used their prior schematic knowledge, such as their individual

cultural information and their own emotional responses, to unconsciously alter details within the story whilst maintaining a coherent narrative.

Piaget's work concerning cognitive development in children (1952) introduced the role that schemas play in sensory-motor development. The association with early development and the presence of schematic processing has been expanded with a particular focus on the link between insecure attachment and maladaptive schemas in individuals with psychopathological symptoms (Bosmans, Braet, & Van Vlierberghe, 2010). A significant association between attachment anxiety and psychopathology was found to be mediated by the presence of negative schematic processing, particularly around a fear of abandonment (Roelofs, Onckels, & Muris, 2012). Theories arose in the 1970s which describe schemas as 'economical structures' that are used to store memories of events and objects (Hinsley, Hayes, & Simon, 1977; Rumelhart, 1984). Segal (1988) broadly defined schemas as organised structures of past experiences and reactions that group together to form a persistent and cohesive body of knowledge. Similarly, Brewer and Nakamura (1984) acknowledged the importance and utility of schemas in acquiring new knowledge. They considered schemas to be an unconscious mental structure whereby old knowledge interacts with new knowledge through the processes of perception, thought, memory and language. The concept of schemas is therefore widely used within educational contexts to describe how and why new knowledge is learned.

Self-schemas

A self-schema refers to how internal cognitive structures and information about external objects map onto knowledge of the 'self'. Self-schemas are considered to be cognitive manifestations of enduring aspirations, motives, goals and fears which include cognitive evaluations of an individual's ability and their sense of agency (Markus & Nurius, 1986; Markus & Wurf, 1987). Therefore, a student's self-schema is likely to incorporate representations of themselves as a student in the educational setting and include their beliefs about how they currently consider themselves to

present versus how they aspire to present at university. This personal self-schema construct of themselves can be inclusive of multiple representations of themselves as a student and can subsequently mediate their behaviour at university (Ng, 2014; Cantor & Kihlstrom, 1987).

The concept of schema therefore includes information that individuals store about themselves and, more specifically, how the notion of 'self' is experienced in relationships (Ogilvie & Ashmore, 1991). The central schema construct theory (self-with-other unit) accounts for the link between an individual's personal qualities (that is, their traits and feelings) and how these qualities are characterised when an individual is with another person. The theory adopts a relational perspective and recognises that self-experience is shaped by interpersonal contexts (Rumelhart, 1980). When linked to an individual's enduring concerns, self-defining memories (that are often inclusive of primary caregivers) can yield narrative scripts that dictate cognitive schematic representations of the self and form part of the individual's autobiographical memory (Singer, Blagov, Berry, & Oost, 2013). Self-defining memories are often described as affectively intense, vivid and well-rehearsed - they build on an individual's most vulnerable concerns regarding factors such as their ability to achieve their goals (an example could include academic achievement within the educational setting). If these self-defining memories share negative repetitive emotion-outcome sequences then negative narrative scripts are formed which go on to shape an individual's cognitive-affective processing system, thus shaping personality traits and their ability to achieve in later life (Blagov & Singer, 2004; Sutin, & Stockdale, 2011; Wood & Conway, 2006).

Academic Self-efficacy

Related to this theory of self-schemas is the notion of 'efficacy'. Bandura (1989) defined self-efficacy as an individual's belief in their own ability to accomplish a task or succeed in specific situations. The role of self-efficacy, therefore, is key in predicting

how an individual will apply themselves and how they intend to motivate themselves to achieve their desired goals.

The role of 'Academic Self-Efficacy' (ASE) refers specifically to the educational setting. A student's own belief or conviction that they can achieve their desired academic goals is considered vital in terms of their overall academic achievement and motivation (Bandura, 1989; Deci & Ryan, 1985; Eccles & Wigfield, 2002; Honicke & Broadbent, 2016). Work carried out by Chemers, Hu and Garcia (2001) found that ASE and optimism were significantly correlated with both student performance and whether a student considered themselves able to adjust and cope within the educational setting. ASE also predicted students' levels of anxiety and academic performance.

Cassidy's (2015) research found ASE to correlate with, and be a significant predictor of, academic resilience. Undergraduate students who represented higher levels of academic self-efficacy were considered more educationally resilient and more likely to adjust and cope when facing adversity at university. A modification of teaching styles in order to support student learning has been evidenced to improve levels of ASE. A review of lesson accomplishments, asking students to note down what they have learned each day and drawing their attention to their academic growth on a regular basis are strategies which, when adopted by university tutors, have been shown to actively increase levels of student confidence and academic self-efficacy (Siegle, & McCoach, 2007). Varying factors can impact levels of ASE including levels of social support. Warshawski, Bar-Lev and Barnoy's (2019) longitudinal study found that higher levels of ASE alongside consistent social support actively and significantly lowered levels of anxiety symptoms in 240 university nursing students. Similarly, a study examining 367 undergraduate students found that social factors can contribute to increased levels of ASE and improved levels of student wellbeing. In particular, perceived levels of family support were considered to have an influence on a student's own belief of their ability to cope and achieve within the educational setting, thus increasing their ASE levels (Wang & Castaneda-Sound, 2008). As will be explored in due course, this concept of academic efficacy coincides with the theory of self-schemas

and, in doing so, contributes towards a larger network of self-related social psychology theories and provides a broader basis for understanding how students conceptualise themselves when they are within the academic setting (Schunk, 1991; Chemers, Hu, & Garcia, 2001).

Development of Early Maladaptive Schemas

Bowlby's (1969, 1982) theory of attachment highlights the association between insecure attachment styles and psychopathology. The theory suggests that an infant's development of attachment to their primary caregivers is key in the development of self and representations of others. If negative representations develop as a result of poor attachment styles with the infant's caregivers then the individual is more susceptible and vulnerable to developing negative psychopathology such as anxiety or depressive symptomology. These negative internal working models of self and others could be considered the basis for negative cognitive schemas and begin to dictate particular behaviours and experiences (Beck, 1964). Young (1990) developed this notion further by identifying how early experiences become schematically coded into Early Maladaptive Schemas (EMS). EMSs are considered to impact upon how the individual relates effectively with others thus impacting upon their personal relationships. Although schemas are considered to be present in all humans, when complex psychopathology presents, schemas can become heightened and are manifested in a more pervasive and maladaptive way (Young et al., 2003). Earlier negative relational experiences, particularly with caregivers, in conjunction with complex psychopathology are often considered the contributing cause of the development of EMSs (Mason, Platts & Tyson, 2005). Young et al. (2003) describe EMSs as:

> "Extremely stable and enduring themes, comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one's relationship with others, that develop during childhood and are elaborated on throughout

the individual's lifetime, and that are dysfunctional to a significant degree." (Young et al., 2003, p. 7).

EMSs are thought to commonly develop in childhood, in environments where young people are subject to repeated episodes of hostility, neglect, criticism and abuse, or if they live in an environment where their core emotional needs are not met (Young et al., 2003). The Young Schema Questionnaire Short Version (YSQ-S3) is a tool used to facilitate clinicians in identifying schematic patterns with their clients (Young, 2005). It currently lists 18 EMSs:

1. Abandonment/Instability (AB)
2. Mistrust/Abuse (MA)
3. Emotional deprivation (ED)
4. Defectiveness/Shame (DS)
5. Social isolation/Alienation (SI)
6. Dependence/Incompetence (DI)
7. Vulnerability to harm or illness (VH)
8. Enmeshment/Undeveloped self (EM)
9. Failure to achieve (FA)
10. Entitlement/Grandiosity (ET)
11. Insufficient self-control/Self-discipline (IS)
12. Subjugation (SP)
13. Self-sacrifice (SS)
14. Approval-seeking/Recognition-seeking (AS)
15. Negativity/Pessimism (NP)
16. Emotional Inhibition (EI)
17. Unrelenting Standards/Hypercriticalness (US)
18. Punitiveness (PU)

Young et al. (2003) grouped the development of EMSs into five domains which are dependent on children's early experiences and environment. These are as follows: (1)

disconnection and rejection, (2) impaired autonomy and performance, (3) impaired limits, (4) other directedness and (5) over vigilance and inhibition. Each of these five domains is representative of a child's core needs. For example, schemas in the domain of 'disconnection and rejection' are likely to surface within a family environment that is rejecting, unpredictable, lonely, cold, detached, withholding, abusive or explosive (Young et al., 2003). Subsequently, Young et al. (2003) list three main coping strategies that children will adopt in order to adapt accordingly to their environment. These are: (1) overcompensation (acting as though the opposite experience were true), (2) surrendering (giving into the schema) and (3) avoidance (aiming to avoid the activation of the schema). These coping styles prove functional in helping the child to cope within challenging home environments. However, in different environments in later life, where the threat is less imminent, these coping strategies can reinforce the dysfunctional schema and therefore maintain its dominance. The schema modes incorporate the moment by moment behavioural and emotional state of a person at any given time. These modes are comprised of a combination of schemas. For example, the 'emotional deprivation' EMS and the 'defectiveness' EMS are both associated with the 'vulnerable child' mode. Identifying schema modes is an extended component of schema theory and schema therapy, rather than being separate to it, and is particularly useful to consider when working with people who have complex presentations (Young et al., 2003).

Early Maladaptive Schemas and Mental Health

Research carried out by Mason, Platts and Tyson (2005) found a correlation between EMSs and attachment styles, demonstrating that participants with a fearful or preoccupied attachment style showed increased anxiety symptomology and an increased presence of maladaptive schemas, particularly Young's 'abandonment' EMS. Research carried out by Dozois, Martin and Bieling (2009) reaffirmed the association between EMSs, an insecure attachment style, and depressive and anxious symptoms. In doing so, the research also highlighted the prevalence of maladaptive compensatory

coping strategies. For example, the findings highlighted avoidance, denial or substance misuse as coping mechanisms used as a means of decreasing undesirable symptomology.

Guidano and Liotti (1983) explored the relationship between EMSs and the common mental health disorders depression and anxiety. A 'fear of abandonment' EMS surfaced as a result of early childhood isolation or a lack of effective contact from relatives early on. Results indicated that an unlovable self-view led to a fear of later abandonment. As a result of over protective parenting, anxious individuals tended to be more attributed to the 'fear of abandonment' EMS, exerting a need for control in order to lessen feelings of insecurity and aloneness, thus impacting on their ability to engage in secure relationships. These early experiences combined with current cognitive vulnerabilities can later make an individual susceptible to episodes of depression (Breger, 1974). Beck's (1967) cognitive triad of the self, world and future is consistent with this theory and refers to schematic representations as a 'package' of knowledge that stores earlier childhood information. If the earlier childhood experiences have been negative then the schematic representations of the self, world and future subsequently become negative too. Negative earlier experiences can make an individual cognitively vulnerable and these cognitive biases increase their likelihood of depression developing (Beck, 1967; Evan et al, 2005). According to Young et al. (2003), EMSs develop as a result of negative invalidating early experiences. For example, the 'defectiveness/shame' EMS is common among individuals whose childhood environment included a lot of criticism and rejection. Such experiences are often associated with an increased presence of negative psychopathology (Beck, 1967; Young et al., 2003).

Early Maladaptive Schemas and Mental Health of Students

A number of studies have shown that EMS processing patterns are evident in student populations. However, this evidence is usually framed within the clinical context of a general student population and within American educational settings (Harris & Curtin,

2002; Wright, Crawford, & Castillo, 2009). For example, students who scored highly on the depressive symptomology scale were more likely to hold negative interpersonal schematic representations. The interpersonal schema questionnaire (ISQ) and the Beck depression inventory (BDI) are measures which have been used to explore the association between a student's clinical depressive symptoms and their relational interactions with significant others. The ISQ elicits both the anticipated and imagined responses of significant relations such as mother, father, friend or partner. Students' ratings of how others might respond and interact with them have been repeatedly shown to highlight their interpersonal schematic representations and their generalised rules for relating (Beck, Rush, Shaw, & Emery, 1979; Hill & Saffron, 1994; Soygiit and Sava§ir, 2001).

In addition, the presence of Young et al.'s (2003) EMSs are reported to exist amongst the college student population. In particular, they are shown to exist as a result of negative early childhood interactions with primary caregivers, while emotional abuse or emotional neglect were identified as primary predictors. Maladaptive coping mechanisms such as dissociation and/or an increased sense of either anxiety or depressive symptoms surfaced more readily for those who had experienced negative earlier life experiences (Wright, Crawford & Del Castillo, 2009). However, the findings of Wright et al.'s (2009) study are framed within a clinical context and for the general body of students but did highlight the necessity for early therapeutic interventions and the role that EMSs can play in the internalised representational models of the self and others. The study did not account for the disruption that such behaviours or symptoms can have on higher education experiences of undergraduate psychology students or ASE – a gap in the literature that the present study aimed to address.

The co-morbidity of anxiety and depression within higher education is well documented in the associative literature concerning student mental health and the presence of both anxiety and depression have been shown to impact on a student's engagement with their course and their academic achievement at university (Bitsika & Sharpley, 2012; Kendall, Kortlander, Chansky, & Brady, 1992; Martin, Usdan, Cremeens,

& Vail-Smith, 2014). Of more concern was the co-morbid presence of both anxiety and depression intensifying an individual's overall levels of wellbeing and has been identified as a risk factor for student suicide (Eisenberg, Gollust, Golberstein, & Hefner, 2007; Gould et al, 1998; Rohde, Lewinsohn, & Seeley, 1994).

Anxiety and depression are shown to share etiological influences which include a common underlying latent risk factor for negative affectivity and negative emotionality. The presence of anxiety is often cited as preceding the development of depression in a negative sequence of comorbidity (Avenevoli et al, 2001; Barlow, 2000; Clark & Watson, 1991; Garber & Weersing, 2010; Kim-Cohen et al, 2003; Pine et al, 1998). Rumination, catastrophising and worry are typical characteristics of both anxiety and depression and are representative of, for example, socially anxious individuals who tend to make negative inferences of self, world and future (Martin & Tesser, 1996). Therefore, such negative representations of self and future could make a socially anxious individual cognitively vulnerable which, in turn, could increase their likelihood of depression developing (Beck, 1967; Dozois & Beck, 2008; Garber & Weersing, 2010; Martin & Tesser, 1996; Wilson & Rapee; 2005). The development in neuroimaging reinforces this notion further as the amygdala has been found to be enlarged in individuals with depression as a result of the ongoing activation of an anxious state which produces a depressogenic effect (Alden & Taylor, 2004; Bittner et al, 2004; Drevets, 2001; Kraemar et al, 1997; Leary & Kowalski, 1995). A longitudinal study (n, 1052) of adolescent students found that the presence of anxious cognitions perpetuated the presence of Young et al's (2003) EMSs which increased the students' cognitive vulnerabilities and predicted the presence of depressive symptoms developing over time (Calvete, Orue, & Hankin, 2013; Nutt et al, 2002).

Mental Health of Psychology Students

It is widely documented that psychology students are considered to have poorer levels of wellbeing when compared to student norms (Myers, Sweeney, Popick, Wesley,

Bordfeld, & Fingerhut, 2012; Badali, & Habra, 2003). In a population of 141 Australian psychology honours students, 49% of students scored in the clinical range for depression and higher-achieving students represented the lowest levels of wellbeing (Cruwys, Greenaway & Haslam, 2015). Therefore, those students with high standards are considered at higher risk of ignoring their levels of fatigue and requirements for self-care, thus reducing their overall levels of wellbeing and increasing their likelihood of burn out (Cruwys, Greenaway & Haslam, 2015; Kaeding et al., 2017). Factors such as poor sleep hygiene, a lack of social support, not recognising one's own limitations, high levels of self-expectations and a lack of boundaries can actively contribute towards levels of stress amongst psychology students and a higher risk of drop-out rates (Myers et al., 2012; Badali, & Habra, 2003).

As reported by Cushway (1992), 75% of trainee psychologists reported moderate to high levels of stress during their training and 41% of trainees reported experiencing symptoms of anxiety, depression, low self-esteem and self-doubt (Brooks, Holtrum & Lavender, 2002). International cross-sectional research carried out by Kaeding et al. (2017) cited the aforementioned research (Brooks, Holtrum & Lavender, 2002; Cushway, 1992) as key pieces of research that motivated the formation of their longitudinal study that aimed to identify specifically what factors contribute towards high burn out rates within the profession. 1,172 clinical and counselling psychology trainees were surveyed to examine the relationship between the presence of EMSs and physical health on burn out rates among trainee psychologists. The study was based on the largest international sample of psychology trainees. Participants included trainee psychologists from America, Australia, Canada and Britain (recruitment for the British psychology trainees was through the British Psychological Society). The overall findings of Kaeding et al's (2017) study highlighted that higher rates of burn out were indeed associated with higher levels of physical health problems and, more relevantly, a presence of Young's EMSs. Interestingly, the 'unrelenting standards' and 'self-sacrifice' EMSs were the most highly endorsed EMSs within the trainee psychologist sample, both within the high and low burnout categories. In particular, the findings indicated

that the 'unrelenting standards' EMS was found to be a statistically significant and sole predictor of high levels of trainee burn out. The findings of the large-scale study contributed towards the existing wider literature concerning the mental health of psychology students (Kaslow & Rice, 1985; Pakenham & Stafford-Brown, 2012).

The presence of the 'self-sacrifice' EMS could be considered consistent with theoretical accounts of the nature of individuals within the psychology field. Such individuals are generally considered to have an increased desire to reduce the suffering and pain of others and, as such, this behaviour typically results in them actively ignoring their own well-being needs. Conflictingly, however, the presence of the self-sacrifice EMS has some benefits as it may actively enhance an individual's ability to empathise with a client and meet their emotional needs but, at the same time, it has also been shown to increase levels of emotional and compassion fatigue and reduce levels of self-care (Rupert, Miller & Dorociak, 2015; Young et al., 2003). The characteristic pattern of the 'unrelenting standards' EMS typically includes an inability to set healthy work boundaries and an increased presence of unrelenting striving behaviours in order to achieve higher standards of work or levels of care (Young et al., 2003). Again, there is usually a 'pay-off' as high levels of 'unrelenting standards' EMS are often rewarded in psychology university courses as high grades at this educational stage increases the chances of psychology undergraduate students securing acceptance on to competitive postgraduate courses (Chappel et al., 2005; Cruwys, Greenaway & Haslam, 2015).

It has been suggested that highly demanding jobs become more problematic and are likely to increase anxiety and depressive symptoms in individuals who report negative early life experiences, this notion is particularly prevalent within the helping professions (Galvin & Smith, 2015; McLean & Wade, 2003). Participants within Bamber and McMahon's (2008) study were employees of the National Health Service (NHS) and the 243 participants included psychologists, doctors, nurses and health services managers. The aim of the study was to identify the factors that contribute towards work place stress within the helping profession. The study utilised Young et al's., (2003) schema theoretical framework and highlighted the relationship between the presence

of EMSs and the likelihood of experiencing occupational stress. Again, the 'self-sacrifice' EMS was a significant predictor of reduced levels of wellbeing and increased levels of work place stress. The study concluded that familiarity with the 'helping role' is likely to have been established within childhood and increases an individual's desire to replicate aspects of these earlier experiences by engaging in careers within the helping profession. The study introduced the notion of 'occupation specific EMSs' and highlighted the requirement for further support for individuals as a means of reducing occupational stress for the individual and the financial costs on the NHS system by reducing work stress related absences (Bamber & McMahon, 2008). Therefore, exploring the impact that the presence of such EMSs had, alongside symptoms of anxiety and depression specifically for undergraduate psychology students was an aim of this present study.

There are other psychological concepts regarding the impact of earlier life experiences on adult behaviour and perceptions of self that are considered specific to the experiences of psychology students. Theories such as 'parentification' (Boszormenyi-Nagy & Spark, 1984) and the 'wounded healer' (Jung, 1993) are examples of how negative early life experiences can impact on adult behaviour. For example, negative parenting characteristics that lead to 'parentification' roles can increase the likelihood of negative mental health symptomology (Godsall, Jurkovic, Emshoff, Anderson & Stanwyck, 2004), impact upon educational experience (Chase, Deming, & Wells, 1998) and increase the likelihood of professional caring roles being sought (Blumenstein, 1986; DiCaccavo, 2006; Jurkovic, 1998).

Parentification most commonly occurs when the relationship between a parent and child has reversed - the child assumes parental and adult roles which create a distorted inverted hierarchy of responsibility. In such a scenario, the child often becomes acutely aware of the needs of a parent, learning that their own needs are less important than others. In doing so, they could become at risk of developing maladaptive schemas such as 'emotional deprivation' and so come to expect that their desire for emotional support will not be adequately met by others (Earley & Cushway, 2002; Young, 2005).

The individual may become hypervigilant to the needs of others and, as such, their early template of relating accompanies them into adulthood. To fulfil this interpersonal way of relating, helping roles are often sought, and individuals may pursue psychology courses and careers to meet this need (Blumenstein, 1986; DiCaccavo, 2006). Similarly, the wounded healer notion incorporates the idea that individuals pursue courses and careers within the helping profession as a means of utilising their earlier emotional experiences and insights to facilitate healing in themselves and others (Jung 1993; Hadjiosif 2015). Already noted is the association between such negative earlier experiences, the development of early EMSs and the onset of negative mental health symptomology (Lumley & Harkness, 2007; Young et al, 2003). Identifying these earlier experiences and whether such roles/motivations have contributed to the formation of EMSs for psychology students and had any subsequent impact on their university experiences was explored within the present study.

Mental Health of University Students and University Support Services

Symptoms of anxiety and depression are commonly acknowledged as prevalent and persistent amongst the student population (Dyrbye, Thomas, & Shanafelt, 2006; Eisenberg, Gollust, Golberstein, & Hefner, 2007; Harris & Curtin, 2002). A longitudinal Australian study conducted by Trethowan (2011), over a five-year period, highlighted the prevalence of such disorders within university counselling services. The study found that 46.7% of 3682 university students attending the university counselling service had severe levels of distress according to the OQ-45 scale (Outcome Questionnaire-45). When considering that this prevalence is similar to that of inpatient health service norms, it raises questions concerning the disruption that such disorders could have on the mental health and the academic experiences of students attending university.

Student mental health within higher education has been at the forefront of the political agenda within the UK with recommendations from the Higher Education Policy Institute (HEPI) to collect institutional data from all UK university services (Brown,

2016). In response to this, many studies have highlighted the current and concerning situation regarding the increased demand placed on university counselling services as a result of student population growth and an increase in student psychological distress levels (Brown, 2016; Bewick et al, 2010; Royal College of Psychiatrists Report, 2011). University students are often found to have clinical levels of psychopathology presentations and many students who would otherwise be utilising support within the National Health Service (NHS) now present to university counselling services to seek therapeutic support interventions (Bewick, Gill, Mulhern, Barkham, & Hill, 2008; Stallman, 2008; 2010).

Student counselling services within higher education are continually documented as facing challenges in terms of funding and resources available. So much so that there has been a reduction in government funding which has sadly led to closures of student counselling services (Caleb, 2014). As such, there has been a call from HEPI to streamline services in order to identify specifically 'what works' so that government funding can be allocated accordingly and succinctly (Hyun, Quinn, Madon & Lustig, 2006; Murray, McKenzie, Murray, & Richelieu, 2015). What constitutes an effective university counselling service and the challenge of meeting student demand has been an ongoing topic for some time now. The earliest reported concern regarding meeting student demand within university counselling services was first documented in the literature in 1969 (Broglia, Millings, & Barkham, 2018; Goldberg, 1980) with concerns being expressed not just within the UK but globally too (Rückert, 2015).

With the widening of higher education and the increased demand on university counselling services, one of the ways to manage this ongoing concern is to shorten the number of sessions available to students. Between the academic years of 2011/12 to 2013/14 data collected from 21 larger university counselling services indicated that students were offered, on average, between just three to four sessions of face-to-face counselling sessions (Brogolia, Millings & Barkham, 2018). However, identifying if effective and lasting change can be made within very-short term support frameworks is an area of ongoing exploration (Mair, 2015). Additional support services that differ

from 1:1 face-to-face counselling such as the use of student mental health apps or online support are often utilised within university counselling services as a means of broadening the scope of available support and provides an accessible option that falls in line with the HEPI recommendation to provide support during 'out of office' hours (Brown, 2016; Gatti, Brivio, & Calciano, 2016). However, the expansion of technological therapeutic support available to students raises concerns regarding measuring risk and effectiveness of care (Grundy, Wang, & Bero, 2016). Although the introduction of technological support provides students with more accessible platforms to seek support, and therefore expands the methods of support available to students, the introduction of technology does not simply solve this complex solution concerning student mental health and the demands placed on university counselling services. Evaluating the content, utility and success of such apps has been a subject of ongoing debate, especially when considering the rapid increase in technological support trends (Goss & Hooley, 2015; Grundy, Wang, & Bero, 2016). What is easy to identify from the aforementioned research is the increased demand on university counselling services. However, 'how' to meet this demand and meet the ever growing and complex needs of students is seemingly a more complex question. Thorough assessments assist in identifying the unique and individual requirements of a student presenting to a university counselling service. However, these preferred requirements cannot always be met by counselling staff members working within higher education due to the limitations that are often placed on university counselling services (Brown, 2016; Lemma, 2015).

Using EMS Theory as a Therapy Intervention – The Development of Schema Therapy

Jeffrey Young (1999) began developing schema therapy in the 1980s with the aim of providing effective interventions for people with long standing, complex and characterological difficulties that are often referred to as 'difficult to treat' or 'treatment failures' (Young et al., 2003). Young and colleagues recognised that such individuals could benefit from adaptations to the mainstream, typically shorter-term

approach of Cognitive Behavioural Therapy (CBT) in order to allow for more in-depth explorations of earlier childhood experiences. In schema therapy, the emphasis is placed on 'feeling' rather than intellectualising the origins of presenting problems. Schema therapy adopts a broader, more integrative model that utilises an integration of CBT, psychodynamic and Gestalt therapy interventions. Therefore, in more recent years, schema therapy has become increasingly popular with practitioners who are seeking alternative methods of treatment for individuals who repeatedly use services on a 'revolving door' basis (Masley, Gillanders, Simpson, & Taylor, 2012).

The goal of schema therapy is to support individuals who cannot adaptively meet their own individual core emotional needs through close adaptive relationships with others and self-care methods (Young et al., 2003). Schema therapy treatment involves initially identifying schemas using the YSQ-S3 (the questionnaire also utilised by this present study) and then aims to reduce maladaptive coping strategies which function to reinforce EMSs and reduce the likelihood of change. A further aim is to develop healthier, alternative and more adaptive ways of coping, therefore re-defining unhelpful EMSs. The process requires an individual to recognise and modify their EMSs and subsequent coping styles (which may have historically served as an effective method of coping which is both adaptive and protective) and Young et al. (2003) places a strong emphasis on the relational aspect of the therapy (Young et al., 2003; Spinhoven, Giesen-Bloo, Dyck, Kooiman, & Arntz, 2007).

'Limited reparenting' is a term coined by Young et al. (2003) which highlights the importance of the role that the therapist plays in schema therapy. Limited reparenting aims to readdress early damaging experiences that originated in childhood following the actions of primary caregivers (often the individual's parents) and then uses these experiences to provide the individual with broader insights into the association between their earlier experiences, their current EMSs and their coping styles. Identifying and addressing these earlier damaging experiences within a safe and contained therapeutic relationship is considered an important part of schema therapy and is reparative in nature (Young et al., 2003).

The Effectiveness of Schema Therapy for the Treatment of Mental Health Disorders

The theories of EMS and schema therapy were developed as a means of treating individuals with long standing, complex and enduring presentations. A review of the current research surrounding the effectiveness of schema therapy reveals a dominant focus on the use of schema therapy specifically for the treatment of personality disorders (Masley, Gillanders, Simpson, & Taylor, 2012). For example, Spinhoven et al. (2007) compared the effectiveness of the therapeutic alliance in schema therapy with transference-focused therapy for the treatment of Borderline Personality Disorder (BPD). Findings indicated that schema therapy was successful in significantly reducing active BPD symptomology and associated dysfunction when compared to transference-focused therapy. In addition, it was noted that the therapeutic alliance played a key part in this. The schema therapy participant group also experienced an increase in quality of life, and significant improvements were noted in terms of the score of the Borderline Personality Disorder Severity Index - version IV (BPD SI-IV) subscale. Similarly, Weertman and Arntz (2007) explored whether the treatment of negative childhood memories and experiences was an appropriate way to alter personality disorder-related psychopathology and schemas. They found that schema therapy was indeed associated with large effect sizes and desirable treatment outcomes.

As previously highlighted, schema therapy and schema theory have been most widely applied to the understanding and treatment of personality disorders. However, the causal maladaptive earlier childhood experiences that constitute an EMS can place individuals at risk of a full range of psychological disorders such as anxiety and depression (Axis I disorders), meaning that the therapy should therefore not solely be considered for the treatment of personality disorders (Axis II disorders) (Hawke & Provencher, 2011). There is evidence to support the view that Axis I disorders such as anxiety and depression are relevant to the theory of EMSs. Individuals who have high EMS scores demonstrate maladaptive schema presentations that are considered to have been established within childhood rather than, for example, as a result of a single stressful experience (Schmidt & Joiner, 2004).

There is a gap in the current literature that requires continued research of the use of schema theory and schema therapy beyond the field of personality disorders; a gap that the present study aimed to address. In the few studies that have researched the effectiveness of schema theory and schema therapy specifically for anxiety and mood disorders, the model appears to work well (Hawke & Provencher, 2011). Following a review of the limited research in this area, Hawke and Provencher (2011) set out to move beyond the schema research for personality disorders and review the effectiveness of schema theory and schema therapy on mood and anxiety psychopathology. The authors identified eight studies that were specifically related to depression and anxiety symptomology. The remaining articles that they reviewed referred to more specific diagnoses of mood or anxiety disorders such as bipolar or Post-Traumatic Stress Disorder (PTSD). Nevertheless, this review highlighted the applicability of schema theory and the effectiveness of schema therapy for individuals with anxiety or depressive symptomology. For example, findings indicated that particular EMSs were consistent in predicting symptoms of anxiety and depression. More specifically, the 'Vulnerability to Harm or Illness' EMS significantly predicted symptoms of anxiety because of its applicability to general symptoms of anxiety as well as to panic disorder or Obsessive-Compulsive Disorder (OCD). The 'Defectiveness/Shame' EMS predicted symptoms of depression and this finding is not surprising given that the five YSQ-S3 items within this particular EMS reflect negative views of the self and world (for example, "I worry that I'll lose all my money and become destitute or very poor"). The review also highlighted the presence of EMSs alongside the comorbid symptoms of anxiety and depression and reinforced the cognitive vulnerability-stress theory as outlined by Alloy and Riskind (2006) and Beck (1987). In addition, the review indicated that, in particular, research relating to mood and anxiety disorders specifically framed within Young et al.'s (2003) schema modes is 'extremely limited', since to date, only one study has been published (Lobbestael et al., 2010). Schema therapy is therefore not exclusive to the treatment of personality disorders and schema theory can be extended to the aetiology and treatment of the

more common disorders associated with anxiety and depression. The authors note that further research is required within Axis I and non-clinical populations to strengthen the overall applicability of an effective intervention that could benefit individuals by increasing personal insight at a wider level (Hawke & Provencher, 2011).

Counselling Services Interventions within Higher Education

Tinto (2003) suggested that students are more likely to succeed and persist within their chosen university courses if there are a range of support services and therapeutic modalities available to them, such as student counselling services. It has repeatedly been evidenced that students who use university counselling services represent either the same or increased levels of psychological distress severity when compared with the norms of young people (aged 16-24) who present to NHS primary care services (Crawford et al., 2001; Goldberg & Williams, 1988; Stallman, 2008; 2010). In addition, there is now more recent evidence to suggest that a student's psychological distress is likely to increase upon entering university and is unlikely to return to pre-university levels throughout the entire duration (typically three years) of their course (Broglia, Millings, & Barkham, 2018; Drybye, Thomas & Shanafelt, 2006). The presence of mental health symptomology, such as anxiety or depression, in conjunction with the additional and inherent pressures in higher education (such as engagement in exams or financial pressures) can rapidly decrease the manageability of such symptoms, thus increasing the risk of harm to self (Connell, Barkham, & Mellor-Clark, 2007; Mars, et al., 2019).

UK Higher Education Institutions (HEIs) have recently been at the forefront of the political agenda, with recommendations from the Higher Education Policy Institute (HEPI) to provide data from each individual institution regarding the effectiveness of university mental health services in reducing student psychological distress symptoms (Brown, 2016). This demand from the HEPI has come about due to the growth of the student populations and also as a direct result of the increased demands on student counselling services. However, along with this increased demand on university

counselling services, financial cutbacks are often cited as the primary justification for the briefer interventions which are now being offered (Brown, 2016; Wallace, 2014; Connell, Barkham, & Mellor-Clark, 2007). The British Association for Counsellors and Psychotherapy Universities and Colleges division (BACP UC) was founded in the 1970s and is now the largest professional body for counsellors working in UK colleges and universities. BACP UC states that the aim of counselling within higher education institutions is to enable students to develop insights into their situations and support them in putting effective strategies in place, building personal resources and greater resilience. In doing so, the intention is to reduce levels of risk, increase general wellbeing and improve study effectiveness (Broglia, Millings & Barkham, 2018). Therefore, counsellors within universities face a multi-faceted role that is inclusive of counselling but also has a significant focus on shorter-term interventions as a means of managing student services demand. Online and telephone technology, group work, psycho-education groups and teaching students practical skills such as relaxation techniques, assertiveness training or resilience building are often an integral part of student counselling services (Dufour, 2016).

Recent evidence provided by Broglia, Millings and Barkham (2018) indicated that the average number of counselling sessions offered over a three-year period across 113 university counselling services was just three to four, with the demand on services increasing every year over the three-year period examined. The average waiting time was six days for an initial assessment and 17-18 days for counselling sessions to commence. The research also highlighted the overwhelming requirement for high-intensity interventions and high-intensity trained staff, as students accessing the services tended to do so with heightened levels of psychological distress and when their ability to cope had already diminished. The research makes recommendations in conjunction with Royal College of Psychiatry report (2011), and indicated that prevention work such as psychoeducation, emotional resilience and strategies carried out by mental health advisors rather than counsellors is necessary to reduce overall distress while also allowing counsellors to do longer term/high intensity work with

students who present with higher levels of distress (Brown, 2016). This up to date evidence highlighted the general lack of longer-term work available to students who are accessing university counselling services as well as the demand on services in conjunction with limited service budgets and financial cutbacks, which result in longer waiting times and shorter-term interventions (Mowbray et al., 2006; Tryon, 1999; Woolfe, 1995).

Wallace (2014) argues that the implications of financial cutbacks to student counselling services on the overall reputation and longer-term financial gain of the universities at large needs to be clearly represented in order to highlight the broader implications that such cutbacks can have. For example, if more students leave university due to mental health concerns, the universities are likely to suffer an increased loss of revenue from their tuition fees as a direct result. Interestingly, Brunel University calculated that in fact, they saved the university approximately £1.5 million in revenue due to the effectiveness of their counselling services, which ultimately retained students who would have otherwise left (Caleb, 2014). Consideration of wider issues such as university counselling services is useful in highlighting the requirement for relevant and up to date research concerning student mental health, an area that this present study aimed to address.

Therefore, it is necessary to continuously screen students who are considered to be higher risk and to assess the effectiveness of current counselling services interventions and modality choice for those students. Cecero, Beitel and Prout (2008) found that assessment of college adjustment could be improved by utilising measures such as Young et al.'s (2003) YSQ. College adjustment is a multidimensional construct that emphasises the variety of demands placed on students (Baker & Siryk, 1984). When screening college students in the United States for early maladaptive schemas (using the YSQ) Cecero et al. (2008) suggested that effective therapeutic interventions could subsequently be designed with the aim of improving college adjustment and overall student engagement. Therapeutic interventions that utilise Young et al.'s (2003) schema therapy framework were suggested as a method for improving overall college

adjustment and student engagement. To date, there is little evidence within UK universities of the applicability of Young et al.'s (2003) YSQ-S3 measure, and little consideration of the effectiveness of schema therapy as a possible intervention within university counselling services, factors that this present study aimed to address.

Applicability and Relevance of this Research for Counselling Psychology

The present study is important and relevant to the field of counselling psychology. It is necessary to review the profession's definitions and values in order to consider this statement further. As explained by Kasket and Gil-Rodriguez (2011), "Counselling psychology, reflecting as it does the complexities of life itself, is full of paradoxes and challenges" (p. 21). The dual influences of both the scientist-practitioner stance versus the requirement for reflexive phenomenological practice is considered necessary within the profession to provide robust but adaptive psychological interventions. A counselling psychologist's role is to conduct research as a means of expanding on and strengthening psychological knowledge. Using this knowledge, counselling psychologists could, for example, work within university counselling services to shape and critically review the therapeutic interventions offered to students (Woolfe, Dryden, & Strawbridge, 2003).

In line with research similar to the methodology of this research, counselling psychologists are required to operate from two differing philosophies that underpin the profession: empiricism and subjectivity. Both epistemological positions complement one another and work together to reveal broader knowledge on complex psychological topics. It is this holistic and inclusive feature of the counselling psychology profession that provides it with its unique and robust identity (Woolfe, Dryden, & Strawbridge, 2003). The present study went some way in supporting the previously stated aims of the profession by using a mixed-methods design to study this field of interest. It sought to provide robust statistical evidence regarding the presence of EMSs amongst the psychology student population (an area which has yet to be identified) and, in addition to this objective aspect of the research, an in-depth

exploration of how the presence of EMSs may come to impact upon a psychology student's academic experience was revealed. The qualitative aspect of the study required the researcher to use 'reflexive skills' and 'professional artistry' to elicit information regarding participants' personal life experiences and, in doing so, complemented the statistical findings and provided a broader picture regarding this psychological topic (BPS, 2006).

The Office for National Statistics (2016) has reported a significant increase in deaths by suicide in full-time students in England and Wales from 2006 until 2016. More recently, between October 2016 and January 2018, eight student deaths in Bristol alone were recorded as 'death by suicide'. Seven of the students attended the University of Bristol and one was a student at the University of West of England (UWE). In response to the surge in student suicide, Universities UK (UUK) has placed an emphasis on improving mental health support for university students. As such, in May 2018 they published a report, 'Minding our future', which provides guidance for universities on how to improve both the mental health services within universities and the coordination of care between universities and local NHS services. The aim of the report was to broaden the mental health care available to students when they leave home to attend university. Professor Steve West, who is Vice-Chancellor of UWE and also the Chair of the UUK's Mental Health in Higher Education Advisory Group, stated that the system of mental health care for university students must be improved (2018). Research carried out by the Institute for Public Policy Research (IPPR) found that, over the past five years, 94% of universities have experienced a significant increase in the number of students trying to access mental health support - some universities have experienced a threefold increase in demand on their services (Universities, U. K., 2015). Such reports highlight the current and pressing urgency regarding the wellbeing of university students within the UK, a concern that can be addressed using the principals of the counselling psychology discipline.

Research Aims, Rationale, Research Questions and Hypotheses of the Present Study

The present study aimed to explore the utility and applicability of using Young et al's. (2003) schema theoretical framework within higher educational settings. During the process of education, people may come to have schematic representations (EMSs) about themselves, their competencies and their performance, and these representations might be linked to their negative childhood experiences (Lee, 2007). Young et al. (2003) stated Early Maladaptive Schemas (EMS) that are acquired during childhood might then impact on students when they move on to university. As a result students could exhibit heightened levels of negative mental health symptomology (such as anxiety or depression) and subsequently could avoid particular assessment types such as class presentations or social interaction with their peers, which are all consistently reported as frequent behaviours in the undergraduate student population (Arkin, Appelman, & Burger, 1980; Beatty & Friedland, 1990) and an area the present study aimed to explore.

Using a mixed methods design, this study aimed to evaluate the extent to which the EMSs, ratings of anxiety, depression and ASE are evident in undergraduate psychology university students and, more specifically, which type of EMSs are prevalent within 100 undergraduate psychology students. In addition, an aim of the present study was to develop a quantitative questionnaire that specifically captured responses regarding the experiences of psychology students at university. A qualitative exploration of four psychology students was conducted and analysed using IPA. The aim of the qualitative aspect of the present study design was to broaden the statistical findings on the multi-faceted topic of student mental health by illustrating and exploring the actual lived experiences of four undergraduate psychology students in relation to their earlier experiences and subsequent university experiences.

The findings of the present study will be used with the aim of informing psychology university lecturers and university counselling services by broadening the

understanding and effectiveness of this theoretical approach (schema theory) within the higher education context.

Research questions:

- To what extent are Early Maladaptive Schemas (EMSs) prevalent and, more specifically, which type of EMSs exist in a sample of 100 undergraduate psychology students as measured by Young's Schema Questionnaire (YSQ-S3)?
- How do psychology students describe their experiences at university in relation to the impact of their earlier life events?

Research Hypotheses:

- The presence of Early Maladaptive Schemas (EMSs) as measured by Young's Schema Questionnaire (YSQ-S3) will significantly correlate with ratings of depression, anxiety, Academic Self Efficacy (ASE) and psychology student experience ratings.
- A significant amount of the variance in the ASE will be predicted by other variables collected by other measures in the study, i.e. EMSs, ratings of anxiety, depression and student experience.

Methodology

Methodology Overview

The present study adopted a mixed-methods design and initially, via a quantitative approach, identified the presence of Early Maladaptive Schemas (EMSs) among 100 undergraduate psychology students, as well as their ratings of anxiety, depression, Academic Self-Efficacy (ASE) and their psychology student experience ratings. Therefore, the first stage consisted of the 100 undergraduate psychology students completing the following four measures: The Young Schema Questionnaire – Short Form (YSQ-S3) (Young et al. 2003), the Academic Efficacy Scale (AES) (Chemers, Hu & Garcia, 2001), the Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983) and the Psychology Student Experience Scale (PSES), a questionnaire created specifically for the purpose of this present study. SPSS (version 25) was used to record the participant responses and a range of statistical analyses was carried out to thoroughly explore the dataset.

The second stage of the methodology included recruiting four of the 100 participants to engage in semi-structured interviews. The four participants took part in one-to-one, semi-structured interviews to explore this topic further and, in particular, discuss their earlier life experiences and how their earlier childhood events may have impacted on their experiences as a psychology student at university. The use of semi-structured interviews allowed for flexibility in data collection, and a richer insight into the four individuals' understandings and perceptions of the topic at hand was sought (Smith, Flowers, & Larkin, 2009). Data collected from the second stage of the process was audio recorded, transcribed and analysed using Interpretative Phenomenological Analysis (IPA). A systematic series of steps were followed by the researcher in an attempt to identify themes in individual transcripts before super-ordinate themes were described across the four cases (Smith et al., 2009).

Mixed Methods Rationale

The methodological approach chosen for this research was a mixed-method design that is underpinned by the philosophical rationale of pragmatism (Yardley & Bishop, 2008). Applying a pragmatic position involves exploring the research problem thoroughly by using both quantitative and qualitative methods of research and therefore avoiding the use of a single paradigm (Morgan, 2007). 'Paradigm Wars', a term coined by Tashakkori and Teddlie (1998; 2003), arose from the ongoing mixed-methods rationale debate concerning the relationship between the two traditional paradigms of positivism and constructivism methodological research designs. This debate eventually led to the emergence of a third-wave set of ideas that incorporated the introduction of mixed-methods analysis, known as the pragmatic paradigm (Cherryholmes, 1992). A mixed methods design provides "the opportunity for synthesis of research traditions and gives the investigator additional perspectives and insights that are beyond the scope of any single technique" (Borkan, 2004, p. 4). Thus, the mixed-method design that was chosen for the present study was underpinned by a pragmatic philosophical rationale and, in doing so, the requirement to simply choose between the two opposing paradigm choices of positivism and constructivism was rejected (Creswell, 2003).

Applying a pragmatist position enhanced the research objectives through the use of pluralistic approaches, avoided methodological dominance, while aiming to provide the most suitable solution for reaching the desired research outcome (Foss & Ellesfsen, 2002; Morgan, 2007). In doing so, the design focused on application instead of individual methods and triangulation was achieved through the systematic use of both quantitative and qualitative methods of inquiry as a means of addressing the specific aims of this research (Darlington & Scott, 2002). As a result, knowledge is meaningfully expanded upon in a way that could not have been achieved through the use of quantitative or qualitative designs in isolation (Creswell, 2014; Creswell & Plano Clark, 2007). More specifically, this study used a sequential, exploratory, mixed methods design that was characterised by the initial collection of quantitative data which formed the foundation

of the research, followed by a qualitative analysis that provided complementary information on the topic concerned (Creswell & Plano Clark, 2007).

The quantitative element of the study involved statistically analysing responses from 100 psychology undergraduate students following their completion of the YSQ-S3, HADS, AES and PSES questionnaires. Aside from the philosophical rationale, questionnaires were used to practically explore whether, for example, Early Maladaptive Schemas (EMSs) and symptoms of anxiety and depression are prevalent within the undergraduate psychology student population. The YSQ-S3 was chosen as part of the present study design as it is a widely used definitive tool that was developed by Young et al. (2003) as a result of direct clinical experience. However, statistical evidence alone was not enough to identify why negative earlier childhood experiences (which Young et al., 2003 states is a contributing factor in the development of EMSs) exist or how, for example, the presence of symptoms of anxiety and depression may impact upon psychology students' experiences at university. Therefore, the qualitative aspect of this present study design was key in expanding the schema theoretical framework beyond the ratings on Young et al's. (2003) YSQ-S3 measure. Four semi-structured interviews were conducted to allow for an in-depth exploration and aimed to contribute to the breadth of research available on the topic. The overall aim of the mixed-methods design was for the quantitative and qualitative aspects to generate complementary insights thus forming a broader basis for interpretation.

Quantitative Measures

In order to address the research questions and hypotheses of the present study, four scales were utilised:

The Young Schema Questionnaire – Short Form (YSQ-S3)

The YSQ-S3 was created by Young et al. (2003) which comprises a 90-item scale (Appendix A). Scoring is indicated through the use of a six-point Likert scale ranging from 'completely untrue of me' to 'describes me perfectly'. Questions within the YSQ-

S3 are designed to elicit key identifiers of Early Maladaptive Schemas (EMSs). Examples include: “I have not been able to separate myself from my parent(s) the way other people my age seem to do”, “I do not feel capable of getting by on my own in everyday life” and “I am a good person because I think of others more than I think of myself”. The YSQ-S3 is a valid measure with high reliability, recently reporting a Cronbach alpha score of between .85 and .97 (Lyrakos, 2014). The present study found a good reliability score for the YSQ-S3 (α = .972). The YSQ-S3 was chosen for this research as it is widely used and research supports the validity and reliability of the scale for assessing the presence of EMSs (Lee, Taylor, & Dunn, 1999; Oei, & Baranof, 2007; Schmidt, Joiner, Young, & Telch, 1995). Each of the 18 EMSs have five associated items on the 90 item YSQ-S3. Young et al., (2003) considers a cut off score of 2≥ on each item to be meaningful and indicative of the presence of an EMS. In addition, the YSQ-S3 has been found to have good predictive validity for other mental health disorders such as depression and anxiety (Kobak & Sceery, 1988; Young, 1999).

Hospital Anxiety and Depression Scale

The second questionnaire used in the present study was the Hospital Anxiety and Depression Scale (HADS), which is one of the most widely used screening tools in hospital and community settings (Appendix B). It aims to assess levels of anxiety and depression and comprises 14 questions (Zigmond & Snaith, 1983). The questionnaire is split to measure the two symptoms of anxiety (HADS-A) and depression (HADS-D) equally, therefore asking seven questions on each mental health disorder. The measure uses a four-point Likert scale from ‘not at all’ to ‘nearly all the time’ and includes statements such as “worrying thoughts go through my mind” and “I feel as if I am slowed down”. The two individual scales of anxiety and depression within the HADS report good reliability. HADS-A has a mean Crobach Alpha of .83 and HADS-D reports a score of .82 (Bjelland, Dahl, Haug & Neckelmann, 2002). The present study found a good reliability score for the HADS-A (α = .850) and also for the HADS-D (α = .759).

Academic Efficacy Scale (AES)

The AES created by Chemers, Hu and Garcia (2001), measured Academic Self Efficacy (ASE) using an eight-item scale on a seven-point Likert scale which ranges from 'very untrue' to 'very true' (Appendix C). Participants were asked to rate themselves against statements such as "I know how to schedule my time to accomplish my tasks". In a study of 373 undergraduate participants, Chemers et al. (2001) obtained a Cronbach's alpha reliability coefficient of .81 for this scale. A review of the research within the field of self-efficacy and more specifically academic self-efficacy indicated that the presence of psychological symptomology such as depression and/or anxiety produced lower ASE scores (Chemers et al., 2001; Ehrenberg, Cox, & Koopman, 1991; Muris, 2002; Ryan, Gheen, & Midgley,1998). The present study found a good reliability score for the AES (α = .837).

Psychology Student Experience Scale (PSES)

Finally, the PSES, a 20-item scale created for the purpose of this present study, asked participants to use a seven-point Likert scale ranging from '1 = very untrue' to '7 = very true' to capture their experiences as a psychology student (Appendix D). The aim was to utilise the data regarding psychology student experience and explore, for example, the correlations with the three additional measures of the present study (YSQ-S3, AES & HADS). Statements such as "I feel comfortable to ask questions in class when I am unsure" and "I enjoy the social aspect of coming to university" highlighted responses regarding the experiences of psychology students studying at university more generally and a review of the associated literature highlighted the lack of sufficient measures to assess more specific undergraduate psychology student experiences. The PSES was specifically developed to address the shortfall in the current associated literature and asked participants to rate their responses on psychology course specific statements regarding, for example, engagement in class presentations or the statistics module (the associated research for the justification of the creation of such questions can be found below).

The PSES was inclusive of a mixture of positively and negatively worded questions as a method of thoroughly engaging the participant and promoting careful consideration of each PSES statement as oppose to utilising a set response pattern (Józsa & Morgan, 2017). In order to confirm that all PSES items contributed consistently to the scale total, items that had low-item total correlation scores were excluded from the analysis. The internal consistency of the PSES was also checked by identifying underlying components using Principal Component Analysis (PCA). Finally, further construct validity checks were conducted by correlating the PSES with other measure scores (such as the YSQ-S3) based on the factors that were derived from the PCA outcomes (Zellerino, Milligan, Brooks, Freedenberg, Collingridge, & Williams, 2009).

The Psychology Student Experience Scale (PSES) was created for the purpose of the present study and the aforementioned research concerning the mental health of psychology students played an active role in the formation of the questions for the PSES (for example, Harris & Curtin, 2002; Wright, Crawford, & Castillo, 2009). The present study aimed to explore the presence of EMSs among a sample of undergraduate psychology students, their mental health symptomology and their ASE ratings. In addition to this, the present study aimed to explore the university and course experiences of the students and aimed to make this specific to undergraduate psychology students. Therefore, the creation of the PSES enabled subject specific questions to be asked which made the findings less generalised to the wider student population. For example, the PSES asked the students to rate their responses on a seven-point Likert scale ranging from 'very untrue' to 'very true'. PSES statements such as "I find the statistics module quite daunting" or "giving a presentation to my class which is assessed does not worry me" are examples of course-specific statements which were formed by the researcher to obtain measurable responses of psychology (rather than general) course requirements.

Research carried out by Karsenty (2004) defines the 'mathematical self-schema' as a specific cognitive structure which refers to an individual's ability as a learner and user of mathematics. It is assumed that the presence of a 'mathematical self-schema' will

have major effects on an individual's ability to learn, retrieve and retain information related to mathematics, and consequently on the actions and experiences of the individual with regards to any related issues. Mathematical anxiety is considered to be prevalent within the university student population and can be defined as an inability by an otherwise intelligent person to cope with the process of quantification. The presence of mathematical anxiety is likely to increase physiological symptoms such as sweating or an elevated heart rate. In addition, mental disorganisation and paralysis of thought are experiences often reported by students when they are asked to engage in a mathematical task (Krantz, 1999; Metje, Frank, & Croft, 2007; Tobias and Wiessbrod, 1980). Many students are considered to enter the higher education system with high levels of mathematical-related anxiety and are often required, as part of their course subject, to engage in mathematical related modules (Royse & Rompf 1992; Fiore 1999; Connor 2008). Mathematical self-schemas could therefore be prevalent among, more specifically, undergraduate psychology students and could influence their ability to engage fully in the mandatory statistics modules that forms part of an undergraduate psychology degree. Therefore, the formation of such statements within the PSES as: "I find the statistics module quite daunting" aimed to explore this phenomenon further within a subject-specific sample of university students.

Performance anxiety relates to a fear of being negatively scrutinised during a social performance such as speaking in front of an audience or engaging in socially interactive situations. Excessive anxiety symptomology and an increased presence of safety behaviours such as avoidance of the feared social situation are factors often associated with performance anxiety (Mörtberg, Jansson-Fröjmark, Pettersson, & Hennlid-Oredsson, 2018).The DSM-5 lists performance anxiety as a marker of Social Anxiety Disorder (SAD; Diagnostic and Statistical Manual-5; DSM American Psychological Association, 2013) and it is estimated that between 60-70% of individuals with SAD identify as having performance related anxiety and between 14-25% of the general population (without a diagnosis of SAD) identify as having performance related anxiety (Furmark, 2002; Furmark et al. 1999; Kessler et al. 1998; Stein et al. 2001; Wittchen and

Fehm 2003). It has been suggested that performance anxiety may be an isolated and qualitatively different subtype of SAD as it is, for example, typically associated with stronger physiological reactions such as panic attacks during speech performance and has a later developmental onset (of approximately 17 years of age) (Blöte et al. 2009; Bögels et al. 2010).

Performance anxiety appears to be more prevalent in student populations, for example, Baptista et al. (2012) and Tillfors and Furmark (2007) found that the most common fear among university students was fear of performing or speaking in front of an audience. As reported by Russel and Shaw (2009), avoidance of social anxiety related tasks could have detrimental effects for academic performance with failures in course modules, examinations or graduation, and a negative impact on future career development. More specifically, in a sample of undergraduate psychology students (n, 273) fear of public speaking and general social anxiety symptomology were found to be very common. In the absence of a SAD diagnosis, a concerning 39% of the psychology students indicated a high fear of public speaking (Mörtberg et al. 2018). As peer interaction and social support at university (forming friendships for example) is often considered a key factor in student retention at university, (Wilcox, Winn & Fyvie-Gauld, 2005) a presence of social anxiety could inhibit students ability to access this important support factor that is typically associated with university enjoyment and success (Mackie, 1998; Thomas, 2002).Therefore, with the social student experience research in mind, the following statements were created as part of the PSES in order to assess social factors that could be considered typical of, for example, the general university experience: “I enjoy the social aspect of coming to university and, more specially, the experience of an undergraduate psychology student: “Giving a presentation to my class which is assessed does not worry me”.

Statistical Analyses

Once the data was collected and anonymised, a range of statistical analyses were carried out to thoroughly explore the dataset. Twenty undergraduate psychology

student participants completed the PSES at two different time points and a Cronbach's alpha test was conducted on the two sets of twenty PSES scores to test for internal consistency of the measure (Field, 2013). In addition, Pearson's correlation coefficients were calculated to explore the strength of the linear correlations and associations present within the dataset variables and were also used to highlight the test retest reliability score of the PSES (Field, 2013). A factor analysis was conducted for the PSES and the YSQ-S3 to reduce dimensions and determine the distinct unobservable constructs that account for and explain correlations within the data. The factor analysis also examined the strength and direction of influence of the 'factors' on each of the measures (Field, 2013). A series of t-tests were conducted to test for differences in the mean scores, and focus was given to gender differences amongst the mean scores. A conservative level of <0.01 was used when conducting correlations to control for type 2 statistical errors. Regression analysis was used as a predictive modelling technique to explore whether, for example, the YSQ-S3, PSES and HADS scores were predictors of higher ASE scores. Regression analysis went some way in explaining relationships amongst the dataset variables and determining the contribution of each of the predictors to the total variance explained (Field, 2013).

Gender Bias

Undergraduate psychology student research indicates that females are more likely to engage in a psychology degree than males (Clay, 2017). For example, in 2015, the Universities and Colleges Admission Service (UCAS) reported that 82% of the students accepted on to a UK psychology degree were female. The report also found that after the subject of nursing, psychology had the second biggest female gender bias divide. As indicated by the demographic data of this study, there was indeed a female gender bias present within the 100 sample of undergraduate psychology students at the University of the West of England. A series of t-tests were therefore conducted to determine if each population within the dataset were equal to one another. The Levene's test result is an inferential statistical test and it was used in the statistical

analysis of the present study to determine whether there was equality of variance amongst the distribution of the data (Levene, 1960).

Qualitative Measure - Formation of the Interview Questions

The semi-structured interview questions and data analysis process were constructed using the general IPA guidance as outlined by Smith, Flowers and Larkin (2009) and Smith, Jarman, and Osborn (1999) and can be found in Appendix E. In addition, a review of IPA literature was carried out in order for the researcher to gain a holistic understanding of the IPA process and, in particular, the construction and delivery of the semi-structured interview questions. While the topic areas differed to this study, a review of research carried out by Hutchinson (2012) provided a worked example of the effectiveness of using IPA within an educational setting. Similar to the participant pool of this study, Osafo, Hjelmeland, Akotia and Knizek (2011) recruited undergraduate psychology students, and their review of the construction, detail and formation of the semi-structured interview questions provided a benchmark for developing the semi-structured interview questions for the present study. Smith et al. (2009) remind the researcher that when creating semi-structured interview questions, there is no attempt to test a predetermined hypothesis of the research but instead there is a requirement to frame questions openly and broadly. The primary concern in the formation of the questions is to allow space for exploration, flexibility and in-depth detail regarding the researcher's area of interest. As outlined by Braun and Clarke (2006; 2013), semi-structured interview questions should be open-ended to allow for thorough exploration of the topic and prevent yes/no responses. Questions were also developed with the goal of being clear, precise and non-assumptive. In addition to this and considering the sensitive nature of the topic being explored, it was essential that questions posed to the participants were not posed in a way that is too challenging or critical. Instead, empathic questions were asked in an attempt to gain a reflective response from the participants and avoid overwhelming them. Researcher prompts were an effective interviewing tool used during the semi-structured interviews and

assisted in eliciting broader and more in-depth explorations from the participants and allowed the researcher a degree of flexibility during the interview process (Braun & Clarke, 2013).

IPA and Epistemology of IPA

When considering the nature of the research topics within this study, IPA was selected as the appropriate form of methodology for the qualitative aspect of the study's design. Over the last two decades the use of qualitative methods for the purpose of rigorous psychological research has become more readily accepted within the health care professions (Biggerstaff & Thompson, 2008; Henwood & Pidgeon, 1992; Turpin et al., 1997). IPA has gained momentum due to the requirements to develop an idiographic understanding of what the researched topic means to the participants concerned, alongside what it means to be them within their own unique social reality (Harper & Warner, 1993). IPA, therefore, is deemed an appropriate methodology from which to explore the multifaceted and complex area of student mental health and has been selected regularly as the favoured method of enquiry within this topic area (Osafo, Hjelmeland, Akotia, & Knizek, 2011; Patel, Tarrant, Bonas & Shaw, 2015). More specifically, in the present study, the use of the IPA promotes consideration of what it means to the four individual participants to be undergraduate psychology students at the University of the West of England in 2019. The active incorporation of the psycho-social phenomena of IPA lends itself to providing robust outcomes and informing clinical based practice on the complex and urgent topic of what constitutes poor student mental health (Smith, Larkin & Flowers, 2009).

The foundations of IPA lay in the branch of philosophical thought known as Phenomenology (Smith, Flowers and Larkin, 2009). Phenomenology is curious about how people experience the world around them and views the world and the 'self' as "inseparable components of meaning" (Moustakas, 1994, p. 28; Willig, 2001).

The aim of IPA is to unravel this 'meaning' via the process of interpretation of the interview transcripts, therefore gaining an 'insider perspective' (Conrad, 1987; Willig,

2001). IPA also acknowledges symbolic interactionism and seeks to understand how interactions and meanings are constructed by individuals who are placed within both a personal and social world (Denzin, 1995).

IPA's second theoretical axis concerns the requirement for interpretation of the phenomenological accounts. The researcher aims to make sense of a participant making sense of their own experiences. This interpretative method, known as the 'double hermeneutic' process, was adopted for the qualitative analysis of the present study and is influenced by hermeneutic versions of phenomenological philosophy (Smith et al, 2009). IPA acknowledges that the researcher's active involvement and engagement with the participant's text has an interpretative element, an element that is in contrast to other qualitative methods such as Discourse Analysis (DA). For example, DA aims to examine the role of language in describing a person's experience (Potter, 1996) versus IPA's epistemological stance that promotes curiosity of the way in which individuals ascribe meaning to their experiences in their interaction with their own social contexts and environments. Via the careful and explicit epistemological interpretative methodology, the researcher can actively get closer to accessing an individual's cognitive inner world (Smith, 1996).

Furthermore, IPA is a reflexive mode of enquiry as the interpretations are, to some degree, dependent on the researcher's own standpoint (Willig, 2001). It is acknowledged that the researcher's understanding of the participants' accounts cannot be easily separated and that responses may also come to impact on the interactions between researcher and researched. However, this is complementary to counselling psychology's philosophy, which is primarily concerned with the ways in which the emotional meaning in people's experiences and events are constructed both for the individual and relationally between people (BPS, 2006).

Participants were asked to explore their individual perceptions of how their earlier, individual life experiences (that is, their schematic experiences) may have come to impact upon their experiences as a psychology student at university. In doing so, an idiographic stance was considered, situating participants in their individual contexts

and exploring their unique personal perspectives. Analysis of the interview transcripts commenced with a detailed and in-depth examination of each case before any further, more general claims were made. This is therefore in contrast to the initial stages of research that adopted a nomothetic approach and was concerned with making claims and correlations about, for example, the presence of Early Maladaptive Schemas (EMSs) and the mental health symptomology amongst the psychology student population (Smith et al., 2009).

A systematic series of steps were followed by the researcher with the aim of identifying themes in individual transcripts, clustering these themes across cases and thereby establishing the formation of the super-ordinate themes. Although not prescriptive, Smith et al, (2009) outline a number of IPA analysis steps that the researcher adopted as a method of reaching the aforementioned outcome.

Reading, re-reading each transcript and listening to each recorded interview several times enabled the researcher to connect with the data at a deeper level. Initial notes were made on hard copies of the transcripts and during this process the semantic content and language of the participant's data was recorded. In addition, the researcher reactions, reflections and recollections were noted providing ample space for the reflexive accounts of the research to develop alongside the participant's individual accounts. Growing familiarity with the transcripts emerged throughout the analysis process producing therefore a comprehensive and detailed set of notes and comments in the margins alongside each transcript.

Similarities, differences, descriptions, amplifications and contradictions in what each participant was describing were all noted upon. The researcher's aim was not to find unity in the responses but instead to engage in an analytical dialogue, remaining close to the participants explicit meanings. The conceptual commentary stage required a level of interpretative annotation, taking a more interrogative form. At this stage, the researcher shifted focus towards each participant's overall understanding of the matters they were discussing. A requirement for researcher reflection was heightened at this interpretative stage of the analysis as the newly formed interpretations would

have, to some degree, been a reflection of the researcher's own experiential knowledge of the topic of student mental health. Reflecting on this enabled the researcher to distinguish between their own pre-understandings of the topic of student mental health and the newly emerging themes that were forming from the participant's perceptions.

As IPA is acknowledged as avowedly interpretative the interpretations did, at times, move away from the original text of the participants and became more reflective of the researcher's individual interpretations of the transcripts. The requirement, therefore, for reflexive practice remained consistent throughout the process and formed a critical part of the process that moved the analysis beyond the purely descriptive and superficial stage. The function of researcher reflexivity remained useful throughout as long as the interpretation was deemed by the researcher to have been developed from and inspired by attending specifically to each participant's unique world perspective. This type of reflexive engagement meant the researcher used their viewpoints, feelings and thoughts of the participant accounts as a touchstone throughout, taking time away from the analysis process in order to revisit it at a later date in order to review the prior interpretations made.

Developing the emerging themes across the four transcripts involved mapping the interrelationships, patterns and connections between the initial notes and exploratory comments. This later stage of the analysis required the researcher to shift from using the bulk of the transcripts and instead utilise the notes and reflections made up until this point instead. The researcher typed out, in chronological order, the emerging themes that had emerged from each transcript and then printed the list. The list was cut up accordingly so that the various themes were on one piece of separate paper each. The researcher utilised a large empty floor space to provide a spatial and visual platform for an in-depth engagement with the material. The themes were moved around the floor space in order to create various connections of emerging themes and patterns. Collaborating the emerging themes and patterns promoted development of the super-ordinate themes and these themes were checked against the initial stages of

the process before confirmation of the super-ordinate themes were decided upon (Smith et al. 2009).

Participants

A total of 100 undergraduate students were recruited online through the University of the West of England (UWE) psychology participant pool (18 males, 82 females) Ages ranged between 18-52 with a mean age of 20.9 and a standard deviation of 4.77. 58 students were in year 1 and 42 were in year two of their undergraduate psychology degree. The 100 participants who completed the YSQ, AES, HADS and PSES gained one participation credit. The four participants who engaged in the follow up one-to-one interview (one male & three females) gained another participation credit and their ages ranged between 18-44. In addition, twenty undergraduate psychology students were recruited for the purpose of validating the Psychology Student Experience Scale (PSES) and were asked to complete the questionnaire at two different time points to gain a reliability score for the PSES and each gained 0.5 participation credit. Ages ranged between 19-31 with a mean age of 21.4 and a standard deviation 3.02. Smith, Flowers and Larkin (2009) state that a sample size of up to six is sufficient for a good IPA study but advocate an optimum number of just three participants. For the purpose of this present study, and in order to explore the topic at hand, four participants were selected for interview and their subsequent transcripts were analysed using IPA. All participants were recruited from the psychology participation pool within the University of the West of England and responded to an advertisement on the participation time notice board on the 'UWE Sona System'. Within the first stage of the design, all 100 participants were provided with the option to express an interest in participating in a follow on semi-structured interview. The participants who opted to engage in the interviews were contacted by email by the researcher and were all offered the dates and times of the proposed interviews. The first four participants who were available to attend on the specified date and time of the interview slots were recruited.

Ethical Considerations

This research gained FRDC ethical approval on 16.03.17 (see Appendix F). As the participants were asked to consider earlier childhood events/memories as a means of establishing their current schematic processing styles, some of the questions raised within the questionnaires could have caused some form of psychological distress. Therefore, the ethical committee requested that ten positive valance questions were added within the YSQ-S3 to prompt participants to consider a number of positive emotional responses regarding their individual experiences. In doing so, this may have reduced participant distress by providing them with a variety of balanced responses throughout completion of the YSQ-S3. For example, item 10 on the YSQ-S3 ("I think that if I do what I want, I'm only asking for trouble") was followed immediately by a positive valance question (item 11) that was created for the purpose of this study ("I value myself and my opinion"). The ten positive valance questions can be found in the YSQ-S3 in Appendix A.

The four participants who engaged in the one-to-one semi-structured interviews may have found some of the topics discussed distressing. Participants were advised that some of the questions asked could evoke an emotionally distressed response and were therefore provided with clear information on the topics that were being explored both within the information sheet (Appendix G) and at the start of the interview process and were asked to provide their consent to engage in the study (Appendix H). Participants were advised that they could omit answering any questions they found distressing, have a break during the interview and could withdraw their participation from the study. The researcher aimed to build a rapport with the participants throughout the interview process and asked the semi-structured interview questions in a sensitive manner with the aim of reducing the risk of emotional distress arising. Finally, support details were outlined within the debriefing sheet and discussed between the researcher and the participants at the end of each interview (Appendix I).

Once participants had completed the questionnaires and/or interviews, they were provided with a unique reference number that corresponded to their consent sheet. Only the researcher had access to this information. Questionnaires were completed electronically and stored on a password protected file on the researcher's laptop. Interviews were recorded on an audio recording device. Recordings were transferred to the researcher's password protected laptop and subsequently deleted from the audio recording device. There was no identifiable information on the questionnaires or audio recordings. The researcher ensured that full names of participants were not used and transcriptions of the interviews were held on the researcher's password protected laptop.

Researcher Reflexivity

Please note - for the purpose of this section, the term 'the researcher' will switch to the present tense term of 'I' in order to explore the topic of researcher reflexivity more effectively.

Reflexivity can be defined as an attitude of attending to and reflecting upon the intersubjective dynamics between the researcher and the participant data (Finlay & Gough, 2008). Reflexivity acknowledges the impossibility of fully bracketing the researcher's own input in the construction and interpretation of data and rejects the idea of forming a view from nowhere (Nagel, 1974). The process of reflexivity within, more specifically, IPA research, celebrates the presence of it and actively encourages the researcher to explore and consider their personal impact and biases on the participant data (Nicolson, 2003; Smith et al., 2009). The IPA process, as outlined by Smith et al, (2009) encourages the researcher to note down in a reflective journal their congruent thoughts, feelings and biases as explicit before, during and after the interpretation stage, enabling the reader to integrate this knowledge as part of their overall understanding of the emerging themes. Reflexivity can be enhanced by the researchers own commitment to the development of their personal self-awareness and is therefore complimentary of the requirements of the counselling psychology

profession that actively promotes self-development and reflexive practice (Bor & Watts, 2016).

My interest in the topic of student mental health is, I acknowledge, in part as a direct result of my own experiences as an anxious school and university student. I actively used the process of therapy as a means of exploring, for example, how I felt my symptoms of anxiety manifested at school and university and how my earlier childhood experiences and relationships with significant people in my life played a role in the development of my anxiety. The process of reflexivity enabled me to identify how, at various times throughout my education, my anxiety both interrupted and enhanced my ability to engage. The theme of anxiety featured prominently throughout the qualitative analysis and I consider that my personal identification with it enhanced the depth and quality of the individual interpretations made.

I have a particular interest in the impact that earlier life experiences have on engagement in higher education. I have worked at one local secondary school as a student therapist and more recently at two local universities as a trainee counselling psychologist. I have recently completed my seventh consecutive year of higher education following the completion of my BSc, MSc psychology degrees and the Professional Doctorate in Counselling Psychology training. Through my own higher education experiences and personal therapy explorations, I have contemplated how my own earlier life experiences and key familial relationships impacted on my ability to engage at university. I am fortunate that the nature of my training sought to understand the implications of earlier childhood experiences on present behaviours and made it a requirement that trainees engaged in therapy as a means of exploring this idea further. In doing so, I was able to effectively challenge and work alongside some of the personal EMSs I hold. I was curious about how undergraduate students manage without the requirement for these active avenues of exploration and support during what can be a pressurised time of heightened stress. It was therefore my own personal experiences in conjunction with the following British Psychological Society

(BPS) Professional Practice Guidelines for the Division of Counselling Psychology (2006) that fuelled my interest within this sensitive area:

> "Counselling psychologists will consider at all times their responsibilities to the wider world. They will be attentive to life experience, modes of inquiry and areas of knowledge beyond the immediate environs of counselling psychology and seek to draw on this knowledge to aid communication or understanding within and outside of their work" (p. 7).

My training provided me with a platform from which to explore this topic and I consider that I have a responsibility to disseminate the findings of this research with the overall aim of maximising university students' experiences both emotionally and academically. In acknowledgement of the potential impact on both my personal and professional work, l kept a self-reflective journal throughout the process of conducting this study and I used my personal therapy to reflect on feelings that arose as a result of engaging in this research (Morrow, 2005).

In addition, I have considered how the findings of the study are partly constructed through the shared experiences of both the student participants and I acknowledge that the overall qualitative findings will have been influenced by my own personal interpretations (Potter & Wetherell, 1987).

Statistical Analysis

Descriptive data was calculated to summarise the frequency percentages for levels of anxiety and depression in the sample (see Table 1). Using Young's Schema Questionnaire (YSQ-S3), descriptive data representing the 18 Early Maladaptive Schemas (EMSs) is illustrated in Table 2. Frequency percentages were calculated for the 18 EMSs to show the percentage of participants' normal and maladaptive schemas (see Table 3). The EMSs were determined by a cut-off of ≥ 2 as any score of 2 or more is considered meaningful (Young et al, 2003). The YSQ-S3 was factor analysed using a Principal Components Analysis (PCA) to simplify the variability among the questionnaire items. The aim of the factor analysis was to collapse the 18 EMSs variables into fewer interpretable underlying factors and therefore identify the principal components (see Table 4 & Appendix J).

The relationship amongst the 20 questions of the Psychology Student Experience Scale (PSES) were assessed using Pearson bivariate correlations to rule out singularity and multicollinearity. Any items that correlated above .8 would have been removed due to multicollinearity (Field, 2013). However, the correlational analysis found no evidence of multicollinearity amongst items (all *r's* < .616, see Appendix K).

The internal consistency of the factor structure was then assessed using Cronbach's alpha (Appendix L) and the indivdual PSES items were assessed to ensure that all items were loading consistently and to a significant extent. This resulted in the removal of the following five question items as they did not correlate very highly with the scale total: (1) procrastination, (2) boredom, (3) exams, (4) anxiety and (5) follow lead which were taken from the following five question items in the PSES questionnaire:

1. I tend to procrastinate when ideally I would like to be getting on with my coursework.
2. I am concerned that I might become bored with the course.
3. I prefer sitting exams than completing coursework.

4. Attending university can at times make me feel anxious.
5. I find it hard to work with other students on a task and so I tend to just follow their lead.

Descriptive statistics for the PSES can be found in Table 5. The remaining 15 items were submitted to a Principal Components Analysis (PCA) using varimax rotation in order to determine a suitable factor structure (see Table 6 & Appendix M). Varimax rotation was chosen to aid the interpretation of the resulting factors (Field, 2013). The final structure contained five factors; (1) Social Performance, (2) Sociability, (3) Empathy/anxiety, (4) Academic need to achieve and (5) Emotional reactivity/mood. The final PSES was administered to twenty participants at two time points in order to assess test re-test reliability using a correlational analysis (Appendix N).
Descriptive statistics and correlation coefficients amongst questionnaires are also reported (see Tables 7 & 8). A Multiple Linear Regression analysis was then conducted (see Table 9) to explain the variance of ASE total scores (outcome variable). The five PSES factors, the three factor categories of the YSQ-S3, along with the anxiety and depression sub-scales from the Hospital Anxiety and Depression Scale (HADS) were included in a forward stepwise method (Appendix O). This particular method was utilised in order to identify if a single regression model could be derived that could explain a significant amount of the variance in the ASE scores and produce a model whereby only the significant variables are included based on their statistical criterion (Field, 2013). A series of t-tests were conducted to test for gender differences in the mean scores of the scales, given the potential gender bias of the psychology undergraduate sample (Clay, 2017). However, no significant gender differences were observed ($p > .05$, see Appendix P).

Results

Anxiety and Depression

Table 1. Anxiety and Depression levels as measured by the Hospital Anxiety and Depression Scale (HADS)

	Anxiety	Depression
Non-Cases	26	72
Mild	18	18
Moderate	34	9
Severe	23	1

Note: Numbers represent percentages. Scores of 0-7 = non-cases, 8-10 = Mild, 11-14 = Moderate, 15-21 = Severe

As can be seen in Table 1, almost a quarter (23%) of all participants had severe levels of anxiety, with more than half (57%) showing moderate/severe anxiety. In addition, 10% of participants showed moderate to severe levels of depression.

Table 2. Descriptive statistics for the 18 Early Maladaptive Schemas (EMSs)

Schemas	*M*	*SD*	Range
Emotional Deprivation	11.53	5.99	5-26
Abandonment	17.17	6.88	5-30
Mistrust	16.97	6.24	5-30
Social Isolation	16.52	7.27	5-30
Defectiveness	13.52	7.05	5-30
Failure To Achieve	16.73	6.28	5-30
Practical Incompetence	13.98	5.07	5-30
Vulnerability To Harm Or Illness	14.43	6.00	5-30
Enmeshment	10.17	4.50	5-27
Subjugation	13.97	5.25	5-26
Self-Sacrifice	20.13	4.61	9-30
Emotional Inhibition	15.76	5.37	6-29
Unrelenting Standards	19.21	5.36	8-30
Entitlement	14.27	4.89	5-26
Insufficient Self-Control	16.59	4.91	7-28
Admiration	17.08	5.72	6-29
Pessimism	17.69	6.20	7-30
Self-Puntiveness	15.68	4.90	7-29

Note: M = Mean, SD = Standard deviation.

Young Schema Questionnaire (YSQ)

Table 2 represents the descriptive statistics for the 18 EMSs within the YSQ-S3. There are five questionnaire items related to one EMS, therefore a student can score between a minimum of 5 and a maximum of 30 on each EMS. Table 2 outlines the mean response, the standard deviation and the range responses among the 100 undergraduate students. 'Self-sacrifice' (20.13) and 'unrelenting standards' (19.21) had the highest mean scores. Table 3 represents the frequency of the 18 EMSs and highlights on average how many students met the threshold for each EMS. Additional examination of the data was conducted to reveal that the mean number of EMSs per student was 14.67. The YSQ-S3 was factor analysed using a Principal Components Analysis (PCA) with varimax rotation (to aid interpretation) and to simplify the data and reduce the number of variables to be correlated. The aim of the factor analysis was to collapse the 18 EMSs variables into fewer interpretable underlying factors and therefore identify the principal components (see Table 4). The results of the PCA and Pearsons correlations were used in the subsequent regression analysis. Using the Eigenvalue >1 criterion to identify relevant variables loading on to a factor, the three factors were labelled as: Factor 1 = Negative self/world view; Factor 2 = High standards/anxiety; Factor 3 = Narcissism.

Table 3. Frequency of Early Maladaptive Schemas (EMSs) (%).

Schemas	Normal	Maladaptive
Emotional Deprivation	47	53
Abandonment	15	85
Mistrust	40	60
Social Isolation	21	79
Defectiveness	40	60
Failure To Achieve	10	90
Practical Incompetence	18	82
Vulnerability To Harm Or Illness	25	75
Enmeshment	53	47
Subjugation	20	80
Self-Sacrifice	1	99
Emotional Inhibition	13	87
Unrelenting Standards	2	98
Entitlement	18	82
Insufficient Self-Control	4	96
Admiration	10	90
Pessimism	9	91
Self-Punitiveness	7	93
Average	19.61	80.39

Note: Maladaptive schemas were calculated using ≥ 2 cut off

Table 4. Factor structure of the Young Schema Questionnaire (YSQ).

Schemas	*1*	*2*	*3*
Emotional Deprivation	**0.788**		
Abandonment	0.433	**0.551**	
Mistrust	0.532	**0.634**	
Social Isolation	0**.794**		
Defectiveness	**0.866**		
Failure To Achieve	**0.705**		
Incompetence	0.540		**0.601**
Vulnerability To Harm	**0.654**		0.438
Enmeshment	**0.465**		
Subjugation	0.693		0.408
Self-Sacrifice		**0.738**	
Emotional Inhibition	**0.711**		
Unrelenting Standards		**0.846**	
Entitlement			**0.726**
Insufficient Self-Control	0.412		**0.719**
Admiration-Seeking			**0.756**
Pessimism	**0.653**	0.467	
Self-Punitiveness	0.544	**0.561**	
% Variance	32.845	17.006	16.728

Note: 1 = Negative self/world view; 2 = High standards/anxiety; 3 = Narcissism.

PSES Analysis, Cronbach's Reliability Analysis

The PSES was submitted to a reliability analysis which found a Cronbach's alpha of α = .67. However, the removal of the five PSES questions that low item-total correlations (procrastination, boredom, exams, anxiety and follow lead which had low item-total correlations) improved the reliability of the scale (α = .76). Therefore, the final PSES included 15 items to be entered into a factor analysis.

Psychology Student Experience Scale (PSES) Factor Analysis

Table 5 outlines the descriptive statistics of the Psychology Student Experience Scale (PSES). A Principal Component Factor analysis with orthogonal rotation (varimax) was conducted to find a suitable factor structure for the PSES. Firstly, the determinant value suggested no issues with multicollinearity (.011).

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.7 which is above Kaiser's (1974) criteria of 0.5 indicating that factor analysis should yield distinct and reliable factors. Bartlett's test of sphericity was highly significant ($p < .001$) therefore, there are some relationships between the variables and a factor analysis is appropriate to run on this data (see Appendix M).

Five factors were retained by the varimax rotation (see Table 6), based on Eigenvalues > 1 and because there were < 30 variables and average commonalities after extraction were > .60 (Field, 2013). These factors were labelled as: Factor 1 = Social Performance; Factor 2 = Sociability; Factor 3 = Empathy/anxiety; Factor 4 = Academic need to achieve; Factor 5 = Emotional reactivity/mood. Social performance (factor 1) explained the most variance at 18.068%.

Table 5. Descriptive statistics of the Psychology Student Experience Scale (PSES).

PSES Items	*M*	*SD*	Range
Presentation	2.93	1.86	1-7
Friends	4.73	1.44	1-7
Offer Help	3.76	1.45	1-7
Compliant	4.95	1.37	1-7
Missing Class	4.97	1.72	1-7
Class Discussions	3.63	1.67	1-7
Capable	4.87	1.22	2-7
Statistics Module	4.88	2.00	1-7
Top Marks	5.48	1.49	1-7
Learning	4.98	1.46	1-7
Talk to Staff	4.04	1.52	1-7
Competitive	3.96	1.71	1-7
Social	4.63	1.71	1-7
Complete Course	6.52	1.16	1-7
Ask Questions	3.95	1.70	1-7

Note: M = Mean, SD = Standard deviation.

Table 6. Principal components factor analysis (varimax rotation) of PSES items.

PSES Items	*1*	*2*	*3*	*4*	*5*
Class discussions	**0.873**				
Ask questions	**0.793**				
Presentation	**0.697**				
Talk to staff	**0.689**				
Social		**0.734**			
Complete Course		**0.694**			
Capable		**0.572**			
Friends		**0.564**			
Compliant			**0.811**		
Offer Help			**0.690**		
Missing Class			**0.599**		
Competitive				**0.781**	
Top Marks				**0.684**	
Stats Daunting					**0.768**
Mood Level					**0.745**
% Variance	18.068	13.997	11.629	10.802	10.544

Note: 1 = Social Performance; 2 = Sociability; 3 = Empathy/anxiety; 4 = Academic need to achieve; 5 = Emotional reactivity/mood.

Test Re-Test Reliability

A correlational analysis found strong test re-test reliability for PSES scores when participants completed the scale at two different time points ($r(n20) = .72$, $p < .001$).

Descriptive statistics and correlation coefficients

Table 7 outlines the descriptive statistics for the total scores on the YSQ-S3, ASE, HADS-A and HADS-D, a higher mean score indicates a higher presence of EMSs, ASE, HADS-A and HADS-D. The PSES scores in Table 7 represents the descriptive statistics for each of the five PSES factors. A higher mean score (range 1-7) indicates an increased presence of the associated factor it is measuring – social performance (PSES-SP), sociability (PSES-S), empathy and anxiety (PSES-E/A), academic need to achieve (PSES-A) and emotional reactivity and mood (PSES-ER).

Table 7. Descriptive statistics of the scales.

Scale	*M*	*SD*	Range
PSES-SP	3.54	1.84	1-7
PSES-S	5.18	1.61	1-7
PSES-E/A	4.62	1.66	1-7
PSES-A	4.78	1.77	1-7
PSES-ER/M	4.87	1.78	1-7
YSQ-S3	280.24	71.58	149-441
HADS-D	5.51	3.55	0-19
HADS-A	11.11	4.41	0-21
ASE	36.63	6.99	19-51

Note: **PSES-SP** = Psychology Student Experience Scale-Social Performance; **PSES-S** = Psychology Student Experience Scale-Sociability; **PSES-E/A** = Psychology Student Experience Scale-Empathy/Anxiety; **PSES-A** = Psychology Student Experience Scale-Emotional Reactivity/Mood. **YSQ** = The Young Schema Questionnaire; **HADS-D** = The Hospital Anxiety and Depression Scale-Depression; **HADS-A** = The Hospital Anxiety and Depression Scale-Anxiety; **ASE** = The Academic Self-Efficacy Scale; *M* = Mean; *SD* = Standard deviation.

Table 8. Pearson two-tailed correlation coefficients between scales.

	Scale	1	2	3	4	5	6	7	8	9	10	11
1	PSES-SP	-	0.00	0.00	0.00	0.00	-.31**	0.18	-0.08	-0.04	-0.06	.29**
2	PSES-S		-	0.00	0.00	0.00	-.39***	0.15	-0.09	-.48***	-0.20	.48***
3	PSES-E/A			-	0.00	0.00	.21*	.29**	-0.17	0.14	0.16	0.02
4	PSES-A				-	0.00	0.17	.46***	.22*	.25*	.30**	.29**
5	PSES-ER/M					-	0.15	0.15	0.11	0.13	.37***	-0.14
6	YSQ-NS/WV						-	0.00	0.00	0.58***	0.52***	-.28**
7	YSQ-HS/A							-	0.00	0.07	.31**	.36**
8	YSQ-N								-	.24*	.24*	-0.10
9	HADS-D									-	.60***	-.30**
10	HADS-A										-	-0.12
11	ASE											-

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. **PSES-SP** = Psychology Student Experience Scale-Social Performance; **PSES-S** = Psychology Student Experience Scale-Sociability; **PSES-E/A** = Psychology Student Experience Scale-Empathy/anxiety; **PSES-A** = Psychology Student Experience Scale-Academic need to achieve; **PSES-ER/M** = Psychology Student Experience Scale-Emotional reactivity/mood; **YSQ-NS/WV** = The Young Schema Questionnaire-Negative self/world view; **YSQ-HS/A** = The Young Schema Questionnaire-High standards/anxiety; **YSQ-N** = The Young Schema Questionnaire-Narcissism; **HADS-D** = The Hospital Anxiety and Depression Scale-Depression; **HADS-A** = The Hospital Anxiety and Depression Scale-Anxiety; **ASE** = The Academic Self-Efficacy Scale.

Multiple Linear Regression Analysis

A multiple linear regression with relevant statistical assumptions was conducted to investigate whether the aforementioned predictors could explain the variance in Academic Self-Efficacy (ASE) scores. Correlations of all variables can be found in Table 8. There was linearity between predictors and the outcome variable, as well as homoscedacity, normality and independence of residuals. Furthermore, the data showed no multicollinearity and less than 5% of cases had standardized residuals above or below 3 standard deviations (see Appendix M). Therefore, it was deemed appropriate to carry out the multiple regression analysis on these data (Table 9). The forward stepwise method resulted in a model which included PSES-S, PSES-SP, YSQ/HS/A and the PSES-ER/M. The final model was significant, $F(3, 317) = 21.73$, $p < .001$, explaining 52% of the variance in (ASE) (see Table 9). The strongest significant predictor of ASE was the sociability sub-scale from the PSES ($\beta = .499$, $p < .001$).

Table 9. Linear Model of predictors of Academic Self-Efficacy scores (ASE).

	B	SE *B*	b	R^2	*F*
Step 1				.29	33.65**
Constant	36.348				
PSES-S	3.553	.612	.404**		
Step 2				.41	28.44**
Constant	36.560				
PSES-S	3.585	.561	.409**		
PSES-SP	2.439	.595	-.355**		
Step 3				.47	23.87**
Constant	36.477				
PSES-S	3.287	0.545	0.49**		
PSES-SP	2.052	0.582	-0.238*		
YSQ-HS/A	1.773	0.588	-0.24*		
Step 4				.52	21.73**
Constant	36.455				
PSES-S	3.299	0.521	0.499**		
PSES-SP	2.036	0.556	0.290**		
YSQ-HS/A	1.999	0.567	0.287*		
PSES-ER/M	-1.494	0.510	-0.229*		

Note: * $p < .01$, ** $p < .001$.

Table 10. Summary of Quantitative Results

Description:	**Findings:**
Percetange of 100 participants with moderate -severe anxiety symptoms (as measured by the HADS-A)	57%
Percetage of 100 participants with moderate – severe depressive symptoms (as measured by the HADS-D)	10%
Mean number of EMSs per student (out of a possible 18)	14.67
Average percentage of 100 participants meeting the >2 threshold for each EMS	80.39%
Most prevalent EMSs	1. 99% (Self-sacrifice) 2. 98% (Unrelenting standards) 3. 96% (Insufficient self-control) 4. 93% (Self-punitiveness)
Factor Analysis of the YSQ-S3	1. Negative Self/World View (YSQ-NS/WV) 2. High Standards/Anxiety (YSQ-HS/A) 3. Narcissism (YSQ-N)
Factor Analysis of the PSES	1. Social Performance (PSES-SP) 2. Sociability (PSES-S) 3. Empathy/anxiety (PSES-E/A) 4. Academic Need to Achieve (PSES-A) 5. Emotional Reactivity/Mood (PSES-ER/M)
Most significant correlations	1. 0.60 (HADS-D & HADS-A) 2. 0.60 (HADS-A & YSQ-NS/WV) 3. 0.58 (YSQ-NS/WV & HADS-D) 4. 0.48 (PSES-S & HADS-A)
Regression Analysis Results	52% of the variance in the ASE results were explained by the following factors: 1. Social Performance (PSES-SP) 2. Sociability (PSES-S) 3. High Standards/Anxiety (YSQ-HS/A) 4. Emotional Reactivity/Mood (PSES-ER/M)

Statistical Abbreviations: ***PSES-SP*** *= Psychology Student Experience Scale-Social Performance;* ***PSES-S*** *= Psychology Student Experience Scale-Sociability;* ***PSES-E/A*** *= Psychology Student Experience Scale-Empathy/anxiety;* ***PSES-A*** *= Psychology Student Experience Scale-Academic need to achieve;* ***PSES-ER/M*** *= Psychology Student Experience Scale-Emotional reactivity/mood;* ***YSQ-NS/WV*** *= The Young Schema Questionnaire-Negative self/world view;* ***YSQ-HS/A*** *= The Young Schema Questionnaire-High standards/anxiety;* ***YSQ-N*** *= The Young Schema Questionnaire-Narcissism;* ***HADS-D*** *= The Hospital Anxiety and Depression Scale-Depression;* ***HADS-A*** *= The Hospital Anxiety and Depression Scale-Anxiety;* ***AES*** *= The Academic Efficacy Scale.*

Interpretative Phenomenological Analysis

The following section provides an overview of each super-ordinate theme with subsequent exploration and interpretation of meanings. The findings will be interpreted in line with the related theories in the main discussion section of the present study. The analysis is not exhaustive of the entire data corpus (this can be found in Appendices Q-T) but will go some way to highlighting the meaningful features of participants' accounts that have been selected by the researcher to represent both the commonalities and divergences within the four narratives. Table 1 outlines the four super-ordinate themes that emerged from the semi-structured interview transcripts. The development of the initial sub-themes contributed towards the overall dominance of the accompanying super-ordinate themes and provided a broader basis for interpretation. The chronological order and presentation of the themes (from one to four for each participant) is intended to represent the research aims of initially establishing participants' earlier childhood experiences – such as their relationship with their parents and significant life events to their reasons for attending university – and subsequently the impact that those childhood experiences have had on their university experience.

Summary of Themes

Super-ordinate theme code:	Super-ordinate theme titles:	Sub-themes:	Initial theme codes:
1	Parental Impact	Parental mental health	1.1
		Relationship with parents	1.2
2	Meaningful Life Events	Parental separation	2.1
		Absent parents	2.2
		Becoming a parent	2.3
		Loss	2.4
3	Reasons for Attending University and Choosing Psychology	A love of learning	3.1
		Influence of others	3.2
		Wounded healer	3.3
4	Impact of Childhood Experiences on University	Caring role	4.1
		Anxiety	4.2
		Fear of judgement	4.3
		Coping mechanisms	4.4

Table 1. *Compositional structure of IPA themes*

Direct quotations taken from the interview transcripts have been used to illustrate the super-ordinate themes. The transcript analysis was rich and detailed to provide evidence from every participant on all four super-ordinate themes. For ease of readability and to strengthen the narrative of the qualitative findings, participant accounts will be individually presented with their relevant sub-themes which will incorporate the overall super-ordinate themes simultaneously. In order to protect the anonymity of the participants the researcher has used pseudo names and changed other identifying participant information such as home locations.

Key

…	indicates a significant pause in the participant's conversation
[ ]	Indicates additional information provided by the researcher for readability purposes

Super-ordinate Theme 1: Parental Impact

- Sub-theme 1.1 – Parental mental health
- Sub-theme 1.2 – Relationship with parents

When considering participants' individual accounts of how their earlier life (schematic) experiences may have come to impact on their current experiences as psychology students at university, the super-ordinate theme 'parental impact' surfaced, and its presence spanned across all transcripts (super-ordinate theme: 1). This theme encompassed participants' experience of their parent's struggle with mental health issues (sub-theme: 1.1) as well as the past and current state of their relationship with their parents (sub-theme: 1.2).

Sally: Sub-theme 1.1

(Parental mental health)

> *"Yeah, yeah, because yeah my mum, my mum is fascinated with, do you know the true stories kind of ummm true crime or like the cases with like mistreated children and stuff like that… She's like obsessed with them. Because my mum likes the whole like children go through horrible things and then they get the happy ending at the end, she is obsessed with them."*
> (Lines: 108-116)

Sally: Sub-theme 1.1 and 1.2

(Parental mental health and Relationship with parents)

> *"My mum is very, she's a very complicated woman. I mean I love her to bits, she's amazing but she's like, I don't know, she is the youngest of four growing up, so she always had like a big sister and like her older siblings to look after her rather than her parents and umm she met my dad when she was like 22 I think."*
> (Lines: 129-132)

These quotes introduce the notion of the mental health of Sally's mother and represent sub-theme: 1.1. Her mother's fascination with stories of children who have been mistreated and go on to get the *"happy ending"* seemingly acts as a

reparative process for her own emotional pain. Sally uses the word *"obsessed"* twice to reinforce to the interviewer the meaningful role that these books have played in forming part of her earlier memories and associations of her mother. The participant refers to her mother as *"a very complicated woman"* which may have impacted on her relationship with her mother (sub-theme: 1.2). However, once she stated this, she then immediately reassured either herself or the interviewer that she loves her mother *"to bits"* and that she is *"amazing".* This immediate expression of love following the description of her mother as *"very complicated"* could be considered meaningful and provides a rationale for the articulation struggle that proceeds. It is as if Sally has something bigger to express about her mother's mental health to the interviewer (*"but she's like, I just don't know")*. However, instead of further expression, Sally chooses to use the dynamic in her mother's familial system to provide the interviewer with a broader insight into her reason for referring to her mother as *"complicated"*, saying: *"she is the youngest of four growing up, she always had like a big sister and like her older siblings to look after her rather than her parents".* Sally's interesting use of tense when explaining her mother's birth order ("she is the youngest of four growing up") alludes to the idea that *"growing up"* is an ongoing and current process for her mother, not something that has already occurred. Sally's mother was looked after by her siblings *"rather than her parents",* this absence of parenting for her mother provides a broader basis for interpretation regarding the emotional impact this may have had on her mother's mental health (sub-theme code: 1.1).

Sally: Sub-theme 1.1 and 1.2

(Parental mental health and Relationship with parents)

> *"And umm she just, they got divorced seven years ago and it was very messy, and my mum was like never an emotional woman until my parents divorced and then she became very emotional. And then… I don't why it came about, it just like it, my mum is a carer, she likes to make things better, she likes to fix things so reading those things makes her feel like she fixes things sort of thing."* (Lines: 136-40)

Sally attributes the divorce as a key turning point in her mother's emotional state, describing her as non-emotional prior to the divorce and as *"very emotional"* afterwards. Sally was aged 11 (seven years ago) when her mother's emotional state shifted; the word *"messy"* symbolises a period of time in her childhood that was unpredictable and inconsistent for Sally. This *"messy"* time following the divorce could have altered the relational dynamic between Sally and her mother who became *"very emotional"* (sub-theme code: 1.2). The need for her mother to *"fix"* and *"make things better"* is prominent and provides an example of how Sally's mother's earlier childhood experiences are impacting on her belief that reading such stories can *"make her feel like she fixes things".* The subsequent impact of these earlier childhood experiences for Sally will be highlighted in the remaining three themes.

Matthew: Sub-theme 1.1

(Parental mental health)

> *"when I first moved in with her and her boyfriend because that is when she got into drugs basically with her boyfriend. Like mental health like even like… I don't know how to explain it. I just feel like it is sort of like everywhere. Like my sister had post-traumatic stress disorder, like I think my dad is… I don't know what my dad is but like it is very strong like, a lot of people with issues has always sort of surrounded me basically."* (Lines: 143-149)

Matthew: Sub-theme 1.2

(Relationship with parents)

> *"Yeah, yeah cos she [mother] really wasn't well and yeah."* (Line: 137)

Poor mental health is familiar to Matthew, this is reinforced by the idea that considers mental health to be "*sort of like everywhere"* in his life and a factor that meant his mother *"really wasn't well"* (sub-theme: 1.1). He recalled a memory to demonstrate the extent of the impact of his mother's depression and states that when he first moved in with her and her boyfriend, *"she got into drugs"* which would have impacted upon his ability to relate to his mother (sub-theme: 1.2). Matthew struggles to articulate the magnitude of the presence of mental health in

his life, saying: *"I don't know how to explain it"*. Within these short extracts, we can see how members of Matthew's immediate family (his mother, father and sister) are impacted by mental health issues. Interestingly, when he begins to talk to the interviewer about his father, he says: *"like I think my dad is…",* a statement which is followed by a pause, indicating difficulty in expressing what he wants to say before he closes with *"very strong"*, a phrase which seems ambiguous given the information Matthew provides about his relationship with his father throughout the transcript (sub-theme: 1.1).

Matthew: Sub-theme 1.1 and 1.2

(Parental mental health and Relationship with parents)

> *"And I also, my dad was very conscious about how I spoke. He would always say talk with a deeper voice even though I was like eight years old. Umm and… my brother and sister were very loud and they would always get in trouble and they would always get hit and stuff for being naughty and so my reaction to that was just sort of… sort of "sit on your own and don't say anything and you will be fine" and then that led on to like, like in later years if I ever felt anxious in a social setting I would then just completely shut down and go basically mute again."* (Lines: 444-450)

This quote from Matthew provides more of a basis for interpretation of his father's general character, mental health state and the subsequent impact on their relationship (sub-themes: 1.1 & 1.2) Earlier in the interview, the participant explained to the interviewer that he was mute as child. This extract goes some way to providing a rationale for this previous muteness, attributing it to the fear he felt in his father's presence. Matthew learned how to be quiet as he directly witnessed what happened if you weren't: "*my brother and sister were very loud and they would always get in trouble and they would always get hit and stuff for being naughty".* Therefore, from a young age, Matthew managed to avoid punishment by sitting on his own and not speaking, highlighting the presence of fear he felt when he was in the company of his father. Acknowledging that your father is conscious of how you speak and being instructed at the age of eight to *"speak in a deeper voice"*

feels shaming and would have, without doubt, impacted upon the dynamic of their father-son relationship (sub-theme: 1.2).

Hannah: Sub-theme 1.2

(Relationship with parents)

"Back then they threatened to put your parents in prison if you didn't go to school, I don't know if they still do that now. Errr my mum said no way, took me out and she went and got a job and I used to look after my brother and sisters. So I didn't finish school umm and then I was so far removed I felt, I felt like I was an outsider when I tried to go back a year later but it just didn't work. Umm I moved out of the home when I was 15." (Lines: 68-72)

Hannah: Sub-theme 1.1

(Parental mental health)

"Because he was older [by 10 years] and he had his own house and he had a baby. You know he was a sole parent umm so I thought he was more stable than my mother [laughs]. It is just a little bit crazy." (Lines: 420-422)

Hannah: Sub-theme 1.2
(Relationship with parents)

"I got excluded [laughs] from school, my mum picked me up, bought me some chocolate and then let my boyfriend bunk off school and come round to my house [laughs]." (Lines: 478-479)

Hannah: Sub-theme 1.2
(Relationship with parents)

"*But my mum doesn't have a disciplinary bone in her body."* (Line: 488)

While Hannah doesn't refer directly to her mother's mental health, throughout the interview she indicates a sense of instability within her childhood, particularly from the age of 11 once she had moved from Swindon to London with her mother following her parents' separation. These quotes provide examples of this interpretation of Hannah's mother's mental state and general lack of stability (sub-theme: 1.1). Her mother's choice to allow her daughter to stay off school to look after her brother and sisters at age 11 provides an insight to the instability within the home and the sense of co-parenting responsibility that Hannah had to take on at a young age which would have impacted on her relationship with her siblings and

her mother (sub-theme: 1.2). As a result of staying off school, a decision made by Hannah's mother, she *"didn't finish school"*. There was evidently a lack of boundaries present for Hannah in her childhood; her mother rebelled against the school which suggests that school and education was not a priority in her family system (*"my mum said no way"*) and Hannah also refers to her mother as not possessing *"a disciplinary bone in her body".* Following Hannah's exclusion, her mother picked her and her boyfriend up from school, got them some *"chocolate"* and then let them *"bunk"* off school which represents an unusual mother-daughter dynamic and alludes more to a friendship dynamic (sub-theme: 1.2). This idea is further evidenced by Hannah, who refers to the boyfriend she had at age 15, who was 25 (ten years her senior), as being *"more stable than my own mother".* Again, this is not a direct reference to her mother's mental health or their relationship, but the rich narrative Hannah provides goes some way to depicting a problematic and inconsistent relationship that she succinctly describes as *"a little bit crazy"* (sub-theme: 1.2).

Claire: Sub-themes 1.1 and 1.2

(Parental mental health and Relationship with parents)

> *"Definitely, oh yes alcohol dependent. She wasn't an alcoholic, but she used to rely on alcohol a lot and I almost became the parent and she became the child. So I would be emotionally supporting her at 14, 15, 16 umm… which was, which was very very damaging. It was very damaging."* (Lines: 105-108)

Claire: Sub-themes 1.1 and 1.2

(Parental mental health and Relationship with parents)

> *"And I got left behind to pick up the pieces a lot with my mum who she just disappeared down a rabbit hole you know."* (Lines: 73-74)

Claire: Sub-theme 1.2

(Relationship with parents)

> *"Well it has affected our relationship now. As in now, if she needs my help or she needs me. Because she is completely over it now, she got re-married, she re-built her life. She is absolutely fine but now if she turns to me for help or she is distressed or upset I can't, I freeze. I sort of can't deal with it at all."* (Lines: 112-115)

While the definition of an 'alcoholic' can be considered subjective, Claire's definition of her mother's relationship with alcohol is somewhat contradictory. Claire refers to her mother as *"definitely alcohol dependent"* but says she *"wasn't an alcoholic".* She describes the experience of parentification at a young age of between 14 and 16 as *"damaging".* To emphasise the impact that this earlier experience had on her, she uses the words *"damaging"* and *"very"* twice as an expressive indication of the emotional pain she experienced (sub-theme: 1.1). The subsequent impact on Claire's relationship with her mother is evident. Claire is now in her forties, and as her mother experienced her depression and *"disappeared down a rabbit hole"* when Claire was aged 14 to 16, this means that at least 20 years have passed. If her mother experiences any emotional distress now, Claire feels as though she *"can't deal with it at all"* and freezes. It is therefore clear that this earlier traumatic experience between herself and her mother has had a lasting impact on her relationship with her mother (sub-theme: 1.2).

Claire: Sub-theme 1.2

(Relationship with parents)

> *"It was to a certain degree, up until that point, it was fantastic. Absolutely fantastic. The only thing I could criticise my parents for up until that point was I had a brother and my dad used to go and do boys stuff with my brother and I was so desperate to go along as well but I wasn't allowed to because I was a girl. So another theme running through my adult life is sort of "oh no, not you, this doesn't you know apply to you"* (Lines: 200-204)

Claire: Sub-theme 1.2

(Relationship with parents)

> *"That's still with me, it is like "no no no this fun isn't for you, you know this is something that dad and Charlie do not you sort of thing". That was my only gripe but I think that made me quite forceful, I think that made me quite sort of, it certainly helped me in the army cos I was I never gave up I never stopped trying and I never stopped, I never thought I couldn't get in, I never*

doubted myself you know because I had that sort of drive to do something" (Lines: 208-213)

There is a suggestion that Claire's father was absent following her parent's divorce and it was Claire, as a child, who *"got left behind to pick up the pieces"* after her mother *"went down a rabbit hole"* rather than an extended adult family member. As her only secure parental figure, it would have been vital for Claire to align herself with her father. Therefore, being excluded from activities in favour of her brother would have been a negative experience for Claire who was *"desperate to go along but wasn't allowed*". Claire attributes her father's lack of interest in engaging "*boy* stuff" with her to the fact that she was a *"girl".* Claire used the feelings she experienced as a result of her relationship with her father (sub-theme: 1.2) as motivation to "*never give up*", to be "*quite forceful*" and never doubt herself. Therefore, the fractured relationship between herself and her father and how she felt he treated her in comparison to her brother not only contributed towards her success in the army ("*certainly helped me in the army")* but actively formed many of her personality characteristics (Sub-theme: 1.2).

Super-ordinate Theme 2: Meaningful Life Events

- Parental separation – 2.1
- Absent parents – 2.2
- Becoming a parent – 2.3
- Loss – 2.4

The second super-ordinate theme represents the presence of meaningful life events across the participants' narratives, which includes parental separation (sub-theme: 2.1), absent parents (sub-theme: 2.2), becoming a parent (code: 2.3) and loss (sub-theme: 2.4).

Sally: Sub-themes 2.2 and 2.4

(Absent parents and Loss)

> *"Yeah because my mum was in hospital, she had a hip replacement, but it got infected, she had to have nine different operations on it. She was in and out of hospital for two years and my dad was working in Scotland at the time and umm came back the day of my aunty and uncle's wedding and decided he couldn't take it anymore and left."* (Lines: 252-256)

This quote from Sally represents sub-theme: 2.2 – absent parents. The absence of her mother due to repeated hospital trips over a period of two years suggests a sense of unpredictability and inconsistency in her childhood (aged 11). At the same time, Sally's father was also absent *"working in Scotland".* In addition, the sense of parental absence (sub-theme: 2.2) and loss (sub-theme: 2.4) continues as her father left on the day of her aunt and uncle's wedding, deciding that he *"couldn't take it anymore".*

Sally: Sub-themes 2.1 and 2.2

(Parental separation and Absent parents)

> *"On the wedding day. Me and my sister were bridesmaids [laughs] and we just came down the stairs at my house and we were like 'what is going on' and my mum was like 'your dad has gone' and I was like 'oh okay then'. And then we had to go to my aunty's house and be all happy because obviously it was her wedding and we were bridesmaids but yeah [laughs]."* (Lines: 260-264)

Under typical circumstances, a family member's wedding day is considered a pleasant and meaningful event in a person's life. However, it is the confirmation from Sally's mother that her *"dad has gone"* that would have made this day significant for different reasons (sub-theme: 2.1). Interestingly, Sally's choice of language when recalling this event suggests, on first glance, that this event had minimal impact. For example, Sally laughs during the interview when telling the interviewer that when she found out from her mother that her father had left, following which she simply replied, *"oh okay then".* However, Sally can also specifically remember where she was when she found out the news that her father would be absent on her aunt and uncles wedding day, creating a vivid

representation of this childhood memory (aged 11): *"we just came down the stairs at my house".* The pretence that followed this news *("we had to go to my aunty's house and be happy")* could therefore still be present in Sally's current recall of that meaningful life event seven years ago (sub-theme: 2.2).

Matthew: sub-theme 2.2

(Absent parent)

> *"Yeah because as well at the time, well he sort of left when I was 15 and we didn't really talk much and so when I moved back with him he was treating me… well obviously 18 is very young and I realise that now but he was treating me as if I was like 12 or 13 basically. Because he hadn't been there for the sort of little bit of maturity process."* (Lines: 33-36)

Matthew: sub-themes 2.2 and 2.4

(Absent parent and Loss)

> *"Yeah, yeah, I just completely wouldn't talk to them for like two weeks at a time. I didn't talk to my dad for like three months so because he missed out on the 15 to 18 years, he missed out on… he doesn't even know I like drank alcohol at all so I literally… it was like alien for me to talk to him about anything."* (Lines: 76-79)

Matthew is referring to the absence of his father between the ages of 15 and 18 (sub-theme: 2.2). He describes a dissonance within his relationship with his father after moving back in with him at age 18, as well as his father's ignorance in terms of who he is as a young adult. Instead, Matthew feels that his father treated him as a *"12 or 13"* year old child and he therefore found it hard to connect with him or *"talk to him about anything".* Moving in with his father at the age of 18 feels like a significant event in his early adult life, but there is also a sense of loss (sub-theme: 2.4). Matthew refers to his father as *"missing out"* twice within this short extract, suggesting the loss of a prior hope he may have held that this move could have been reparative in its nature.

Hannah: Sub-theme 2.4

(Loss)

"Yeah, umm I have been suffering really bad with anxiety the last year so umm. Yeah I try to keep that, well I say keep to a minimum but I am homeless so that doesn't keep anything to a minimum [laughs]" (Lines: 182-184)

Hannah: Sub-theme 2.3 and 2.4

(Becoming a parent and Loss)

"Umm I have always moved a lot and I had a mortgage aged 18. Umm and then the credit crunch happened in 2008 and I lost my mortgage because me and son's father split up umm, so the house got repossessed. So from that moment on I have always moved from one private rent to another private rent and a year ago I had to move out of my last flat, a house sorry and umm I basically decided that I was sick of moving all the time, so I am going to go on the council list." (Lines: 245-250)

Hannah: Sub-theme 2.4

(Loss)

"Yeah no I have always been umm. I have moved 19 times in my life [laughs]." (Line: 267)

The presence of loss is dominant within these extracts from Hannah (sub-theme: 2.4). Her homeless status is a key contributor to her levels of anxiety and difficulty in fully engaging with her psychology course at university. Hannah is in her 30's and her current homelessness occurred only one year ago when she decided to put herself on the council list as she felt "*sick of moving all the time"* from *"one private rent to another"*. However, it is also evidenced that this sense of instability with regards to housing and home life is not a new theme for Hannah. She states that she has moved *"19 times"* in her life which feels significant and contributes to this sense of loss of stability (sub-theme: 2.4). In addition, the loss of a mortgage and home aged just 18 due to the *"credit crunch"* alongside the loss of the relationship with her son's father and the repossession of her home can be considered a significantly difficult time in her life practically, financially and emotionally (sub-

theme: 2.4). Earlier within the analysis, it had been identified that Hannah moved from her home in Swindon to London aged 11 indicating a loss of a secure base in her childhood (sub-theme: 2.4). She then moved back to Swindon with her father before returning to London to live with her mother until the age of 15. It was at this stage (aged 15) that she moved out of her home with her mother and moved into a new home with a boyfriend who was 10 years her senior. Just three years later (aged 18), Hannah lost her home and her boyfriend (sub-theme code: 2.4). The meaningful life event of becoming a parent (sub-theme code: 2.3) meant that when Hannah broke up with her son's father and began moving from *"one private rent to another private rent"* she quickly got *"sick of moving all the time"* and made the significant decision to make herself and her son homeless in order to get *"on the council list".* In doing so, Hannah has avoided repeating the same pattern of instability for her son that occurred for her within her own childhood and is experiencing the loss of daily contact with her son as he is currently living with his father (sub-theme: 2.4). It is therefore reflection on these difficult earlier childhood experiences alongside the meaningful experience of becoming a parent that is likely to have contributed towards this decision to find a permanent, stable home for herself and her son (sub-theme: 2.3).

Claire: Sub-theme 2.1

(Parental separation)

> *"Umm and I didn't want that to happen to me, I always thought I will never get married if I am not sure of the right person. So I always had that sort of relationship issue from being, well watching my parents split up and the harrowing experience that was for a teenager. So I always had that sort of relationship sort of thing. But also, I didn't, I didn't want to just be in a get up every day, do the job, you know come home, two weeks holiday in the summer. That as a pattern for me, I rejected that really. And I actually chose a career in the army because I wanted the opposite. I wanted uncertainty rather than certainty."* (Lines: 75-78)

Claire: Sub-theme 2.3

(Becoming a parent)

> *"That was sort of the middle stage of my life, like I say until the kids came along and you have got to offer that stability yourself so."* (Lines: 86-87)

Claire attributes the witnessing of her parents' divorce as a key event that contributed to an *"issue"* with relationships and her actions of rejecting a *"pattern"* of consistency (sub-theme: 2.1). The fear that the concept of marriage provoked for Claire highlights the significance of her parents' divorce on her behaviours and choices as an adult. Earlier in her life, Claire chose a *"career in the army"* because she *"wanted the opposite"* to her childhood experiences (sub-theme: 2.1). The army is often reflective of a secure and consistent family unit and Claire may have been drawn to this due to her early negative "*harrowing"* family experiences following her parent's divorce (sub theme: 2.1). This fact reinforces the impact that her earlier experience had on her behaviours and the subsequent conscious choice to *"reject"* the previous *"patterns"* demonstrated by her parents. However, the later meaningful life event of becoming a parent herself shifts Hannah's desire for inconsistency and instead she felt that she had to offer her children *"stability"* (sub-theme: 2.3).

Super-ordinate Theme 3: Reasons for Attending University and Choosing Psychology

- A love of learning – 3.1
- Influence of others – 3.2
- Wounded Healer – 3.3

This theme outlines participants' motivations for attending university and, more specifically, their reasons for choosing to study psychology. The sub-themes provide a variety of reasons and motivations including a love of learning (sub-theme: 3.1), influenced by others (sub-theme: 3.2) and the wounded healer concept (sub-theme: 3.3), in which participants are using their learning to help themselves or their experiences to help others.

Sally: Sub-theme 3.2

(Influence of others)

"My [sixth form] psychology tutor was the most amazing woman I have ever met in my life. She was literally like, she was just incredible because she taught me forensic science as well. So she was incredible and we used to chat for hours about psychology and it was just like, well for me it is the most fascinating topic I did ever. Seeing like people's minds and how they work and how different people work." (Lines: 57-61)

Sally: Sub-theme 3.1

(A love of learning)

"That kind of drew me in and the whole like umm, I am really interested in, I did criminal psychology at sixth form as part of my forensic science and that really fascinates me and I do it now as one of my options because I do criminology as well."
(Lines: 65-68)

The first quote makes clear the key role that Sally's sixth form tutor played in her decision to attend university and more specifically to study psychology (sub-theme: 3.2). Considering this quote alongside the broader narrative that is beginning to emerge for Sally, it is interesting that she repeatedly refers to this tutor as *"the most amazing woman"* she has ever met in her life and uses the word *"incredible"* twice to describe her character. The idea that this tutor made time for Sally to *"chat for hours about psychology"* feels like a key contributor in her interest in the topic. The relationship that was built between this tutor and the participant sounds somewhat reparative. Earlier on, Sally referred to her mother as *"amazing"* but also *"very complicated".* This teacher may have symbolised a maternal, uncomplicated and consistent figure for Sally who provided her with support in her personal quest to learn about *"how different people work".*

Sally: Sub-theme 3.3

(Wounded healer)

"The criminology side comes from ummm kind of family. I have a lot of like, my dad's side of the family is kind of quite rough shall we say… shall we say. So they have a lot of stories that they talk about friends and everything like that, and it was kind of like that kind of drew me into the criminology." (Lines: 89-92)

Sally: Sub-theme 3.3

(Wounded healer)

"Trying to get a grasp on why people do things and how they do them and where that thought process comes in sort of thing. That is very intriguing to me." (Lines:100-101)

Using criminology to gain a *"grasp on why people do things and how they do them"* is a key contributor in Sally's desire to study this subject (sub-theme: 3.3). The word *"grasp"* highlights her need to get hold and make sense of certain actions that members of her family have taken and the subsequent personal impact on her. The word *"rough"* has been selected by Sally and appears to be a conservative choice of words to describe certain members of her family given her repetition of the phrase "*shall we say"*. It appears that there is a desire to use the learning acquired from Sally's criminology course to 'smooth' the rough with new knowledge and make sense of the *"stories"* that are *"intriguing"* to her (sub-theme: 3.3).

Matthew: Sub-theme 3.3

(Wounded healer)

"Because well I remember umm… it sort of like well I know mental health has been like a big part of my life because like my mum always suffered from like heavy depression. And I remember like when I was 16 I was doing the A-Level psychology, I would it was kind of embarrassing to say but umm… I would talk, I would try and like and I would be like try and do the CBT thing on her basically. Which sounds so ridiculous now." (Lines: 124-128)

Matthew: Sub-theme 3.3

(Wounded healer)

"Yeah, yeah but yeah so I would try and do that and I would sort of suggest all these sorts of ideas that I found on the A-Level course." (Lines: 132-133)

These quotes from Matthew clearly demonstrate his motivation to study psychology at A-Level as well as why he has moved onto university to engage in a psychology degree. At the age of 16, Matthew felt a sense of responsibility and desire to save his mother from her *"heavy depression".* The word *"heavy"* to describe his mother's depression suggests the extent of her mental health and the weight of it that he carried (sub-theme: 3.3). We learned earlier in Matthew's narrative that his mother took drugs and his father was no longer living at home from the age of 15 and therefore both of his parents were emotionally unavailable to him. With this in mind, at age 16 his mother would have been his only accessible parent. His eagerness to save his mother and suggest *"all sorts of ideas"* to her feels quite desperate, daunting and lonely for a child to comprehend. He describes this need to soothe his mother's pain as *"being at odds"* with his behaviour outside of the home, highlighting a conflict that he had between attempting to soothe his mother's pain with his own ways of coping and processing (sub-theme code: 3.3). Matthew refers to his attempt to save his mother through his A-Level psychology learning as *"embarrassing"* and feels that the recall of this earlier experience *"sounds so ridiculous now"*. Matthew uses self-critical language to describe his childhood attempts to help soothe his mother's mental health struggles through and provide a broader perspective of his altruistic desire to study psychology (sub-theme: 3.3).

Hannah: Sub-theme 3.2

(Influence of others)

> *"And I realised that as a single parent I wouldn't be able to afford to you know go on holiday, buy a house, all those kinds of things. Support him unless I furthered my career. I work within the care system."* (Lines: 16-21)

Hannah: Sub-theme 3.3

(Wounded healer)

> *"And I have always worked within care and I have always, umm I used to have a youth offending team worker [laughs] when I was 15 16. And umm, she was amazing, like what she did for me it was just incredible. It made me realise that is the kind of field I want to work in."* (Lines: 78-81)

Hannah: Sub-theme 3.1

(A love of learning)

> *"I really enjoy it. I am umm, although I was very very rebellious teenager I was always quite academic. Like if I did apply myself I would have done very well umm but I am one of those [laughs]. My boyfriend laughs at me because if I walked into a room full of people I would sit next to probably the nerdiest person in the room because I just love to learn stuff."* (Lines: 509-512)

Hannah's reasons for attending university are motivated by a number of factors. As a single parent, her desire to provide her son with all *"kind of things"* like a *"house"* and *"holidays"* acted as a motivator for her (sub-theme: 3.2). In addition, Hannah states that she works *"within the care system".* She has always worked in this field, suggesting that her need to help others is part of her motivation to attend university (sub-theme: 3.3). However, this desire to help others comes from her earlier experience of being supported by her *"youth offending team worker"* at the age of 15 to 16. Similar to Sally's memories of her sixth form psychology tutor, Hannah refers to this person as *"amazing"* and what she did for her as *"just incredible"* (sub-theme: 3.3). This personal and first-hand experience and reparative relationship that she had with her youth offending team worker was the catalyst that confirmed her desire to work within the care field; Hannah says she *"made me realise that is the kind of field I want to work in"* (sub-themes: 3.2 & 3.3). As we have learned already, Hannah was excluded from school and did not complete her GCSEs. Her reasons for attending university could also be considered restorative. There is almost a regret present when Hannah considers her realisation that if she had *"applied"* herself she *"would have done very well".* Her love of learning can also be identified throughout the transcript – "*I just love to learn stuff*" – an experience that was not available to her growing up (sub-theme: 3.1).

Claire: Sub-theme 3.2 and 3.3

(Influence of others and Wounded healer)

> *"And when my husband went to Afghanistan we got visited by a psychologist who told us all the symptoms of PTSD and all things to do with it and it is almost just, it was almost like my little hook. You know 'that is really interesting, that is fascinating' you know 'why' and I always wanted to find out more."* (Lines: 178-181)

Claire recalls upon a memory whereby she and her husband were visited by a psychologist following her husband's posting to Afghanistan. They were told *"all the symptoms of PTSD"* and it is this experience from her former army career that acted as the *"hook"* of Claire's interest in psychology (sub-themes: 3.2 & 3.3). The advice that the psychologist provided may have resonated with Claire's, as well as her husband's, first-hand experience of serving in the army and she found it *"fascinating"*. The fascination with what the psychologist said about Post Traumatic Stress Disorder (PTSD) meant that she *"wanted to find out more"* and she used this personal experience in Afghanistan as a reason for starting her degree in psychology (sub-theme: 3.3).

Claire: Sub-themes 3.1 and 3.3

(A love of learning and Wounded healer)

> *"I mean the moment that I found out I was pregnant I went and bought 16 books and I read everything that was going to happen. Because I wanted to know, it was a thirst for knowledge and it is wanting to know things. But I am like that with a lot of things. You know, I did graphics in my last degree and I am still studying graphics just because I want to know. I want to know what is going on."* (Lines: 473-477)

Claire: Sub-theme 3.1

(A love of learning)

> *"Yeah, well if you are not learning anything then what are you doing. You know, it is an ongoing process in life isn't it. I think."* (Lines: 493-494)

Claire: Sub-theme 3.3

(Wounded healer)

"Umm and I didn't want that to happen to me" (Line: 75)

Claire refers to her *"thirst for knowledge"* as a key motivator in her reasons for attending university (sub-theme: 3.1). This knowledge provides her with a sense of purpose in life *"if you are not learning anything then what are you doing".* It is as though the learning process acts as a protective armour in her personal search for generally understanding *"why"* (sub-theme: 3.3). When key life events occur for Claire (such as discovering she was pregnant) they act as a catalyst for acquiring a vast amount of knowledge on the unknown and highlights Claire's love of learning (sub-theme: 3.1) but again this *"thirst for knowledge*" and her urgency to *"know what is going on"* could also be considered a method of repairing and addressing her own wounds (sub-theme: 3.3). Claire's need for certainty and control at times of uncertainty (in Afghanistan or becoming a mother for the first time) could be interpreted by reflecting on her earlier, more out of control experiences in which her mother became emotionally unstable which she described as *"very very damaging"* (sub-theme: 1.2). Then, when she became pregnant for the first time she "*went and bought 16 books and I read everything that was going to happen. Because I wanted to know".* This childhood experience may have shaped her need for control, a conscious effort to ensure that the same pattern is not repeated (*"I didn't want that to happen to me")* (sub-theme: 3.3) and has chosen to engage in a psychology degree that she believes will help tell her *"why"* (sub-theme 3.3).

Super-ordinate Theme 4: Impact of Childhood Experiences on University

- Caring role – 4.1
- Anxiety – 4.2
- Fear of judgement – 4.3
- Coping mechanisms – 4.4

The final super-ordinate theme takes into consideration the themes that have preceded it and aims to demonstrate how the earlier experiences of the four participants impact on their current experiences at university. A self-assigned caring role (sub-theme: 4.1), a unified sense of anxiety at university provoked by earlier memories or events (sub-theme: 4.2), a fear of judgement from others, particularly fellow peers (sub-theme: 4.3) and the use of coping mechanisms (sub-theme: 4.4) surfaced across the four transcripts as examples of experiences and behaviours that have surfaced at university as a result of earlier childhood events.

Sally: Sub-theme 4.2 and 4.3

(Anxiety and Fear of judgement)

> *"Again, I just get very nervous, very tense. I don't like people watching me. It is kind of my issue with it. It would be fine if it was just one person in a room, but I can't deal with like lots of people and other people. If I am doing a group presentation, it just stresses me out, it is just too many people watching me, too many eyes."*
> (Lines: 324-328)

Sally: Sub-theme 4.2 and 4.3

(Anxiety and Fear of judgement)

> *"Umm I don't know, usually I am thinking I am going to say something wrong, I am going to be stupid or I am going to get something wrong and they are going to be like oh it is a mess or sort of thing, saying the wrong thing is probably the big thing. And them knowing that I have said the wrong thing."* (Lines: 332-335)

When describing the requirement to engage in a class presentation in front of her peers, the anxiety felt by Sally is almost tangible (sub-theme: 4.2). She uses a variety of phrases to express this anxiety, including: *"I get very nervous", "very tense", "my issue", "I can't deal", "stresses me out" "it is a mess"* or *"I am going to get something wrong"*. Presentations are not simply something Sally dislikes; engagement with them evokes an intense sense of anxiety and fear. The idea that there are *"too many eyes"* watching her feels sinister, as though people are there to

judge her (sub-theme: 4.3). This fear of judgement is confirmed by her pre-occupation and concern specifically with what others think of her and the belief that they will know that what she has said during a presentation is the *"wrong thing"* (sub-theme: 4.3).

Sally: Sub-theme 4.2 and 4.3

(Anxiety and Fear of judgement)

> *"Umm I think it is probably, cause during primary school I had a lot of friends during primary school and eeer, I wasn't, I have never been the smartest person in the room but I'm happily average sort of thing but during primary school I was kind of like, after my nan died I kind of took a slip back and I wasn't doing so well. So whenever like I had to answer a question or anything like that I frequently got it wrong and it kind of stayed with me even though I do better now. It is kind of like that still, I might say something wrong and it takes me back to being like seven years old and being like that, sort of thing."* (Lines: 340-347)

Sally: Sub-theme 4.1

(Caring role)

> *"Yeah, it is kind of me and my mum. My friends are good as well, but they are usually way more stressed than me. I like to think of myself as kind of like, not a superiority thing but I like to take in the strays sort of thing when it comes to my friends. If you met my friends, some may say they are an odd bunch but I, I like them but yeah."* (Lines: 403-407)

Sally: Sub-theme 4.1

(Caring role)

> "*Yeah, I mean if you ask my friends I am seen as the mother of the group, I look after everyone sort of thing."* (Lines: 411-412)

The death of her grandmother, a significant life event (sub-theme: 2.4) not only impacted Sally's ability to engage at primary school but has had an impact on her ability to engage at university (sub-theme codes: 4.2 & 4.3). The fear of getting something *"wrong"* in front of others takes Sally back to being *"seven years old"*,

where she describes the deterioration of her *"average"* level of academic ability. Her vulnerability and the heavy presence of that earlier experience is evidence of the aim of this research. It clearly demonstrates the notion that her earlier schematic experiences can meaningfully impact upon her mental health as a university student. Sally refers to herself as *"the mother"* of her friendship group whereby her friends' emotional needs are more heightened than her own by referring to them as being "*way more stressed than me".* Interestingly she refers to recruitment of her friends as "*not a superiority thing"* but goes on to refer to her friends as an *"odd bunch"* who are *"strays"* that she likes "*to take in*". This hierarchical representation of her friendship dynamics feels symbolic of a well-established caring role within the university environment. Upon reflection of Sally's full narrative, it is possible that this caring/motherly role was established earlier on when her mum became *"very emotional"* and things got *"messy"* following her parents' divorce (sub-theme: 4.1).

Matthew: Sub-theme 4.4

(Coping mechanisms)

> *"Well yeah massively, I mean when he [Dad] left at first it was like. I mean, because he had a very toxic relationship with my mum basically. He was quite abusive I think, I didn't know too much about it at the time. Umm so when he left it was like it was like this really strict parent out of the two had gone and I was like… I kind of tried to tell myself that I was happy about it that I was like more free now even though I was harboring some underlying, feeling a bit abandoned because we literally didn't talk when he left and umm that was the point that I started umm smoking a lot of cannabis, drank a lot, smoking cigarettes and yeah… started lying a lot as well. I started… because I could get away with it. I could go to like a squat rave, an illegal party and tell my mum that I was going to visit my dad and then I would… because they could not talk. So, whenever I wanted to get out…"* (Lines: 86-95)

Matthew: Sub-theme 4.2 and 4.4

(Anxiety and Coping mechanisms)

"Well, umm so in the first year of uni it was a lot worse because I think now drink, I sort of cut it out of the question basically but in first year that would be definitely, it would be like "oh you are feeling some kind of emotion, smoke some weed and you won't feel any emotion anymore." (Lines: 285-288)

Matthew: Sub-theme 4.2, 4.3 and 4.4

(Anxiety, Fear of judgement and Coping mechanisms)

"So that was one really strong link between them and then secondly I would, if I was say, if I was five minutes late to a lecture I would just be like standing there panicking like "oh, I can't go in like I don't know anyone, no one likes me, umm everyone is just going to stare at me, I will just be sitting alone" umm and so that stopped me massively going in and… and yeah, I think most people in their first year put off all their essays to the last minute but it was another part of my anxiety being like "you can't do it". Like then if I hadn't done it I would just like smoke a spliff like." (Lines: 297-303)

These three extracts taken from Matthew's transcript represent a chronological progression of the establishment and development of his emotional coping mechanisms and levels of anxiety (sub-theme: 4.2). As noted in earlier interpretations of this participant's narrative, his father left when he was 15. This significant event marked the start of Matthew's cannabis use (sub-theme: 4.4). Again, the level of disruption and inconsistency for Matthew when he was a child is clear. Feeling *"abandoned"* by his father once he left the family home was not emotionally processed and as a result he began *"harbouring"* feelings towards his father than remain *"underlying".* As a result of the *"toxic"* and *"abusive"* relationship between his parents, the general lack of communication and the subsequent absence of boundaries, Matthew began to lie and place himself in high risk, *"illegal"* situations *("squats raves"*) at 15 years old as there were a lack of boundaries imposed from his mother and he knew he *"could get away with it".* It is therefore understandable that when emotion surfaces for Matthew as an adult, his earlier coping mechanisms take precedent. Therefore, when Matthew would *"feel*

any emotion at all" at university, he would smoke cannabis as a method of regulating the intensity of his emotions (sub-theme code: 4.4). In addition, his levels of anxiety and the fear of judgement from others is present within the academic setting – *"I would just be like standing there panicking like 'oh, I can't go in like I don't know anyone, no one likes me, umm everyone is just going to stare at me, I will just be sitting alone'."* Not only has his anxiety at university impacted on Matthew's ability to engage in his psychology degree but has also on occasions *"stopped"* him *"going in"* to lectures due to a belief that he *"can't do it"* (sub-theme: 4.2).

Hannah: Sub-theme 4.2

(Anxiety)

> *"Yeah, and that's what I'm again scared of is that what if this isn't the last time? What if happens again? [laughs] you know I don't think I could cope with it happening again."* (Lines: 622-623)

Hannah: Sub-theme 4.2

(Anxiety)

> *"Yeah, and when we start back next year, erm, obviously I'll have a home. I better bloody do [laughs] and erm, cos at the moment I'm living literally week by week in my head so erm… I need to sort of read up on what is expected on me next year. At the moment I have no idea what is expected of me, because I can't think about that, just can't think about all of that so…"* (Lines: 790-794)

Hannah: Sub-theme 4.2 and 4.4

(Anxiety and Coping mechanisms)

> *"Umm, I am always on a daily basis teetering on the edge [of a panic attack] umm so… for instance I can't read for more than 20 minutes at a time because I can't focus [laughs]. But I did my assignment the other day, I read 20 minutes, I did 20 minutes on referencing, 20 minutes on the body, 20 minutes on the intro and 20 minutes having a cup of tea you know, and just kept doing that [laughs]. Because any more than 20 minutes my head would just be off up there somewhere."* (Lines: 832-837)

Hannah fears that her past experiences of homelessness will repeat and, if they do, that she will be unable to *"cope".* There is a sense that Hannah carries the rhetorical questions she asks the interviewer around with her like a heavy weight. Living *"week by week"* in her head, trying to organise which friends' home she will be staying at will, without doubt, contribute towards her levels of anxiety (sub-theme: 4.2). Engaging in a full-time psychology degree under these circumstances elicits many challenges and as a result Hannah feels that she is *"always on a daily basis teetering on the edge"* of a panic attack. As a result, her concentration levels are impacted and she *"can't read for more than 20 minutes at a time*". As a way of coping with her anxiety levels she ensures she just does *"20 minutes"* of work and has *"a cup of tea"* otherwise her *"head would just be off"* (sub-theme: 4.4). Therefore, her lack of stable housing, a pattern that commenced aged 11, is contributing towards her levels of concentration and anxiety (sub-theme: 4.2). However, her poor concentration levels could also be attributed to the fact that Hannah has been out of the education system for over 10 years. She is now in her 30's, was excluded from school aged 15 and did not sit her GCSEs. However, her education was interrupted from age 11, so the disruption started many years ago. This earlier childhood experience and the inconsistency at home and school could have also significantly contributed towards her levels of anxiety and ability to engage in an academic setting and therefore has impacted on her overall experience at university (sub-theme: 4.2).

Claire: Sub-theme 4.4

(Coping mechanisms)

> *"Because it meant more to me that I want to do it on my own. I want to know what I know. Because even if you are practicing psychology eventually, I would want to know that almost the process of revision and churning it out in an exam is as important as the exam result surely. Because otherwise you end up with lower confidence and you doubt yourself and that can eat away at your self-esteem."* (Lines:*366-369)*

Claire: Sub-theme 4.2 and 4.4

(Anxiety and Coping mechanisms)

"Vulnerable? I haven't felt vulnerable in a long time. Can't remember the last time I felt vulnerable really. Not, not, no, no I just don't. I just don't have that feeling. Whether or not I have built my life up to the point where I never put myself in vulnerable situations, I don't know but I just don't ever feel vulnerable." (Lines: 503-506)

Claire: Sub-theme 4.2 and 4.4

(Anxiety and Coping mechanisms)

"No, no there is definitely no meltdown option at all. Because I suppose that is what my mum did, yes that is what my mum did and I can't do that… I would never let my children see that… Yes so vulnerability really isn't actually an option, I just never put myself in that situation or I don't feel that feeling and always just stay in control of things." (Lines: 521-537)

In the initial quote in this extract, Claire is referring to her refusal to look at a past paper before her first-year psychology examination at university. Her tutors had provided her and her peers with the option to use past papers as a revision tool. However, Claire wanted assurance of her level of knowledge and stated that it meant more to her to do it on her *"own".* If she had accepted the revision aid, and therefore revised using the past papers (as recommended by her tutors), she would have felt as though she would *"end up with lower self-confidence"* and would *"doubt"* herself, a decision which would *"eat away"* at her *"self-esteem*". This self-reliant coping mechanism as well as a need for certainty and control was persistent throughout Claire's narrative (sub-theme: 4.4). Being out of control or feeling vulnerable was not an *"option at all"* and she simply couldn't recall on the last time she felt vulnerable, stating that she just doesn't *"have that feeling*". It could be considered that Claire has formed very effective methods of coping, but the rigidity and intensity of her method of coping *"no meltdown option at all"* could be indicative of her underlying levels of anxiety and a heightened fear of being out of control (sub-themes: 4.2 & 4.4). The interviewer and Claire went on to explore this notion and its origin further. After stating that there is *"no meltdown option at all"*

Claire proceeds by tentatively suggesting that she supposes this is because melting down is what her *"mum did".* This connection between her childhood experiences and her current behaviours is then confirmed with conviction: "*yes that is what my mum did and I can't do that".* As a result, she reiterates to the interviewer that *"I don't feel that feeling and always just stay in control of things".* This level of control, method of coping and protecting herself from a *"meltdown"* is therefore present with her at university through her belief that you should *"do it on your own"* as a way of avoiding *"lower confidence"* or lower *"self-esteem"* (sub-theme: 4.4).

To Note - The following Statistical abbreviations which will be used throughout the discussion write-up:

***PSES-SP** = Psychology Student Experience Scale-Social Performance; **PSES-S** = Psychology Student Experience Scale-Sociability; **PSES-E/A** = Psychology Student Experience Scale-Empathy/anxiety; **PSES-A** = Psychology Student Experience Scale-Academic need to achieve; **PSES-ER/M** = Psychology Student Experience Scale-Emotional reactivity/mood; **YSQ-NS/WV** = The Young Schema Questionnaire-Negative self/world view; **YSQ-HS/A** = The Young Schema Questionnaire-High standards/anxiety; **YSQ-N** = The Young Schema Questionnaire-Narcissism; **HADS-D** = The Hospital Anxiety and Depression Scale-Depression; **HADS-A** = The Hospital Anxiety and Depression Scale-Anxiety; **AES** = The Academic Efficacy Scale.*

Discussion

The present study used a mixed-method design to explore the utility of the schema theoretical framework within the higher educational setting. The study evaluated the applicability of Young et al.'s (2003) schema framework and explored the extent to which Early Maladaptive Schemas (EMSs) are evident in a sample of 100 undergraduate psychology students. Little research had been done on the role of prior EMSs within the UK higher educational setting and how the presence of earlier life experiences might impact on such factors as academic experience, student mental health symptomology and Academic-Self Efficacy (ASE) in undergraduate psychology students. A quantitative approach was adopted to examine the prevalence of EMSs amongst 100 undergraduate psychology students to identify how such findings are related to scores of anxiety and depression, psychology student experience and ASE. This initial statistical examination was followed by an in-depth qualitative exploration and Interpretative Phenomenological Analysis (IPA) was used to explore the impact that negative earlier life events have had on the experiences of four undergraduate psychology students whilst studying at university. Before going on to discuss the findings in detail the original research questions and hypotheses of the present study will be presented for review.

Research questions:

- To what extent are Early Maladaptive Schemas (EMSs) prevalent and, more specifically, which type of EMSs exist in a sample of 100 undergraduate psychology students as measured by Young's Schema Questionnaire (YSQ-S3)?
- How do psychology students describe their experiences at university in relation to the impact of their earlier life events?

Research Hypotheses:

- The presence of Early Maladaptive Schemas (EMSs) as measured by Young's Schema Questionnaire (YSQ-S3) will significantly correlate with ratings of depression, anxiety, Academic Self Efficacy (ASE) and psychology student experience ratings.
- A significant amount of the variance in the ASE will be predicted by other variables collected by other measures in the study, i.e. EMSs, ratings of anxiety, depression and student experience.

Statistical findings

One of the aims of the present study was to explore the prevalence of EMSs within a sample of 100 undergraduate psychology students. There was in fact a high level of EMSs present within the sampled population, revealing that for each EMS, on average, 80.39% of the 100 students met the threshold score as outlined by Young et al., (2003) and, in addition, the average number of EMSs per student out of a possible 18 was 14.67. This finding highlights the significant presence of EMSs in this sample of undergraduate psychology students and supports the international cross-sectional research findings carried out by Kaeding et al., (2017). Kaeding's et al's (2017) research specifically examined the burn-out rate in trainee psychologists and highlighted the most prevalent and significant EMSs in predicting burn-out as 'unrelenting standards' and 'self-sacrifice'. Interestingly, the present study findings also found that, on average, a large number of students met the threshold for the 'self-sacrifice' EMS (99%) and the 'unrelenting standards' EMS (98%). In Keading's

et al., (2017) study these two EMSs ('unrelenting standards' and 'self-sacrifice') were directly associated with increased levels of anxiety and burn-out rate in a large trainee psychologist sample and both EMSs were also found to increase the presence of occupational stress in a sample of health care professionals (Bamber & McMahon, 2008). These two of Young et al's, (2003) EMSs describe an individual's desire to reduce the suffering and pain of others, even if their own wellbeing is in question (self-sacrifice) and a striving to meet very high standards in the attempt to avoid criticism (unrelenting standards). However, although an increased presence of the 'unrelenting standards' EMS within higher education is considered problematic as it is associated with increased levels of anxiety in psychology students this EMS is also considered functional in meeting the high demands of a psychology degree at university and assists students in securing higher grades, thus widening their options for post-graduate study (Cruwy, Greenaway & Haslam, 2015; Flett, Greene, & Hewitt, 2004).

The present study hypothesised that the presence of EMSs, as measured by Young's Schema Questionnaire (YSQ-S3), would significantly correlate with ratings of depression, anxiety, Academic Self Efficacy (ASE) and psychology student experience ratings. The findings of the present study support this hypothesis by revealing a number of significant correlations between, for example, factor one of the YSQ-S3 (YSQ-NS/WV 'negative self/world view') and HADS depression (.58), factor two on the YSQ-S3 (YSQ-HS/A 'high standards & anxiety') and ASE (.36) and a significant correlation of .46 between YSQ-HS/A and ratings of an 'academic need to achieve' on the Psychology Student Experience Scale (PSES-A).

The present study also hypothesised that a significant amount of the variance in the ASE will be predicted by the other variables collected by other measures in the study, i.e. EMSs, ratings of anxiety, depression and aspects of the student experience. ASE refers to how an individual applies themselves and how they intend to motivate themselves within the academic setting (Bandura, 1989; Deci & Ryan, 1985) and it has been shown to predict student levels of academic performance and anxiety levels (Chemers, Hu & Garcia, 2001). Within the present study a significant model explained 52% of the variance of ASE. Sociability (PSES-S), social performance (PSES-SP) and factor two of the YSQ-S3 (YSQ-HS/A -high

standards/anxiety) were the contributors of predicting ASE. The sociability subscale of the Psychology Student Experience Scale (PSES) correlated significantly with ASE (.48) and factor 2 of the YSQ-S3 (high standards/anxiety) also significantly correlated with ASE (.36) This finding can be compared against the current literature on ASE that highlights the positive impact of social support on student ASE within higher education (Wang & Castaneda- Sound, 2008). As ASE is associated with student levels of motivation it is therefore not surprising that 'high standards' can actively contribute towards ASE especially when considering an increased level of ASE goes on to predict better educational outcomes within higher education (Chemers, Hu & Garcia, 2001). However, as shown in the present study, EMSs that specifically refer to 'high standards' inclusive of the 'unrelenting standards' EMS (YSQ-HS/A) significantly correlate with the anxiety sub-scale on the HADS (.31). Again, although the presence of such variables (YSQ-HS/A) are linked with increased levels of anxiety among the psychology students, 'high-standards' and maladaptive perfectionism traits within higher education have been shown to improve academic grades and increase the chances of a psychology student securing entry onto postgraduate courses (Cruwys et al, 2015; Eum, & Rice, 2011; Trethowan, 2011). In addition, a large-scale study (n, 5,414) by Chappell et al. (2005) examined test anxiety and academic performance in undergraduate (n, 4,000) and postgraduate (n, 1,414) students found that female undergraduate students (n, 2,544) who reported higher test anxiety also achieved significantly higher-Grade Point Averages (GPAs). This seemingly paradoxical function of anxiety within higher education is present within the current study findings as the PSES-A factor which describes a psychology student's 'academic need to achieve' correlated significantly with ratings of ASE at .30. This idea is further backed up by the existing literature surrounding functional test anxiety and academic performance (Ginter, Scalise, McKnight & Miller, 1982; Hembree, 1988; Zeidner, 1998).

Within the present study, a large proportion of the 100 psychology students (23%) reached the cut-off for severe anxiety and over a third of the sample (34%) met the threshold for moderate anxiety symptoms. The presence of 'high standards/anxiety' (factor 2 of the YSQ-S3) was common within the present dataset and significantly correlated with the scores on the HADS anxiety scale at .31

(Zigmond, & Snaith, 1983). Within the current literature, symptoms of anxiety are acknowledged as concerning but also common and persistent amongst the general student population. As such, there is a current focus to reduce anxiety symptoms within higher education, especially when considering student scores are often reflective of clinical norms and that anxiety symptoms have been shown to significantly reduce just one month after graduation (Cruwys, Greenaway & Haslam, 2015; Broglia, Millings, & Barkham, 2018; Brown, 2016; Caleb, 2014; Dyrbye, Thomas & Shanafelt, 2006; Trethowan, 2011).

The Factor Analysis of the YSQ-S3 revealed that factor one (YSQ-NS/WV) explained the maximum variance and clustered the greatest number of EMSs. Factor one was interpreted as representing a larger 'negative structure' as it included negative aspects of how the psychology students perceived themselves and the world around them. For example, factor one is inclusive of the pessimism EMS which includes items from the YSQ-S3 such as "no matter how hard I work, I worry that I could be wiped out financially and lose almost everything". This idea is consistent with existing theories surrounding schematic representations and negative self-and world views. A self-schema refers to how internal cognitive structures and information about how external objects map onto knowledge of the 'self'. Self-schemas are considered to be cognitive manifestations of enduring aspirations, motives, goals and fears which include cognitive evaluations of an individual's ability and sense of agency (Markus & Nurius, 1986; Markus & Wurf, 1987). Beck's (1967) earlier cognitive triad of the self, world and future also incorporated this idea and refers to a schematic representation as a 'package' of knowledge that stores such information. These representations are developed during childhood as a result of early childhood experiences and if the earlier experiences have been negative then the representations of the self, world and future subsequently become negative too. Negative earlier experiences, for example childhood abuse or a significant bereavement in childhood and the subsequent negative schematic representations make an individual cognitively vulnerable and these cognitive biases increase the likelihood of depression developing. The findings of the present study in conjunction with the findings of a more recent longitudinal study (Evans et al., 2005) support Beck's cognitive triad theory and coincide with Young et al's.,

(2003) framework as the EMSs loaded onto factor one correlated significantly with the depression items on the Hospital Anxiety and Depression Scale (HADS) at 0.58. The HADS findings in the present study indicated that 9% of the students sampled reached moderate levels of depression and 1% reached the cut-off for severe levels of depressive symptoms with an overall mean score for depression of 5.51. When these findings are compared to normative data, the increased levels of moderate depressive symptomology within the present sample of undergraduate psychology students is evident. Crawford, Henry, Crombie and Taylor's (2001) research examined the HADS norms in a sample of 1792 members of the adult population and found that only 2.9% met the threshold for moderate depression and 0.7% met the threshold for severe symptoms with an overall lower mean score of 3.68. The findings of Crawford, Henry, Crombie and Taylor's (2001) study also highlighted the significant prevalence of anxiety amongst the psychology students within the present study when directly compared to a sample of the adult population. Their findings indicate that 10% of the general adult population met the threshold for moderate levels of anxiety (compared to 34% in the present study) and 2.6% met the threshold for severe anxiety (compared to the present study finding of 23%) with an overall mean HADS anxiety score of 6.14 compared to a mean HADS anxiety score of 11.11 in the present study.

The co-morbidity of anxiety and depression is cited as prevalent within the general body of students (Bitsika & Sharpley, 2012; Kendall, Kortlander, Chansky, & Brady, 1992; Martin, Usdan, Cremeens, & Vail-Smith, 2014) and the presence of such symptomology requires continued consideration as it is often shown to interfere with academic achievement, increase the likelihood of other psychopathological symptoms developing and, most concerningly, the presence of such symptoms can increase the risk of suicide in students (Eisenberg, Gollust, Golberstein, & Hefner, 2007; Gould et al, 1998; Rohde, Lewinsohn, & Seeley, 1994; Zivin, Eisenberg, Gollust, & Golberstein, 2009).

Anxiety and depression have been shown to share etiological influences, for example, a common underlying latent risk factor for negative emotionality or negative affectivity (Barlow, 2000; Clark & Watson, 1991). The high level of co-morbidity between anxiety and depression is often considered to be due to an

underlying negative sequela of anxiety conferring an increased risk of the development of depression (Garber & Weersing, 2010). Therefore, anxiety symptoms are, in some cases, considered to precede the development of depression and show substantial sequential co-morbidity (Avenevoli et al, 2001; Kim-Cohen et al, 2003; Pine et al, 1998). Negative cognition and negative information-processing errors such as rumination, catastrophising and worry are typical characteristics of both anxiety and depression (Martin & Tesser, 1996). For example, socially anxious individuals have a tendency to make negative inferences regarding the meaning of social events for their future and also their self-worth. Both negative representations of self and future can be considered to make an individual cognitively vulnerable which, in turn, increases the likelihood of depression developing (Beck, 1967; Garber & Weersing, 2010; Martin & Tesser, 1996). Therefore, maladaptive interpretations of negative social events are not just typical of an anxiety presentation but are also characteristic of a developing depressive state (Dozois & Beck, 2008; Wilson & Rapee; 2005). Of further consideration on this topic is Beck's (1967) formulation of the 'depressed state' which arises when negative cognitive distortions (negative schematic representations) decrease motivation and impact upon an individual's sense of self-esteem. This idea is further backed-up when considering the findings of the present study as there was a significant correlation of .60 found between anxiety and depression ratings (as measured by the HADS).

Anxiety can be referred to as a risk factor for the development of depression and the presence of childhood anxiety is also considered to have depressogenic effects (Alden & Taylor, 2004; Bittner et al, 2004; Kraemar et al, 1997; Leary & Kowalski, 1995). These findings could be applicable to the present study as the high prevalence of moderate (34%) and clinical (23%) anxiety scores (as measured by the HADS) in conjunction with the presence of the negative self/world representations (factor one of the YSQ-S3) could increase the risk of depression developing among the psychology students. The negative schematic representations (as found in factor one) could be a marker of an individual's cognitive vulnerability which could increase the presence of anxiety symptoms and the later development of depression. Within the present study findings factor one correlated significantly

with the HADS anxiety sub-scale (0.52) and the HADS depression sub-scale (0.58) and therefore highlights the association between anxiety symptoms, negative self/world view EMSs (factor one) and depression among the 100 psychology students.

To reinforce this idea further, neuroimaging has found the amygdala to be enlarged in people with depression and this is due to the increased and ongoing activation of negative and typically anxious emotional states (Drevets, 2001). The amygdala, therefore, plays an important role in the development of depression and this is especially evident when depressive symptoms co-occur with anxiety. Cognitive models suggest that cognitions are structured hierarchically and underlying EMSs as measured by Young et al., (2003) framework affect automatic cognitive processes and predict anxious automatic thoughts. In a longitudinal sample of 1052 students, the presence of anxious cognitions was found to perpetuate the presence of EMSs, increase cognitive vulnerabilities and negative affect states which, in turn, produced a transactional model whereby anxiety and the presence of EMSs precedes symptoms of depression (Calvete, Orue, & Hankin, 2013; Nutt et al, 2002).

Qualitative findings

The qualitative aspect of the present study design aimed to provide first-hand accounts of the impact that childhood events can have on the university experiences of four psychology undergraduate students. Interpretative Phenomenological Analysis (IPA) was used to explore this topic further and gather in-depth insights into these experiences from an individual, phenomenological perspective (Smith, 2009). Analysis of the qualitative data using IPA produced the following four super-ordinate themes: (1) Parental Impact, (2) Meaningful Life Events, (3) Reasons for Attending University and Choosing Psychology and (4) Impact of Childhood Experiences on University.

The analysis of the transcripts revealed that the presence of negative childhood experiences with caregivers (inclusive of a decline in parental mental health) impacted on the participant's relationship with their parents (super-ordinate theme 1, sub-theme 1.1 & 1.2). In addition, first-hand experience of negative childhood experiences with parents was often cited as a contributor of their own symptoms of

anxiety and depression (sub-theme 4.2). Such findings are representative of the literature concerning the impact of negative childhood experiences with primary caregivers (Chase, Deming & Wells, 1998; Jurkovic, 2014; Lackie, 1983; Felitti, 1998) and is also implied within the qualitative data findings of the present study, as illustrated by Matthew's following two quotations:

> *"And I also, my dad was very conscious about how I spoke. He would always say talk with a deeper voice even though I was like eight years old. Umm and… my brother and sister were very loud and they would always get in trouble and they would always get hit and stuff for being naughty and so my reaction to that was just sort of… sort of "sit on your own and don't say anything and you will be fine" and then that led on to like, like in later years if I ever felt anxious in a social setting I would then just completely shut down and go basically mute again."* (Lines: 444-450)

> *"Yeah, yeah especially when her… when I first moved in with her and her boyfriend because that is when she got into drugs basically with her boyfriend. Like mental health like even like… I don't know how to explain it. I just feel like it is sort of like everywhere.* (Lines: 143-147)

Bowlby's (1969; 1982; 2005) theory of attachment is helpful to revisit when exploring why parental mental health and negative early life experiences with parents can have an impact on a child's development and their symptoms of anxiety and depression in adulthood. For example, Mason, Platts and Tyson (2005) found a link between insecure attachment styles with primary caregivers and a development of negative internal working models. The development of an individual's negative internal working model is often attributed to negative earlier life experiences and problematic relationships with primary caregivers (as demonstrated by Matthew's recall of his childhood relationship with both his mother and father) and, as such, impact on an individual's attachment style and their subsequent cognitive representations of self, world and future (Beck, 1964; 1967; Bowlby, 1982; Dozois, Martin & Bieling, 2009; Young, 1994). When linked to an individual's enduring concerns, self-defining memories can yield narrative scripts that dictate cognitive schematic representations of the self (Singer, Blagov, Berry, &

Oost, 2013). Matthew's episodic memories of his father hitting his siblings and his father asking him to speak in a lower voice (aged eight) and his recall of his mother using drugs with her boyfriend could be considered 'self-defining memories' that form part of his overall autobiographical memories and impacted on his ability to form a secure attachment to his parents. Self-defining memories are often described as affectively intense, vivid and well-rehearsed (Singer, Blagov, Berry, & Oost, 2013). They build on an individual's most vulnerable concerns regarding factors such as their achievement and ability to engage in emotionally intimate relationships and if these self-defining memories share repetitive emotion-outcome sequences then narrative scripts are formed which go on to shape an individual's cognitive-affective processing system, thus shaping personality traits (Blagov & Singer, 2004; Sutin, & Stockdale, 2011; Wood & Conway, 2006). Negative early life experiences in which the behaviours of a caregiver are either unpredictable (as in Matthew's case whereby his dad would use physical violence) or neglectful (Matthew's mother may have been emotionally unavailable to him due to her drug use) is often correlated with heightened levels of anxiety and depression symptomology and increase the likelihood of negative schematic representations developing (Beck, 1967; Godsall, Jurkovic, Emshoff, Anderson, & Stanwyck, 2004; Harris & Curtin, 2002). Young, (2014) describes the emotional deprivation EMS as the expectation that one's desire for a normal degree of emotional support will not be adequately met by others and Young, (2014) suggests there are three major forms of deprivation; deprivation of nurturance, deprivation of empathy and deprivation of protection. On average, 53% of the psychology students sampled in the present study scored above the threshold for the 'emotional deprivation' EMS and it loaded onto factor one at 0.79 (YSQ-NS/WV). A thorough analysis of Matthew's transcript highlighted, along with the applicability of other EMSs, that, in particular, there was a theme of emotional deprivation and specifically a deprivation of protection in his childhood. Young, (2014) lists this form of the emotional deprivation EMS as an absence of strength, direction, or guidance from others and this seemingly fits with Matthew's narrative script and recall of his self-defining memories.

As further illustrated by Claire, the presence of neglect or abuse within an infant's earlier relations with their primary caregivers (usually parents) can increase the likelihood of developing *"damaging"* negative self-representations (EMSs), thus increasing the symptoms of anxiety, depression and impacting on the development of a secure attachment figure (Dozois, Martin & Bieling, 2009; Mason, Platts & Tyson 2005; Young et al., 2003).

> *"Definitely, oh yes alcohol dependent. She wasn't an alcoholic, but she used to rely on alcohol a lot and I almost became the parent and she became the child. So I would be emotionally supporting her at 14, 15, 16 umm… which was, which was very very damaging. It was very damaging."* (Lines: 105-108)

One of the aims of Brown's (2016) research funded by the Higher Education Policy Institute (HEPI) was to determine which students are considered most vulnerable within higher education counselling services. Theories such as 'parentification' and 'wounded healer' are often associated with fields related to undergraduate psychology courses such as psychotherapy, counselling and trainee psychology and suggest that students engaging in such courses and careers could be considered more vulnerable due to their negative earlier experiences (Earley & Cushway, 2002; Jung, 1951; 1993; Young, 2004). The qualitative findings of the present study could suggest that these theories extend to individuals pursuing an undergraduate psychology degree at university as such theories suggest earlier life experiences go on to impact adult behaviour and career choices, thus supporting the findings of this present study (Jung, 1993; Earley & Cushway, 2002; DiCaccavo; 2002;2006). The parentification idea most commonly occurs when a relationship between a parent and child has reversed. A child assumes a responsible role within the parent-child dynamic making the child acutely aware of their parent's needs, as indicated by Claire ("*I almost became the parent and she became the child")*. A deterioration in parental mental health whilst a child is young can often lead to this caring role being established and familiarity with the 'caring role' that ensues can impact on the child's choice of career once they reach adulthood. Therefore, a career in caring for others may become either a conscious or unconscious choice for the individual due to their familiarity and hypervigilance of the emotional needs of others

(Blumenstein, 1986; DiCaccavo, 2006). Sally also cared for her mother following her parent's divorce and as a result of her mother going *"in and out of hospital".* The following two quotations taken from Sally's transcript aim to highlight Sally's familiarity and continuity of a caring role in her adult life at university:

> *"Yeah, it is kind of me and my mum. My friends are good as well, but they are usually way more stressed than me. I like to think of myself as kind of like, not a superiority thing but I like to take in the stray's sort of thing when it comes to my friends. If you met my friends, some may say they are an odd bunch but I, I like them but yeah."* (Lines: 403-407)

> "*Yeah, I mean if you ask my friends I am seen as the mother of the group, I look after everyone sort of thing."* (Lines: 411-412)

The 'wounded healer' idea further highlights the propensity for individuals to pursue courses or careers within the helping profession as a method in which they can use their earlier emotional experiences to facilitate healing in themselves and others (Jung, 1993; Hadijiosif, 2015). The qualitative findings of the present study support this theory as the reasons for pursuing psychology across all transcripts were associated with personal experiences. The following quotation taken directly from Hannah's transcript is an example of this:

> *"And I have always worked within care and I have always, umm I used to have a youth offending team worker [laughs] when I was 15 16. And umm, she was amazing, like what she did for me it was just incredible. It made me realise that is the kind of field I want to work in."* (Lines: 78-81)

Similarly, Matthew's negative earlier experiences with his parents were also cited as his reasons for engaging in a psychology degree and the following quotation from Matthew fits with the parentification and wounded healer theories and Young et al's (2003) self-sacrifice EMS:

> *"Because well I remember umm… it sort of like well I know mental health has been like a big part of my life because like my mum always suffered from like heavy depression. And I remember like when I was 16 I was doing the A-*

> *Level psychology, I would it was kind of embarrassing to say but umm… I would talk, I would try and like and I would be like try and do the CBT thing on her basically. Which sounds so ridiculous now."* (Lines: 124-128)

As a child, at the age of sixteen, Matthew was using his A-Level learning to help his mother with her depressive symptomology. The suggestion of his inverted relationship with his mother again highlighted his deprivation of emotional protection as a child and such earlier experiences could align with the parentification theory as he describes the reversed role of responsibility between parent and child (Boszormenyi-Nagy & Spark, 1984). In addition, the self-sacrifice EMS which is inclusive of items on the YSQ-S3 such as "I'm usually the one who ends up taking care of the people I am close to" could align with, for example, Matthew's experiences ("would try and do the CBT thing on her") and Sally's self-representation ("I am seen as the mother of the group, I look after everyone") as Young, (2014) describes this EMS as an 'excessive focus on voluntarily meeting the needs of others on a daily basis'. The present study findings indicated that 99% of the 100 participants met the threshold for this particular EMS, thus highlighting its prevalence among the undergraduate psychology students. The wounded-healer notion is also applicable when reflecting on Matthew's reason for pursuing a psychology A-level course at school and a subsequent undergraduate psychology degree at university. The concept of the 'wounded healer' is specifically used to explain why individuals with adverse childhood histories often enter helping professions (Jung, 1993). Such individuals (as in Matthew's case) develop insights from their own experiences and use this to promote transformative interventions to occur in others *("would try and do the CBT thing on her").* However, there are concerns for students with adverse childhood histories that identify with theories such as 'parentification' and 'wounded healer' as they often display unresolved emotional issues which pose challenges for the individual within the education setting. As such, there is a requirement for pedagogical consideration by university lecturers of student groups who fall within the helping professions. For example, utilisation of reflective writing or providing guidance on self-care have been

highlighted as tools that may assist in the development of such students (Newcomb, Burton, Edwards, & Hazelwood, 2015).

Significant life events, such as parental separation, are often cited as having a negative impact on academic engagement and increase the likelihood of anxiety and depression developing (Størksen, Røysamb, Moum, & Tambs, 2005). Meaningful life events, inclusive of parental separation, was a super-ordinate theme of the qualitative findings (super-ordinate theme 2, sub-theme 2.1). Parental separation was experienced by all four participants and they each recalled upon the separation experience as negative with lasting impacts into adulthood. The following quotation from Matthew highlights the events immediately following his father's separation from his mother. Following his father's departure from the family home he began to develop destructive coping mechanisms (sub-theme 4.4) in order to manage this significant negative childhood experience:

> *"Well yeah massively, I mean when he [Dad] left at first it was like. I mean, because he had a very toxic relationship with my mum basically. He was quite abusive I think, I didn't know too much about it at the time. Umm so when he left it was like it was like this really strict parent out of the two had gone and I was like… I kind of tried to tell myself that I was happy about it that I was like more free now even though I was harboring some underlying, feeling a bit abandoned because we literally didn't talk when he left and umm that was the point that I started umm smoking a lot of cannabis, drank a lot, smoking cigarettes and yeah… started lying a lot as well. I started… because I could get away with it. I could go to like a squat rave, an illegal party and tell my mum that I was going to visit my dad and then I would… because they could not talk. So, whenever I wanted to get out…"* (Lines: 86-95)

The framework laid out by Young et al., (2003) highlights the significant role that negative earlier experiences have on an individual's development of EMSs and how self-defining memories have an ability to dictate adult behaviour such as the development of maladaptive coping-mechanisms (sub-theme 4.4) and impact on levels of anxiety and depressive symptoms (Singer & Salovey, 1996). The subjugation EMS, as outlined by Young (2014), describes an individual's excessive surrendering of control to others usually to avoid abandonment. There are two

major forms of subjugation and one could be reflective of Matthew's use of substances at university as a method of regulating his emotions. Subjugation of emotions involves the suppression of emotional expression, especially anger, and can manifest in maladaptive symptoms such as substance abuse (Young et al., 2003). The abandonment EMS describes the unreliability and instability of support and connection from others (particularly primary caregivers). There is a continued sense from the individual that others will not be able to provide them with emotional support or connect with them and fear that, if they do, they will eventually abandon them in favour of someone better. The following quote taken from Matthew's transcripts (when read in conjunction with his wider narrative) highlight how his early negative events have come to impact on his experiences as a psychology student at university:

> *"In first year that would be definitely, it would be like "oh you are feeling some kind of emotion, smoke some weed and you won't feel any emotion anymore"….if I was five minutes late to a lecture I would just be like standing there panicking like "oh, I can't go in like I don't know anyone, no one likes me, umm everyone is just going to stare at me, I will just be sitting alone" umm and so that stopped me massively going in and… and yeah, I think most people in their first year put off all their essays to the last minute but it was another part of my anxiety being like "you can't do it". Like then if I hadn't done it I would just like smoke a spliff like."*
> (Lines: 287-303)

The qualitative findings of the present study complement and expand upon the statistical findings by highlighting how negative earlier life experiences impact upon adult behaviour (EMSs) and how these EMSs can impact a student's behaviour within the higher educational setting. The presence of negative psychological difficulties (particularly symptoms of anxiety) were consistent across the transcripts and reflect the findings of the statistical data that indicated that more than half of the students (57%) met the threshold for moderate and severe levels of anxiety as measured by the HADS. The following quotation by Sally brought this idea to life as she highlighted how the negative earlier events and self-defining memories at primary school have impacted on her experiences as a psychology student at

university. Her quotation falls in line with Young et al's, (2003) 'failure to achieve' EMS which is associated with academic achievement and is described as "the belief that one has failed, will inevitably fail, or is fundamentally inadequate relative to one's peers" (Young et al., 2003, p. 15). In the present study findings 90% of the 100 undergraduate psychology students sampled met the threshold for the 'failure to achieve' EMS.

> *"Umm I think it is probably, cause during primary school I had a lot of friends during primary school and eeer, I wasn't, I have never been the smartest person in the room but I'm happily average sort of thing but during primary school I was kind of like, after my nan died I kind of took a slip back and I wasn't doing so well. So whenever like I had to answer a question or anything like that I frequently got it wrong and it kind of stayed with me even though I do better now. It is kind of like that still, I might say something wrong and it takes me back to being like seven years old and being like that, sort of thing."* (Lines: 340-347)

All four students explained the impact that earlier negative experiences combined with negative psychological symptoms have on their ability to engage and achieve whilst at university. A fear of failing, high standards, an avoidance of particular course assessments or reluctance to engage in class discussions or presentations due to a fear of being judged are examples of how Young et al's, (2003) schema framework comes to life within the educational setting (further examples can be found in Appendices Q-T). The students' reasons for specifically pursuing a psychology course at university were all associated with earlier negative personal experiences and again complemented the statistical findings that indicated that on average, 80.39% of the students met the threshold for each EMS and that the mean number of EMSs for each of the 100 undergraduate psychology students was 14.67 out of a possible 18. The individual characteristics of psychology students are therefore highlighted through the qualitative findings of the present study and extend the associative existing literature regarding the concerns of mental health within the higher education setting (Brown, 2016; Caleb, 2014).

Implications for Counselling Psychology and Directions for Future Research

The current study can be said to have practical implications for the field of counselling psychology. The mixed-methods design of the present study was underpinned by the philosophical rationale of pragmatism (Yardley & Bishop, 2008) which is at the core of the counselling psychology discipline (Kasket & Gil-Rodriguez, 2011). The dual influence of both the scientific-practitioner stance against the requirement for reflexive phenomenological practice within this present study provided a basis for broader interpretations.

The present study findings are current and relevant as student mental health within higher education has been at the forefront of the political agenda within the UK with recommendations from the Higher Education Policy Institute (HEPI) to collect institutional data from all UK university services (Brown, 2016). In response to this, many studies have highlighted the current and concerning situation regarding the increased demand placed on university counselling services and it has been implied that one of the factors for the increased demand is as a result of the widening participation strategy in higher education in England (Connell-Smith & Hubble, 2018; Hinton-Smith, 2012) and due to an increase in student psychological distress levels (Brown, 2016; Bewick et al, 2010; Royal College of Psychiatrists Report, 2011). University students are often found to reflect clinical levels of psychopathology presentations and many students who would otherwise be utilising support within the National Health Service (NHS) now present to university counselling services to seek therapeutic support interventions (Bewick, Gill, Mulhern, Barkham, & Hill, 2008; Stallman, 2008; 2010).

Student counselling services within higher education are continually documented as facing challenges in terms of funding and resources available. So much so that there has been a reduction in government funding which has sadly led to closures of student counselling services (Caleb, 2014). As such, there has been a call from HEPI to streamline services in order to identify specifically 'what works' and which students are considered most at risk so that government funding can be allocated accordingly and efficiently (Murray, McKenzie, Murray, & Richelieu, 2015). What constitutes an effective university counselling service and the challenge of meeting student demand has been an ongoing topic for some time now, both within the UK

and globally too (Rückert, 2015). The earliest reported concern regarding meeting student demand within university counselling services was first documented in the literature in 1969 (Broglia, Millings, & Barkham, 2018; Goldberg, 1980) and as student numbers have grown, naturally so has the demand for effective student support (Hinton-Smith, 2012).

According to the Higher Education Statistics Agency (HESA) in the 2017-18 academic year there were 2,343,095 students in higher education institutions in the UK. 1,621,725 of these students were studying at undergraduate level and 81,075 of these undergraduate students were studying psychology. The findings of this present study could therefore go some way in explaining what contributes towards the mental health presentations of undergraduate psychology students which, as the HESA figures suggest, make up a large proportion of the undergraduate population. In addition, the present research findings could extend to the wider helping professions courses within higher education. For example, the HESA database states that in the 2017-18 academic year there were 146,875 nursing students. Future research could therefore utilise Young's framework and explore if the findings of this present study extend further afield within the helping professions. Bamber and McMahon, (2008) introduced the notion of 'occupational specific EMSs' within the helping professions. Accordingly, further research could adopt a schema theory informed practice within UK higher education counselling services and explore if there are 'subject specific EMSs' within higher education. If so, this information could be utilised within the counselling services to tailor the support provided to individual students based on their EMS scores.

As the widening participation strategy in higher education has resulted in an increased use of university counselling services, shortening the number of counselling sessions available to students has been one way of managing the overwhelming demand (Brown, 2016; Mair, 2015). Between the academic years of 2011/12 to 2013/14 data collected from 21 larger university counselling services indicated that students were offered, on average, between just three to four sessions of face-to-face counselling sessions (Broglia, Millings & Barkham, 2018). However, identifying if effective and lasting change can be made within a very-short term support framework is an area of ongoing exploration (Mair, 2015). Flexible

methods of meeting student needs are required to meet the increasing demands on services and widening the type of support available to students that falls outside of the typical counselling 1:1 longer-term framework (Mair, 2015). Therefore, additional support services that differ from 1:1 face-to-face counselling, such as the use of student mental health apps or online support, have become utilized more recently within university counselling services as a means of broadening the scope of available support and providing accessible options that fall in line with the HEPI recommendations to provide support during 'out of office' hours (evenings and weekends) (Brown, 2016; Gatti, Brivio, & Calciano, 2016). This requirement has become particularly urgent when considering the rise in death by suicide in students, particularly within Bristol, whereby twelve have been recorded in the last three years alone (Mars et al., 2019).

What is easy to identify from the aforementioned research is the increased demand on university counselling services. However, 'how' to meet this demand and reduce the associative risks when considering the ever growing and complex needs of university students is seemingly more complex and raises questions that require further investigation (Mars et al, 2019). What is clear from the associative literature is the requirement for thorough assessments to take place with the aim of identifying the unique and individual requirements of the students versus the limitations placed on the counselling services (Hyun, Quinn, Madon, & Lustig, 2006; Mair, 2015). Assessment is a key stage of the therapeutic process and is considered essential in predicting ongoing client engagement (Lemma, 2015). Counselling assessments are also key in highlighting potential risk concerns and enable the most appropriate form of support to be thoroughly explored. External factors such as readiness to engage in therapy and earlier childhood experiences are all factors that require careful consideration before effective support recommendations are made (Lemma, 2015). In addition, understanding what a student requires can be based on the use of various psychometrics and, accordingly, schema theory informed practices. For example, the utilisation of assessment tools such as Young et al's (2003) YSQ-S3 could highlight student vulnerability by identifying what EMSs students may have upon entering the higher education system. More specifically, consideration of the course subject that is being studied could be a key factor that

is considered within a holistic assessment of a students' individual support needs, as the present study findings suggest, in the case of undergraduate psychology students. Where there are EMSs identified, aspects of schema therapy and Young's schema tools could be utilised to work with the student to identify their persistent patterns of behaving (Young et al, 2003). For example, the student could make use of Young and Klosko's (1994) book titled 'Reinventing Your Life: The Breakthrough Program to End Negative Behavior and Feel Great Again'. The book utilises cognitive behavioural therapy principles to assist individuals in actively self-identifying and exploring their schematic patterns of behaviour further and also provides readers with step-by-step instructions on how individuals can create change in their unwanted behavioural patterns. Such interventions could minimise the 'revolving door' scenario - a primary motivate for Young's et al's (2003) schema therapy framework. Schema therapy adopts a broader, more integrative model that utilises an integration of CBT, psychodynamic and Gestalt therapy interventions and, therefore, is applicable with the foundations of counselling psychology which, at the core, aims to be inclusive, holistic and adaptive in its methods of interventions (Woolfe, Dryden, & Strawbridge, 2003). In more recent years, schema therapy has become increasingly popular with practitioners who are seeking alternative methods of treatment and strengthen the longevity and sustainability of treatment interventions (Young et al., 2003). However, holding such tensions concerning what is possible and realistic for UK university services in terms of resources available versus what is best for the individual student at the core of the intervention could prove difficult to navigate and requires further investigation. Whilst numerous aspects of undergraduate psychology student mental health were explored in this study, and some of the triggers were captured within the findings, future research could investigate what, in particular, is contributing towards decreased levels of wellbeing in undergraduate psychology students. The use of the PSES within the present study found that students had low mean scores when providing ratings on statements which referred to their experiences of their psychology course such as class presentation, class discussions and asking questions in class. For example, using the 7-point Likert scale (1=very untrue, 7=very true) 'giving a presentation to my class which is assessed does not worry me' had a mean

score of only 2.93 and was an included in factor one of the PSES (PSES-SP). The IPA findings supported this idea further and highlighted Sally's struggle with, for example, class presentations:

> *"Again, I just get very nervous, very tense. I don't like people watching me. It is kind of my issue with it. It would be fine if it was just one person in a room, but I can't deal with like lots of people and other people. If I am doing a group presentation, it just stresses me out, it is just too many people watching me, too many eyes."*
> (Lines: 324-328)

If engaging in class presentations is found to be associated with increased levels of anxiety (Pörhölä, 1997) and is recognised as a standard part of a psychology course then future research could investigate how to support psychology students with this particular course experience. Identifying if such triggers are generic and consistent across a larger sample size of psychology students would go some way in expanding this evidence further. The results of which (in conjunction with the present study findings) could be used to inform university counselling services and psychology lecturers regarding the struggles faced by psychology students regarding this particular aspect of the course. This knowledge could also assist in shaping online and/or lecture support interventions for psychology students in the form of workshops that are course specific and mandatory. This notion has been recently introduced as part of the recent research carried out by Hughes, Panjawni, Tulcidas, and Byrom, (2018). The recommendations of their recent report suggest that *"universities should consider the role of the curriculum in supporting the development of good student wellbeing and learning – bringing both mental health professionals and academics together to develop and deliver this content"* (Hughes, Panjawni, Tulcidas, & Byrom, 2018 pg. 64). In doing so, psychology lecturers could work in conjunction with the university counselling services to assist with the integration of the academic demands of engaging in a psychology degree and the mental health of psychology students.

As outlined by the HESA, 81,075 psychology undergraduate students entered the higher education setting in the academic year 2017-18. Therefore, there is ample

scope to recruit a much larger sample of undergraduate psychology students across universities in the UK which would provide a broader statistical evidence base. In doing so, the theories highlighted by the findings of the present study could be generalised to the undergraduate psychology students, especially when considering that the current associative research literature focuses primarily on trainee psychologists or employees within the helping profession (Bamber & McMahon, 2008; Kaeding et al, 2017). Using the present study design and conducting research with university students who are studying other helping profession degree subjects (such as nursing or social work) could assist in strengthening the evidence base and providing a broader basis for interpretation, thus widening the applicability. To reinforce the findings, a comparative study that recruits psychology undergraduate students alongside students who are not associated with the helping profession (for example, engineering students) could strengthen the findings of the present study by providing data to contrast with an unrelated student group.

Finally, identifying who is responsible for the wellbeing of a university student is an ongoing and current debate within the student mental health field (Brown, 2016). The HEPI states that it is the collective responsibility of the government, the NHS and university counselling services to safeguard the wellbeing of university students and increase the continuity of care for a student between home and university life. Bournemouth University and Bristol University are examples of student counselling services that are funded by the NHS and template the integration of the services which could provide staff with broader flexibility in terms of interventions available (Brown, 2016).

Limitations of the Present Study

Although the present study has provided a broad basis for consideration on the overarching topic of the mental health of psychology students the results should be interpreted in light of certain limitations. It could be argued that within the confines of a study this size that utilising a mixed-methods design could be considered ambitious. Although, the argument for why both a statistical foundation followed by a further qualitative exploration can be found in the methodology section of this present study it could be considered that representing one aspect in more depth

could provide a clearer picture on one aspect of the study rather than providing a broader perspective on various elements of this complex and multifaceted area of student mental health (Brown, 2016). In addition, the requirement for participant prior engagement in the quantitative aspect of the study design may have primed, influenced and therefore impacted upon participant answers within the follow up semi-structured interviews (Fassinger & Morrow, 2013). Future consideration could therefore be given to the recruitment process, utilising, for example, two separate participant pools for the quantitative and qualitative aspects of the mixed methods design. In doing so, the development of nuanced explorations could emerge from participant engagement in the associative material for the first time within with the research within the containment of the semi-structured interview process (Morse, 2016).

As with all IPA explorations, the findings of the qualitative part of the present study cannot be generalised to the mass student population and cannot by any means provide the reader with a direct correlational interpretation of the 100 participant's statistical findings. IPA's aim is to provide the reader with a detailed and convincing analysis of the participant's personal accounts followed by a presentation and discussion of generic experiential themes. These themes were subsequently paired with the researcher's own interpretations which was an expression of the double hermeneutics in practice (Pietkiewicz & Smith, 2014).

Although the number of participants used for the qualitative aspect of the present study design was considered adequate by Smith, Flowers and Larkin (2009) a larger number of student participants may have allowed for wider explorations. All 100 participants who engaged in the quantitative aspect of the present study design were provided the opportunity to express an interest in participating in the semi-structured interview. The participants who opted to engage in the interviews were contacted via email by the researcher and were offered the dates and times of the proposed interviews. The first four participants who were available to attend on the specified date and time of the interview slots were recruited. The information sheet advised the students what the semi-structured interview would entail and therefore they could represent a biased, self-selecting sample of students who considered themselves to have personal material worth discussing.

The PSES was created for the purpose of the present student and the aim of the PSES was to utilise the data regarding psychology student experience and explore, for example, the correlations with the three additional measures of the present study (YSQ-S3, AES & HADS). The development of the PSES included a review of the associated literature in order to highlight gaps in the research that refer to, more specifically, undergraduate psychology students, and the PSES represented a good reliability score of ($r = .72$, $p < 00.1$). However, as outlined by Nassar-McMillan and Borders, (2002) conducting a focus group with a sample of the targeted participant group is considered a useful tool in contributing towards the creation, development and specificity of questionnaire items and doing so may have enhanced the utility of the PSES. Item six on the PSES ("Missing a class or lecture causes me to feel anxious") loaded positively (0.599) on to factor three of the PSES (PSES-E/A) but did not work in the way that was initially anticipated. Students tended to indicate a higher level of anxiety in missing class or a lecture when answering this question (mean = 4.97) but interestingly it did not correlate significantly with the more general measure of anxiety as measured by the HADS (0.16). However, it did correlate significantly with the YSQ-HS/A (.29) which suggests that students who identified as having EMSs associated with high/unrelenting standards (as outlined by Young et al., 2003) also identified as more anxious when they missed a class or lecture on their undergraduate psychology course. Therefore, although the item represented an unanticipated response it does align with the aforementioned literature regarding the functional benefit of anxiety when engaging in a psychology course at university (Keading et al., 2017) and therefore could be considered more specific to undergraduate psychology student experiences.

The YSQ-S3 has a low cut-off point of two and above on each of the 90 items within the questionnaire. This is because participants in a non-clinical setting have a tendency to underreport psychopathological beliefs (Young et al., 2003; Rijkeboer, 2012). However, due to the presence of maladaptive schemas among the undergraduate psychology student population in the present study, this cut-off point could be considered quite low. Therefore, in line with previous EMS research, future research could adopt a higher cut-off point of three and above in order to highlight psychology students with higher EMS scores (Keading et al., 2017; Waller

et al., 2001). To note, the statistical findings of the present study highlight mean, standard deviation, and range scores on each of the 18 EMSs in order to represent the variability among the student sample (Table 2) and is line with the recommended guidelines as outlined by Young et al. (2003).

Analysis of social context factors such as participant ethnicity, age, socio-economic status or sexual orientation may have provided a more detailed and broadened foundation for the interpretation of the individual participant responses within the quantitative aspect of present study design. Future research could correlate answers within particular participant groups depending on, for example, their age or socio- economic status. In doing so, a more detailed and demographic frame of reference could emerge from the dataset, optimising statistical research findings and interpretations (Sifers, Puddy, Warren & Roberts, 2002).

Finally, whilst the findings, explorations and implications for counselling psychology are highlighted, it is important to note that they could somewhat conflict with what could be considered 'normal' practice within UK university counselling services. The suggestion that Young et al's (2003) schema framework and therapy interventions could be used within university counselling services requires additional consideration due to over-subscribed services and the financial costs of therapeutic interventions, leaving services under-resourced and therefore over stretched (Royal College of Psychiatrists, 2011). More recent evidence has indicated that, on average, university students are offered between just three to six sessions of therapy (Broglia, Millings, & Barkham, 2018). As outlined by Young et al, (2003) the schema therapy framework ideally requires clients to be committed for between 10-12 sessions and therefore directly conflicts with the current session frequency 'norm' within UK universities and does not account for the limitation placed on services in terms of financial costs and waiting list times (Mair, 2015). However, this number of sessions is only the 'ideal recommendation' made by Young, (2014) and where this is not possible utilisation of techniques from schema therapy such as placing emphasis on 'feeling' rather than intellectualising (which Young typically associates with traditional CBT methods) could better assist in working with the origins of a student's presenting problems.

Conclusions

To sum up, the statistical findings of the present study highlighted the presence of Early Maladaptive Schemas (EMS) among a sample of 100 undergraduate psychology students. In addition, mental health symptomology (anxiety and depression), Academic Self Efficacy (ASE) and aspects of student experience ratings were explored. A range of statistical tests was conducted which highlighted key EMSs such as 'self-sacrifice' and 'unrelenting standards', the concerning presence of severe anxiety symptoms (23%) and the impact of such factors on the ratings of ASE. The qualitative findings of the present study provided examples of how negative childhood experiences have subsequent negative consequences on student mental health and student experiences at university. The findings highlight some of the characteristics of psychology students and contribute towards the wider literature surrounding student mental health. Finally, suggestions for future research have been made which utilise the present findings in context of this wider and concerning issue of student mental health, a topic of concern that is at the forefront of the political agenda (Brown, 2016; Caleb, 2014; Mars et al, 2019).

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Appendices

Appendix A

Young's Schema Questionnaire (YSQ – S3)

Please note: ten positive valance questions were added to the YSQ-S3 for the purpose of the present study

Young Schema Questionnaire – short version (2005)

(YSQ – S3)

INSTRUCTIONS

Listed below are statements that people might use to describe themselves. Please read each statement, then rate it based on how accurately it fits you ***over the past year***. When you are not sure, base your answer on what you ***emotionally feel***, not on what you think to be true.

A few of the items ask about your relationships with your parents or romantic partners. If any of these people have died, please answer these items based on your relationships while they were alive. If you do not currently have a partner but had partners in the past, please answer the item based on your most recent significant romantic partner.

Choose the **highest score from 1 to 6** on the rating scale below that best describes you, then write your answer in the block on the right of each statement.

RATING SCALE	
1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

1	I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.	
2	I find myself clinging to people I'm close to because I am afraid they'll leave me.	
3	I feel that people will take advantage of me.	

4	I don't fit in.	
5	No man/woman I desire could love me once he or she saw my defects.	
6	Almost nothing I do at work (or school) is as good as other people can do.	
7	I do not feel capable of getting by on my own in everyday life.	
8	I can't seem to escape the feeling that something bad is about to happen.	
9	I have not been able to separate myself from my parent(s) the way other people my age seem to do.	
10	I think that if I do what I want, I'm only asking for trouble.	
11	I value myself and my opinion	
12	I'm the one who usually ends up taking care of the people I'm close to	
13	I am too self-conscious to show positive feelings to others (e.g. affection, showing I care)	
14	I must be the best at most of what I do; I can't accept second best	
15	I have a lot of trouble accepting "no" for an answer when I want something from other people	
16	I can't seem to discipline myself to complete routine or boring tasks	
17	Having money and knowing important people make me feel worthwhile	
18	Even when things seem to be going well, I feel that it is only temporary	
19	If I make a mistake, I deserve to be punished	

20	I don't have people to give me warmth, holding and affection	
21	Other people enjoy spending time with me	
22	I need other people so much that I worry about losing them	
23	I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me	
24	I'm fundamentally different from other people	
25	No one I desire would want to stay close to me if he or she knew the real me	
26	I'm incompetent when it comes to achievement	
27	I think of myself as a dependent person when it comes to everyday functioning	
28	I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment	
29	My parent(s) and I tend to be overinvolved in each other's lives and problems	
30	I feel I have no choice but to give in to other peoples' wishes, or else they will retaliate or reject me in some way	
31	I am a kind and caring person	
32	I am a good person because I think of others more than of myself	
33	I find it embarrassing to express my feelings to others	
34	I try to do my best; I can't settle for "good enough"	
35	I'm special and shouldn't have to accept many of the restrictions placed on other people	
36	If I can't reach a goal, I become easily frustrated and give up	

37	Accomplishments are most valuable to me if other people notice them	
38	If something good happens, I worry that something bad is likely to follow	
39	If I don't try my hardest, I should expect to lose out	
40	I haven't felt that I am special to someone	
41	I have a good relationship with my parents and I can turn to them for support	
42	I worry that people I feel close to will leave me or abandon me	
43	It is only a matter of time before someone betrays me	
44	I don't belong; I'm a loner	
45	I'm unworthy of the love, attention and respect of others	
46	Most other people are more capable than I am in areas of work and achievement	
47	I lack common sense	
48	I worry about being physically attacked by people	
49	It is very difficult for my parent(s) and me to keep intimate details from each other, without feeling betrayed or guilty	
50	In relationships, I usually let the other person have the upper hand	
51	My parents set a good example for how I wish to live my life	
52	I am so busy doing for the people that I care about that I have little time for myself	

53	I find it hard to be free-spirited and spontaneous around people	
54	I must meet all my responsibilities	
55	I hate to be constrained or kept from doing what I want	
56	I have a very difficult time sacrificing immediate gratification or pleasure to achieve a long-range goal	
57	Unless I get a lot of attention from others, I feel less important	
58	You can't be too careful. Something will always go wrong	
59	If I don't do the job right I should suffer the consequences	
60	I have not had someone who really listens to me, understands me or is tuned into my true needs and feelings	
61	The key people in my life are available for support when I need it	
62	When someone I care for seems to be pulling away or withdrawing from me, I feel desperate	
63	I am quite suspicious of other people's motives	
64	I feel alienated or cut off from other people	
65	I feel that I'm not lovable	
66	I am not as talented as most people are at their work	
67	My judgment cannot be counted on in everyday situations	
68	I worry that I'll lose all my money and become destitute or very poor	
69	I often feel as if my parent(s) are living through me - that I don't have a life of my own	
70	I've always let others make choices for me, so I really don't know what I want for myself	

71	My opinion is valid and listened to by people in my life	
72	I've always been the one who listens to everyone else's problems	
73	I control myself so much that many people think that I am unemotional or unfeeling	
74	I feel there is constant pressure for me to achieve and get things done	
75	I feel that I shouldn't have to follow the normal rules and conventions that other people do	
76	I can't force myself to do things I don't enjoy, even when I know its for my own good	
77	If I make remarks at a meeting, or am introduced in a social situation, it's important for me to get recognition and admiration	
78	No matter how hard I work, I worry that I could be wiped out financially and lose almost everything	
79	It doesn't matter why I make a mistake. When I do something wrong I should pay the consequences	
80	I haven't had a strong or wise person to give me sound advice or direction when I am not sure what to do	
81	I work hard and I deserve to do well at University	
82	Sometimes I am so worried about people leaving me that I drive them away	
83	I am usually on the lookout for other people's ulterior or hidden motives	
84	I always feel on the outside of groups	
85	I am too unacceptable in very basic ways to reveal myself to other people or let them get to know me well	
86	I am not as intelligent as most people when it comes to work (or school)	

87	I don't feel confident about my ability to solve everyday problems that come up	
88	I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a doctor	
89	I often feel that I do not have a separate identity from my parent(s) or partner	
90	I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account	
91	If I make a mistake, it's okay as people in my life will continue to support me	
92	Other people see me as doing too much for others and not enough for myself	
93	People see me as uptight emotionally	
94	I can't let myself off the hook easily or make excuses for my mistakes	
95	I feel that what I have to offer is of greater value than the contributions of others	
96	I have rarely been able to stick to my resolutions	
97	Lots of praise and compliments make me feel like a worthwhile person	
98	I worry that a wrong decision could lead to disaster	
99	I'm a bad person who deserves to be punished	
100	I have a good support network around me and because of this I will do well	

Please note, permission was sought from one of the Authors (Janet Klosko) to use the YSQ-S3 for the purpose of this study and the license to score the YSQ-S3 was purchased by the researcher on: 30/08/18 from: www.schematherapy.com

Appendix B

Hospital Anxiety AND Depression Scale (HADS)

Tick the box beside the reply that is closest to how you have been feeling in the past week.
Don't take too long over you replies: your immediate is best.

D	A		D	A	
		I feel tense or 'wound up':			**I feel as if I am slowed down:**
	3	Most of the time	3		Nearly all the time
	2	A lot of the time	2		Very often
	1	From time to time, occasionally	1		Sometimes
	0	Not at all	0		Not at all
		I still enjoy the things I used to enjoy:			**I get a sort of frightened feeling like 'butterflies' in the stomach:**
0		Definitely as much		0	Not at all
1		Not quite so much		1	Occasionally
2		Only a little		2	Quite Often
3		Hardly at all		3	Very Often
		I get a sort of frightened feeling as if something awful is about to happen:			**I have lost interest in my appearance:**
	3	Very definitely and quite badly	3		Definitely
	2	Yes, but not too badly	2		I don't take as much care as I should
	1	A little, but it doesn't worry me	1		I may not take quite as much care
	0	Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			**I feel restless as I have to be on the move:**
0		As much as I always could		3	Very much indeed
1		Not quite so much now		2	Quite a lot
2		Definitely not so much now		1	Not very much
3		Not at all		0	Not at all
		Worrying thoughts go through my mind:			**I look forward with enjoyment to things:**
	3	A great deal of the time	0		As much as I ever did
	2	A lot of the time	1		Rather less than I used to
	1	From time to time, but not too often	2		Definitely less than I used to
	0	Only occasionally	3		Hardly at all
		I feel cheerful:			**I get sudden feelings of panic:**
3		Not at all		3	Very often indeed
2		Not often		2	Quite often
1		Sometimes		1	Not very often
0		Most of the time		0	Not at all
		I can sit at ease and feel relaxed:			**I can enjoy a good book or radio or TV program:**
	0	Definitely	0		Often
	1	Usually	1		Sometimes
	2	Not Often	2		Not often
	3	Not at all	3		Very seldom

Please check you have answered all the questions

Appendix C

Academic Self-Efficacy (ASE) scale

CODE BOOK OF SCALES USED: CHEMERS, HU, GARCIA, 2001

Chemers, M.M., Hu, L.T., and Garcia, B., Academic Self-Efficacy and First Year College Student Performance and Adjustment. Journal of Educ. Psychology 2001, Vol. 93, No. 1, 55-64

Please acknowledge, using proper citation.

ACADEMIC SELF-EFFICACY SCALE (ASE)

:_____	:_____	:_____	:_____	:_____	:_____	:_____
1	2	3	4	5	6	7
Very Untrue						Very True

1. I know how to schedule my time to accomplish my tasks.
2. I know how to take notes.
3. I know how to study to perform well on tests.
4. I am good at research and writing papers.
5. I am a very good student.
6. I usually do very well in school and at academic tasks.
7. I find my university academic work interesting and absorbing.
8. I am very capable of succeeding at the university.

Please note, permission was sought from one of the authors of the ASE (Marty Chemers) on: 26/01/17 to use this scale for the purpose of the research.

Appendix D

Psychology Student Experience Scale

_____	_____	_____	_____	_____	_____	_____
1	2	3	4	5	6	7
Very Untrue						Very True

1. Giving a presentation to my class which is assessed does not worry me: _____
2. I tend to procrastinate when ideally I would like to be getting on with my coursework: _____
3. I am good at working alongside my friends on my course to complete a task: _____
4. I offer my friends help with their coursework rather than focusing on my own work: _____
5. I am a compliant student: _____
6. Missing a class or lecture causes me to feel anxious: _____
7. I like to contribute towards class discussions: _____
8. I am very capable of succeeding on my course: _____
9. I am concerned that I might become bored with the course: _____
10. I prefer sitting exams than completing coursework: _____
11. I find the statistics module quite daunting: _____
12. It is important to me to achieve top marks on my course: _____
13. Some aspects of the learning impacts of my mood level: _____
14. Attending university can at times make me feel anxious: _____
15. I would find it easy to talk to a member of staff if I had worries about any aspect of my course: __
16. I find it hard to work with other students on a task and so I tend to just follow their lead: _____
17. I am competitive and would like to be top of my cohort: _____
18. I enjoy the social aspect of coming to university: _____
19. I intend to complete this course: _____
20. I feel comfortable to ask questions in class when I am unsure: _____

Appendix E

Semi-Structured Interview Questions

Introduction to interview: "Thank you for choosing to take part in my study, the interview will last for up to 50 minutes. The questions have been designed to extract as much information as possible from you regarding your own experiences of, in particular, the role of schemas within your individual education experience. There may be some questions that you find uncomfortable answering, if you feel as though you need to skip a question or have a break from the interview then please just let me know. Finally, if you feel that there is any additional information that you would like to add then please do."

1. Can you tell me your reasons for attending university?

2. Why did you chose to study psychology?

3. What earlier experiences, either at home or at school, you think contributed towards you making the decision to attend university?

4. Can you describe to me your general level of wellbeing?
   Researcher prompt:
   - For example, do you or have you ever suffered from feelings of anxiety or low mood?
   - If yes, how do these feelings impact on you generally?

5. What earlier experiences, if any, contribute towards your current behaviours at university?
   Researcher prompt:
   - For example, do you feel nervous or confident in class?

6. When considering your time at university, what needs to happen to ensure you retain your place at university, progress on your course and achieve?
   Researcher prompt: (if participant is struggling to answer question):
   - Self-reflection?
   - Courage?
   - Practical or financial support?

7. If challenges occur over the duration of your time at university, how will you manage them?

8. What are your thoughts on schematic processing? Does the idea that early childhood experiences shape who we are as adults make sense to you?

9. How do those experiences that you have thought about impact more specifically on your education process at university?

10. Is there anything else that you would like to describe regarding this topic or anything that you think might be helpful for me to know?

Appendix F

Ethics Approval

REMOVED

Appendix G
Information Sheet

INFORMATION SHEET

Study Title:
Schematic Processing in Higher Education

Please read this information carefully before deciding whether you would like take part in this research:
You must also be aged over 16 to participate. By ticking the boxes and providing your signature on the next page, you are consenting to participate in this survey. You will need to indicate that you have understood this information and provide your consent by returning the attached consent form via email to the researcher before you can continue.

What the Study Involves:
We are requesting your participation in a study regarding schematic processing in higher education and the impact that it has on your retention, engagement and achievement whilst at university. Schematic processing refers to your core thought processes that are also representations that you hold of yourself. If these 'schematic processes' are negative then it may be a negative impact on your behaviours, emotions and therefore your experience at University.

The First Stage:
This first stage of this research process is optional will involve you engaging in three questionnaires that will take, in total, approximately 50 minutes to complete. In these questionnaires you will be asked to consider your own thought processing styles, your current emotional wellbeing and how these factors may impact on your experience at university.

The Second Stage:
The second stage of this research process is also optional and involves participation in a semi-structured interview with the researcher of this study. Within the interview this research topic will be explored in more depth and will provide you with the opportunity to share your personal experience of the topic concerned. The interview participants will be selected from the participants who opt in for engagement.

If would like to be considered for participation in the interview, please confirm by providing the research with a contact email address which can be found on the consent form

To Note:
Some of the questions asked within these questionnaires and interview are of a sensitive nature and therefore they may cause you some emotional distress when taking part. If you have found any of the topics explored distressing then you may find it helpful to utilise the following support networks:

- **UWE wellbeing service**
  Tel: +44 (0)117 32 86268
  Email: wellbeing@uwe.ac.uk

- **Off the Record**
  Tel: 0808 808 9120
  Email: confidential@otrbristol.org.uk

Important Information:

Your data will only be accessible to researchers involved in this project. Data of this study will not include your name or any other identifying characteristics, the researcher will allocate you a unique participant number that corresponds to your consent form.

Your continued participation in this research will be taken as evidence of your giving informed consent to participate in this study and for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentially.

Your participation is voluntary, if you wish to withdraw from the study – you may do so up until the withdrawal deadline: 31st May 2018.

- If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of the West of England, Bristol, BS16 1QY. Phone: +44 (0)117 32 88528, email researchethics@uwe.ac.uk

Appendix H
Consent Form

University of the West of England
BRISTOL

CONSENT FORM

Study title: Schematic Processing in Higher Education

Please initial the box(es) if you agree with the statement(s) and return via email to the researcher –

1. I have read and understood the information sheet and have had the opportunity to ask questions about the study. ☐
2. I agree to take part in this research project and agree for my data to be used for the purpose of this ☐
3. I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected ☐

Data Protection
I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. All files containing any personal data will be made anonymous.

Name of participant (print name):

Signature of participant:

Date:

***If you would like to be considered to participate in the semi-structured interview (as outlined in the information sheet), please provide the researcher with the best contact details for you to be contacted on to arrange for the interview to take place**:

Appendix I
Debriefing statement

THANK YOU FOR YOUR PARTICIPATION

The aim of this research was to understand schematic processing within higher education. With the widening of access to higher education, there is increasing interest in the factors which determine student success and progression (Robotham & Julian 2006). Your data will therefore help clarify the impact schematic processing may have within higher education and go some way in advancing the research within this area. With this in mind, I would like to thank you for your participation and contribution towards this research.

Once again results of this study will not include your name or any other identifying characteristics. The research did not use deception. You may have a copy of this summary if you wish.

If you have found any of the topics explored distressing then you may find it helpful to utilise the following support networks:

- **UWE wellbeing service**
  Tel: +44 (0)117 32 86268
  Email: wellbeing@uwe.ac.uk

- **Off the Record**
  Tel: 0808 808 9120
  Email:confidential@otrbristol.org.uk

Appendix J

YSQ Factor Analsysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.922	49.566	49.566	8.922	49.566	49.566	5.912	32.845	32.845
2	1.593	8.851	58.417	1.593	8.851	58.417	3.061	17.006	49.851
3	1.469	8.163	66.580	1.469	8.163	66.580	3.011	16.728	66.580
4	.954	5.300	71.880						
5	.827	4.595	76.475						
6	.629	3.496	79.971						
7	.604	3.353	83.324						
8	.469	2.604	85.928						
9	.452	2.513	88.441						
10	.372	2.065	90.507						
11	.345	1.916	92.423						
12	.327	1.818	94.240						
13	.273	1.518	95.758						
14	.200	1.110	96.868						
15	.186	1.031	97.899						
16	.162	.902	98.800						
17	.127	.704	99.505						
18	.089	.495	100.000						

Extraction Method: Principal Component Analysis.

Appendix K - Psychology Student Experience Scale (PSES) Correlations

Correlations

		PSES-SP	PSES-S	PSES-E/A	PSES-A	PSES-ER/M	YSQ-NS/WV	YSQ-HS/A	YSQ-N	Hads_Dep	Hads_Anx	ASE_Total
PSES-SP	Pearson Correlation	1	.000	.000	.000	.000	-.312**	.184	-.078	-.043	-.063	.286**
	Sig. (2-tailed)		1.000	1.000	1.000	1.000	.003	.082	.462	.684	.548	.005
	N	117	117	117	117	117	90	90	90	94	94	95
PSES-S	Pearson Correlation	.000	1	.000	.000	.000	-.385**	.156	-.087	-.481**	-.195	.483**
	Sig. (2-tailed)	1.000		1.000	1.000	1.000	.000	.142	.413	.000	.060	.000
	N	117	117	117	117	117	90	90	90	94	94	95
PSES-E/A	Pearson Correlation	.000	.000	1	.000	.000	.206	.285**	-.173	.136	.159	.020
	Sig. (2-tailed)	1.000	1.000		1.000	1.000	.051	.007	.102	.193	.126	.846
	N	117	117	117	117	117	90	90	90	94	94	95
PSES-A	Pearson Correlation	.000	.000	.000	1	.000	.168	.458**	.220*	.254*	.302**	.294**
	Sig. (2-tailed)	1.000	1.000	1.000		1.000	.113	.000	.037	.013	.003	.004
	N	117	117	117	117	117	90	90	90	94	94	95
PSES-ER/M	Pearson Correlation	.000	.000	.000	.000	1	.153	.146	.110	.131	.372**	-.138
	Sig. (2-tailed)	1.000	1.000	1.000	1.000		.149	.171	.300	.208	.000	.184
	N	117	117	117	117	117	90	90	90	94	94	95
YSQ-NS/WV	Pearson Correlation	-.312**	-.385**	.206	.168	.153	1	.000	.000	.582**	.519**	-.280**
	Sig. (2-tailed)	.003	.000	.051	.113	.149		1.000	1.000	.000	.000	.007
	N	90	90	90	90	90	93	93	93	91	91	91
YSQ-HS/A	Pearson Correlation	.184	.156	.285**	.458**	.146	.000	1	.000	.069	.305**	.357**
	Sig. (2-tailed)	.082	.142	.007	.000	.171	1.000		1.000	.516	.003	.001
	N	90	90	90	90	90	93	93	93	91	91	91
YSQ-N	Pearson Correlation	-.078	-.087	-.173	.220*	.110	.000	.000	1	.239*	.237*	-.096
	Sig. (2-tailed)	.462	.413	.102	.037	.300	1.000	1.000		.023	.024	.367
	N	90	90	90	90	90	93	93	93	91	91	91
Hads_Dep	Pearson Correlation	-.043	-.481**	.136	.254*	.131	.582**	.069	.239*	1	.598**	-.296**
	Sig. (2-tailed)	.684	.000	.193	.013	.208	.000	.516	.023		.000	.004
	N	94	94	94	94	94	91	91	91	97	96	95
Hads_Anx	Pearson Correlation	-.063	-.195	.159	.302**	.372**	.519**	.305**	.237*	.598**	1	-.122
	Sig. (2-tailed)	.548	.060	.126	.003	.000	.000	.003	.024	.000		.240
	N	94	94	94	94	94	91	91	91	96	97	95
ASE_Total	Pearson Correlation	.286**	.483**	.020	.294**	-.138	-.280**	.357**	-.096	-.296**	-.122	1
	Sig. (2-tailed)	.005	.000	.846	.004	.184	.007	.001	.367	.004	.240	
	N	95	95	95	95	95	91	91	91	95	95	98

**. Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

Appendix L

Crobach’s Alpha for PSES

Reliability Statistics

Cronbach's Alpha	N of Items
.759	15

Appendix M

PSES Factor Analysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.838	25.588	25.588	3.838	25.588	25.588
2	2.166	14.440	40.028	2.166	14.440	40.028
3	1.457	9.716	49.744	1.457	9.716	49.744
4	1.198	7.989	57.733	1.198	7.989	57.733
5	1.096	7.307	65.040	1.096	7.307	65.040
6	.842	5.612	70.652			
7	.776	5.174	75.826			
8	.698	4.654	80.480			
9	.616	4.108	84.589			
10	.574	3.825	88.414			
11	.496	3.308	91.722			
12	.414	2.760	94.481			
13	.333	2.222	96.703			
14	.266	1.776	98.479			
15	.228	1.521	100.000			

Extraction Method: Principal Component Analysis.

Appendix N

PSES Test Retest Correlations

Correlations

		PSES_T1tot	PSES_T2tot
PSES_T1tot	Pearson Correlation	1	.719**
	Sig. (2-tailed)		.000
	N	20	20
PSES_T2tot	Pearson Correlation	.719**	1
	Sig. (2-tailed)	.000	
	N	20	20

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix O

PSES Multiple Regression Analysis

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	PSES-S	.	Forward (Criterion: Probability-of-F-to-enter <= .050)
2	PSES-SP	.	Forward (Criterion: Probability-of-F-to-enter <= .050)
3	YSQ-HS/A	.	Forward (Criterion: Probability-of-F-to-enter <= .050)
4	PSES-ER/M	.	Forward (Criterion: Probability-of-F-to-enter <= .050)

a. Dependent Variable: ASE_Total

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.537[a]	.288	.280	5.92910	
2	.640[b]	.410	.395	5.43403	
3	.685[c]	.469	.450	5.18394	
4	.722[d]	.521	.497	4.95692	2.018

a. Predictors: (Constant), PSES-S

b. Predictors: (Constant), PSES-S, PSES-SP

c. Predictors: (Constant), PSES-S, PSES-SP, YSQ-HS/A

d. Predictors: (Constant), PSES-S, PSES-SP, YSQ-HS/A, PSES-ER/M

e. Dependent Variable: ASE_Total

ANOVA[a]

Model		Sum of Squares	df	Mean Square
1	Regression	1183.092	1	
	Residual	2917.802	83	
	Total	4100.894	84	
2	Regression	1679.546	2	
	Residual	2421.348	82	
	Total	4100.894	84	
3	Regression	1924.162	3	
	Residual	2176.732	81	
	Total	4100.894	84	
4	Regression	2135.210	4	
	Residual	1965.684	80	
	Total	4100.894	84	

a. Dependent Variable: ASE_Total

b. Predictors: (Constant), PSES-S

c. Predictors: (Constant), PSES-S, PSES-SP

d. Predictors: (Constant), PSES-S, PSES-SP, YSQ-HS/A

e. Predictors: (Constant), PSES-S, PSES-SP, YSQ-HS/A, PSES-ER/M

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.348	.643		56.505	.000
	PSES-S	3.553	.612	.537	5.801	.000
2	(Constant)	36.560	.592		61.776	.000
	PSES-S	3.585	.561	.542	6.387	.000
	PSES-SP	2.439	.595	.348	4.100	.000
3	(Constant)	36.477	.565		64.532	.000
	PSES-S	3.287	.545	.497	6.036	.000
	PSES-SP	2.052	.582	.293	3.527	.001
	YSQ-HS/A	1.773	.588	.254	3.017	.003
4	(Constant)	36.455	.541		67.442	.000
	PSES-S	3.299	.521	.499	6.336	.000
	PSES-SP	2.036	.556	.290	3.659	.000
	YSQ-HS/A	1.999	.567	.287	3.525	.001
	PSES-ER/M	-1.494	.510	-.229	-2.931	.004

a. Dependent Variable: ASE_Total

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics: Tolerance
1	Hads_Anx	-.072[b]	-.761	.449	-.084	.950
	Hads_Dep	-.052[b]	-.490	.625	-.054	.758
	YSQ-NS/WV	-.178[b]	-1.820	.072	-.197	.870
	YSQ-HS/A	.320[b]	3.644	.000	.373	.970
	YSQ-N	-.118[b]	-1.274	.206	-.139	.996
	PSES-SP	.348[b]	4.100	.000	.412	1.000
	PSES-E/A	.097[b]	1.047	.298	.115	.993
	PSES-A	.287[b]	3.266	.002	.339	.998
	PSES-ER/M	-.184[b]	-2.028	.046	-.219	.999
2	Hads_Anx	-.076[c]	-.874	.385	-.097	.950
	Hads_Dep	-.038[c]	-.383	.702	-.043	.757
	YSQ-NS/WV	-.072[c]	-.756	.452	-.084	.791
	YSQ-HS/A	.254[c]	3.017	.003	.318	.923
	YSQ-N	-.100[c]	-1.173	.244	-.129	.994
	PSES-E/A	.098[c]	1.155	.252	.127	.993
	PSES-A	.245[c]	2.996	.004	.316	.980
	PSES-ER/M	-.192[c]	-2.316	.023	-.249	.999
3	Hads_Anx	-.214[d]	-2.417	.018	-.261	.792
	Hads_Dep	-.090[d]	-.949	.346	-.105	.734
	YSQ-NS/WV	-.121[d]	-1.313	.193	-.145	.770
	YSQ-N	-.098[d]	-1.206	.232	-.134	.994
	PSES-E/A	.028[d]	.326	.745	.036	.906
	PSES-A	.165[d]	1.792	.077	.196	.755
	PSES-ER/M	-.229[d]	-2.931	.004	-.311	.980
4	Hads_Anx	-.125[e]	-1.289	.201	-.144	.635
	Hads_Dep	-.051[e]	-.560	.577	-.063	.717
	YSQ-NS/WV	-.082[e]	-.922	.360	-.103	.751
	YSQ-N	-.072[e]	-.924	.358	-.103	.980
	PSES-E/A	.018[e]	.222	.825	.025	.904
	PSES-A	.151[e]	1.710	.091	.189	.753

a. Dependent Variable: ASE_Total

b. Predictors in the Model: (Constant), PSES-S

c. Predictors in the Model: (Constant), PSES-S, PSES-SP

d. Predictors in the Model: (Constant), PSES-S, PSES-SP, YSQ-HS/A

e. Predictors in the Model: (Constant), PSES-S, PSES-SP, YSQ-HS/A, PSES-ER/M

Casewise Diagnostics[a]

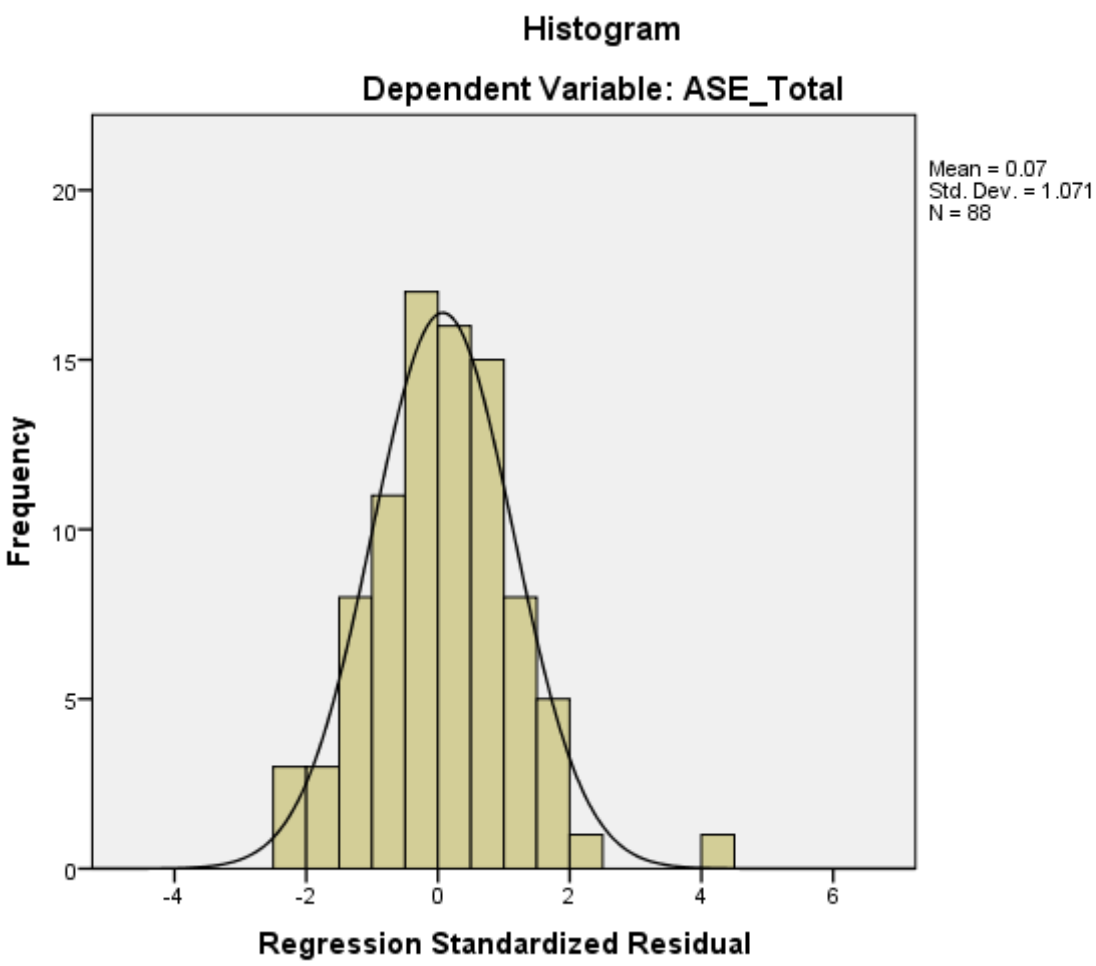
Case Number	Std. Residual	ASE_Total	Predicted Value	Residual
108	4.118	51.00	30.5864	20.41355

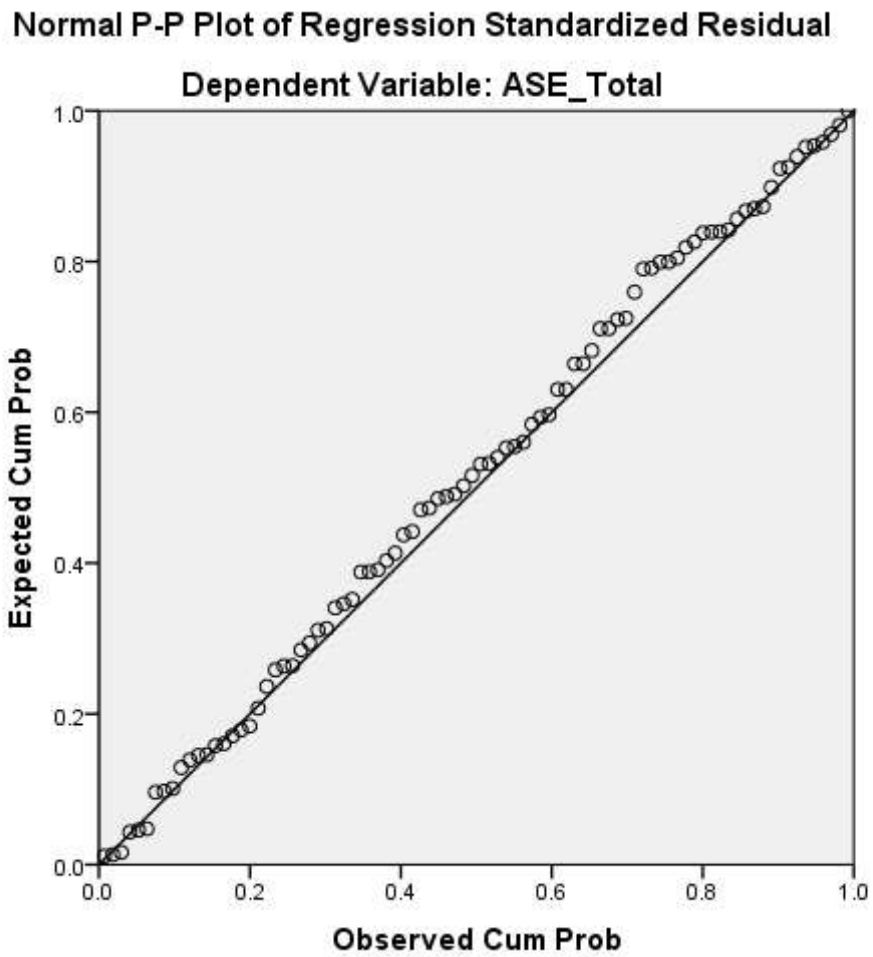
a. Dependent Variable: ASE_Total

Residuals Statistics[a]

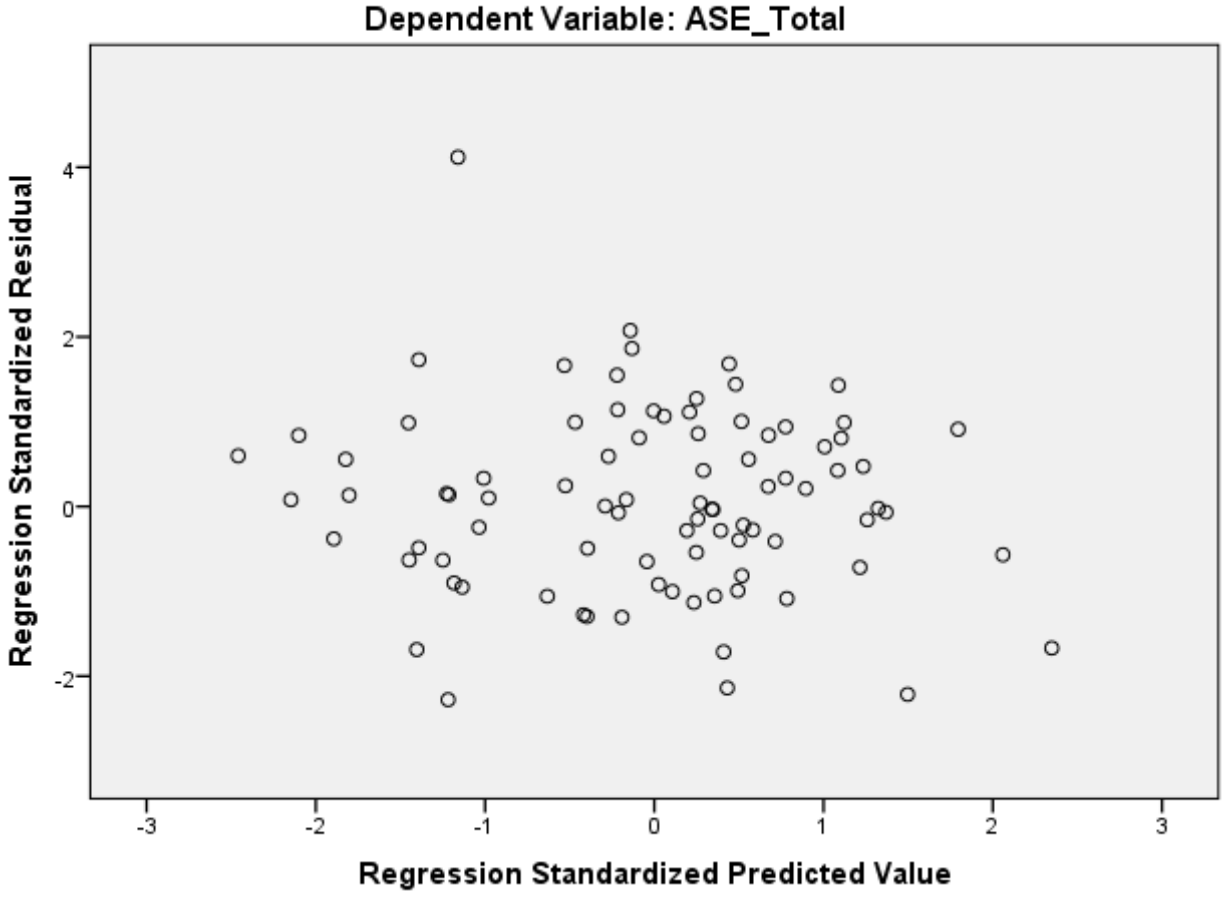
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	24.0397	48.2756	36.3210	5.05757	88
Std. Predicted Value	-2.459	2.348	-.023	1.003	88
Standard Error of Predicted Value	.593	2.081	1.157	.329	88
Adjusted Predicted Value	23.7683	49.6617	36.3339	5.08592	88
Residual	-11.29088	20.41356	.36081	5.30903	88
Std. Residual	-2.278	4.118	.073	1.071	88
Stud. Residual	-2.329	4.039	.070	1.091	88
Deleted Residual	-11.82141	20.41356	.34793	5.56269	88
Stud. Deleted Residual	-2.397	4.039	.068	1.100	88
Mahal. Distance	.213	13.818	3.946	2.886	88
Cook's Distance	.000	.163	.014	.024	88
Centered Leverage Value	.003	.165	.047	.034	88

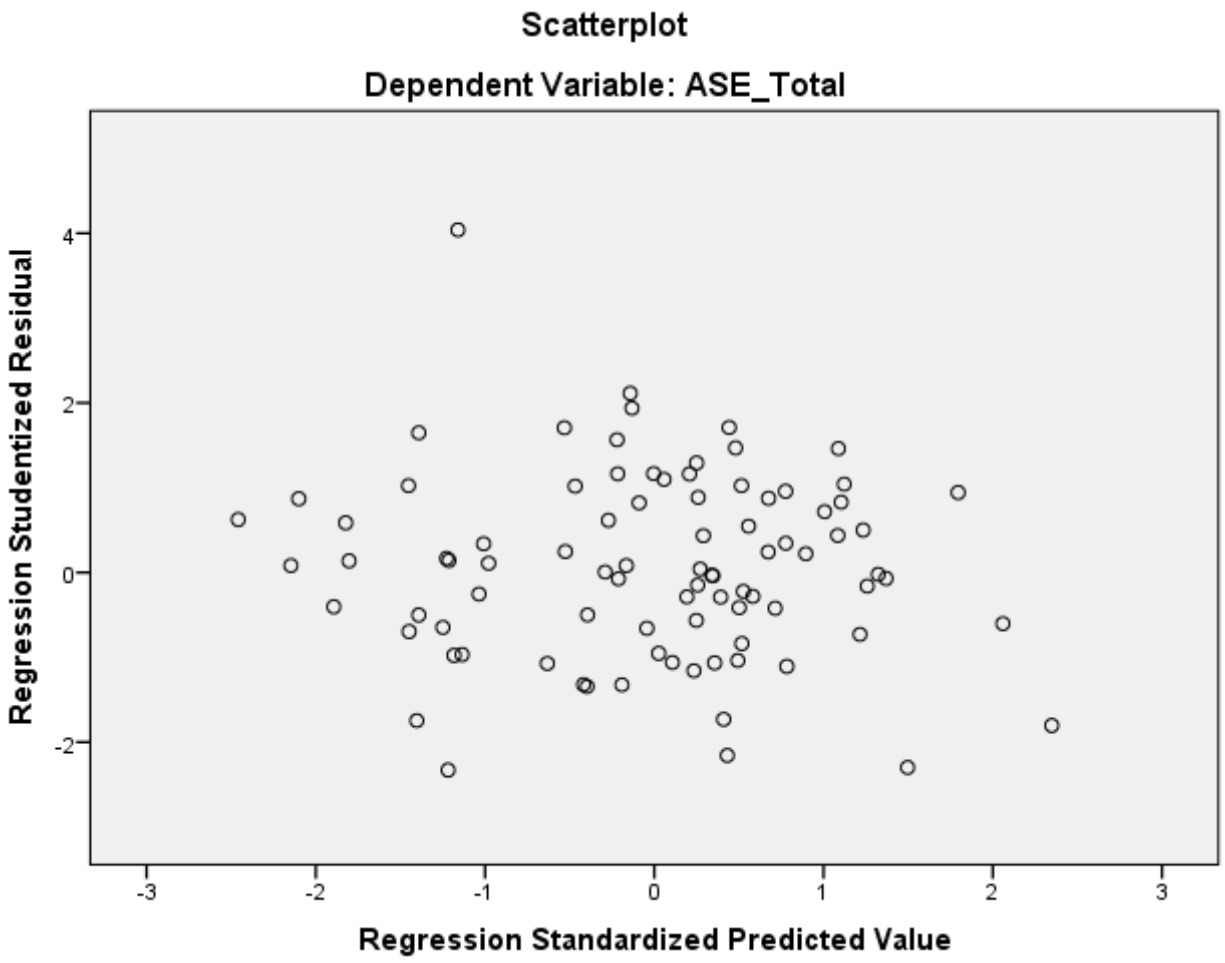
a. Dependent Variable: ASE_Total





Scatterplot




Scatterplot
Dependent Variable: ASE_Total
Regression Studentized Residual
Regression Standardized Predicted Value
4
2
0
-2
-3
-2
-1
0
1
2
3

Appendix P

Gender T-Tests

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
PSES_TOTAL	Equal variances assumed	1.332	.251	.724	117	.471	2.03131	2.80740	-3.52860	7.59122
	Equal variances not assumed			.640	24.600	.528	2.03131	3.17199	-4.50693	8.56955
YS_Total	Equal variances assumed	.172	.680	-.068	90	.946	-1.36710	20.14386	-41.38638	38.65218
	Equal variances not assumed			-.063	18.640	.950	-1.36710	21.70352	-46.85259	44.11839
Hads_Dep	Equal variances assumed	.021	.885	-.942	94	.349	-.93827	.99621	-2.91627	1.03973
	Equal variances not assumed			-.947	19.648	.355	-.93827	.99038	-3.00654	1.13000
Hads_Anx	Equal variances assumed	.004	.950	-1.739	94	.085	-2.12840	1.22398	-4.55863	.30184
	Equal variances not assumed			-1.746	19.614	.097	-2.12840	1.21923	-4.67489	.41810
ASE_Total	Equal variances assumed	.141	.708	.446	95	.657	.88211	1.97853	-3.04576	4.80998
	Equal variances not assumed			.477	20.737	.638	.88211	1.84888	-2.96582	4.73005

Please note: This Journal Article has not been yet been submitted for publication.

Journal Article

EARLY MALADAPTIVE SCHEMAS AND THEIR ASSOCIATION WITH THE MENTAL HEALTH AND ACADEMIC EXPERIENCE OF PSYCHOLOGY STUDENTS

Abstract

This study evaluated the extent to which early maladaptive schemas (EMSs) are evident in a sample of 100 undergraduate psychology students. Schema theory is a central notion within psychology research which explains how knowledge and experience is cognitively stored, represented and used (Eisenberg, Gollust, Golberstein & Hefner, 2007). When individuals are exposed to certain types of early experiences, schemas can become heightened and can manifest in a more pervasive and maladaptive way (Young et al., 2003). Earlier negative relational experiences, in conjunction with complex psychopathology are often considered the contributing cause of the development of EMSs (Mason, Platts & Tyson, 2005). Little research had been done on the role of prior early maladaptive schemas within the UK higher educational setting and how the presence of earlier life experiences might impact on such factors as academic experience, student mental health and academic-self efficacy in undergraduate psychology students.

A quantitative approach was used to examine the prevalence of EMSs among 100 undergraduate psychology students and identified how such findings are related to measures of anxiety, depression, psychology student experience and academic self-efficacy.

Statistical analyses highlighted key EMSs such as 'self-sacrifice' and 'unrelenting standards'. The findings also explored the presence of severe anxiety symptoms (23%), depressive symptomology, psychology student experience and the impact of such factors on the ratings of academic self-efficacy. The findings highlight specific

characteristics of undergraduate psychology students and contribute towards the wider literature surrounding student mental health.

Suggestions for future research position the present findings in the context of the wider concerns regarding student mental health, a topic of concern that is at the forefront of the political agenda (Brown, 2016; Caleb, 2014; Mars et al, 2019). Schema theory and schema therapy may have a future role to play in the work of university counselling services in supporting student mental wellbeing.

Introduction

The Development of Schemas

The notion of "schema" can be traced back as far as Aristotle and Plato and has been a commonly discussed concept in psychology for almost a century (Marshall, 1995). However, Kant (1929) is widely acknowledged as the first to consider that schemas represent organised structures which are essential to our perceptions of the world (Johnson, 1987). Kant theorised that a schema is a process that mediates the outside world and its connection with internal cognitive processes. Individual experiences were acknowledged as being a vital part of the schema structuring process. More contemporary theories arose in the 1970s which describe schemas as 'economical structures' that are used to store memories of events and objects (Hinsley, Hayes, & Simon, 1977; Rumelhart, 1984).

Self-schemas

A self-schema refers to how internal cognitive structures and information about external objects maps onto knowledge of the 'self'. Self-schemas are considered to be cognitive manifestations of enduring aspirations, motives, goals and fears which include cognitive evaluations of an individual's ability and sense of agency (Markus & Nurius, 1986; Markus & Wurf, 1987). Therefore, a student's self-schema is likely to mediate their behaviour and can be inclusive of multiple representations of

themselves, which would manifest as multiple self-schemas (Ng, 2014; Cantor & Kihlstrom, 1987).

Development of Early Maladaptive Schemas

Bowlby's (1969; 1982) theory of attachment highlights the association between insecure attachment styles and a presence of psychopathology. Young (1990) developed this notion further by identifying that these every day experiences of relationships and attachment are represented as information that get coded into schemas which can become maladaptive when paired with negative earlier experiences. Therefore, Early Maladaptive Schemas (EMSs) are thought to commonly develop in childhood, in environments where young people are subject to repeated episodes of, for example, hostility, neglect, criticism and abuse, or if they live in an environment where their core emotional needs are not met (Young et al., 2003). The Young Schema Questionnaire Short Version 3 (YSQ-S3) is a tool used to facilitate clinicians in identifying maladaptive schematic patterns with their clients (Young et al., 2003). It currently lists 18 EMSs such as 'Defectiveness / Shame (DS)', 'Emotional Deprivation (ED)' and Unrelenting Standards/Hypocriticalness (US)'

Early Maladaptive Schemas and Mental Health

Research carried out by Mason, Platts & Tyson (2005) found a correlation between EMSs and attachment styles, demonstrating that participants with a fearful or preoccupied attachment style showed increased anxiety symptomology and an increased presence of maladaptive schemas, particularly Young's early maladaptive 'abandonment' schema. Guidano and Liotti (1983) explored the relationship between EMSs and the common mental health disorders depression and anxiety. A 'fear of abandonment' EMS surfaced as a result of early childhood isolation and these early experiences combined with current cognitive vulnerabilities can make an individual susceptible to episodes of depression (Beck, 1987; Young et al., 2003).

Anxiety and depression are shown to share etiological influences which include a common underlying latent risk factor for negative affectivity and negative emotionality. The presence of anxiety is often cited as preceding the development of depression in a negative sequence of co-morbidity (Avenevoli et al, 2001; Barlow, 2000; Clark & Watson, 1991; Garber & Weersing, 2010; Kim-Cohen et al, 2003; Pine et al, 1998). Rumination, catastrophising and worry are typical characteristics of both anxiety and depression and are representative of, for example, socially anxious individuals who tend to make negative inferences of self, world and future (Martin & Tesser, 1996). Therefore, such negative representations of self and future could make a socially anxious individual cognitively vulnerable which, in turn, could increase their likelihood of depression developing (Beck, 1967; Dozois & Beck, 2008; Garber & Weersing, 2010; Martin & Tesser, 1996; Wilson & Rapee; 2005).

Early Maladaptive Schemas and Mental Health of Students

Following a review of the current UK research on student mental health Brown (2016) highlighted that there is a requirement for longitudinal cohorts of UK students who enter and progress through university to be rigorously reviewed in order to highlight trends and identify vulnerable student groups so that early intervention can be offered and crises averted. A number of studies have shown that EMS processing patterns are evident in student populations. However, this evidence is usually framed within the clinical context of a general student population and within American educational settings (Harris & Curtin, 2002; Wright, Crawford, & Castillo, 2009).

The presence of mental health symptomology, such as anxiety or depression, in conjunction with the additional and inherent pressures in higher education (such as engagement in exams or financial pressures) can rapidly decrease the manageability of such symptoms, thus increasing the risk of harm to self (Connell, Barkham, & Mellor-Clark, 2007). Therefore, it is necessary to continuously screen students who are considered to be higher risk and to assess the effectiveness of current counselling services interventions and modality choice for those students. Cecero, Beitel and Prout

(2008) found that assessment of college adjustment could be improved by utilising measures such as Young et al.'s (2003) YSQ. In the United States, Cecero et al. (2008) suggested that therapeutic interventions that utilise Young et al.'s (2003) schema therapy framework improved overall college adjustment and student engagement. To date, there is little evidence within UK universities of the applicability of Young et al.'s (2003) YSQ measure, and little consideration of the effectiveness of schema therapy as a possible intervention within university counselling services - factors that this present study aimed to address.

Academic Self-efficacy

Self-efficacy refers to an individual's belief in their own ability to accomplish a task or succeed in specific situations (Bandura, 1989) and the role of 'academic self-efficacy' refers specifically to 'self-efficacy' within the educational setting. A student's own belief or conviction that they can achieve their desired academic goals is considered vital in terms of their overall academic achievement and motivation and their self-schematic representations consist of their, for example, earlier educational experiences (Bandura, 1989; Deci & Ryan, 1985; Eccles & Wigfield, 2002; Honicke & Broadbent, 2016). Therefore, similar to Young et al's. (2003) EMSs framework, if academic self-efficacy ratings are low, the presence of negative psychopathology could be increased (Chemers, Hu and Garcia, 2001).

Research Aims, Rationale and Questions of the Study

The present study aimed to evaluate and explore the extent to which the EMSs are evident in a sample of 100 undergraduate psychology students alongside ratings of anxiety, depression and Academic Self Efficacy (ASE). An additional aim of the present study was to develop a quantitative questionnaire that specifically captured responses regarding the experiences of psychology students at university.

Research questions:

- To what extent are early maladaptive schemas (EMSs) prevalent in a sample of 100 undergraduate psychology students, as measured by Young's Schema Questionnaire (YSQ-S3)?

Research Hypotheses:

- The presence of Early Maladaptive Schemas (EMSs) as measured by Young's Schema Questionnaire (YSQ-S3) will significantly correlate with ratings of depression, anxiety, Academic Self Efficacy (ASE) and psychology student experience ratings.
- A significant amount of the variance in the ASE will be predicted by other variables collected by other measures in the study, i.e. EMSs, ratings of anxiety, depression and student experience.

Methodology

Young Schema Questionnaire – Short Form (YSQ-S3)

The YSQ-S3 was created by Young et al. (2003) which comprises a 90-item scale. Scoring is indicated through the use of a six-point Likert scale ranging from 'completely untrue of me' to 'describes me perfectly'. Questions within the YSQ-S3 are designed to elicit key identifiers of Early Maladaptive Schemas (EMSs). Examples include: "I have not been able to separate myself from my parent(s) the way other people my age seem to do", "I do not feel capable of getting by on my own in everyday life" and "I am a good person because I think of others more than I think of myself". The YSQ-S3 is a valid measure with high reliability, recently reporting a Cronbach alpha score of between .85 and .97 (Lyrakos, 2014). The YSQ-S3 was chosen for this research as it is widely used and research supports the validity and reliability of the scale for assessing the presence of EMSs (Lee, Taylor, & Dunn, 1999; Schmidt, Joiner, Young, & Telch, 1995). Each of the 18 EMSs have five associated items on the 90 item YSQ-S3. Young et al., (2003) considers a score of 2≥ on each item meaningful. In addition, the YSQ-S3 has been found to have good predictive validity for other mental health disorders such as depression and anxiety (Kobak & Sceery, 1988; Young, 1999).

Hospital Anxiety and Depression Scale (HADS)

The Hospital Anxiety and Depression Scale (HADS), which is one of the most widely used screening tools in hospital and community settings, aims to assess levels of anxiety and depression and comprises 14 questions (Zigmond & Snaith, 1983). The measure uses a four-point Likert scale from 'not at all' to 'nearly all the time' and

includes statements such as “worrying thoughts go through my mind” and “I feel as if I am slowed down”. The two individual scales of anxiety and depression within the HADS report good reliability. HADS-A has a mean Crobach Alpha of .83 and HADS-D reports a score of .82 (Bjelland, Dahl, Haug & Neckelmann, 2002).

Academic Efficacy Scale (AES)

The AES created by Chemers, Hu and Garcia (2001), measured ASE using an eight-item scale on a seven-point Likert scale which ranges from ‘very untrue’ to ‘very true’. Participants were asked to rate themselves against statements such as “I know how to schedule my time to accomplish my tasks”. In a study of 373 undergraduate participants, Chemers et al. (2001) obtained a Cronbach’s alpha reliability coefficient of .81 for this scale. A review of the research within the field of self-efficacy and more specifically academic self-efficacy indicated that the presence of psychological symptomology such as depression and/or anxiety produced lower ASE scores (Chemers et al., 2001; Ehrenberg, Cox, & Koopman, 1991; Muris, 2002; Ryan, Gheen, & Midgley,1998).

Development of Psychology Student Experience Scale (PSES)

Finally, the PSES, a 20-item scale created for the purpose of this present study, asked participants to use a seven-point Likert scale ranging from ‘1 = very untrue’ to ‘7 = very true’ to capture aspects of their experiences as a psychology student. The aim was to utilise the data regarding psychology student experience and explore, for example, the correlations with the three additional measures of the present study (YSQ-S3, ASE & HADS). Statements such as “I feel comfortable to ask questions in class when I am unsure” and “I enjoy the social aspect of coming to university” highlighted responses regarding the experiences of psychology students studying at university more generally and a review of the associated literature highlighted the lack of sufficient measures to assess more specific undergraduate psychology student experiences.

Participants

A total of 100 undergraduate students were recruited online through the University of the West of England (UWE) psychology participant pool (18 males, 82 females). Ages ranged between 18-52 with a mean age of 20.9 and a standard deviation of 4.77. 58 students were in year 1 and 42 were in year two of their undergraduate psychology degree. In addition, twenty undergraduate psychology students were recruited for the purpose of validating the Psychology Student Experience Scale (PSES) and were asked to complete the questionnaire at two different time points to gain a reliability score for the PSES. All participants were recruited from the psychology participation pool within the University of the West of England and responded to an advertisement on the participation time notice board on the 'UWE Sona System'.

Statistical Analysis

Descriptive data was generated across the various measures (Tables 1-3). The EMSs were determined by a cut-off of ≥ 2 as any score of 2 or more is considered meaningful (Young et al, 2003). The YSQ-S3 was factor analysed using a Principal Components Analysis (PCA) to reduce the number of variables to be included in the subsequent correlations (Table 4). The relationship amongst the twenty questions of the Psychology Student Experience Scale (PSES) were assessed using Pearson bivariate correlations to rule out singularity and multicollinearity. Any items that correlated above .8 would have been removed due to multicollinearity (Field, 2013). However, the correlational analysis found no evidence of multicollinearity amongst items (all *r's* < .616), as a result all items were retained.

The internal consistency of the factor structure was then assessed using Cronbach's alpha and the indivdual PSES items were assessed to ensure that all items were loading consistently and to a significant extent. This resulted in the removal of the five question items. Descriptive statistics for the PSES are reported in Table 5.

The remaining 15 items were submitted to a Principal Components Analysis (PCA) using varimax rotation in order to determine the factor structure (see Table 6). Varimax

rotation was chosen to aid the interpretation of the resulting factors (Field, 2013). The final structure contained five factors, theses were labelled as: (1) Social Performance, (2) Sociability, (3) Empathy/anxiety, (4) Academic need to achieve and (5) Emotional reactivity/mood. The PSES was administered to twenty participants at two different time points to determine test-retest reliability.

Descriptive statistics and correlation coefficients amongst questionnaires are also reported (see Tables 7 & 8). A Multiple Linear Regression analysis was then conducted (see Table 9) to see if ASE total scores could be predicted from the other variables. The five PSES factors, the three factor categories of the YSQ-S3, along with the anxiety and depression sub-scales from the Hospital Anxiety and Depression Scale (HADS) were included in a forward stepwise method. This particular method was utilised in order to identify if a single regression model could be derived that could explain a significant amount of the variance in the ASE scores and produce a model whereby only the significant variables are included based on the statistical criterion (Field, 2013). A series of t-tests were conducted to test for gender differences in the mean scores of the scales, given the potential gender bias of the psychology undergraduate sample (Clay, 2017). However, no significant gender differences were observed ($p > .05$).

Results

Anxiety and Depression

Table 1. Anxiety and Depression levels as measured by the Hospital Anxiety and Depression Scale (HADS).

	Anxiety	Depression
Non-Cases	26	72
Mild	18	18
Moderate	34	9
Severe	23	1

Note: Numbers represent percentages. Scores of 0-7 = non-cases, 8-10 = Mild, 11-14 = Moderate, 15-21 = Severe

Table 2. Descriptive statistics for the 18 Early Maladaptive Schemas (EMSs)

Schemas	*M*	*SD*	Range
Emotional Deprivation	11.53	5.99	5-26
Abandonment	17.17	6.88	5-30
Mistrust	16.97	6.24	5-30
Social Isolation	16.52	7.27	5-30
Defectiveness	13.52	7.05	5-30
Failure To Achieve	16.73	6.28	5-30
Practical Incompetence	13.98	5.07	5-30
Vulnerability To Harm Or Illness	14.43	6.00	5-30
Enmeshment	10.17	4.50	5-27
Subjugation	13.97	5.25	5-26
Self-Sacrifice	20.13	4.61	9-30
Emotional Inhibition	15.76	5.37	6-29
Unrelenting Standards	19.21	5.36	8-30
Entitlement	14.27	4.89	5-26
Insufficient Self-Control	16.59	4.91	7-28
Admiration	17.08	5.72	6-29
Pessimism	17.69	6.20	7-30
Self-Puntiveness	15.68	4.90	7-29

Note: M = Mean, SD = Standard deviation.

Young Schema Questionnaire (YSQ)

Table 2 represents the descriptive statistics for the 18 EMSs within the YSQ-S3. There are five questionnaire items related to one EMS, therefore a student can score between a minimum of 5 and a maximum of 30 on each EMS. Table 2 outlines the mean response, the standard deviation and the range responses among the 100 undergraduate students. 'Self-sacrifice' (20.13) and 'unrelenting standards' (19.21) had the highest mean scores. Table 3 represents the frequency of the 18 EMSs and highlights on average how many students met the threshold for each EMS. Additional examination of the data revealed that the mean number of EMSs per student was 14.67. The YSQ-S3 was factor analysed using a Principal Components Analysis (PCA) with varimax rotation (to aid interpretation) and to simplify the data and reduce the number of variables to be correlated. The aim of the factor analysis was to collapse the 18 EMSs variables into fewer interpretable underlying factors and therefore identify the principal components (see Table 4). Using the Eigenvalue >1 criterion to identify relevant variables loading on to a factor, the three factors were labelled as: Factor 1 = Negative self/world view; Factor 2 = High standards/anxiety; Factor 3 = Narcissism.

Table 3. Frequency of Early Maladaptive Schemas (EMSs) (%).

Schemas	Normal	Maladaptive
Emotional Deprivation	47	53
Abandonment	15	85
Mistrust	40	60
Social Isolation	21	79
Defectiveness	40	60
Failure To Achieve	10	90
Practical Incompetence	18	82
Vulnerability To Harm Or Illness	25	75
Enmeshment	53	47
Subjugation	20	80
Self-Sacrifice	1	99
Emotional Inhibition	13	87
Unrelenting Standards	2	98
Entitlement	18	82
Insufficient Self-Control	4	96
Admiration	10	90
Pessimism	9	91
Self-Punitiveness	7	93
Average	19.61	80.39

Note: Maladaptive schemas were calculated using ≥ 2 cut off

Table 4. Factor structure of the Young Schema Questionnaire (YSQ).

Schemas	*1*	*2*	*3*
Emotional Deprivation	**0.788**		
Abandonment	0.433	**0.551**	
Mistrust	0.532	**0.634**	
Social Isolation	0**.794**		
Defectiveness	**0.866**		
Failure To Achieve	**0.705**		
Incompetence	0.540		**0.601**
Vulnerability To Harm	**0.654**		0.438
Enmeshment	**0.465**		
Subjugation	0.693		0.408
Self-Sacrifice		**0.738**	
Emotional Inhibition	**0.711**		
Unrelenting Standards		**0.846**	
Entitlement			**0.726**
Insufficient Self-Control	0.412		**0.719**
Admiration-Seeking			**0.756**
Pessimism	**0.653**	0.467	
Self-Punitiveness	0.544	**0.561**	
% Variance	32.845	17.006	16.728

Note: 1 = Negative self/world view; 2 = High standards/anxiety; 3 = Narcissism.

PSES Analysis, Cronbach's Reliability Analysis

The PSES was submitted to a reliability analysis which found a Cronbach's alpha of α = .67. However, the removal of the five PSES questions that low item-total correlations that had low item-total correlations) improved the reliability of the scale (α = .76). Therefore, the final PSES included 15 items to be entered into a factor analysis.

Psychology Student Experience Scale (PSES) Factor Analysis

Table 5 outlines the descriptive statistics of the Psychology Student Experience Scale (PSES). A Principal Component Factor analysis with orthogonal rotation (varimax) was conducted to find a suitable factor structure for the PSES. Firstly, the determinant value suggested no issues with multicollinearity (.011).

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.7 which is above Kaiser's (1974) criteria of 0.5 indicating that factor analysis should yield distinct and reliable factors. Bartlett's test of sphericity was highly significant ($p < .001$) therefore, there are some relationships between the variables and a factor analysis is appropriate to run on this data.

Five factors were retained by the varimax rotation (see Table 6), based on Eigenvalues > 1 and because there were < 30 variables and average commonalities after extraction were > .60 (Field, 2013). These factors were labelled as: Factor 1 = Social Performance; Factor 2 = Sociability; Factor 3 = Empathy/anxiety; Factor 4 = Academic need to achieve; Factor 5 = Emotional reactivity/mood. Social performance (factor 1) explained the most variance at 18.068%.

Table 5. Descriptive statistics of the Psychology Student Experience Scale (PSES).

PSES Items	*M*	*SD*	Range
Presentation	2.93	1.86	1-7
Friends	4.73	1.44	1-7
Offer Help	3.76	1.45	1-7
Compliant	4.95	1.37	1-7
Missing Class	4.97	1.72	1-7
Class Discussions	3.63	1.67	1-7
Capable	4.87	1.22	2-7
Statistics Module	4.88	2.00	1-7
Top Marks	5.48	1.49	1-7
Learning	4.98	1.46	1-7
Talk to Staff	4.04	1.52	1-7
Competitive	3.96	1.71	1-7
Social	4.63	1.71	1-7
Complete Course	6.52	1.16	1-7
Ask Questions	3.95	1.70	1-7

Note: M = Mean, SD = Standard deviation.

Table 6. Principal components factor analysis (varimax rotation) of PSES items.

PSES Items	*1*	*2*	*3*	*4*	*5*
Class discussions	**0.873**				
Ask questions	**0.793**				
Presentation	**0.697**				
Talk to staff	**0.689**				
Social		**0.734**			
Complete Course		**0.694**			
Capable		**0.572**			
Friends		**0.564**			
Compliant			**0.811**		
Offer Help			**0.690**		
Missing Class			**0.599**		
Competitive				**0.781**	
Top Marks				**0.684**	
Stats Daunting					**0.768**
Mood Level					**0.745**
% Variance	18.068	13.997	11.629	10.802	10.544

Note: 1 = Social Performance; 2 = Sociability; 3 = Empathy/anxiety; 4 = Academic need to achieve; 5 = Emotional reactivity/mood.

Test Re-Test Reliability

A correlational analysis found strong test re-test reliability for PSES scores when participants completed the scale at two different time points ($r(n20)$ = .72, p < .001).

Descriptive statistics and correlation coefficients

Table 7 outlines the descriptive statistics for the total scores on the YSQ-S3, ASE, HADS-A and HADS-D, a higher mean score indicates a higher presence of EMSs, ASE, HADS-A and HADS-D. The PSES scores in Table 7 represents the descriptive statistics for each of the five PSES factors. A higher mean score (range 1-7) indicates an increased presence of the associated factor it is measuring – social performance (PSES-SP), sociability (PSES-S), empathy and anxiety (PSES-E/A), academic need to achieve (PSES-A) and emotional reactivity and mood (PSES-ER).

Table 7. Descriptive statistics of the scales.

Scale	*M*	*SD*	Range
PSES-SP	3.54	1.84	1-7
PSES-S	5.18	1.61	1-7
PSES-E/A	4.62	1.66	1-7
PSES-A	4.78	1.77	1-7
PSES-ER/M	4.87	1.78	1-7
YSQ-S3	280.24	71.58	149-441
HADS-D	5.51	3.55	0-19
HADS-A	11.11	4.41	0-21
ASE	36.63	6.99	19-51

Note: **PSES-SP** = Psychology Student Experience Scale-Social Performance; **PSES-S** = Psychology Student Experience Scale-Sociability; **PSES-E/A** = Psychology Student Experience Scale-Empathy/Anxiety; **PSES-A** = Psychology Student Experience Scale-Emotional Reactivity/Mood. **YSQ** = The Young Schema Questionnaire; **HADS-D** = The Hospital Anxiety and Depression Scale-Depression; **HADS-A** = The Hospital Anxiety and Depression Scale-Anxiety; **ASE** = The Academic Self-Efficacy Scale; *M* = Mean; *SD* = Standard deviation.

Table 8. Pearson two-tailed correlation coefficients between scales.

	Scale	1	2	3	4	5	6	7	8	9	10	11
1	PSES-SP	-	0.00	0.00	0.00	0.00	-.31**	0.18	-0.08	-0.04	-0.06	.29**
2	PSES-S		-	0.00	0.00	0.00	-.39***	0.15	-0.09	-.48***	-0.20	.48***
3	PSES-E/A			-	0.00	0.00	.21*	.29**	-0.17	0.14	0.16	0.02
4	PSES-A				-	0.00	0.17	.46***	.22*	.25*	.30**	.29**
5	PSES-ER/M					-	0.15	0.15	0.11	0.13	.37***	-0.14
6	YSQ-NS/WV						-	0.00	0.00	0.58***	0.52***	-.28**
7	YSQ-HS/A							-	0.00	0.07	.31**	.36**
8	YSQ-N								-	.24*	.24*	-0.10
9	HADS-D									-	.60***	-.30**
10	HADS-A										-	-0.12
11	ASE											-

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. **PSES-SP** = Psychology Student Experience Scale-Social Performance; **PSES-S** = Psychology Student Experience Scale-Sociability; **PSES-E/A** = Psychology Student Experience Scale-Empathy/anxiety; **PSES-A** = Psychology Student Experience Scale-Academic need to achieve; **PSES-ER/M** = Psychology Student Experience Scale-Emotional reactivity/mood; **YSQ-NS/WV** = The Young Schema Questionnaire-Negative self/world view; **YSQ-HS/A** = The Young Schema Questionnaire-High standards/anxiety; **YSQ-N** = The Young Schema Questionnaire-Narcissism; **HADS-D** = The Hospital Anxiety and Depression Scale-Depression; **HADS-A** = The Hospital Anxiety and Depression Scale-Anxiety; **ASE** = The Academic Self-Efficacy Scale.

Multiple Linear Regression Analysis

A multiple linear regression with relevant statistical assumptions was conducted to investigate whether the aforementioned predictors could explain the variance in Academic Self-Efficacy (ASE) scores. Correlations of all variables can be found in Table 8. There was linearity between predictors and the outcome variable, as well as homoscedacity, normality and independence of residuals. Furthermore, the data showed no multicollinearity and less than 5% of cases had standardized residuals above or below 3 standard deviations. Therefore, it was deemed appropriate to carry out the multiple regression analysis on these data (Table 9). The forward stepwise method resulted in a model which included PSES-S, PSES-SP, YSQ/HS/A and the PSES-ER/M. The final model was significant, $F(3, 317) = 21.73$, $p < .001$, explaining 52% of the variance in (ASE) (see Table 9). The strongest significant predictor of ASE was the sociability sub-scale from the PSES ($\beta = .499$, $p < .001$).

Table 9. Linear Model of predictors of Academic Self-Efficacy scores (ASE).

	B	SE *B*	b	R^2	*F*
Step 4				0.52	21.73**
Constant	36.455				
PSES-S	3.299	0.521	0.499**		
PSES-SP	2.036	0.556	0.290**		
YSQ-HS/A	1.999	0.567	0.287*		
PSES-ER/M	-1.494	0.510	-0.229*		

Note: * $p < .01$, ** $p < .001$.

Discussion

One of the aims of the present study was to explore the prevalence of EMSs within a sample of 100 undergraduate psychology students. There was a high level of EMSs present within the sampled population, revealing that for each EMS, on average, 80.39% of the 100 students met the threshold score as outlined by Young et al., (2003). In addition, the average number of EMSs per student out of a possible 18 was 14.67. This finding highlights the significant presence of EMSs in this sample of undergraduate psychology students and supports the international cross-sectional research findings carried out by Kaeding et al., (2017). Kaeding's et al's (2017) research specifically examined the burn-out rate in trainee psychologists and highlighted the most prevalent and significant EMSs in predicting burn-out as 'unrelenting standards' and 'self-sacrifice'. Interestingly, the present study findings also found that, on average, a large number of students met the threshold for the 'self-sacrifice' EMS (99%) and the 'unrelenting standards' EMS (98%). These two EMSs ('unrelenting standards' and 'self-sacrifice') were directly associated with increased levels of anxiety and burn-out rate in a large trainee psychologist sample and both EMSs were also found to increase the presence of occupational stress in a sample of health care professionals (Bamber &McMahon's, 2008; Keading et al., 2017). These two of Young et al's, (2003) EMSs describe an individual's desire to reduce the suffering and pain of others, even if their own wellbeing is in question (self-sacrifice) and a striving to meet very high standards in the attempt to avoid criticism (unrelenting standards). However, although an increased presence of the 'unrelenting standards' EMS within higher education is considered problematic as it is associated with increased levels of anxiety in psychology students, this EMS is also considered functional in meeting the high demands of a psychology degree at university and assists students in securing higher grades, thus widening their options for post-graduate study (Cruwys, Greenaway & Haslam, 2015; Flett, Greene, & Hewitt, 2004).

The present study hypothesised that the presence of EMSs as measured by Young's Schema Questionnaire (YSQ-S3) would significantly correlate with ratings of depression, anxiety, Academic Self Efficacy (ASE) and psychology student experience ratings. The findings of the present study support this hypothesis by

revealing a number of significant correlations between, for example, factor one of the YSQ-S3 (YSQ-NS/WV 'negative self/world view') and HADS depression (0.58), factor two on the YSQ-S3 (YSQ-HS/A 'high standards & anxiety) and ASE (.36) and a significant correlation of .46 between YSQ-HS/A and ratings of an 'academic need to achieve' on the Psychology Student Experience Scale (PSES-A).

The present study also hypothesised that a significant amount of the variance in the ASE would be predicted by the other variables collected by other measures in the study, i.e. EMSs, ratings of anxiety, depression and aspects of the student experience. ASE was found to predict a psychology student's levels of sociability (PSES-S), social performance (PSES-SP) and high standards of work at university (YSQ-HS/A).

Within the present study, a large proportion of the 100 psychology students (23%) reached the cut-off for severe anxiety and over a third of the sample (34%) met the threshold for moderate anxiety symptoms. The presence of 'high standards/anxiety' (factor 2 of the YSQ-S3) was common within the present dataset and significantly correlated with the scores on the HADS anxiety scale at .31 (Zigmond, & Snaith, 1983). Within the current literature, symptoms of anxiety are acknowledged as concerning but also common and persistent amongst the general student population. As such, there is a current focus to reduce anxiety symptoms within higher education, especially when considering student scores are often reflective of clinical norms and that anxiety symptoms have been shown to significantly reduce just one month after graduation (Cruwys, Greenaway & Haslam, 2015; Broglia, Millings, & Barkham, 2018; Brown, 2016; Caleb, 2014; Dyrbye, Thomas & Shanafelt, 2006; Trethowan, 2011).

The Factor Analysis of the YSQ-S3 revealed that factor one (YSQ-NS/WV) explained the maximum variance and clustered the greatest number of EMSs. Factor one was interpreted as representing a larger 'negative structure' as it included negative aspects of how the psychology students perceived themselves and the world around them. For example, factor one is inclusive of the pessimism EMS which includes items from the YSQ-S3 such as "no matter how hard I work, I worry that I could be wiped out financially and lose almost everything". This idea is consistent with existing theories surrounding schematic representations and negative self-and

world views. A self-schema refers to how internal cognitive structures and information about how external objects map onto knowledge of the 'self'. Self-schemas are considered to be cognitive manifestations of enduring aspirations, motives, goals and fears which include cognitive evaluations of an individual's ability and sense of agency (Markus & Nurius, 1986; Markus & Wurf, 1987). Beck's (1967) earlier cognitive triad of the self, world and future also incorporated this idea and refers to a schematic representation as a 'package' of knowledge that stores such information. These representations are developed during childhood as a result of early childhood experiences and if the earlier experiences have been negative (or the coping responses of significant others are negative) then the representations of the self, world and future subsequently become negative too. The co-morbidity of anxiety and depression is cited as prevalent within the general body of students (Bitsika & Sharpley, 2012; Kendall, Kortlander, Chansky, & Brady, 1992; Martin, Usdan, Cremeens, & Vail-Smith, 2014) and the presence of such symptomology requires continued consideration as it is often shown to interfere with academic achievement, increase the likelihood of other psychopathological symptoms developing and most concerningly the presence of such symptoms can increase the risk of suicide in students (Eisenberg, Gollust, Golberstein, & Hefner, 2007; Gould et al, 1998; Rohde, Lewinsohn, & Seeley, 1994; Zivin, Eisenberg, Gollust, & Golberstein, 2009).

Anxiety and depression have been shown to share etiological influences, for example a common underlying latent risk factor for negative emotionality or negative affectivity (Barlow, 2000; Clark & Watson, 1991). The high level of co-morbidity between anxiety and depression is often considered to be due to an underlying negative sequela of anxiety conferring an increased risk of the development of depression (Garber & Weersing, 2010). Therefore, anxiety symptoms are, in some cases, considered to precede the development of depression and show substantial sequential comorbidity (Avenevoli et al, 2001; Kim-Cohen et al, 2003; Pine et al, 1998). Negative cognition and negative information-processing errors such as rumination, catastrophising and worry are typical characteristics of both anxiety and depression (Martin & Tesser, 1996). For example, socially anxious individuals have a tendency to make negative inferences

regarding the meaning of social events for their future and also their self-worth. Both negative representations of self and future can be considered to make an individual cognitively vulnerable which, in turn, increases the likelihood of depression developing (Beck, 1967; Garber & Weersing, 2010; Martin & Tesser, 1996). Therefore, maladaptive interpretations of negative social events are not just typical of an anxiety presentation but are also characteristic of a developing depressive state (Dozois & Beck, 2008; Wilson & Rapee; 2005).

Anxiety can be referred to as a risk factor for the development of depression and the presence of childhood anxiety is also considered to have depressogenic effects (Alden & Taylor, 2004; Bittner et al, 2004; Kraemar et al, 1997; Leary & Kowalski, 1995). These findings could be applicable to the present study as the high prevalence of moderate (34%) and clinical (23%) anxiety scores (as measured by the HADS) in conjunction with the presence of the negative self/world representations (factor one of the YSQ-S3) could increase the risk of depression developing among the psychology students. The negative schematic representations (as found in factor one) could be a marker of an individual's cognitive vulnerability which could increase the presence of anxiety symptoms and the later development of depression. Within the present study findings, factor one correlated significantly with the HADS anxiety sub-scale (0.52) and the HADS depression sub-scale (0.58) and therefore highlights the association between anxiety symptoms, negative self/world view EMSs (factor one) and depression among the 100 psychology students.

Future Research

According to the Higher Education Statistics Agency (HESA) in the 2017-18 academic year, there were 2,343,095 students in higher education institutions in the UK. 1,621,725 of these students were studying at undergraduate level and 81,075 of these undergraduate students were studying psychology. The findings of this present study could therefore go some way in explaining what contributes towards the mental health presentations of undergraduate psychology students which, as the HESA figures suggest, make up a large proportion of the undergraduate population. In addition, the present research findings could extend to the wider helping

professions courses within higher education. The HESA database states that in the 2017-18 academic year there were 146,875 nursing students. Future research could utilise Young's framework and explore if the findings of this present study extend further afield within the helping professions. Bamber and McMahon, (2008) introduced the notion of 'occupational specific EMSs' within the helping professions so further research could explore if there are 'subject specific EMSs' within higher education. If so, this information could be utilised within counselling services to tailor the support provided to the students. This knowledge could also assist in shaping online and/or lecture support interventions for psychology students in the form of workshops that are course specific and mandatory. This notion has been recently introduced as part of the recent research carried out by Hughes, Panjawni, Tulcidas, and Byrom, (2018). The recommendations of their recent report suggest that *"universities should consider the role of the curriculum in supporting the development of good student wellbeing and learning – bringing both mental health professionals and academics together to develop and deliver this content"* (Hughes, Panjawni, Tulcidas, & Byrom, 2018 pg. 64). In doing so, psychology lecturers could work in conjunction with the university counselling services to assist with the integration of the academic demands of engaging in a psychology degree and the mental health of undergraduate psychology students.

Conclusions

To sum up, the statistical findings of the present study highlighted the presence of Early Maladaptive Schemas (EMSs) among a sample of 100 undergraduate psychology students. In addition, mental health symptomology (anxiety and depression), Academic Self Efficacy (ASE) and aspects of student experience ratings were explored. A range of statistical tests was conducted which highlighted key EMSs such as 'self-sacrifice' and 'unrelenting standards', the concerning presence of severe anxiety symptoms (23%) and the impact of such factors on the ratings of ASE. The findings highlight the characteristics of undergraduate psychology students and contribute towards the wider literature surrounding student mental health. Finally, suggestions for future research have been made which utilise the present findings in context of this wider and concerning issue of student mental

health, a topic of concern that is at the forefront of the current political agenda (Brown, 2016; Caleb, 2014; Mars et al, 2019).

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