Psychological needs of young adults

leaving the care system.

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ABSTRACT

Although there is an identified need for psychological services to work therapeutically with young adults leaving care (care leavers), there is a paucity of research examining the psychological constructs which may underlie reported distress in a care leaver population. There are plausible links between attachment theory and schema theory, but research investigating them is in its infancy. If made clearer, such links may usefully guide therapeutic interventions for care leavers.

The primary aim of this study was to investigate the self-reported psychological needs of care leavers. More specifically, the study aimed to examine the relationships between psychological distress, adult attachment, and early maladaptive schemas (EMS) in this group. The study also aimed to augment existing literature on the relationships between internal working models (IWMs) within attachment theory, and EMS within schema theory as conceptualised by Young *et al.* (2003). A total number of 50 care leavers aged 18-22 were recruited. They were all in contact with a leaving care team in one of five social services departments in South Wales. Self-report measures were used to assess psychological distress, adult attachment and EMS (considered within five schema domains).

Care leavers with the highest reported levels of psychological distress also reported the highest degree of attachment anxiety (most negative IWMs of self), highest degree of attachment avoidance (most negative IWMs of others) and the most pronounced schema domains. Significant differences were observed in the reported levels of psychological distress and the prominence of schema domains in participants with different attachment styles, with most notable differences between the secure and fearful avoidant attachment style groups. Clinical and theoretical implications of the study findings are discussed in detail and areas for future research are suggested.

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CHAPTER ONE - INTRODUCTION

1.1 Overview of issue and study to be reported

The primary aim of this study was to investigate the self-reported psychological needs of young adults leaving care (care leavers). More specifically, the study aimed to examine the relationship between psychological distress, adult attachment, and early maladaptive schemas (EMS; considered within their respective five schema domains), in a group of care leavers. A secondary aim was to augment existing literature on the relationship between internal working models (IWMs) within attachment theory, and EMS within schema theory as conceptualised by Young *et al.* (2003).

1.1.1 Structure of thesis

Chapter one provides an introduction to the study and a review of relevant literature. Chapter two is concerned with the method of data collection and analysis. Chapter three presents the study results. Chapter four provides a discussion of results, considers the implications of findings, study limitations and areas for future research.

1.1.2 Terminology and definitions

Care leavers are young people who have been in local authority care for a minimum of 13 weeks since the age of 14, including some time in care since they turned 16 (DoH, 2000).

The social services teams that provide a service to young adults leaving care are variously described as leaving care teams, through-care teams and after-care teams. For clarity, the term ‘leaving care teams’ will be used within the present study.

The terms psychological wellbeing, psychological distress, mental health and psychopathology are used interchangeably in research and a common accepted definition is difficult to identify. Indeed the terms ‘psychological wellbeing’ and

'mental health' are said to have multiple definitions (NHS Health Scotland, 2006). Vleioras and Bosma (2005) [drawing on the work of Ryff (1989)] define psychological wellbeing as:

> *'...holding a positive opinion about oneself (self-acceptance), being able to choose or create contexts appropriate for one's psychological condition (environmental mastery), having warm and trusting relationships and being able to love (positive relations with others), having goals, intentions, and a sense of direction (purpose in life), continuous development of one's potential (personal growth), and being self-determined and independent (autonomy).'* (p.399.).

Other definitions refer to: self-esteem, optimism, life satisfaction, mastery, having purpose in life, receiving support, having a sense of belonging and feeling in control (NHS Health Scotland, 2006). In the present study the terms psychological wellbeing and psychological distress are used in order to refer to the absence or presence of psychological difficulties experienced by individuals, that affect their lives to a significant enough degree as to impact upon their daily functioning.

1.1.3 Method of literature review

In order to access relevant literature for the present study, the OvidSP system (https://ovidsp.tx.ovid.com) was used to search for journal articles from the following databases: PsycINFO, EMBASE, PsycArticles and Medline. According to Beech (2009), PsycINFO accesses information from 2000 journals directly or indirectly related to psychology, making it a very useful tool, although the other databases were also used to ensure a full and thorough search. Key search terms used included: 'attachment', 'schema', 'early maladaptive schema', 'psychological wellbeing', 'psychological distress', 'mental health', 'care leavers' and 'in care' (see Appendix 1 for a full list). These terms were used as standalone terms, and in combination to expand or refine searches accordingly.

The majority of searches conducted were confined to the years 1990-current, only studies including humans were selected and the limit ‘peer reviewed journals’ only was applied. As an example, the process employed to identify studies that had looked at the relationship between attachment and schema began with a search using the terms ‘attachment’ and ‘schema’. This revealed 95 results in total. Further refinements of ‘English language’ only were applied and the criteria that participants in the studies were ‘over 18 only’ (for this particular search). From this, 53 results remained. Abstracts of these were reviewed and duplicates were removed. Remaining journal articles were obtained in full text versions for thorough review. Where appropriate, original texts of articles cited within journal articles of interest were sought, and citation searches were performed to gauge the direction which the research had taken.

The Cochrane library (http://www.thecochranelibrary.com/view/0/index.html) and Google Scholar (http://scholar.google.co.uk/) were also used to perform searches for journal articles. Finally, other relevant journal articles, texts and documents were obtained through training events/lectures attended, from suggestions made by supervisors, via wider reading and through searches in academic libraries.

1.2 Introduction to chapter one

This chapter will begin by presenting a background to the present study. Firstly, the population of interest (care leavers) will be introduced including information on what is currently known about them as a group, why they need to be better understood and the challenges faced by services aiming to meet their psychological needs. Attachment theory will be introduced and discussed and the impact of childhood maltreatment presented. The emphasis of the present study is upon adult attachment, so attachment through the life span will be presented and adult attachment styles and methods of researching adult attachment will be introduced. The importance of adult attachment will be discussed and difficulties linking attachment in infancy and adult attachment will be reviewed. A critique of

attachment theory will be offered before discussion moves to consider schemas. An introduction to schemas will be provided and the concept of early maladaptive schemas (EMS) will be introduced, including information on the theory surrounding the development and functioning of EMS. Ways of measuring EMS will be presented, different types of EMS (conditional and unconditional) will be considered and schema domains will be discussed. Following this will be a critique of schema theory and a review of schema theory and attachment theory. The chapter will conclude with the present study's aims and hypotheses.

1.3 Why study care leavers?

As a group of young people, care leavers have been shown to have more mental health problems than their peers (McCann *et al.,* 1996; Ryan, 2008). Almost a third of care leavers are thought to have clinically significant mental health problems (Arcelus *et al.,* 1999). More specifically, a study conducted by Saunders and Broad (1997) with 48 young adults leaving care in the UK, found that 17 per cent had diagnosable mental health problems and 35 per cent had been engaging in deliberate self-harm since they were 15 years old. Looked after children, are said to be five times more likely to suffer from mental health problems than their peers (DfES & DoH, 2004). Additionally, a study by Buchanan (1999) looking at life satisfaction longitudinally for a large British sample (around 17,000 participants) of people who had been in care during their childhood found that, at age 16, 25 per cent of participants had clinically significant psychological difficulties and at age 30, 20 per cent had clinically diagnosable depression. At both ages participants were found to be more vulnerable to psychological difficulties than their peers (Buchanan, 1999).

1.3.1 Difficulties facing care leavers

An extra complication when working with care leavers is that in addition to a higher prevalence of mental health problems, they typically have many social needs and difficulties. Research has found that children leaving care often lack future aspirations and typically seek immediate rather than delayed gratification (DoH, 1999). Consequently, they are more likely to engage in risk taking behaviours such as substance misuse (DoH, 1999) and are more likely than their peers to end up in prison (Social Exclusion Unit, 2002). In fact, research has found that around 27 per cent of adult prisoners have spent time in care as children (Social Exclusion Unit, 2002), despite only 1 per cent of the UK population having been looked after (Robson, 2008). Many care leavers have low educational attainment which in itself is likely to increase social exclusion and decrease job opportunities (Barn & Mantovani, 2007). It is estimated that half of all care leavers will be unemployed (Richardson & Lelliott, 2003) and within six months of being a care leaver, 40 per cent experience homelessness (Coombes, 2004). Young females in care are more likely than their peers to become pregnant during their teenage years (Barn & Mantovani, 2007) with 25 to 30 per cent being parents by the time they leave care (Richardson & Lelliott, 2003) and 1 in 10 becoming pregnant within six months of leaving care (Dixon & Stein, 2002).

When in care, it is common for children to experience multiple placements which, aside from moving to a different family with different rules and different values, often entails multiple losses in terms of lost friendships and as well as loss of caregivers (Newton *et al.,* 2000, cited in Anctil *et al.,* 2007). However, the research into the impact of multiple placements is mixed, with for example Barber and Delfabbro (2003) stating: ‘placement instability up to at least the 8-month point is not necessarily damaging to the child.’ (p.415).

Overall, it is clear that care leavers experience multiple risk factors throughout their lives which may contribute to the development of mental health problems

(Bebbington & Miles, 1989), including the reason for them being taken into care (maltreatment), removal from their birth family and disrupted attachment relationships. An alternative view is that the presence of psychological difficulties may contribute to the development of social difficulties in care leavers, as stated by Hannon *et al.* (2010): 'several studies have established poor mental health as both a cause and a result of children having unstable care journeys.' (p.19.).

Although there is an identified need for mental health services for children in, and leaving care, research shows that there is a discrepancy between the percentage of individuals in the care system who are identified as needing mental health services and the percentage of those who receive it (Phillips, 1997). As identified by Hannon *et al.* (2010), access to psychology services is not always consistent across different areas of the UK:

> *'The support given by child and adolescent mental health services (CAMHS) to children in care – foster and residential care – and to adopted children is patchy, with many local authorities having no teams in place dedicated to helping children in care or those who had been adopted.'* (p.19.).

In addition, it is also interesting to note that the Children Leaving Care Act (DoH, 2000) does not mention care leavers' rights to access psychological therapy, rather it focuses upon financial, education and training needs (Tweddle, 2005). This may suggest that the psychological needs of care leavers are sometimes overlooked, even though it would seem that they are associated with poor social outcomes.

1.3.2 Why is service provision for care leavers an issue?

Care leavers are aged between 16 and 21 so if they require psychological therapy, they may be referred to adult mental health (AMH) services rather than child and adolescent mental health services (CAMHS), or may experience a transition between services. This poses potential difficulties because to be accepted into AMH services an individual needs to have been diagnosed with a mental illness (Lamont *et al.,* 2009). This criterion may not appropriately describe young people who suffer

from psychological difficulties as a result of being taken into, and subsequently spending their childhood in, the care system. Therefore, young people, who have been in care as children, may be suffering from psychological difficulties which significantly affect their lives, but are not clinically severe enough to qualify them for mental health services (NICE, 2010). Interestingly, a review by Lamont *et al.* (2009) found that a sample of care leavers who had received input from AMH services in the UK rated themselves as 'very unsatisfied' with their experience (Lamont *et al.,* 2009, p.6.). This perhaps suggests that mental health services are not adequately meeting the needs of care leavers. It may be that a different type of service provision is needed, or that services need to better understand and accommodate the needs of this client group.

The issue of service provision for care leavers is an important one. Draft guidelines by the National Institute for Health and Clinical Excellence (NICE, 2010) have recently been produced and are soon to come into effect. They hold a key suggestion that specialist mental health services should regard children and young people who are or have been looked after, as a priority (NICE, 2010). They also consider the possibility that CAMHS extend their remit to provide a service for children who have been in care beyond the age of 18 (NICE, 2010). Although these suggestions are made, the guidelines do not provide specific information on how the needs of children in or leaving care should be met. The guidelines do not specify what models of psychological therapy may be most appropriate and how therapies should be delivered. Rather, it is acknowledged that there is a paucity of research investigating the efficacy of interventions designed to enhance emotional wellbeing and mental health of this population (NICE, 2010). This leaves a difficulty for mental health services in that national guidelines recommend that they should provide a service for children and young people who are in or who are leaving care, but do not suggest how to go about providing such a service. In fact there is a general paucity of research conducted with young people who are leaving the care system (Dixon, 2008).

A defining feature of a care leaver population is that they will have experienced separation, often repeatedly, from their families and other caregivers during childhood and there is some evidence that this has an impact upon their psychological wellbeing. The concept of attachment and attachment theory may have a useful contribution to make in understanding the experiences of those who have been in care. Attachment theory is recognised as a valid and useful framework (Riggs *et al.,* 2011) for understanding the effects, and subsequent life outcomes of the types of childhood trauma often experienced by children who end up in care. This will be considered in the following section.

1.4 Attachment theory

Attachment theory as pioneered and conceptualised by Bowlby (1907-1990) focuses on child development within the context of relationships (Bosmans *et al.,* 2010; Golding, 2008) and the way in which this affects social and emotional development through life (Golding, 2008). Although Bowlby's work mainly focuses on relationships during infancy and childhood, he considered attachment relationships to characterise human life from birth to death (Fraley, 2010). More recently, attachment theory has been extended, applied to and researched in adults (this will be considered further in section 1.5).

In Bowlby's theory of attachment, the attachment relationship an infant develops with their parent (or caregiver) is evolutionarily functional, necessary for survival (Mikulincer *et al.,* 2003) and driven by an inherent biological motivation (Fonagy, 2001). The notion that children are born biologically predisposed to form attachments to their caregivers (Mikulincer & Shaver, 2005) helps explain why they form attachment relationships with parents (or caregivers) who are abusive toward them (Fonagy, 2001). In childhood, attachment style primarily refers to the ways in which infants and children interact within a specific relationship (or relationships) rather than being an attribute of the child (Thompson & Raikes, 2003). Over time, children are said to internalise the experiences they have within their primary

attachment figures and this forms a ‘prototype’ for other relationships with people outside of their immediate family (Bartholomew & Horrowitz, 1991). With maturation comes increased independence and increased socialisation and with this, more complex relationships (Platts *et al.,* 2002). Through increasing age, attachments move from being about ways of interacting within a specific relationship or relationships, to the development of ‘attachment styles’ which become an ‘attribute of the person’ (Thompson & Raikes, 2003).

Due to its predominant focus upon the impact of early relationships, attachment theory has significant implications for children who suffer difficult life experiences, particularly those who end up spending their childhood in care (Golding, 2008). At the core of attachment theory lies the belief that the experiences infants and children have within their attachment relationships influence how they come to understand the world and other people (Golding, 2008). Early attachment experiences are said to result in the development of ‘blueprints’ (Bartholomew & Horowitz, 1991) or ‘mental structures’ (Dykas & Cassidy, 2011) for the way future relationships function (Smith *et al.,* 2010). These were described by Bowlby (1969) as ‘internal working models’ (IWMs) which Carr (2006) refers to as ‘cognitive relationship maps based on early attachment experiences.’ (p.55.). According to Bowlby’s theory of attachment, IWMs are influenced by the perceived responsiveness of a caregiver (view of ‘other’) and a judgement about whether or not oneself is worthy or deserving of being treated well (view of ‘self’; Bartholomew & Horowitz, 1991). These two elements (view of self and view of other) of IWMs are complementary (Bretherton, 1992) as they develop within reciprocal relationships where needs are either met or not met. IWMs are thus said to contain information which enables children to develop expectations or predictions of how people behave (Thompson, 2008). It is these predictions or expectations that Bowlby suggests form the foundation for the development of IWMs of ‘self’ and ‘others’ (Dozier *et al.,* 2008) and moves attachment from interactions within specific relationships, to ways of interacting with others more generally, that is an attachment style.

Mary Ainsworth and colleagues classified attachments in children into three categories of secure, anxious ambivalent and avoidant attachment relationships (Dykas & Cassidy, 2011). These classifications were based on observations from the 'Strange Situation Test' (see Ainsworth *et al.,* 1978) which is said to provide a measure of the nature and quality of a child's attachment relationship. The Strange Situation test is a laboratory based technique in which infants are observed when separated from, and subsequently reunited with, their primary caregivers. Typically, children with secure attachments are upset at separation but are quickly and easily comforted when their mother returns and freely explore their environment (Dykas & Cassidy, 2011). In contrast, children with an anxious ambivalent attachments become extremely distressed during separation and are difficult to comfort when reunited (Fraley, 2010). Children with avoidant attachments appear extremely distressed at separation and avoid contact with a parent when reunited (Dykas & Cassidy, 2011). [1]

Research indicates that the benefits of having secure attachment relationships in infancy/childhood are far reaching. According to Bowlby (1971, 1980, cited by Dozier *et al.,* 2008) children develop a vulnerability to psychological difficulties when they have negative IWMs of themselves or other people, or when the ways that they process thoughts and feelings related to their attachment relationships are unrealistic. According to Dozier *et al.* (2008), children with secure attachments learn to expect their caregivers to be able to meet their needs through real life experiences of their needs being met. They develop effective and appropriate ways of alerting their caregiver when they are needed and (from about six to nine months) have an IWM of their caregiver as available, even when they cannot actually see them (Dozier *et al.,* 2008). There is evidence that children with secure attachment are generally more resilient, have better peer relationships and are more liked than infants with insecure attachments (Fraley, 2010). They have learned that their

[1] The childhood attachment style of 'disorganised attachment' was added by Main and Soloman in 1986. The adult romantic attachment literature was based on the three categories of childhood attachment as conceptualised by Ainsworth *et al.* (1978) and did not include Main and Soloman's additional category. Consequently it has limited relevance to the current study therefore is not discussed further.

parents can provide them with a secure base from which they are free to explore the world (Carr, 2006). They are less fearful in new situations, have better problem solving skills (Finzi *et al.,* 2000) and achieve higher cognitive abilities than their insecurely attached peers (Jacobsen *et al.,* 1994).

In stark contrast, children with insecure attachments have learned that caregivers will not be able to meet their needs and therefore develop alternative ways of coping (Dozier *et al.,* 2008). Such children may become reliant on themselves and deny their need for attachment figures (avoidant patterns), or may exhibit more extreme or high risk behaviours in a bid to engage their attachment figure (anxious patterns; Smith *et al.,* 2010). Overall, research appears to suggest that having an insecure attachment during early childhood may be a risk factor for mental health or behavioural difficulties in childhood/adolescence and future adulthood (Deklyen & Greenberg, 2008).

1.4.1 What happens when early relationships are neglectful and/or abusive?

The link between abusive and neglectful parenting and subsequent attachment difficulties is well established in available literature (for example Lyons-Ruth *et al.,* 2004). There is strong evidence to suggest that children who have experienced abuse and/or neglect are vulnerable to developing an insecure attachment style (Riggs *et al.,* 2011).

Children are received into care for a variety of reasons including abuse (physical, emotional and/or sexual) and/or neglect (Richardson & Lelliott, 2003). Some may have been severely deprived of care and/or stimulation (Dozier & Rutter, 2008) and may have been exposed to frightening and/or intrusive, emotionally damaging abuse. Others will have suffered a combination of abuses. Children who are, or have been, maltreated have been found to display significant emotional and behavioural problems, far more so than their non maltreated peers (Ethier *et al.,*

2004). Such problems include internalising behaviours (such as low mood or withdrawn behaviour) and/or externalising behaviours (such as aggressive and violent behaviour; Ethier *et al.,* 2004). In addition, when compared to children who have not been maltreated, they are more likely to bully others and are more likely to be bullied themselves (Shields & Cicchetti, 2001).

Research into types of maltreatment (abuse or neglect) and associated outcomes has found that children who have been neglected are predisposed to significantly increased risk of difficulties in later life including low mood, eating and anxiety difficulties, risk of suicide, substance misuse, and involvement in crime (Dozier & Rutter, 2008). As a group of children, those who have been neglected have been found to be significantly more withdrawn when compared to abused children, or a non maltreated population (Prino & Peyrot, 1994).

Children who have been abused have been found to display behaviour that is significantly more aggressive than children neglected or otherwise maltreated (Prino & Peyrot, 1994). Negative outcomes associated with having suffered childhood abuse also include attempted suicide (Bridgeland *et al.,* 2001) and depression in adulthood (LaNoue *et al.,* 2010). There is also some evidence that children who have been abused and have regularly experienced feeling frightened or scared may develop a 'sensitised neurobiology' (Dozier & Rutter, 2008, p.701.) whereby they experience strong physiological, behavioural and emotional reactions to minor threats (Dozier & Rutter, 2008). Children who have been abused often employ self-abusive coping strategies, as this may be the only way they have learned to cope (Finzi *et al.,* 2000).

Overall, there is significant evidence to suggest that experiences of abuse and/or neglect during childhood have negative effects on mental health and wellbeing both during childhood and into adulthood. By the time they reach the status of care

leavers, young people are becoming young adults. As Bowlby is said to have regarded attachment relationships to characterise human life from birth to death (Fraley, 2010), the next section will review attachment theory in its application to adults.

1.5 Attachment across the life span

The first researchers to explore attachment style within adult romantic relationships were Hazan and Shaver (1987). They noted similarities between the behaviours of infants in their attachment relationships and adults within romantic relationships, observing the desire for proximal closeness expressed by romantic partners, and the distress experienced when a romantic partner is unavailable or unresponsive (Hazan & Shaver, 1987). Hazan and Shaver (1987) described adult attachment styles drawing on the three types of attachment relationships identified by Ainsworth *et al.* (1978 as cited in Hazan & Shaver, 1987): secure, avoidant and anxious ambivalent. Research by Levy and Davis (1988, cited in Brennan *et al.,* 1998) asked participants to rate how well they felt the three categories devised by Hazan and Shaver (1987) described them. They discovered that the three categories could be conceptualised as existing along two underlying continuums of attachment anxiety and attachment avoidance (Brennan *et al.,* 1998). In this conceptualisation, attachment anxiety is said to result from an underlying negative IWM of self as essentially unlovable (Wei *et al.,* 2003) combined with fearing abandonment and rejection, and needing approval and reassurance from other people (Wei *et al.,* 2007). Attachment avoidance is said to result from an underlying IWM of other people as malevolent and untrustworthy (Brennan *et al.,* 1998) combined with a need for self-reliance to an excessive extent, and reluctance to engage in self-disclosure (Wei *et al.,* 2007). Bartholomew (1990) extended the original three categories of adult romantic attachment into four categories of secure, preoccupied, dismissive and fearful avoidant. The three categories of preoccupied, dismissive and fearful avoidance attachment styles are insecure styles of attachment (Wei *et al.,* 2007). With regards to distribution, according to Ein-dor *et al.,* (2010), approximately 33 per cent of the adult population have an insecure attachment style, the remainder have a secure attachment style.

The four category model by Bartholomew (1990), accommodates and allows representation of all combinations of high/low rating along the two continuums of attachment anxiety and attachment avoidance (illustrated in Table 1.1).

Table 1.1 Adult attachment styles[2]

Attachment style	Attachment anxiety (model of self)	Attachment avoidance (model of other)
Secure	low (positive)	low (positive)
Preoccupied	high (negative)	low (positive)
Dismissive	low (positive)	high (negative)
Fearful avoidant	high (negative)	high (negative)

In the four category model by Bartholomew and Horowitz (1991) adults with a secure attachment style score low on attachment anxiety and low on attachment avoidance. They are said to have a positive IWM of themselves as deserving of love, and of other people as responsive to, and accepting of, their needs (Holmes & Johnson, 2009). They typically view themselves as confident, worthy of love and assertive and view others as dependable, trustworthy and kind (Platts *et al.,* 2002). Adults with a preoccupied attachment style score high on attachment anxiety and low on attachment avoidance. They have a negative IWM of themselves as essentially unlovable (Wei *et al.,* 2003). They have a need to be accepted by other people but expect to be rejected because of their view of themselves as unlovable (Holmes & Johnson, 2009). Adults with a dismissive attachment style score low on attachment anxiety and high on attachment avoidance. They have a positive IWM of themselves as lovable (Holmes & Johnson, 2009), although this is described as a 'defensive idealisation of self' (Simard *et al.,* 2011) which is qualitatively different from the loveable self securely attached people believe of themselves. They have a negative IWM of other people, seeing them as malevolent and untrustworthy (Brennan *et al.,* 1998). Adults with a fearful avoidant attachment style score high on both attachment anxiety and attachment avoidance. Such people are said to have negative IWMs of

[2] Adult attachment styles as conceptualised by Bartholomew and Horowitz (1991).

themselves as unlovable and other people as malevolent and untrustworthy and fear rejection so much that they avoid any emotional closeness (Bartholomew, 1990).

1.5.1 How is adult attachment style researched and measured?

There are two main methods that are used when researching adult attachment style. One is a developmental approach (Baker & Beech, 2004) which explores adult attachment style through retrospectively assessing childhood attachments (predominantly influenced by psychodynamic thinking, Platts *et al.,* 2002). The other is a social psychology approach (Baker & Beech, 2004) which assesses adult attachment style through reported experiences in romantic relationships during adulthood (Platts *et al.,* 2002).

Examples of instruments designed to retrospectively assess childhood attachments include the Adult Attachment Interview (Main & Goldwyn, 1998) and self-report measures such as the Parental Bonding Instrument (PBI; Parker *et al.,* 1979). These ask adults questions relating to their relationships with parents during childhood. Although potentially useful tools, asking questions directly related to experiences with parents may not always be ethical or appropriate within a research setting, especially when parents are known to have been neglectful or abusive.

Examples of instruments used to assess adult romantic attachment style include the Experiences in Close Relationships questionnaire (ECR; Brennan *et al.,* 1998) and the revised form of this questionnaire, the ECR-R (Fraley *et al.,* 2000), The Revised Three-Category Measure (Hazan & Shaver, 1987), and The Relationships Questionnaire (RQ; Bartholomew & Horowitz, 1991). These are self-report measures which directly explore adult relationships with romantic partners or sometimes with peers. Such measures may not necessarily provide insight into childhood attachments as they focus on attachment styles in adulthood and there is a question regarding continuity between adult attachment style and childhood

attachment relationships (Fraley, 2010). This issue will now be explored in more depth.

1.5.2 Continuity and discontinuity in attachments and attachment styles over time

Attachment theory, according to Bowlby, hypothesises that internal working models (IWMs) that are formed in infancy influence later adult attachment styles and relationships (Crowell & Treboux, 1995). Attachment style is said by Bowlby to be stable and resistant to change across the lifespan (Bowlby, 1969). Although there are exceptions to the stability of attachment style and Bowlby acknowledged that some variability in attachment style was likely, for example in the presence of negative life events (Bowlby, 1969) such as parental divorce, illness, grief or abuse. Other conditions that have been found to be associated with a change in attachment style include long term changes to environment (Sroufe *et al.,* 1999), for example when children have new caregivers, or if an individual receives therapy (Bowlby, 1973).

In testing the stability of attachment between infancy and adulthood, Waters *et al.* (2000) conducted a longitudinal study comparing infant attachment measured at 12 months (using the Strange Situation test; see Ainsworth *et al.,* 1978) with attachment style in adulthood, 20 years later (using the Adult Attachment Interview; Main & Goldwyn, 1998). In this study, 72 per cent of participants (36 participants) were assessed as having the same attachment style over time. From looking at those participants who changed attachment style, the authors claimed that most of the change could be explained by the absence or presence of significant life events, although there was a proportion (28 per cent) for whom the change in attachment style could not be explained by life events (Waters *et al.,* 2000). Waters *et al.* (2000) conclude that: ‘These studies demonstrate that attachment security can be stable over very long periods of time...The task now is to explain the underlying processes.’ (p.705). Waters *et al.* (2000) surmise that although attachment theory can explain

change in attachment style over significant periods of time, it cannot provide a significant explanation for all change and thus it does have some shortcomings.

Attachment theory also has difficulty explaining variability in attachment style over short periods of time. For example Baldwin and Fehr (1995) looked at self-reported ratings of adult romantic attachment style on the Revised Three-Category Measure (Hazan & Shaver, 1987) in a total of 221 adult participants (average age 20.5 years) tested on more than one occasion (gaps between administration ranging from one week to a number of months (Baldwin & Fehr, 1995). They found that the attachment style of 30 per cent of participants changed over time. It is possible that observed differences in attachment over time may be attributed to the quality of the measures of attachment available (Baldwin & Fehr, 1995). Additionally, Baldwin and Fehr (1995) comment that this finding may be associated with: 'variability in the underlying construct.' (p.247.).

It is interesting to note that although Waters *et al.* (2000) and Baldwin and Fehr (1995) used different measures to assess attachment they had similar findings in terms of the percentages of participants whose attachment style stayed the same/changed with around 70 per cent remaining stable in each study. Fraley (2010) states that it is a generally accepted notion that early experiences in attachment relationships have an influence upon adult romantic attachment, however there is controversy over the degree to which they remain stable or are predictive of each other (Fraley, 2010). Bartholomew and Horowitz (1991) state that: '...the four adult attachment styles are meaningfully related to, although by no means reducible to, representations of childhood experiences.' (p.239-240.). Therefore, as Fraley (2010) concludes, it may be that at best, a moderate level of correlation can be assumed between infant attachments and adult attachment style. He states that the stability of attachment style should be an 'empirical question' rather than something which is assumed to be true (Fraley, 2010).

In conclusion, attachment theory may provide a framework to explain how attachment style changes between infancy and adulthood; however, it does not do this in concrete and measurable terms, and has particular difficulties in explaining variability in the absence of significant life events. It may be that other theories can better explain and enhance understanding in this area, and this is discussed further in section 1.6. Nevertheless, there is research to suggest that consideration of attachment is important in adulthood, as will be discussed in the next section.

1.5.3 Why is attachment style important in adulthood?

Research has suggested that having an insecure attachment style in adulthood is associated with the development of various psychological difficulties including social phobia, global anxiety disorder (Bifulco *et al.,* 2006), eating disorders (Zachrisson & Skarderud, 2010), bipolar disorder (Morriss *et al.,* 2009) and post traumatic stress disorder (Declercq & Willemsen, 2006).

There is some evidence to suggest that having a more avoidant adult attachment style is associated with the development of internalising disorders (such as low mood), while having a more anxious adult attachment style is associated with the development of externalising disorders (such as anxiety related disorders; Dozier *et al.,* 2008). However, a comprehensive review of studies by Platts *et al.* (2002), looking at the links between attachment style and diagnosis concluded that research has confirmed an association between insecure attachment style and psychological distress in adulthood, but the evidence base faces criticisms. In particular, Platts *et al.* (2002) cite a lack of consistency in measures used, differing definitions of attachment, variations in the way diagnoses were established, and the fact that many studies in this area use a non-clinical population, making it difficult to draw conclusions further than there being a broad conceptual link between insecure attachment style and psychological difficulties in adulthood. Similarly, in their recent review of studies looking at eating disorders and attachment style, Zachrisson and Skarderud (2010) conclude that the different theoretical positions for researching

attachment, and the differing methods used by researchers, mean that it is not possible to provide specific or substantial associations between attachment style and eating disorders in adults. Platts *et al.* (2002) advise against further research into specific diagnoses and specific attachment styles, suggesting such research is unlikely to be useful.

An interesting finding which has emerged from the research suggests that viewing adults in terms of attachment style alone does not always sufficiently differentiate those with a secure attachment style from those with a dismissive or avoidant attachment style (Declercq & Willemsen, 2006; Lopez *et al.,* 1998; Platts *et al.,* 2005). There is evidence to suggest that participants with a dismissive attachment style tend to under-report psychological symptoms when compared to reports given by people who know them well (Dozier & Lee, 1995). Thus it may be that people with a dismissive attachment style have learned to deny their feelings and as a result under-report or do not recognise them (Dozier & Lee, 1995). Also, people with a dismissive attachment style are considered to have a negative IWM of 'others' therefore, they may not believe or trust other people to meet their needs. As a result they may not report such needs and this may lead to underreporting of difficulties. Therefore the focus may need to be on understanding the beliefs people hold about themselves and other people in more depth, perhaps beyond what is possible just using the measures of adult attachment currently available. In addition, viewing people as having a secure versus an insecure attachment style may fail to represent the wide range of experiences of people who fall within insecure attachment style categories (preoccupied, dismissive and fearful avoidant).

Given the limited evidence of an association between categories describing specific attachment styles and specific psychological difficulties, it has been proposed that attachment style might best be viewed in terms of the two underlying continuums of attachment avoidance and attachment anxiety (for example Bosmans *et al.,* 2010; described in section 1.13). However, viewing attachment avoidance and attachment anxiety in this way makes it difficult to represent individuals who are high on both

attachment anxiety and attachment avoidance. In addition, given the complex relationship between attachment style and psychological wellbeing it may be useful to incorporate other theories into attachment theory in order to create a more comprehensive understanding of the relationships between them.

1.6 Critiques of attachment theory

Although attachment theory is generally accepted and applied to both clinical and non-clinical populations it is not without its limitations. In particular, attachment theory has been criticised for its inability to fully explain continuities and discontinuities between infant attachments and adult attachment style, and in adult attachment style over time. These inabilities may be due to the measures of attachment currently available, or due to flaws in the concepts underlying the theory. The entire concept of IWMs has also been criticised for being too broad (Thompson, 2008) with authors such as Hinde (as cited in Thompson & Raikes, 2003) stating: 'in the very power of such a model lies a trap: it can too easily explain anything.' (p.696.). Bosmans *et al.* (2010) have developed this argument and state that attachment theory is unable to explain how IWMs function and exactly what information they contain (Bosmans *et al.,* 2010; Thompson, 2008). One reason for these difficulties may be that Bowlby's concept of IWMs incorporates elements of various other theories including object relations theory, cybernetic control systems theory and developmental theory. The variations between these theories may make IWMs difficult to clearly define, measure and research (Thompson, 2008). Consequently, IWMs remain as conceptual metaphors (Thompson & Raikes, 2003) rather than constructs which are empirically testable and clinically relevant, in a way that can specifically guide therapeutic intervention.

Thus, although attachment theory does explain some associations between adult attachment style and psychological distress, it does not provide a complete and full explanation. In short, although it is theorised that early attachment relationships and experiences of 'self' and 'others' influence future wellbeing and behaviour

(Thompson, 2008), the mechanisms for this remain difficult to quantify or research. As stated by Thompson and Raikes (2003), many questions remain regarding IWMs such as: how consciously accessible they are; how they relate to other cognitive processing; and how they develop and how exactly they change.

In an attempt to enhance attachment theory it has been suggested by Bretherton and Munholland (2008) that the notion of IWMs be understood as 'conceptual frameworks' (p.103.) upon which other theories can be applied. The notion that IWMs be understood as cognitive schemas has been posed by various authors (Bosmans *et al.,* 2010; Bretherton, 1990; Main, 2000; Platts *et al.,* 2002; Platts *et al.,* 2005; Thompson, 2008). Bosmans *et al.* (2010) suggest that IWMs function similarly to cognitive schemas and that internal working models (IWMs) formed as a result of early attachment relationships can be more specifically conceptualised as early maladaptive schemas (EMS; Bosmans *et al.,* 2010). The concept of cognitive schemas, and in particular EMS, will now be explained.

1.7 What are cognitive schemas?

The term 'schema' has several uses and meanings, both in the history of psychology (Young *et al.,* 2003) and in the English language more generally (Platts *et al.,* 2002). Broadly speaking, cognitive schemas provide a way of organising and making sense of life experiences (Welburn *et al.,* 2002). The concept of schemas is prominent within early cognitive behavioural therapy (CBT) models, particularly the work of Aaron Beck. Beck's theory was based on the notion of cognitive structures, to which he assigned the term schemas (James *et al.,* 2004; James *et al.,* 2009). Schemas were hypothesised to have their origins in 'past learning experiences' (Beck *et al.,* 1979 as cited in James *et al.,* 2009) and emphasis was placed upon their function in information processing and organisation (Riso *et al.,* 2006). Although prominent within cognitive behavioural approaches, the concept of schemas has been present in different fields of psychology for many years. Theorists in cognitive, behavioural, person-centred and psychodynamic traditions have all drawn on the concept of

schemas, but have been criticised by Safran (1990) for not being specific or clear enough when explaining what knowledge is represented by schemas. This lack of clarity and specificity regarding the concept of schemas, has resulted in confusion over their use.

Jeffrey Young's work on schemas arose mainly from clinical experience (Thimm, 2010). Young developed Beck's cognitive theory into a theory of his own, the now well developed and well accepted schema theory (Young *et al.,* 2003). Bosmans *et al.* (2010) have argued that Young's theory of schemas provides a more useful framework than Beck's theory, as Beck's theory has been criticised for not being specific or focused enough. Young's theory attempts to develop the concepts of schemas and explain the impact of childhood experiences on the development of cognitive schemas (Cecero *et al.,* 2004). Thus, central to schema theory is the concept of early maladaptive schemas (EMS), described by Young *et al.* (2003) as 'broad, pervasive themes or patterns regarding oneself and one's relationships with others that are dysfunctional to a significant degree.' (p.61.). EMS are said to be significantly dysfunctional patterns or themes, in the way that 'self' and relationships with 'others' are thought about and acted out (Young *et al.,* 2003). In addition to cognitions and memories that form the basis of schemas in Beck's theory, Young's theory asserts that schemas also contain emotions and bodily sensations of varying levels of severity (Riso *et al.,* 2006).

EMS are thought to be stable constructs (Riso *et al.,* 2006). A study by Riso *et al.* (2006) assessed the stability of EMS in a clinical sample of 55 people with a diagnosis of depression over a period of two and a half to five years. Results revealed a reported 'moderate to good' level of stability with the authors attributing some variability to psychological therapy or life experiences (as acknowledged by Young *et al.,* 2003 to be likely). Therefore, there does appear to be some evidence for the stability of EMS although the evidence base is small.

1.7.1 How are schemas formed and how do they function?

According to Young *et al.* (2003) an individual's early environment and temperament interact, allowing needs to be met or not met and resulting in frustration if not met. He identified four experiences during childhood which can lead to the development of EMS. These are deprivation (for example of love, stability or empathy); trauma; lack of boundaries/limits; and enmeshment (with parent's thoughts and feelings; see Young *et al.,* 2003, p.11. for full description). All EMS are conceived of by Young *et al.* (2003) as being destructive and although not all are caused by childhood trauma/abuse, the majority are formed as a result of repeated 'noxious experiences' throughout childhood and adolescence rather than 'one off' events. Behaviours employed, or ways of understanding developed, in response to EMS are said to start as accurate and adaptive ways for a child to cope with or understand the world in which they live. They become inaccurate and maladaptive when still acted out in environments that have changed through natural development and ageing (Young *et al.,* 2003). EMS are not irrational; rather, they are said to make sense when considered within the context of adverse childhood environments/experiences (Welburn *et al.,* 2002).

Young *et al.* (2003) explain that environments which serve as reminders of aversive childhood experiences may trigger EMS, further confirming them. Therefore EMS are subject to a cumulative effect resulting in differing degrees of severity, depending on how early they were formed and how many subsequent experiences have confirmed or elaborated them. Even though they may be unpleasant, experiences that trigger EMS may feel comfortable because they are familiar. This can be destructive when considered in terms of childhood maltreatment, as schema theory would suggest that it may lead to the development of self destructive coping mechanisms, in a bid to stimulate the familiar distress experienced in childhood.

1.7.2 How are schemas measured?

Young's original self-report schema questionnaire included 205 items (YSQ-L; Young & Brown, 1990). A study into the reliability of this questionnaire by Schmidt *et al.* (1995) revealed preliminary evidence reporting high alpha values (.86 to .96). However, the questionnaire was criticised for being too lengthy, meaning it took a long time to complete. As a result, Young created a short-form of the questionnaire (Cecero *et al.,* 2008) which consisted of 75 items (YSQ-S; Young, 1998). A study comparing the psychometric properties of the short and long versions, using a sample of females diagnosed with eating disorders, found similar internal consistency, reliability and validity between the two measures (Waller *et al.,* 2001). Therefore they suggest that the short-form may be the most useful to use clinically and in research (Waller *et al.,* 2001). The YSQ short-form has undergone further revisions, for example in 1990 and 2003. The current and most recent version (YSQ-S3; Young, 2005) includes 90 items measuring 18 EMS. The regular revision of Young's questionnaires makes it difficult to draw comparisons between studies. Nevertheless, there is research to suggest the measures have high validity and are useful in research (Stallard, 2007; Stopa & Waters, 2005) and a therapeutic approach (schema therapy) has been developed in order to work with EMS (see Young *et al.,* 2003).

1.7.3 Schema types; unconditional and conditional EMS

Schema theory describes 18 EMS categorised under two types, unconditional and conditional (Young *et al.,* 2003). Table 1.2 lists the 18 EMS under the two categories of unconditional and conditional (Young *et al.,* 2003).

Table 1.2 Unconditional and conditional EMS[3]

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Though all EMS are considered to be stable, unconditional EMS are said to become stable earlier in life than conditional EMS (Young *et al.,* 2003). According to Young *et al.* (2003) they develop at a younger age than conditional EMS, and are experienced as unchangeable, fixed and core beliefs (Young *et al.,* 2003). Unconditional EMS include abandonment/instability, mistrust and emotional deprivation, resulting in beliefs about being intrinsically 'unlovable', 'bad' and 'incompetent' (Young *et al.,* 2003). Conditional EMS are those such as self-sacrifice, emotional-inhibition and unrelenting standards. These are said to result in beliefs that 'negative outcomes' can be averted through actions such as sacrificing 'self' for the sake of 'others', hiding feelings, or attempting to meet extremely high standards (Young *et al.,* 2003). Conditional EMS as said to develop later in life, perhaps as a way of avoiding facing the perceived 'truth' of unconditional EMS (Stallard, 2007; Young *et al.,* 2003). For example, someone with an unconditional belief of 'failure' might develop a conditional schema of 'unrelenting-standards' in the hope that if everything is done to the highest possible standards, the belief of being a failure will be avoided. However, when it is not possible to perform to the highest standard, the belief of being a failure may reassert itself. Unconditional EMS are considered to be

[3] According to Young et al. (2003, p.22.).

mainly dependent on experiences within earliest relationships, whereas conditional EMS are thought to be able to be influenced by factors outside of the family (Young *et al.,* 2003)

In order to test the theory of Young *et al.* (2003) that EMS are formed in childhood, and that conditional EMS are formed (or at least become stable) later than unconditional EMS, Stallard (2007) conducted a study which involved the administration of a children's version of a schema questionnaire (Schema Questionnaire for Children, SQC; Stallard & Rayner, 2005) to 77 children from a non-clinical population. Children in the study were aged between nine and ten and all completed the questionnaire on two occasions at a six monthly interval. Stallard (2007) found significant correlations between EMS when comparing reports at time one and time two for the majority of EMS (8 out of 12). Specifically, he found that 7 out of 8 of the unconditional EMS remained stable while only 1 out of 4 of the conditional EMS remained stable. This finding appears to validate Young's proposition unconditional EMS are more resistant to change than conditional EMS (Stallard, 2007). A relatively small sample of participants, taken from a non-clinical population, was included in this study, which means results may not apply to a clinical population. That said, the findings are important and do appear to confirm that EMS are present in children aged nine or ten and that unconditional EMS are more stable and resistant to change at an earlier age than conditional EMS.

1.8 What exactly are schema domains?

Young *et al.* (2003) further categorised the 18 EMS into five schema domains. Each schema domain is said to originate from a core need during development which is not met (Cecero *et al.,* 2008). The five schema domains including associated EMS are outlined in Table 1.3.

Table 1.3 Schema domain explanations and related EMS[4]

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[4] From Young *et al.* (2003, p.16.).

1.8.1 What are the characteristics of each schema domain?

The five schema domains as described by Young *et al.* (2003) contain different EMS; have different origins (all associated with the family which a person belongs to in early life); have different features; and have different hypothesised outcomes in adult life. All EMS are thought to be destructive when prominent (Welburn *et al.,* 2002).

1.8.1.1 Schema domain: 'Disconnection and rejection' (Young *et al.,* 2003)

Individuals with significant EMS in the schema domain of 'disconnection and rejection' are described by Young *et al.* (2003) as not able to form satisfying and secure attachment relationships. This is due to a belief that their needs within relationships are not going to be met (such as needs for love, nurturance, safety and stability). The cause of these difficulties is attributed to having experience of cold, unstable, abusive and rejecting families or social isolation during childhood (Young *et al.,* 2003). As a result, adults with significant EMS in this schema domain either avoid having close relationships, or quickly move between self-destructive relationships. Research has demonstrated that EMS within this schema domain are significantly associated with higher levels of psychological distress (for example Bosmans *et al.,* 2010).

1.8.1.2 Schema domain: 'Impaired autonomy and performance' (Young *et al.,* 2003)

Young *et al.* (2003) describe individuals with significant scores in the schema domain of 'impaired autonomy and performance' as unable to function as independently, competently or skilfully as adults their age normally would. Such individuals are thought to come from overprotective families, or (although rarer) extremely neglectful families (Young *et al.,* 2003).

1.8.1.3 Schema domain: 'Impaired limits' (Young *et al.,* 2003)

Individuals with significant scores in the schema domain of 'impaired limits' are described by Young *et al.* (2003) as having difficulties in being co-operative, respecting others' rights, meeting goals (long-term) and keeping to commitments. Such people come from indulgent and 'overly permissive' (or lenient) families who did not encourage consideration for other people, did not require rules to be followed, or failed to enable the development of self-control. Adults with significant EMS in this domain may seek immediate rather than delayed gratification, even when delaying gratification would incur benefits; they also tend to act on impulse and have difficulties with restraint (Young *et al.,* 2003).

1.8.1.4 Schema domain: 'Other-directedness' (Young *et al.,* 2003)

Young *et al.* (2003) describe individuals with significant scores in the schema domain of 'other-directedness' as meeting others' needs over their own needs, to the extent that they are unaware of their own needs. The function of such behaviour is to avoid retaliation, to obtain approval and to maintain an emotional connection. Such people come from families where acceptance is conditional and where their needs as a child were disregarded in favour of parental needs or 'social appearances'. In such families, receiving approval or love requires a child to operate restraint over their natural feelings or impulses. Adults with significant EMS in this domain continue to be motivated to meet the needs of others rather than themselves (Young *et al.,* 2003).

1.8.1.5 Schema domain: 'Over-vigilance and inhibition' (Young *et al.,* 2003)

Young *et al.* (2003) describe individuals with significant scores in the schema domain of 'over-vigilance and inhibition' as having 'internalised rules' which are rigid and must be followed, suppressing impulses, feelings and spontaneity. Living to such 'rules' comes at the expense of relaxation, happiness, self-expression and close relationships. Such people come from families where self-denial and self-control are

valued over pleasure and spontaneity. Adults with significant EMS in this domain tend to be pessimistic, worrying and live in fear that if they are not careful, their lives could 'fall apart' (Young *et al.,* 2003).

The next section will present and discuss research which has investigated the relationship between EMS and childhood maltreatment.

1.9 Childhood abuse and/or neglect and EMS

Young *et al.* (2003) hypothesised that children who are subjected to childhood abuse (physical and sexual) are likely to develop EMS related to danger (for example the EMS of 'mistrust' and 'vulnerability to harm'). Children who experience neglect are likely to develop EMS related to worthlessness and loss (for example EMS such as 'social isolation' and 'emotional deprivation'). As these EMS generally align under the schema domain of 'disconnection and rejection', Young *et al.* (2003) state that this schema domain would have high prevalence among people who suffered significant maltreatment during childhood.

There is some empirical evidence to support these hypotheses but research is in its relative infancy. Due to the significance of this area of research to the present study, relevant studies are explained in some detail.

A study into EMS and self-reported trauma in childhood conducted by Cecero *et al.* (2004) looked at the relationship between EMS and attachment in an adult undergraduate population (292 participants; 220 female, 72 male, ages 17-21 with an average age of 20 years). A version of Young's Schema Questionnaire was used (Ball and Young unpublished data as cited in Cecero *et al.,* 2004), called the Early Maladaptive Schema Questionnaire–Research Version (EMSQ-R). A measure of

childhood trauma, the Childhood Trauma Questionnaire–Brief Screening Version (Bernstein *et al.,* unpublished data as cited in Cecero *et al.,* 2004) was also administered. The authors found that experiencing childhood neglect or abuse was related to the EMS of defectiveness (within the schema domain of 'disconnection and rejection'). This finding suggests a relationship between the schema domain of 'disconnection and rejection', and early experiences of maltreatment. Also importantly, Cecero *et al.* (2004) found that conditional EMS were less associated with having suffered childhood abuse and/or neglect than unconditional EMS. This finding may support Young's notion that unconditional EMS are intrinsically linked with early experiences within relationships, whereas conditional EMS develop later in life, often in response to unconditional EMS and potentially influenced by factors outside of the family (Young *et al.,* 2003). The study is limited however in the homogeneity of its non-clinical population meaning that the number of participants who reported themselves as having experienced childhood maltreatment was small. Additionally, their use of retrospective self-report to obtain information about childhood experiences may not create valid information as such reports were not validated. However, this study is important in providing some empirical evidence regarding the association between early life experiences and specific EMS.

Building on the evidence base suggesting a relationship between childhood maltreatment and EMS, McGinn *et al.* (2005) conducted a study including 55 participants (average age of 45, 89 per cent were female) recruited from an outpatient psychiatry department in New York. This study found that those participants who reported their parents as having been uncaring (as measured by the parental bonding instrument; Parker *et al.,* 1979) had higher self-reported dysfunction in the schema domain of 'disconnection and rejection' (as measured by the YSQ; Young & Brown, 1990). In addition, those who reported experiencing trauma in childhood (as measured by the Childhood Trauma Questionnaire; Bernstein *et al.,* 1994) also reported higher prominence of EMS in the domains of 'disconnection and rejection', 'impaired autonomy and performance' and 'impaired limits' (McGinn *et al.,* 2005). This study is useful in that it was conducted with a clinical population and seems to further suggest a relationship between the presence

of dysfunctional schemas and suffering maltreatment in childhood. However, results should be interpreted with caution as participants were recruited from a single mental health centre in New York and as a result may not be very representative of a wider clinical population. In addition, experiences of childhood maltreatment were again self-reported meaning the validity of information was unconfirmed. That said, this paper is important in enhancing understanding of the relationships between early experiences and cognitive schemas.

More recently Lumley and Harkness (2007) investigated the relationship between different types of childhood maltreatment (assessed using an interview based measure: Childhood Experience of Care and Abuse Interview and Rating System; Bifulco *et al.,* 1994); symptoms of psychological distress (measured using the Schedule for Affective Disorders and Schizophrenia; Kaufman *et al.,* 1997 and Beck's Depression Inventory; Beck *et al.,* 1996); and specific EMS (measured using the YSQ; Young, 1994) in a sample of 76 adolescents (52 females, 24 males ages 13-19) all suffering from clinically significant levels of depression. Study results revealed a relationship between suffering childhood maltreatment and both anxiety and depression, but they did not find a difference between the types of childhood maltreatment suffered and reported symptoms of anxiety or depression. However, Lumley and Harkness (2007) did find that EMS associated with danger mediated the relationship between childhood maltreatment and higher anxiety, while the EMS associated with loss or worthlessness mediated the relationship between childhood maltreatment and higher levels of anhedonia, in those who rated high for depression. Lumley and Harkness (2007) conclude that these findings suggest 'the specific schema themes that likely develop following childhood adversity may determine the resulting symptom presentation' (p.651.). Therefore, it may not be the type of childhood maltreatment suffered that leads to specific types of difficulties, but rather the way in which maltreatment is interpreted or internalised, in terms of cognitive schema, that mediates between past abuse and present psychological distress (Lumley & Harkness, 2007). Although these findings are interesting, a limitation of this study is that it was conducted in the USA, meaning results would need to be verified within a British culture to ensure they apply. Additionally, the YSQ is

generally regarded as an adult measure therefore its use is questionable given the age of participants in this study (13 to 19 years).

In summary then, the studies cited here have made progress in exploring the relationships between EMS and childhood maltreatment, but still face many limitations. The next section will discuss the relationships between schema and psychological distress.

1.10 EMS and psychological distress

Schema theory and therapy were originally devised to be used with people suffering long-term psychological difficulties which were proving difficult to treat (Young *et al.,* 2003). It is said to be a form of therapy which: 'significantly expands on traditional cognitive-behavioural treatments and concepts.' (Young *et al.,* 2003. p.1.). Schema theory and schema therapy are said to draw on ideas from cognitive-behavioural, Gestalt, object relations, attachment, social constructionist and psychoanalytic approaches. Schema therapy is often used as a therapy for people with a diagnosis of 'personality disorder', however more recently its principles have been applied to, and used in the treatment of, various psychological difficulties including substance abuse (Ball & Cecero, 2001), eating disorders (Waller *et al.,* 2001), depression (Riso & Newman, 2003; Abela *et al.,* 2009) and obsessive compulsive disorder, OCD (Lawson *et al.,* 2007), among other difficulties.

EMS have been found to differentiate between the presence or absence of different types of psychological difficulties in clinical and non-clinical populations. For example, Lawson *et al.* (2007) examined the relationship between EMS and OCD in a clinical sample of 62 females (ages 17-56, average age 28.5 years) with a diagnosis of an eating disorder. They found that those with OCD compared to those without were distinguished by higher scores on four EMS: dependence/incompetence; subjugation; mistrust/abuse; and defectiveness/shame.

In addition, a study by Abela *et al.* (2009) looking at the relationship between EMS and depressive symptoms in a non-clinical sample of 63 university students (average age of 21years 10months) found that having EMS in the schema domains of 'disconnection and rejection' and 'over-vigilance and inhibition' was associated with having suffered depression in the past. In addition, a study by Saariaho *et al.* (2011) looked at EMS in people who were suffering from chronic pain, and found that compared to those without chronic pain, participants with pain had more prominent EMS in the schema domain of 'disconnection and rejection'.

The above studies illustrate the multiple applications of the concept of EMS although there is not yet sufficient evidence to determine the significance of their findings. However, the prominence of the schema domain of 'disconnection and rejection' in association with a wide variety of difficulties is notable.

1.11 Critique of schema theory

As Young's notion of EMS is based on clinical experience rather than an empirical evidence base (Bosmans *et al.,* 2010), research is ongoing which means that the YSQ has undergone frequent revisions and refinements. As a result it can be difficult to draw parallels between research studies because of the different measures used at different stages of development. Nevertheless, there is growing evidence to suggest that the different versions of the Young's Schema Questionnaire do have substantial parametric properties (Stopa & Waters, 2005) making them a potentially useful tool in research and clinical practice.

Perhaps a more fundamental criticism of schema theory is that it is largely untested by empirical research (Thimm, 2010). In addressing this criticism, it has been suggested that schema theory may benefit from being integrated into other well-established theories (Thimm, 2010) such as attachment theory (Platts *et al.,* 2002). As previously discussed, there has also been a suggestion that IWMs in attachment

theory may be better understood as cognitive schemas (or EMS; Bosmans *et al.,* 2010; Bretherton, 1990; Main, 2000; Platts *et al.,* 2002; Platts *et al.,* 2005; Thompson, 2008). Therefore it may be that in addressing the limitations of both attachment theory and schema theory, each theory may reciprocally redress the deficiencies of the other. By viewing attachment theory and schema theory together, a more coherent account may be offered of the pathway between early relationships, life experiences and the way in which these are processed and understood and result in psychological difficulties in adulthood. The possible relationships between EMS and IWMs in attachment theory will now be discussed and the findings of previous research presented, in order to establish a rationale for the present study.

1.12 Schema and attachment

Young *et al.* (2003) have drawn comparisons between schema theory and attachment theory, noting the significant impact attachment theory had on their work. They particularly note Bowlby's work concerning children's basic emotional need to acquire independence from their main attachment figure, becoming attached, before achieving autonomy (Young *et al.,* 2003). Young *et al.* (2003) considered the similarities between EMS and IWMs and described both as being based upon experiences in early attachment relationships. They postulated that EMS function as dysfunctional IWMs and saw patterns of interaction between a child and its main caregiver (such as those in the Strange Situation test) to be expressions of coping styles (Young *et al.,* 2003). Additionally, both IWMs and EMS were believed to become less likely to change and more unconscious the longer they are rehearsed (Young *et al.,* 2003). However, although similar, IWMs and EMS are not the same things (Simard *et al.,* 2011). It is postulated that EMS may function as specific components of IWM, which help to explain differences between attachment styles and, if identified, can form the basis for therapeutic interventions (Simard *et al.,* 2011).

There are two key studies that have attempted to investigate the relationship between the three variables of psychological distress, adult attachment and EMS. These will now be reviewed in some detail before the aims and hypotheses of the current study are presented.

1.13 Key studies investigating the relationships between psychological distress, attachment and schema

Platts *et al.* (2005) looked at the relationships between psychological distress (measured using the CORE; Evans *et al.,* 1998), attachment style (measured using the ECR; Brennan *et al.,* 1998) and EMS (measured using the YSQ short-form; Young, 1998), in an adult clinical population. Their study included a total of 72 participants (40 females, 32 males; aged 18-62, average age 39) involved with mental health services in the UK. The authors found that participants belonging to the fearful avoidant and preoccupied attachment style groups reported themselves as having a greater number of psychological difficulties, than those belonging to the dismissing and secure attachment style groups. The study found that the preoccupied and fearful avoidant attachment style groups had a greater number of prominent EMS than the dismissive and secure attachment style groups. It also found that for the majority of participants' (77 per cent) attachment style could be predicted by their schema profile. Participants classified as having a preoccupied attachment style were more likely to have EMS of emotional deprivation, abandonment and self-sacrifice (EMS within the schema domains of 'disconnection and rejection', and 'over-vigilance and inhibition'). Participants classified as having a fearful avoidant attachment style were more likely to have EMS of defectiveness/shame, mistrust/abuse and social isolation and emotional inhibition (EMS within the schema domains of 'disconnection and rejection', and 'other-directedness'). Multiple regressions were used to arrive at this finding but it is not clear from the paper what variables were entered into the analysis. As a result, it is not certain that the analysis is valid as if they had entered all 15 EMS, they would not have had enough participants per variable to permit the analysis (10 participants per predictor variable are required; Field, 2009). With a sample size of 72 participants, this analysis would not have been possible.

In the study by Platts *et al.* (2005) the relationship between psychological distress and EMS was not investigated. With regards to the relationships between attachment style and EMS, curiously and counter to what Platts *et al.* (2005) anticipated, participants classified as having a dismissive attachment style had low prominence of EMS and low levels of psychological distress. Platts *et al.* (2005) attribute this finding to the fact that they had a low number of participants with a dismissive attachment style in their study. Platts *et al.* (2005) conclude that: 'several aspects of the individuals' symptoms and difficulties and their EMS were meaningfully related to their adult attachment style' (p.549.).

A limitation of the study by Platts *et al.* (2005) was the small number of participants within the dismissive attachment style category (six participants), making it difficult to conduct meaningful analyses using this group. A further limitation is that they do not make it clear how participants were divided into attachment style groups based on their scores on the ECR, as there are no norms for using the ECR in this way. This means that their method cannot be fully replicated. Additionally, they do not consider EMS within their relevant schema domains which makes interpretation of their results confusing and difficult to summarise. Also, as the average age of their participants was age 39 (range 18-62) these findings may not be directly applicable to a younger population. Despite these criticisms however, this study makes a valuable contribution to understanding the potential relationships between schema and attachment in a clinical population, and forms a template for the present study, which uses revised versions of the same three questionnaires.

In a more recent investigation, Bosmans *et al.* (2010) looked at the relationship between psychological distress (measured using the Symptom Check List-90; Derogatis *et al.,* 1973), adult attachment (using the ECR-R; Fraley *et al.,* 2000) and EMS (as measured by the YSQ short-form; Young & Brown, 1990) in a large adult Flemish student population (289 participants, mean age 21, predominantly female sample: 241 females, 48 males). Bosmans *et al.* (2010) viewed the variable of attachment along two continuums (of attachment anxiety and attachment avoidance)

rather than in categories; grouped EMS into their five corresponding schema domains as specified by Young *et al.* (2003) and used a total score for psychological distress.

Bosmans *et al.* (2010) found that higher attachment anxiety and higher attachment avoidance both correlated with higher psychological distress with medium correlations (.039, p<.001 and .36 p<.001 respectively). They found that all schema domains positively correlated with higher reported psychological distress with large correlations (>.50, p<.001) between higher psychological distress and the schema domains of 'disconnection and rejection', 'other-directedness' and 'impaired autonomy and performance'. They also found associations between the five schema domains and attachment (anxiety and avoidance; Bosmans *et al.,* 2010). Specifically, higher attachment anxiety was related to 'disconnection and rejection' and 'other-directedness', and higher attachment avoidance was related to 'disconnection and rejection' and 'impaired autonomy and performance' (Bosmans *et al.,* 2010).

In order to analyse the relationships between the variables, Bosmans *et al.* (2010) used mediational analyses. This form of analysis looks at the relationships between variables and allows the mediating effects of different variables to be observed (see Field, 2009 for further details). They found that the relationship between attachment anxiety and psychological distress was completely mediated by the relationship between attachment anxiety and the schema domains of 'disconnection and rejection' and 'other-directedness'. They also found that the relationship between attachment avoidance and psychological distress was partially mediated by the relationship between attachment avoidance and the schema domain of 'disconnection and rejection' (Bosmans *et al.,* 2010). Bosmans *et al.* (2010) state: 'our findings are interesting, as they confirm the hypothesis that maladaptive cognitions related to insecure attachment explain the association between attachment and symptoms of psychopathology.' (p.381.).

Bosmans *et al.* (2010) acknowledge limitations of their study including its non-clinical population of participants. They recommend that future research needs to be undertaken with a clinical population. In addition, they note the low representation of males to females which may mean their findings are not fully representative or applicable to both genders. In viewing attachment anxiety and attachment avoidance along two continuums they were unable to represent or explain which schema domains were most significant for those participants who might have scored highly on both attachment continuums, referred to as fearful avoidant group in categorical terms (Bartholomew & Horowitz, 1991). Also, the fact that the population of young people included in this study were Flemish means that result may not necessarily apply to a British population. However, their use of EMS in terms of schema domains means their results are perhaps clearer and more easily understandable than those of Platts *et al.* (2005). Such clarity may make their results more meaningful, useful and applicable clinically.

In summary, the two studies cited above do go some way to begin to explain the relationships between the concepts of psychological distress, adult attachment and EMS. However, their varied methodology and approaches to analysis make comparisons between findings difficult, leaving the relationships between the variables unclear and unsubstantiated.

1.14 Possible implications of study findings

Despite the links between adult attachment and EMS seeming plausible (Holmes, 1993; Platts *et al.,* 2005) there is a limited amount of research investigating the links between them (Platt *et al.,* 2002; Thimm, 2010) therefore they remain speculative (Blissett *et al.,* 2006). If relationships between the two theories of attachment and schema were better established and clarified, and the relationship of these to psychological distress better understood, such information may be used to guide future clinical practice and research (Bosmans *et al.,* 2010; Platts *et al.,* 2005; Simard *et al.,* 2011). Although research currently available has begun to clarify the

relationships between these constructs, the evidence base is subject to criticisms (as previously discussed). Consequently, it is unclear whether there would be any relationships observed between psychological distress, adult attachment and EMS in a care leaver population – a study which would help inform the design of therapies to meet the psychological needs of this population.

As first discussed, care leavers are a population of young people who are known to face significant difficulties in terms of poor psychological wellbeing and multiple social difficulties. Additionally, current research into care leavers as a population seems to have largely focused on social outcomes, rather than investigating the constructs underlying the presenting difficulties or social issues.

In England, in the year ending March 2010 there were 64000 looked after children, and 9100 young people aged 16 and over left care (DfCSF, 2010). In Wales, in the year ending March 2010 there were 5162 looked after children, and 503 young people ages 16 and over left care (WAG, 2010). Within the area of Wales included in the present study, there are currently an estimated 470 care leavers aged 16-21 (personal communication with leaving care teams, October 2010). The substantial number of care leavers, combined with the knowledge that they are a population who typically have psychological needs, but poor reported experiences within mental health services, makes understanding them as a population of high importance. In light of current pressures on psychology services to provide a service for care leavers and in the absence of a clear evidence base about how to go about providing such a service, it is important to make attempts to better understand care leavers from a psychological perspective. As far as the present author is aware, no studies have looked at the relationships between the constructs of psychological distress, adult attachment and EMS in a care leaver population.

The current study is largely exploratory in nature as there is a limited amount of previous research available looking at the relationships between psychological distress, adult attachment and EMS upon which to base specific hypotheses. In addition, findings within available research require clarification through exploratory investigation, as all findings are in their infancy and have not been replicated extensively.

1.15 Aims and hypotheses of present study

The primary aim of this study was to investigate the self-reported psychological needs of young adults leaving care (care leavers). More specifically, the study aimed to examine the relationship between psychological distress, adult attachment, and EMS in a group of care leavers. A secondary aim was to augment existing literature on the relationship between internal working models (IWMs) within attachment theory, and EMS within schema theory as conceptualised by Young *et al.* (2003).

Hypotheses are based on the findings of previous research and the literature discussed in previous sections. Some are 'two tailed', meaning the direction of the relationship is not predicted, therefore they are exploratory; others are 'one tailed', meaning the direction is predicted. The following hypotheses will be tested in the study:

Care leavers and psychological distress

Hypothesis one: Care leavers mean scores for psychological distress (CORE) will fall within the clinical range and a large proportion of care leavers will report psychological distress scores (CORE) in the clinical range.

Care leavers experiences, psychological distress, adult attachment and EMS

Hypothesis two, part i): There will be significant differences between participants who experienced neglect and participants who experienced neglect and abuse on the variables of psychological distress (CORE), attachment insecurity (ECR-R) and early maladaptive schemas (YSQ-S3). Group differences will be assessed using a t-test or Mann-Whitney U as appropriate.

Hypothesis two, part ii): There will be significant correlations (either positive or negative) between number of placements and age taken into care on the one hand, and variables of psychological distress (CORE), attachment insecurity (ECR-R) and early maladaptive schemas (YSQ-S3) on the other hand. Correlations will be assessed using Pearsons r or Spearmans rho as appropriate. Since the hypothesis is bi-directional, two tailed tests will be used.

Psychological distress, adult attachment style and schema domains

Hypothesis three, part i): There will be significant positive correlations between psychological distress (CORE) on the one hand, and the variables of attachment insecurity (ECR-R) and early maladaptive schemas (YSQ-S3) on the other hand. Correlations will be assessed using Pearsons r or Spearmans rho as appropriate. Since the hypothesis is uni-directional, one tailed tests will be used.

Hypothesis three, part ii): There will be significant positive correlations between attachment insecurity (ECR-R) and early maladaptive schemas (YSQ-S3). Correlations will be assessed using Pearsons r or Spearmans rho as appropriate. Since the hypothesis is uni-directional, one tailed tests will be used.

Attachment style, psychological distress and schema domains

Hypothesis four: There will be significant differences between the attachment style groups (as classified by the ECR-R) on the variables of psychological distress (CORE) and early maladaptive schemas (YSQ-S3). These differences will be assessed by one-way ANOVAS.

1.16 Introduction to method

The next chapter will explain the method used to explore the above hypotheses, including information on the study design, participants, measures, procedure, ethical considerations and method of data analysis.

CHAPTER TWO – METHODOLOGY

2.1 Study aims

This study aimed to explore the self-reported psychological needs of young adults leaving care (care leavers) through examining the relationship between psychological distress, adult attachment and EMS in a group of care leavers. A full list of study variables is available in Appendix 2.

In addition, the study aimed to augment existing literature on the relationship between internal working models (IWMs) within attachment theory, and EMS within schema theory (as conceptualised by Young *et al.,* 2003).

2.2 Design

The study was a quantitative, cross-sectional survey. Data were collected via three standardised self-report questionnaires, and a general demographics questionnaire. These were completed by participants during a scheduled interview time which lasted around 45-60 minutes with the researcher, who was present to facilitate data collection and assist in reading the questionnaires if needed. All participants completed an identical battery of questionnaires in a predetermined order.

In order to examine the three main variables of psychological distress, adult attachment and EMS, the current study used three self-report questionnaires: the ‘Clinical Outcomes in Routine Evaluation; CORE’; the ‘Experiences in Close Relationships-Revised questionnaire; ECR-R’; and ‘Young's Schema Questionnaire, short-form version-three; YSQ-S3’. These are described in detail in section 2.4.

2.2.1 Quality in research

Dallos and Vetere (2005) outline standards for qualitative and quantitative research which include that research should have a clear scientific context and purpose, appropriate and specified methods, explicit aims, ethical research conduct, clear reporting, a discussion of study implications and, should contribute to theory and practice development within the area being studied. As far as possible, these standards were incorporated into the present study.

2.2.2 Service user involvement

A group of five care leavers, recruited via one of the leaving care teams, were consulted by the researcher. The group were asked to give feedback on the content of the three questionnaires (described in detail within section 2.6), the participant information sheet (Appendix 3), consent form (Appendix 4), flyer (Appendix 5) and the proposed process for participation. All were able to read the questionnaires and understood the content, although they suggested that the researcher offer to read the questions out to participants, so that they would feel more comfortable asking for help if they found anything difficult to understand. Where possible, all recommended changes to forms, such as to the information sheet, suggested by the group were applied.

It was hoped that involving a group of care leavers from the beginning stages of the present study would help ensure that the experience of participation was positive. In addition, care leavers as a general population are known to have a lower average educational attainment level than their peers (Barn & Mantovani, 2007) therefore there was concern that the questionnaires chosen would be too difficult for them to read and/or understand. Through consulting with care leavers it was ensured that any potential difficulties in data collection were identified in advance and consequently minimised.

2.3 Procedure and ethical considerations

The following section will explain the processes of obtaining ethical approval and recruitment along with discussing issues surrounding confidentiality, informed consent and welfare of study participants.

2.3.1 Ethical approval

Permission to conduct the present research was obtained from the NHS UHB Research and Development Department (R&D; see Appendix 6), the NHS Research and Ethics Committee (see Appendix 7), Aneurin Bevan Health Board (Appendix 8) and from the Service Managers of Social Services in five authorities in South Wales (letter sent to managers and permission received; Appendix 9).

2.3.2 Recruitment

Once permission had been obtained to conduct the research, contact was made with the leaving care teams via telephone and a meeting was arranged with each (a diagrammatic illustration of the procedure is provided in Appendix 10). A presentation of the study was given to each of the teams at a time and place convenient to them. Flyers detailing the project were provided to leaving care teams to be distributed to care leavers (Appendix 5).

If interested in taking part, care leavers could contact the researcher themselves (via telephone), or could agree to have their details passed on to the researcher by a member of the leaving care team for the researcher to make contact with them. No participants made direct contact with the researcher themselves, preferring to have their details passed on by the leaving care teams. When contact was made, an individual meeting was arranged with the young person at a convenient time and place of their choosing. Where possible, these meetings were held at the social

services base which the young person would regularly attend, meaning they were in familiar surroundings, and the leaving care team staff were easily accessible if needed. When this was not possible, following a risk assessment and if staff who knew the young person deemed it appropriate, the researcher conducted home visits.

Individuals who did not fully understand written or spoken English or who had audio, visual or physical impairments which disenabled them to give full informed consent were excluded from the study. Individuals who were identified by themselves or by the interviewer as being intoxicated at the time of interview were also excluded from the study as they would be unable to give full informed consent. To complete the ECR-R participants need to have experienced a romantic relationship therefore those who did not consider themselves to have had such an experience were also excluded. The Leaving Care Teams were asked to apply these exclusion criteria when identifying potential participants, the researcher also checked the eligibility of participants when first meeting them (see section 2.3.3 for full inclusion and exclusion criteria).

Care leavers in contact with leaving care teams were given equal opportunity to participate and were recruited on a first-come, first-served basis. Recruitment ceased once the target number of participants had been reached. A total of 54 young people volunteered to take part. Two were not interviewed due to their being too young (age 16) and one due to illness on the day the interview was scheduled. One young person gave consent to participate but had difficulties in understanding the questionnaire content, therefore the interview was suspended before completion and all data collected were omitted from the study. All young people interviewed were in current receipt of support from a leaving care team.

The researcher was present for the duration of time in which participants completed questionnaires. This allowed for any complex questions to be explained, meant the researcher could help with reading the questionnaires if needed and ensured that all sections of the questionnaires were completed. Participants were asked to complete the questionnaires in a predetermined order to ensure consistency (demographics, CORE, ECR-R, YSQ-S3). A written debrief letter was provided (Appendix 11) following participation which included information on the aims of the study.

Participation was voluntary and each care leaver received £5 as payment. Participants were recruited via five local authority leaving care teams in South Wales, within which there were a total of approximately 470 care leavers. The leaving care teams were responsible for informing care leavers of the study.

2.3.3 Inclusion/exclusion criteria

Inclusion criteria:

- Care leavers (ages 18-21) who were willing and able to give informed consent to take part in the project.
- Participants needed to give consent to complete all parts of the study.
- Participants must have been able to fully understand spoken and written English in order to give informed consent.
- Participants must have been able to draw on an experience of having been in a romantic relationship.

Exclusion criteria

- Participants who were not in contact with the leaving care teams.
- Participants who were illiterate or had identified severe learning disabilities, as the questionnaires used had not been standardised on this population.

- Participants who had audio/visual/physical impairments which disenabled them to give full informed consent, or those who were unable to complete the questionnaires provided, despite having any aids they would normally use.
- Participants who were identified as being intoxicated at the time of participation.
- Participants who were in Police custody at time of participation.

2.4 Measures

The use of self-report measures was considered appropriate for the current study, as self-report measures of attachment are said to provide an accurate measure of unconscious processes are able to represent those with preoccupied and dismissive attachment styles well (Shaver & Mikulincer, 2004). Additionally, self-report has been argued as the best way to assess schema (Bosmans *et al.,* 2010; Platts *et al.,* 2005).

A general demographics questionnaire (Appendix 12) was devised for the purposes of the current study, in order to gather background information on participants including gender, age, ethnicity, leaving care team associated with, marital status, educational qualifications and employment status.

2.4.1 The 'Clinical Outcomes in Routine Evaluation' (CORE)

The 'Clinical Outcomes in Routine Evaluation' (CORE; Evans *et al.,* 1998) is a measure of global psychological distress (Platts *et al.,* 2005). It is a questionnaire based measure containing 34 items, answered through the use of five-point Likert-type scales (see Appendix 13 for a copy of the questionnaire). Possible responses range from 'not at all' to 'most or all of the time', with corresponding scores ranging from zero to four. The measure contains four dimensions: subjective wellbeing; problems/symptoms; life functioning; and risk. It also provides a score for 'overall psychological distress'. The CORE is suitable for use across a wide range of

settings and with a varied client group in terms of age, ethnicity and gender (Evans *et al.,* 2002). A study looking at the psychometric properties of the CORE by Evans *et al.* (2002) revealed appropriate levels of internal reliability with the four dimensions possessing a coefficient α of between <.75 and <.95. Test-retest stability ranged from 0.87 to 0.91 for three of the four dimensions (subjective wellbeing; problems/symptoms; life functioning) which is considered 'excellent' (Evans *et al.,* 2002). The dimension of risk had the lowest stability (0.64; Evans *et al.,* 2002). According to Evans *et al.* (2002), convergent validation of the CORE against a battery of existing measures looking at psychological distress is good. These findings suggest that the CORE is a comprehensive, valid and reliable tool.

The CORE asks participants to reflect on how they have felt over the past week across a range of distress dimensions. It provides a total score which gives a measure of overall psychological distress as well as sub-scores on four distress dimensions of 'risk' (to self/others; items such as 'I have made plans to end my life'), 'subjective wellbeing' (items such as 'I have felt optimistic about my future'), 'problems/symptoms' (items such as 'I have felt tense, anxious or nervous') and 'life functioning' (items such as 'I have been able to do most things I needed to'; Evans *et al.,* 2000). It is scored by totalling items marked as relating to the four dimensions and calculating a mean score for each. A total score is calculated from deriving the mean of all items. The significance of scores can be observed in Table 2.1 which detects clinical cut-off scores.

Table 2.1 Score bands for the CORE

Band	Total overall score	Average score	Whole number average
Severe	85 to 136	Over 2.5	Over 25
Moderately severe	68 to 84	2.0 to <2.5	20 to <25
Moderate	51 to 67	1.5 to <2.0	15 to <20
Mild	34 to 50	1.0 to <1.5	10 to <15
clinical cut off			
Low level	21 to 33	0.6 to <1.0	6.0 to <10
Healthy	0 to 20	0.0 to <0.6	0.0 to <6.0

Scores derived from the CORE can be treated as continuous or categorical data. When used as continuous data, a higher score indicates a higher degree of reported psychological distress and a lower score indicates a lower degree of reported psychological distress. When used as categorical data, a person belongs to a group indicating a particular level of severity of psychological distress. Scores which fall within the 'mild' to 'severe' bands are considered to be clinically significant (CORE Partnership, 2007).

2.4.2 The 'Experiences in Close Relationships-Revised questionnaire' (ECR-R)

The 'Experiences in Close Relationships-Revised questionnaire' (ECR-R; Fraley *et al.,* 2000) is a measure of adult romantic attachment (see Appendix 14 for a copy of the questionnaire). It contains 34 items answered through the use of seven-point Likert-type scales with possible responses ranging from 'strongly disagree' to 'strongly agree' (with corresponding scores ranging from one to seven). The questionnaire asks participants to imagine answering the questions in relation to the way they generally feel within 'emotionally intimate relationships' (Fraley *et al.,* 2000). It is not necessary for people completing the questionnaire to be in a relationship at the time they complete it. The questionnaire measures two dimensions of attachment: attachment anxiety and attachment avoidance. Internal reliability of the ECR-R items is reported to have a coefficient α of .95 for the anxiety scale and a coefficient α of .93 for avoidance (Sibley & Lui, 2004) indicating a high

level of internal reliability. Sibley and Liu (2004) found the results produced by the ECR-R to be stable for participants over a six week period (86% shared variance on both continua over time). This suggests good test-retest stability. Further to this, according to Sibley (2005), the ECR-R has suitable discriminant and convergent validity. In sum, Sibley and Lui (2004) recommend the ECR-R as one of the most appropriate measures available to assess self-reported adult attachment style based on experiences in romantic relationships.

Scores for attachment anxiety and attachment avoidance are derived by calculating the mean score for each construct. On the basis of these scores participants are categorised as having a secure (low anxiety, low avoidance), preoccupied (high anxiety, low avoidance), dismissive (low anxiety, high avoidance) or fearful avoidant (high anxiety, high avoidance) attachment style (Platts *et al.,* 2005; see Table 2.2).

Table 2.2 Adult attachment styles[5]

Attachment style	Attachment anxiety (model of self)	Attachment avoidance (model of other)
Secure	low (positive)	low (positive)
Preoccupied	high (negative)	low (positive)
Dismissive	low (positive)	high (negative)
Fearful avoidant	high (negative)	high (negative)

Results obtained from the ECR-R have been used as continuous scores of both attachment anxiety and attachment avoidance (Bosmans *et al.,* 2010, Fraley, 2005) as well as being used to categorise participants into attachment style groups (Platts *et al.,* 2005). For the purposes of the present study, attachment scores are used in both ways, in order to fully explore relationships between the variables and to fulfil study hypotheses. When participants are allocated to one of four attachment groups within the present study, groupings are intended to indicate 'styles' of attachment

[5] Attachment styles as conceptualised by Bartholomew and Horowitz (1991)

rather than implying the existence of fixed adult attachment categories. The process employed to categorise participants in the present study is explained fully in section 3.6.

2.4.3 Young's Schema Questionnaire, short-form version-three' (YSQ-S3)

'Young's Schema Questionnaire, short-form version-three' (YSQ-S3; Young, 2005) is a measure of EMS (see Appendix 15 for a copy of the questionnaire). It comprises 90 items answered through five-point Likert-type scales ranging from 'completely untrue of me' to 'describes me perfectly' (with corresponding scores of one to five). A previous version of the YSQ short-form (Young, 1998) has been shown to have good internal consistency and validity (Welburn *et al.,* 2002). Additionally, the findings of Welburn *et al.* (2002) suggest that the short-form yields as reliable results as the longer version. No coefficient alphas are currently available for the YSQ-S3 from other research however, in the present research, the coefficient α was .93, indicating high internal reliability. There is no data currently available on the test-retest stability or on the validity of the YSQ-S3. Although research into the psychometric properties of the YSQ-S3 is limited, there are no other measures of schema (or EMS) currently available with higher validity.

The YSQ-S3 identifies which EMS are significant for an individual out of a possible 18. Each schema relates to five items on the scale and the 18 EMS align to five schema domains (Table 2.3).

Table 2.3 Schema domains and associated EMS

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In order to analyse the data collected from YSQ-S3, mean scores for each schema domain were obtained by adding the total scores for corresponding EMS and dividing by the number associated with the schema domain. A higher mean score indicates a higher significance of a particular schema domain.

2.5 Participants

The study sample consisted of 50 care leavers from South Wales (50 per cent male/female split). They ranged in age from 18-22 years with a mean age of 19. Only one participant was aged 22 at the time they completed the questionnaires, they were within the target age group (18-21 years) when first recruited.

A description of the participants including ethnicity, relationship status employment/education and qualifications obtained is provided in Table 2.4.

Table 2.4 Description of participants

Variable		Number of participants	Percentage (%)
Ethnicity	White British	46	92
	White	3	6
	Mixed other	1	2
Employment/ education	Unemployed	33	66
	In college full time	9	18
	In college part time	3	6
	Employed (full time)	2	4
	Employed (part time)	2	4
	Other	1	2
Qualifications leaving school (GCSE's)	Grades A*-G	29	58
	Grades A*-C	18	36
	Grades D-G	11	22
	None	21	42
Relationship status	Single	28	56
	Married/co-habiting	12	24
	In a relationship, not co-habiting	10	20

With regards to ethnicity, 98 per cent of participants reported themselves to be 'white British' or 'white', which is representative of the population in South Wales (National Statistics, 2001). Examining current employment/education, 66 per cent were unemployed, 24 per cent were in college and 9 per cent were employed. In terms of educational attainment, 58 per cent of participants left school with one or more GSCEs, which is far poorer than the national average for the general population where 94 per cent obtain a minimum of one GCSE (Lamont *et al.,* 2009).

Overall, 56 per cent of participants were single and 44 per cent were in a relationship at the time of data collection. All participants reported themselves as having once been in a 'romantic relationship' as an experience they could draw on to answer questions on the adult attachment questionnaire (ECR-R; Fraley *et al.,* 2000). This requirement was an official inclusion criterion, therefore potential participants were

asked if they had previously had a boyfriend or girlfriend relationship that they could think about when answering some questions. Participants were responsible for making this decision themselves and their answers were not validated externally by anyone, but leaving care teams were aware of the inclusion/exclusion criteria when recruiting young people for the study.

2.5.1 Confidentiality

All participants completed their questionnaires alone to preserve confidentiality. Questionnaires were coded by number (not name) in order to ensure participants could not be identified. Participants were assured that any forms containing their personal information (consent forms and receipts for receiving payment), would be stored securely and separately from their completed questionnaires and that all information gathered would be anonymised.

2.5.2 Informed consent

Participants were provided with an information sheet about the study (Appendix 3) and were required to give written informed consent to confirm their wish to participate (Appendix 4). During the arranged interview the young person was able to ask the researcher questions. If they decided to participate, written consent was obtained. It was made clear to participants that they could withdraw from the study at any point. Participants were asked to give consent for their social services assigned key worker to provide information regarding their early life experiences (taken from their case files). This information included age taken into care, reason for being taken into care (according to social services criteria), number of foster placements since being taken into care, if they had ever been adopted and if they had, why the adoption broke down. As many care leavers were taken into care at a young age it was judged that they may not know the answers to these questions themselves. Additionally, it is likely that memories of the events, which caused them

to be taken into care, would cause upset, making it inappropriate to ask the care leavers themselves these questions.

Participants were invited to read the information sheet, give informed consent and complete the questionnaires during the same meeting. However, if they preferred to think about it, they were told that they were free to do so and could contact the researcher at a later time. All participants did give consent and completed all questionnaires during the same meeting. Participants were reminded of their right to withdraw from the study at any point.

2.5.3 Welfare of Participants

The CORE questionnaire was screened during the interview in order to ascertain whether the participant was experiencing any suicidal ideation or intent. If such a risk was identified through this, or via anything the young person said during the interview, the risk protocol was employed (Appendix 16; developed in conjunction with supervisors). This study was carried out in parallel with a study by another trainee clinical psychologist (a study unrelated to the present looking at aggression and self-esteem). Some participants took part in both studies on the same day. If this happened they were offered a break and refreshments between the studies. Other participants chose to postpone participation until a later date.

During the demographics questionnaire participants were asked for the name of their social services employed key worker (or personal advisor) as a person who, as well as providing information on their background, could be contacted to give them support if the researcher felt this was necessary. In addition, the researcher and clinical supervisor (who offers a clinical service to care leavers) were available to offer psychological support and would contact relevant mental health authorities if deemed necessary. Participants were provided with a debrief letter which included

the telephone numbers of various help lines (for example MIND and the Samaritans; Appendix 11).

Participants were paid £5 for taking part in the study. Paying participants not only helped to improve recruitment rates, it was also an appropriate way of valuing their contribution. In a research project with care leavers, Broad and Saunders (1998) note that paying participants prevented them from feeling used.

2.6 Power analysis

A study by Platts *et al.* (2005) used older versions of the same questionnaires used in the present study and applied Multivariate Analysis of Variance (MANOVA) analyses to explore group differences. They had 72 participants and found effect sizes of between .43 and .60 which are classified as being medium to large effect sizes (Cohen, 1988). An *a priori* power analysis was conducted based on an attempt to obtain a medium effect size of .50 in the current study. Using standard parameters of $\alpha = .05$ for .80 power to be detected, means that data from a minimum of 50 participants was needed (Table 3.3.2, Cohen, 1988, p.83). This sample size was obtained.

2.7 Data analysis and introduction to results

Full details of data analyses are provided in chapter three. A summary is offered here.

Data was analysed using the statistical package for the social sciences software (SPSS) version 18. Statistical advice was obtained before any analyses were performed and on an ongoing basis during analysis and interpretation of findings. Descriptive statistics were derived and used to describe the key features of the

population. The data were screened in order to determine whether or not they met the assumptions of parametric statistics. Both parametric and non parametric statistics were performed as appropriate.

The data analyses presented in the next chapter were divided into four phases. In phase one, descriptive statistics are used to describe the population. In phase two, correlational analyses explore relationships between the study variables. In phase three, between group analyses of variance (ANOVAs) and post-hoc analyses examine the differences between participants grouped by their adult attachment styles. Finally, in phase four, linear regressions are used to explore what variables best predict psychological distress within the study's sample of care leavers.

CHAPTER THREE - RESULTS

This chapter presents the data analyses performed to explore relationships between the main study variables of psychological distress (measured using the 'Clinical Outcomes in Routine Evaluation', CORE; Evans *et al.,* 1998), adult attachment (measured using the 'Experiences in Close Relationships-Revised questionnaire', ECR-R; Fraley *et al.,* 2000) and EMS (within the five schema domains; measured using 'Young's Schema Questionnaire, short-form version-three', YSQ-S3; Young, 2005), in a sample of care leavers.

Factors specific to a care leaver sample were also explored, these included; age taken into care, number of placements since being in care, and type of maltreatment suffered before care.

3.1 Overview of chapter

Preliminary data analyses were first performed in order to assess how suitable the data were for parametric statistics. These results are presented first, followed by the findings which are pertinent to exploring the study hypotheses. Data analyses are presented in four phases. Phase one reports descriptive statistics summarising the main variables of interest. Phase two uses bivariate correlational analyses to explore the relationships between study variables particular to a care leaver sample, before exploring the relationships between self-reported psychological distress, the attachment continuums (of attachment anxiety and attachment avoidance) and schema domains. Phase three presents a series of between group analyses of variance (ANOVAs), examining the differences between the four attachment styles (secure, preoccupied, dismissive and fearful avoidant) in terms of associated psychological distress and schema domains. Finally, phase four presents the results from a series of linear regressions which were used to explore which of the variables (attachment continuums or schema domains) significantly predicted the presence of psychological distress in a sample of care leavers.

Table 3.1 illustrates which analyses tested which of the study hypotheses, where the analyses can be found within the text and the number of analyses that relate to each hypothesis (where appropriate).

Table 3.1. Illustration of hypothesis and related analyses.

Hypothesis	Analysis applied	Phase of analysis	Section number	Number of analyses
Hypothesis 1	Descriptive data	Phase 1	3.5	n/a
Hypothesis 2				
part i)	t-tests/Mann Whitney U	Phase 1	3.4	n/a
part ii)	Pearsons r/Spearmans rho correlations	Phase 2	3.8	24
Hypothesis 3				
part i)	Pearsons r/Spearmans rho correlations	Phase 2	3.9.1/3.9.2	35
part ii)	Pearsons r/Spearmans rho correlations	Phase 2	3.9.3	10
Hypothesis 4	ANOVA	Phase 3	3.11/3.12	Group differences on 10 variables

In order to minimise the chance of possible type one errors (for example, detecting significant difference where there is none), multiple comparisons were avoided, and where conducted, only those with p values lower than .01 should receive attention. Where significance at the $p<.05$ level was detected, results were discussed, but such findings should be approached with caution as it is possible that they arose by chance.

3.2 Preliminary data analysis

The data set was tested for errors by screening the descriptive statistics (including minimum and maximum values and mean scores) for each of the continuous variables (interval and ratio level). Categorical variables (both binary and nominal level) were checked by generating descriptive statistics of frequencies, in order to view any mistyped data entries. In order to check for outliers, processes outlined by Pallant (2010) were followed. Two data points were identified as outliers; one on the psychological distress dimension of risk and one on the schema domain of 'impaired autonomy and performance'. The original raw data was consulted, which confirmed that numbers had been entered correctly. Observation of actual mean scores and '5 per cent trimmed mean' scores revealed that the outliers did have an effect on the overall mean, therefore they were removed when conducting parametric analyses, as their inclusion would violate one of the assumptions for parametric analyses. Removed data points accounted for <0.34 per cent of the overall data set. As a result, the sample size varies slightly across analyses.

3.2.1 Assumptions

In order to ascertain whether the study variables met the assumptions for parametric statistics, descriptive statistics were obtained and examined for all continuous variables (of interval or ratio level). The option 'exclude cases pairwise' was utilised to ensure that the data met the assumption of having 'related pairs' (Pallant, 2010). All observations in the current data set were independent of each other, as data was collected from all participants on an individual basis, and was not related to any group setting or shared interaction between participants. Therefore, data met the assumption of independence for observations (Pallant, 2010). Next, the data was tested for homogeneity of variance and normality.

3.2.2 Homogeneity of variance

The assumption of homogeneity of variance means that the variances observed throughout the data should not be significantly different (Field, 2009). When participants are sorted into groups, there should not be significant differences in the variance within each group (Field, 2009). Levene's test uses a one-way ANOVA to assess if the variances are equal. When Levene's test is significant at $p<.05$, this assumption is violated (Field, 2009).

When considering variance across the four groups, based on attachment styles (secure, preoccupied, dismissive and fearful avoidant) Levene's test was not significant for the following variables: age taken into care ($F(3,45)=0.74$, p=ns); overall psychological distress ($F(3.44)=0.04$, p=ns); subjective wellbeing ($F(3.44)=0.28$, p=ns); problem/symptoms ($F(3,44)=0.66$, p=ns); life functioning ($F(3.44)=0.46$, p=ns); 'disconnection and rejection' ($F(3,44)=0.87$, p=ns); 'impaired autonomy and performance' ($F(3,44)=1.44$, p=ns); 'impaired limits' ($F(3,44)=1.13$, p=ns); 'other-directedness' ($F(3,44)=0.33$, p=ns); and 'over-vigilance and inhibition' ($F(3,44)=0.61$, p=ns). However, Levene's test was significant for the variables of: risk ($F(3,45)=3.35$, $p<.05$), which is one of the four dimensions of psychological distress; and, number of placements ($F(3,45)=3.40$, $p<.05$). Therefore these variables violate the assumption of homogeneity of variance required to perform parametric statistics.

3.2.3 Normality

The distribution of the data was assessed for normality by calculating the degree of skewness (z-score) through dividing the skewness by the standard error of skewness (Field, 2009). According to Field (2009), a z-score greater than 1.96 is significant at $p<.05$, a z-score greater than 2.58 is significant at $p<.01$, and a z-score greater than 3.29 is significant at $p<.001$. A negative skew indicates that the mean and median scores are smaller than the mode, and more scores fall to the left of the

mode. A positive skew indicates that the mean and median are bigger than the mode, and more scores fall to the right of the mode.

The z-scores were not significant for the following variables, thus indicating that they were not significantly skewed: number of placements (z=1.34); subjective wellbeing (z=1.55); life functioning (z=0.97); 'disconnection and rejection' (z=1.24); 'impaired autonomy and performance' (z=1.37); 'impaired limits' (z=0.51); 'other-directedness' (z=0.16); and 'over-vigilance and inhibition' (z=0.58). However, z-scores were significant for four variables, indicating a significant skew: age taken into care (z=5.15); overall psychological distress (z=2.11); problems/symptoms (z=2.45); and risk (z=3.56). This means that the variables of age taken into care, overall psychological distress, problems/symptoms and risk, do not meet the assumption of normality.

3.2.4 Conclusion of preliminary analyses

Overall, the variables of number of placements, age taken into care, overall psychological distress and problems/symptoms, each violate one assumption of parametric statistics. Risk violates two assumptions of parametric statistics.

For correlational analyses a combination of parametric and non parametric statistics were performed (Pearsons r and Spearmans rho, respectively), and are reported as appropriate. However, violation of assumptions has been shown to not significantly affect the results of many parametric statistics (Glass *et al.,* 1972, as cited in Field, 2009). In particular, when using ANOVA analyses, violation of the assumptions of normal distribution and of homogeneity of variance do not normally cause problems, as ANOVA analyses are reasonably 'robust' (Pallant, 2010). After seeking further statistical advice, it was concluded that it was appropriate to use parametric statistics for ANOVAs in order to present in a consistent style and for ease of reading, therefore phases three and four include only parametric analyses.

3.3 Strength of correlations and effect sizes

The strength of correlations and significance of effect sizes reported, are those defined by Cohen (1988 in Pallant, 2010) whereby a correlation/effect size is: small when r=.10 to .29, medium when is r=.30 to .49 and large when is r=.50 to 1.0. The effect sizes for ANOVAs were calculated using the sum Eta squared (r^2) = sum of squares between groups/total sum of squares (Pallant, 2010). The square root of r^2 was calculated to give the effect size r, above parameters apply (Field, 2009). When Cohen's d effect sizes are quoted, effect size is small when d<0.20, medium when d<0.50 and large when d<0.80 (Pallant, 2010).

PHASE ONE – DESCRIPTIVE STATISTICS

3.4 Care leaver demographics

The study sample consisted of 50 care leavers from South Wales (50 per cent male/female split). They ranged in age from 18-22 years with a mean age of 19. Background data related to experiences of being in the 'looked after' system, including age taken into care and number of foster placements since being in care, was obtained for 49 out of the 50 participants. Findings are presented in Table 3.2.

Table 3.2 Care experiences

	Range	Mean (SD)	Median
Age taken into care (n=49)	1-17	9 years 8 months (4.78)	11.0
Number of foster placements (n=49)	1-21	6.0 (4.88)	4.0

The age at which participants had been taken into the care system, ranged from age 1 to age 17. The mean age was 9 years 8 months (SD= 4.78) and the median age was 11 years.

Only three participants had ever been adopted (two females, one male). All three adoptions had broken down when the young people were age 14, two due to neglect and one due to abuse and neglect of the young person. As no meaningful analysis could be conducted on such a small number of participants, adoption was counted as one placement, and the reasons for adoption breakdown were added to the reasons for initially being taken into care. The number of foster placements participants had been in ranged from 1 to 21. The mean number of placements per participant was six (SD=4.88) and the median number was four.

As a population of young people, care leavers differ significantly from many of their age equivalent peers in that many will have suffered maltreatment from their main caregivers, at a level of severity that was significant enough for authorities to deem it appropriate that they be taken into care. In order to explore the relationships between psychological distress, adult attachment, schema domains and different types of maltreatment, information on the reason why each participant was first taken into care was obtained (with their permission) from social services staff. In total there were 22 different descriptions of the reasons why the young people had been taken into care. These were categorised into five groups of 'neglect', 'abuse', 'physical abuse', 'sexual abuse', 'emotional abuse'. The category of 'abuse' was included in order to account for the fact that not all case notes gave information in more detail than the term 'abuse'.

When the data were analysed, the frequencies of cases in the different categories of abuse did not allow meaningful analyses. This was due to the fact that the majority of information obtained from social services staff (who had access to the young people's files), was non-specific as to the type of abuse suffered. For this reason, the five groups were condensed into two: neglect and abuse. The data was coded so that each participant could be represented by a combination of the two categories, rather than coding by one predominant category. This was done to ensure that the experiences of participants were not undermined and that no judgement was made as to which 'category' (of abuse or neglect) was most significant. All participants for whom background data were collected (n=49) were reported to have suffered neglect. Around half (n=25) were reported to have suffered some form of abuse, in addition to neglect.

An independent samples t-test was conducted to observe whether there were any significant differences between the participants who had suffered neglect with abuse, or neglect without abuse, on the main research variables. No significant differences were observed between type of maltreatment and any of the main research variables. A Mann-Whitney U test confirmed that there were no significant

differences on the main research variable, which did not meet the assumptions of parametric statistics.

These findings are counter to hypothesis two part i) where there was expected to be a relationship between the main research variables for those who had experienced neglect and those who experienced neglect and abuse, during childhood. This finding is likely to be due to the poor quality of information available in social services files, meaning that participants' early maltreatment experiences could not be well represented.

The non-significant findings between participants having had varied care experiences, means that for further statistical analyses, the group can be treated as homogenous in terms of their care and maltreatment experiences.[6]

3.5 Psychological distress

Psychological distress was measured using the 'Clinical Outcomes in Routine Evaluation' (CORE; Evans *et al.,* 1998). The CORE assesses psychological wellbeing through measuring psychological distress (full details can be found in section 2.6.1). It comprises of a total score (overall psychological distress) and four distress dimension scores: subjective wellbeing; problems/symptoms; life functioning; and risk. The mean scores for the sample of care leavers as a whole, on each of these dimensions, is presented in Table 3.3.

[6] In terms of demographic data it might also be interesting to note at this point that no significant differences were observed between participants in or not in a romantic relationship, on any of the study variables.

Table 3.3 Psychological distress (CORE mean and median scores)

	Mean (SD)	Median
Overall psychological distress (n=50)	1.24 (0.86)	0.99
Subjective wellbeing (n=50)	1.45 (1.06)	1.25
Problems/symptoms (n=50)	1.33 (1.05)	1.00
Life functioning (n=50)	1.32 (0.82)	1.21
Risk (n=49)	0.59 (0.76)	0.33

Observation of the mean scores for self-reported overall psychological distress, and on the four distress dimensions (subjective wellbeing, problems/symptoms, life functioning and risk), shows that overall mean scores for all dimensions, other than risk, fell within the 'mild' level of psychological distress, a level which reaches clinical significance (CORE Partnership, 2007). Therefore, hypothesis one is partially supported. The distribution of severity of scores for self-reported overall psychological distress is provided in Table 3.4.

Table 3.4 CORE: severity of self-reported overall psychological distress

Severity of overall psychological distress	Frequency (n)	Percent (%)
Healthy (0 to <0.6)	13	26
Low level (0.6 to <1.0)	12	24
Mild (1.0 to <1.5)	8	16
Moderate (1.5 to <2.0)	7	14
Moderately severe (2.0 to <2.5)	3	6
Severe (greater than 2.5)	7	14

Non clinically significant level of psychological distress
Clinically significant level of psychological distress

Table 3.4 shows that half of all participants reported experiencing a clinically significant level of psychological distress, with their overall scores falling within the severity categories of 'mild', 'moderate', 'moderately severe' or 'severe'. Overall, 30 per cent of the participants were experiencing psychological distress at the 'mild' to 'moderate' level of severity. A further 20 per cent fell within the 'moderately severe' to 'severe' levels of psychological distress.

3.6 Adult attachment

Within the present study, adult attachment was measured using the Experiences in Close Relationships-Revised questionnaire (ECR-R; Fraley *et al.,* 2000). The outcomes of this self-report questionnaire were considered in two different ways: as continuous data and as categorical data. For phases two and four of the analysis, adult attachment was considered in terms of attachment anxiety and attachment avoidance along a continuum. Mean and median scores are presented in Table 3.5.

Table 3.5 Attachment anxiety/avoidance (mean and median scores)

	Mean (SD)	Median
Attachment anxiety (n=50)	3.88 (1.24)	4.00
Attachment avoidance (n=50)	3.51 (1.12)	3.67

There are no published norms on the mean scores for the ECR-R, and therefore no direct comparisons can be made between the present sample and a 'normal' population. However, in the study by Bosmans *et al.* (2010), who used the ECR-R to assess attachment style in a sample of 289 Flemish university students (average age 21 years), the mean score for attachment anxiety was 2.80 (SD=1.11), and the mean score for attachment avoidance was 2.38 (SD=0.90). The effect size of the difference between the present group's mean scores for attachment anxiety and those in the study by Bosmans *et al.* (2010) was large (d=0.92). The effect size of the difference between the present group's mean scores for attachment avoidance and those in the study by Bosmans *et al.* (2010) was also large (d=1.11). These effect sizes suggest that the mean scores for the present sample are substantially higher than those in the study by Bosmans *et al.* (2010), perhaps suggesting that attachment anxiety and attachment avoidance is more prevalent in a sample of care leavers, than would be expected in a 'normal' population of similar age.

For phase three of the analysis, participants were viewed as belonging to one of four attachment style groups, based on scores relative to the median scores (high being more than or equal to the median score, low being less than the median score). In the absence of standardised scores or appropriate normative data to categorise participants into attachment style groups for the present study, the median scores were utilised to represent a meaningful cut-off point between high and low scores for this sample. According to Field (2009), median scores are 'relatively unaffected' by skewness or extreme scores. This makes them more accurate than mean scores within the present context. Grouping participants in this way meant that they were grouped relative to each other, not relative to the general population, and this must be borne in mind when interpreting the findings. Someone classified as having a secure attachment style according to the present analysis, would not necessarily have a secure attachment style relative to a different population

The classification of attachment styles and the number of the current sample that fell into the respective attachment categories are presented in Table 3.6.

Table 3.6 Distribution of adult attachment styles

Attachment style (n= number of participants in each group)	Attachment anxiety	Attachment avoidance	Percentage (%)
Secure (n=16)	low	low	32
Preoccupied (n=8)	high	low	16
Dismissive (n=7)	low	high	14
Fearful avoidant (n=19)	high	high	38

Overall, 68 per cent of participants in this study had an insecure attachment style and 32 per cent had a secure attachment style. It is not possible to compare the distribution of attachment styles within this study to any standardised norms, as the ECR-R does not have standardised norms for attachment style distribution (R.C.Fraley, personal communication, 12 December 2010). Platts *et al.* (2005) used

an earlier version of the Experiences in Close Relationships questionnaire (ECR; Brennan *et al.,* 1998) to categorise their participants into attachment style groups, but they are not clear about how they went about classification (O. Mason, personal communication, 22 December 2010). For this reason, direct comparisons cannot be made with their findings.

3.7 EMS and schema domains

EMS were measured using the Young's Schema Questionnaire, short-form version-three (YSQ-S3; Young, 2005). In order to reduce the number of comparisons and thereby reduce the likelihood of type 2 errors, the 18 individual EMS were condensed into five schema domains (as classified by Young *et al.,* 2003; Bosmans *et al*., 2010 also condensed EMS in this way). Table 3.7 illustrates mean and median scores for the five schema domains.

Table 3.7 Schema domains (mean and median scores)

Schema domains (n)	Mean (SD)	Median
Disconnection and rejection (n=50)	14.32 (5.98)	13.70
Impaired autonomy and performance (n=49)	11.89 (3.82)	11.00
Impaired limits (n=50)	16.61 (5.38)	17.00
Other-directedness (n=50)	17.23 (4.88)	17.83
Over-vigilance and inhibition (n=50)	17.12 (5.41)	16.63

A higher mean score for a schema domain indicates that the EMS within it are more highly prevalent for an individual. However, there are currently no norms for any of Young's Schema Questionnaires (Schema therapy, 2011), and therefore no comparisons can be made between the current sample and a 'normal' population. Bosmans *et al.* (2010) *do* provide mean and standard deviation scores for the schema domains in their study, but they used an older version of the YSQ short-form (Young & Brown, 1990) which has only 15 EMS. Therefore, comparisons with their findings cannot be made. Platts *et al.* (2005) also provide mean and standard

deviation scores for the individual EMS in their study, however, they also used an earlier version of the YSQ short-form (Young, 1998) so results cannot be compared with their findings either.

PHASE TWO – CORRELATIONAL ANALYSES

3.8 Care leaver specific data

The relationships between age taken into care, number of placements, psychological distress (overall psychological distress and on the four distress dimensions), the two attachment continuums (anxiety and avoidance) and the five schema domains, were investigated using correlational analysis. Hypothesis two part ii) stated that relationships would be found between these variables. The only significant relationship observed was between age taken into care and number of placements, significant at the $p<.05$ level and the effect size was medium. The relationship was negative, suggesting that the younger a person was taken into care, the more foster placements they had been in ($r_s=-.43$, $p<.01$, 2-tailed).

There was no evidence to suggest that having more or fewer placements since being in care was associated with psychological distress, attachment (in terms of anxiety and/or avoidance), or prominence of EMS, as no significant correlations were found.

3.9 Psychological distress, adult attachment and EMS

The relationships between psychological distress, attachment anxiety and attachment avoidance and the five schema domains were investigated using bivariate correlations (Pearsons r or Spearmans rho as appropriate; one-tailed). Significant positive correlations were observed between all variables, fulfilling hypothesis three parts i) and ii) which predicted that significant positive correlations would be found. These findings suggest that higher psychological distress is significantly correlated with higher attachment anxiety, higher attachment avoidance and more strongly held EMS within all five schema domains. All correlations were significant at the $p<.001$, $p<.01$ or $p<.05$ level and all had medium or large effect sizes. Attachment anxiety and attachment avoidance were shown to be correlated with each other ($r=.54$, $p<.001$). This is a large correlation meaning that the two continuums are related, although they are not related to such an extent (not greater than .80) to suggest multicollinearity. Consequently, they are considered to be

distinct variables. The relationships between variables and possible reasons for those relationships are presented and discussed below.

3.9.1 Psychological distress and attachment anxiety/attachment avoidance

Consistent with previous research (for example Bosmans *et al.,* 2010), the degree of psychological distress reported was positively correlated with the degree to which an individual reported feeling insecure in relationships, whether this was in the form of attachment anxiety (more negative 'internal working model' of self; IWM of self) or attachment avoidance (more negative IWM of others), as predicted in hypothesis three part i). The correlations, which are illustrated in Table 3.8, range from medium to large effect sizes, which suggests that they are robust findings.

Table 3.8 Correlations between psychological distress and attachment anxiety/attachment avoidance

	Overall psychological distress	Subjective wellbeing	Problems/ symptoms	Life functioning	Risk
Attachment anxiety	**r_s=.58** p<.001 n=50	**r=.57** p<.001 n=50	**r_s=.42** p=.001 n=50	**r=.55** p<.001 n=50	**r_s=.33** p=.010 n=50
Attachment avoidance	**r_s=.54** p<.001 n=50	**r=.54** p<.001 n=50	**r_s=.31** p=.013 n=50	**r=.55** p<.001 n=50	**r_s=.44** p=.001 n=50

Medium correlation/effect size: r/r_s=.30 to .49 Large correlation/effect size: r/r_s=.50 to 1.0

Generally speaking, these results suggest that amongst a group of care leavers, those with a greater sense of insecurity in their relationships with others (higher attachment anxiety/avoidance meaning more negative IWMs of self/others), appear more likely to suffer higher levels of psychological distress. While this seems true for all aspects of psychological distress, some aspects may be more highly associated with attachment than others. Overall psychological distress and the distress

dimensions of subjective wellbeing and life functioning were all highly correlated to both continuums of attachment, while problems/symptoms and risk had medium effect sizes with both continuums of attachment.

3.9.2 Psychological distress and schema domains

As predicted in hypothesis three part i) and consistent with the findings of Bosmans *et al.* (2010), higher overall psychological distress was positively correlated with higher scores on all five of the schema domains, results illustrated in Table 3.9. All of these correlations are either medium or large effect sizes.

Table 3.9 Correlations between psychological distress and schema domains

	Overall psychological distress	Subjective wellbeing	Problems/ symptoms	Life functioning	Risk
Disconnection and rejection	**r_s=.75** p<.001 n=50	**r=.69** p<.001 n=50	**r_s=.60** p<.001 n=50	**r=.71** p<.001 n=50	**r_s=.58** p<.001 n=50
Impaired autonomy and performance	**r_s=.67** p<.001 n=50	**r=.48** p<.001 n=49	**r_s=.55** p<.001 n=50	**r=.62** p<.001 n=49	**r_s=.63** p<.001 n=50
Impaired limits	**r_s=.50** p<.001 n=50	**r=.42** p= .001 n=50	**r_s=.50** p<.001 n=50	**r=.52** p<.001 n=50	**r_s=.58** p<.001 n=50
Other-directedness	**r_s=.59** p<.001 n=50	**r=.57** p<.001 n=50	**r_s=.42** p= .001 n=50	**r=.55** p<.001 n=50	**r_s=.43** p= .001 n=50
Over-vigilance and inhibition	**r_s=.72** p<.001 n=50	**r=.62** p<.001 n=50	**r_s=.62** p<.001 n=50	**r=.62** p<.001 n=50	**r_s=.63** p<.001 n=50

Medium correlation/effect size: r/r_s =.30 to .49 Large correlation/effect size: r/r_s =.50 to 1.0

Results show that the degree to which someone holds their EMS is significantly related to the degree of psychological distress reported (as measured by the CORE).

Those with higher mean scores on schema domains reported higher levels of distress overall, and in the four dimensions of distress. With levels of significance and effect sizes in mind, it would appear that higher scores within the schema domain of 'disconnection and rejection' and within the schema domain of 'over-vigilance and inhibition' are most highly correlated to all areas of psychological distress. The other three schema domains have slightly different relationships with the different dimensions of distress with the effect sizes varying from medium to large.

It needs to be noted that the schema domains of 'disconnection and rejection' and 'over-vigilance and inhibition' were highly correlated to each other ($r=.81$, $p<.001$, 1-tailed), as were 'over-vigilance and inhibition' and 'impaired limits' ($r=.82$, $p<.001$, 1-tailed), which suggests possible multicollinearity (Field, 2009). However, 'disconnection and rejection' and 'impaired limits' were not correlated so highly ($r=.72$, $p<.001$, 1-tailed), which might suggest qualitative differences between the schema domains of 'disconnection and rejection' and 'over-vigilance and inhibition' in their different relationships with the other schema domains.

3.9.3 Attachment and schema

Consistent with the findings of Bosmans *et al.* (2010) and as predicted in hypothesis three part ii), attachment anxiety and attachment avoidance were both significantly and positively correlated to higher scores on all five schema domains, showing medium to large correlations, as illustrated in Table 3.10.

Table 3.10 Correlations between attachment anxiety/attachment avoidance and schema domains

	Attachment anxiety	Attachment avoidance
Disconnection and rejection	**r=.70** p<.001 n=50	**r=.57** p<.001 n=50
Impaired autonomy and performance	**r=.62** p<.001 n=49	**r=.41** p<.001 n=49
Impaired limits	**r=.54** p<.001 n=50	**r=.50** p<.001 n=50
Other-directedness	**r=.68** p<.001 n=50	**r=.33** p= .010 n=50
Over-vigilance and inhibition	**r=.49** p<.001 n=50	**r=.62** p<.001 n=50

Medium correlation/effect size, r=.30 to .49 Large correlation/effect size, r=.50 to 1.0

The correlations in Table 3.10 suggest that all schema domains are related to the continuums of adult attachment (anxiety and avoidance), but not to the extent that they might be measuring the same thing, as no correlations were greater than .80.

Differences can be noted between the two continuums of attachment where the schema domains of 'impaired autonomy and performance' and 'other-directedness' were more strongly related to attachment anxiety (large effect size) than to attachment avoidance (medium effect size). Further differences can be noted in the finding that having higher scores on the schema domain of 'over-vigilance and inhibition' was more strongly correlated with attachment avoidance (large effect size) than attachment anxiety (medium effect size).

The effect sizes of the relationships between ‘disconnection and rejection’ and the two attachment continuums were both large, but the correlation was higher in the relationship between attachment anxiety and ‘disconnection and rejection’ (r=.70) than between attachment avoidance and ‘disconnection and rejection’ (r=.57). Bosmans *et al.* (2010) also found the schema domain of ‘disconnection and rejection’, to be significantly positively correlated to both attachment continuums.

3.10 Summary of findings from correlation analyses

In summary, results suggest that higher psychological distress is associated with higher attachment insecurity (in terms of both higher attachment anxiety and higher attachment avoidance) and higher prominence of all schema domains. In addition, higher prominence of all schema domains was also significantly correlated with higher attachment anxiety/avoidance. However, there appear to be differing patterns between the relationships, for example, some schema domains are more highly related to one attachment continuum than the other. The next section will explore these relationships further by viewing attachment in its four categories, as defined by Bartholomew (1990).

PHASE THREE – ANALYSIS OF VARIANCE (ANOVA)

Phase three of analyses was conducted to explore the differences in terms of levels of psychological distress and prominent schema domains, between the participants with different attachment styles (secure, preoccupied, dismissive and fearful avoidant). Participants were divided into four attachment style groups according to their median scores on the continuous variables of attachment anxiety and attachment avoidance (see section 3.6 for further details).

3.11 Attachment style and psychological distress

A one-way ANOVA was conducted on the data, in order to explore differences between participants in the four attachment style groups on the variables of psychological distress. Mean scores are presented in Table 3.11 and are discussed before the statistical results of ANOVAs and post-hoc analyses are presented.

Table 3.11 Comparison of mean scores for psychological distress according to attachment style

Variable	Attachment style category (n)	M	SD
Overall psychological distress	Secure (16)	0.78	0.78
	Preoccupied (8)	1.15	0.81
	Dismissive (7)	1.04	0.79
	Fearful avoidant (19)	1.75	0.75
Subjective wellbeing	Secure (16)	0.79	0.97
	Preoccupied (8)	1.44	0.97
	Dismissive (7)	0.86	0.80
	Fearful avoidant (19)	2.22	0.75
Problems/symptoms	Secure (16)	0.95	0.88
	Preoccupied (8)	1.26	1.10
	Dismissive (7)	1.20	1.16
	Fearful avoidant (19)	1.73	1.05
Life functioning	Secure (16)	0.84	0.82
	Preoccupied (8)	1.30	0.72
	Dismissive (7)	1.02	0.59
	Fearful avoidant (19)	1.83	0.68
Risk	Secure (16)	0.29	0.58
	Preoccupied (8)	0.52	0.50
	Dismissive (7)	0.88	0.87
	Fearful avoidant (19)	0.79	0.89

Non clinically significant level of psychological distress >1.0 Mild psychological distress 1.0-1.5
Moderate psychological distress 1.5-2.0 Moderately severe distress 2.0-2.5

Table 3.11 illustrates that participants with a fearful avoidant or preoccupied attachment style reported suffering from clinically significant levels of psychological distress overall, and within three out of four of the distress dimensions (with the fearful avoidant group reporting the highest levels of distress). Those with a dismissive attachment style reported suffering clinically significant levels of psychological distress overall, and within two of the distress dimensions. Those with a secure attachment did not report experiencing any clinically significant levels of psychological distress.

Comparing the mean scores of measures of psychological distress across attachment style groups revealed that, as expected, participants categorised as having a secure attachment style, had the lowest mean scores for every aspect of psychological distress. On all but one dimension of psychological distress (risk), those categorised as having a fearful avoidant attachment style, reported the highest mean levels of distress. Additionally, on all but one dimension of psychological distress, the preoccupied attachment style group had the second highest mean scores. Platts *et al.* (2005) found that the fearful avoidant and preoccupied attachment style groups had greater psychological difficulties, on all measures of the CORE, than those belonging to the dismissing and secure attachment style groups. In the present study however, the dismissive group had the highest mean score for risk. Scores for the statistical analysis of these differences are presented in Table 3.12.

Table 3.12 Statistical analysis of differences in psychological distress between attachment style groups

Variable (n)	F	df (between groups)	df (within groups)	p	Effect size (r)
Overall psychological distress (n=49)	4.84	3	46	.005	.49
Subjective wellbeing (n=49)	9.18	3	46	<.001	.61
Problems/symptoms (n=49)	1.76	3	46	ns*	.32
Life functioning (n=49)	5.79	3	46	.002	.52
Risk (n=48)	1.67	3	45	ns*	.49

*Not significant at the <.05, <.01 or <.001 level
Medium effect size, r=.30 to .49 Large effect size, r=.50 to 1.0

Analyses revealed that there were significant differences between the attachment style groups for three of the psychological distress variables, however it stated in hypothesis four that differences would be observed on all variables. Specific significant statistical differences were observed for overall psychological distress and on two of the psychological distress dimensions: subjective wellbeing and life functioning. Despite the differences in mean scores observed between the

attachment style groups on the dimensions of problems/symptoms and risk, these differences did not reach statistical significance. It may be that there were not enough participants to adequately illustrate a significant difference between the attachment style groups, or it may be that the reporting of problems/symptoms and risk are less related to attachment style than the other dimensions of psychological distress.

Tukey's HSD was used for post-hoc analyses in order to explore group differences further. Results are presented in Table 3.13.

Table 3.13 Post-hoc comparisons using Tukey HSD test

Dependent variable	Attachment style	Attachment style	Mean difference	Std. Error	p
Overall psychological distress	Fearful avoidant	Secure	0.97	0.26	.003
Subjective wellbeing	Fearful avoidant	Secure	1.43	0.29	<.001
		Dismissive	1.37	0.38	.005
Life functioning	Fearful avoidant	Secure	0.98	0.25	.001

Post-hoc examination of the data, using the Tukey HSD test, indicated statistically significant differences between the mean scores for the secure group and the fearful avoidant group, for overall psychological distress, and on the distress dimensions of subjective wellbeing and life functioning. This means that participants belonging to the secure and fearful avoidant attachment style groups were significantly different from each other, in certain elements of their psychological distress profiles. This may be expected, as the secure group have relatively low scores on attachment continuums (more positive IWM of self and others), whereas the fearful avoidant group have high scores on both attachment continuums (more negative IWM of self and others). The only differences observed between the insecure attachment style groups (dismissive, preoccupied and fearful avoidant) were on subjective wellbeing,

where the dismissive group and fearful avoidant group were statistically significantly different from each other. It may be that those in the dismissive group (high on attachment avoidance but low on attachment anxiety; negative IWM of others, positive IWM of self), are less likely to acknowledge or recognise their emotional needs than those with higher attachment anxiety (more negative IWM of self). It is possible that they are genuinely less distressed, or maybe that they are less likely to report their distress, due to their higher distrust of other people (negative IWM of others). It is interesting to note that despite being an 'insecure' attachment style type, those with a dismissive attachment style did not differ significantly from the securely attached participants on any aspect of psychological distress.

Generally speaking, these results suggest that amongst a group of care leavers, those with a greater sense of attachment insecurity in their relationships with others (particularly higher attachment avoidance plus higher attachment anxiety) are more likely to suffer higher levels of psychological distress, than those with lower attachment anxiety and lower attachment avoidance.

3.12 Attachment style and schema domains

A one-way between-groups analysis of variance was conducted to explore differences between the attachment style groups in terms of schema domains. Mean scores are presented in Table 3.14 and are discussed before the results of ANOVAs and post-hoc analyses are presented.

Table 3.14 Comparison of mean scores for schema domains according to attachment style

Variable	Attachment style category (n)	M	SD
Disconnection and rejection	Secure (16)	10.04	4.43
	Preoccupied (8)	14.55	5.16
	Dismissive (7)	11.97	4.84
	Fearful avoidant (19)	18.68	5.98
Impaired autonomy and performance	Secure (16)	9.28	2.75
	Preoccupied (8)	14.22	4.16
	Dismissive (7)	10.45	2.78
	Fearful avoidant (19)	13.74	3.40
Impaired limits	Secure (16)	12.75	3.63
	Preoccupied (8)	19.06	5.08
	Dismissive (7)	17.07	5.46
	Fearful avoidant (19)	18.66	5.24
Other-directedness	Secure (16)	14.46	4.12
	Preoccupied (8)	19.38	3.48
	Dismissive (7)	13.19	3.80
	Fearful avoidant (19)	20.14	4.14
Over-vigilance and inhibition	Secure (16)	13.09	4.77
	Preoccupied (8)	17.66	4.63
	Dismissive (7)	17.89	5.86
	Fearful avoidant (19)	20.01	4.17

Table 3.14 presents the schema domain mean scores for each adult attachment style group. The fearful avoidant group appear to report the highest mean scores on most schema domains ('disconnection and rejection', 'other-directedness' and 'over-vigilance and inhibition'). This finding is consistent with that of Platts *et al.* (2005), who found that having a fearful avoidant attachment style was related to higher prominence of EMS within the schema domains of 'disconnection and rejection' and 'other-directedness'.

The preoccupied group had the highest mean scores for the schema domains of 'impaired autonomy and performance' and 'impaired limits'. The secure group had

the lowest mean scores on the majority of the schema domains ('disconnection and rejection', 'impaired autonomy and performance', 'impaired limits' and 'over-vigilance and inhibition'). The dismissive group had the lowest mean score for the schema domain of 'other-directedness'. Table 3.15 presents the statistical analysis of these differences.

Table 3.15 Statistical analysis of differences in schema domains between attachment style groups

Variable (n)	F	df (between groups)	df (within groups)	P	Effect size (r)
Disconnection and rejection (n=49)	10.09	3	46	<.001	.63
Impaired autonomy and performance (n=48)	7.18	3	45	<.001	.57
Impaired limits (n=49)	5.36	3	46	.003	.51
Other-directedness (n=49)	9.08	3	46	<.001	.61
Over-vigilance and inhibition (n=49)	6.44	3	46	.001	.55

Large effect size, r=.50 to 1.0

Statistically significant differences at the p<.001 or p<.01 level were observed between the attachment style groups on all schema domains, as predicted in hypothesis four. All effect sizes were greater than .50, therefore qualifying as large (Pallant, 2010).

Tukey's HSD was used for post-hoc analyses in order to explore group differences further. Results are presented in Table 3.16.

Table 3.16 Post-hoc comparisons using Tukey HSD test

Dependent variable	Attachment style	Attachment style	Mean	Std. Error	p
Disconnection and rejection	Fearful avoidant	Secure	8.65	1.63	<.001
		Dismissive	6.71	2.12	.014
Impaired autonomy and performance	Secure	Preoccupied	-4.94	1.41	.006
		Fearful avoidant	-4.45	1.12	.001
Impaired limits	Secure	Preoccupied	-6.31	2.07	.019
		Fearful avoidant	-5.91	1.62	.004
Other-directedness	Secure	Preoccupied	-4.92	1.73	.033
		Fearful avoidant	-5.68	1.36	.001
	Dismissive	Preoccupied	-6.18	2.07	.022
		Fearful avoidant	-6.95	1.77	.002
Over-vigilance and inhibition	Secure	Fearful avoidant	-6.92	1.59	<.001

Post-hoc examination of the data, using the Tukey HSD test, indicated statistically significant differences between the mean scores for the secure group and the fearful avoidant group on all five of the schema domains. This suggests that participants belonging to these groups have significantly different EMS.

The secure group differed significantly from the preoccupied group on three schema domains: 'impaired autonomy and performance'; 'impaired limits'; and 'other-directedness'. The secure group were not significantly different from the dismissive group on any of the schema domains, which is interesting and consistent with the findings of Platts *et al.* (2005). This means that although the dismissive attachment style is considered to be an insecure attachment style, in terms of schema domains they were not significantly different from the secure group. However, the dismissive group only differed significantly from the fearful avoidant group on two of the five schema domains ('disconnection and rejection' and 'other-directedness'), whereas the secure group were statistically different from the fearful group on all schema domains. This may suggest that although the secure and dismissive groups were not statistically different from each other, they do hold qualitative differences, due to the different relationships they each have with the other attachment style groups.

However, as the number of participants in the dismissive attachment style group was small (n=7), results should be interpreted with some caution.

The only differences observed between the three insecure attachment style groups (dismissive, preoccupied and fearful avoidant) were on the schema domains of 'disconnection and rejection' and 'other-directedness', where the dismissive group and fearful avoidant group were significantly different from one another. Although the fearful avoidant and preoccupied groups were not significantly different from each other on any of the schema domains, similarly to the secure and dismissive groups, their differing relationships with the other attachment style groups might suggest that they are qualitatively distinct groups. However, this finding may also be attributed to having a small sample size.

3.13 Summary of findings from ANOVA analyses

ANOVA analyses looked at the different relationships between the four attachment style groups for psychological distress and schema domains. Particular differences were noted between the secure and both the fearful avoidant and preoccupied groups, and also between the dismissive group and both the preoccupied and fearful avoidant group. In terms of their relationships with the variables of psychological distress and schema domains, the secure and dismissive group, and the preoccupied and fearful avoidant group, seem most similar to each other. However, although similar, qualitative differences in terms of their differing relationships with the other attachment styles have been noted.

PHASE FOUR – MULTIPLE REGRESSIONS

3.14 Predictors of psychological distress

The above analyses show that there are statistically significant relationships between the adult attachment style groups in terms of degree of psychological distress reported and prominence of schema domains. In order to examine the degree to which attachment and schema domains predicted psychological distress, four simultaneous (forced entry) multiple regressions were conducted. The attachment and schema variables (the independent variables) were examined with respect to their correlations with each of the four dimensions of psychological distress (dependent variable). The independent variables included attachment anxiety, attachment avoidance, 'disconnection and rejection', 'impaired autonomy and performance', 'impaired limits', 'other-directedness' and 'over-vigilance and inhibition'. Analyses only included independent variables that had been shown in previous analyses to be most significantly related to the dependent variable. Where independent variables were found previously to be highly correlated (over .80) to each other, the highly correlated variable, which was least significantly related to the dependent variable, was eliminated.

These analyses are preliminary and exploratory. Results should be interpreted with caution because the distribution of the independent variables of risk and problems/symptoms do not meet all of the assumptions for parametric statistics. Also, the sample size was relatively small, although there were the required number of participants to meet the criterion for regression (10 participants per predictor variable are required; Field, 2009).

3.14.1 Subjective wellbeing

Regression analysis found that when forced together, attachment anxiety, attachment avoidance, 'disconnection and rejection' and 'other-directedness', significantly predicted self-reported subjective wellbeing ($F^{(4,45)}$=12.28, p<.001).

Adjusted coefficients of determination (adjusted R square) were employed to ascertain the amount of variance accommodated by the independent variables, as the sample was only an estimation of the wider population. Together, the independent variables were found to account for 47.9 per cent of the variance in self-reported subjective wellbeing. Standardised regression coefficients indicated that scores on the schema domain of 'disconnection and rejection' were the only significant predictor in the equation (β=.39, t=2.17, p<.05). The positive relationship means that higher prominence of EMS within the schema domain of 'disconnection and rejection', significantly predicted poorer subjective wellbeing.

3.14.2 Problems/symptoms

Regression analysis found that when forced together, attachment anxiety, attachment avoidance, 'impaired autonomy and performance' and 'over-vigilance and inhibition', significantly predicted self-reported problems/symptoms ($F^{(4,44)}$=8.74, p<.001). Adjusted coefficients of determination (adjusted R square) were employed to ascertain the amount of variance accommodated by the independent variables, as the sample was only an estimation of the wider population. Together, the independent variables were found to account for 39.2 per cent of the variance in self-reported problems/symptoms. Standardised regression coefficients indicated that scores on the schema domain of 'over-vigilance and inhibition' were the only significant predictor in the equation (β=.53, t=2.60, p<.05). The positive relationship means that higher prominence of EMS within the schema domain of 'over-vigilance and inhibition' significantly predicted more reported problems/symptoms of psychological distress.

3.14.3 Life functioning

Regression analysis found that when forced together, attachment anxiety, attachment avoidance, 'disconnection and rejection' and 'impaired autonomy and performance', significantly predicted self-reported life functioning ($F^{(4,44)}$=13.12,

p<.001). Adjusted coefficients of determination (adjusted R square) were employed to ascertain the amount of variance accommodated by the independent variables, as the sample was only an estimation of the wider population. Together, the independent variables were found to account for 50.3 per cent of the variance in self-reported life functioning. Standardised regression coefficients indicated that scores on the schema domain of 'disconnection and rejection' were the only significant predictor in the equation (β=.45, t=2.36, p<.05). The positive relationship means that higher prominence of EMS within the schema domain of 'disconnection and rejection', significantly predicted lower life functioning.

As for self-reported subjective wellbeing, the schema domain of 'disconnection and rejection' was the only significant predictor, perhaps raising awareness to the significance of this schema domain within the present sample of care leavers. All previous analyses have also identified the schema domain of 'disconnection and rejection', to be related to higher levels of psychological distress. The finding that it was a predictor of both subjective wellbeing and problems/symptoms, in addition to previous findings, highlights it as a schema domain which may underlie at least some aspects of psychological distress within the present sample of care leavers.

3.14.4 Risk

Regression analysis found that when forced together, attachment anxiety, attachment avoidance, 'disconnection and rejection', 'impaired autonomy and performance' and 'impaired limits' significantly predicted self-reported risk ($F^{(5,42)}$=7.31, p<.001). Adjusted coefficients of determination (adjusted R square) were employed to ascertain the amount of variance accommodated by the independent variables, as the sample was only an estimation of the wider population. Together, the independent variables were found to account for 40.2 per cent of the variance in self-reported risk behaviours. Standardised regression coefficients indicated that attachment anxiety were the only significant predictor in the equation (β=-.38, t=-2.34, p<.05). This relationship was negative, meaning that the presence

of attachment anxiety significantly lowered the level of risk in this model. However, this may not reflect attachment anxiety being a protective factor against risk behaviours per se, but may indicate that higher attachment anxiety might reduce the likelihood of risk behaviours, perhaps because it increases the likelihood of help seeking behaviours.

3.15 Conclusion of multiple regression findings

The independent variables entered into the above multiple regressions accounted for between 40.2 per cent and 50.3 per cent of the variance in the four self-reported dimensions, which constitute overall psychological distress (according to the CORE) within the present care leaver sample. Therefore, a substantial amount of the variance remains unaccounted for. This may be associated with variables not included in the present study, such as the current economic climate, lack of employment, poor quality housing or other living stressors, legal disputes or a multitude of other life factors that may affect psychological distress. However, results do indicate the significant impact of particular schema domains and attachment continuums upon the dimensions of psychological distress, suggesting that they are areas worthy of consideration when thinking about the reasons behind psychological distress in care leavers.

3.16 Overview of results

Many of the care leavers in this study reported themselves to be experiencing clinically significant levels of psychological distress. The degree of psychological distress reported varied between participants, with 50 per cent overall reporting clinically significant levels of psychological distress, within which 20 per cent reported distress severe enough to require intervention from specialist psychology services (CORE Partnership, 2007). In sum, higher psychological distress (across all distress dimensions) was related to higher attachment anxiety, higher attachment avoidance, and higher prominence of all five schema domains, as was predicted.

When participants were categorised in terms of their adult attachment style, 68 per cent had an insecure attachment style. A number of significant differences between the participants with different attachment styles in terms of their psychological distress and prominent schema domains were notable. Those with higher attachment anxiety plus higher attachment avoidance (fearful avoidant attachment style), were found to be suffering from the highest levels of psychological distress overall, and reported the most prominent schema domains. As predicted, those with a secure attachment had the lowest self-reported psychological distress overall, and the least prominent schema domains. Results raise awareness of those participants classified as having dismissive attachment style, as although they are considered to have an insecure attachment style, in the present study they appeared more similar to the secure attachment style group than the other insecure groups (preoccupied and fearful avoidant).

When forced into a linear regression model in order to predict the presence of the psychological distress dimensions, attachment anxiety negatively predicted the presence of risk behaviours. The schema domain of 'disconnection and rejection' positively predicted the presence of poorer subjective wellbeing and poorer life functioning, and the schema domain of 'over-vigilance and inhibition' positively predicted the presence of higher problems/symptoms.

Although both attachment continuums (anxiety and avoidance) were related to the schema domains (medium or large effect sizes), they were not so highly correlated as to suggest that they are measuring the same constructs. This suggests that the two concepts of IWMs within attachment theory, and EMS in schema theory, may complement each other in more fully explaining the presence or absence of psychological distress, in a group of care leavers. The main findings of this results section will be further discussed in the following chapter.

CHAPTER FOUR - DISCUSSION

This chapter presents and examines the findings of this study. It considers the clinical and theoretical implications of findings along with study limitations in terms of methodology and statistics used. Areas for future research will also be discussed.

4.1 Summary of study aims

As a population of young adults, care leavers are known to suffer from significant difficulties in terms of poorer psychological wellbeing and multiple social difficulties when compared to their peers (McCann *et al.,* 1996; Ryan, 2008). However, previous research conducted with care leavers largely focuses on social outcomes, rather than investigating the psychological constructs that underlie these and other difficulties. Draft guidelines by the National Institute for Health and Clinical Excellence (NICE, 2010) hold a key suggestion that specialist mental health services should regard children and young people who are, or have been looked after, as a priority. The guidelines, however, do not provide specific information on how the needs of children in or leaving care should be met, implicitly acknowledging that there is a paucity of research in this area (NICE, 2010). Therefore, the primary aim of this study was to investigate the self-reported psychological needs of young adults leaving care (care leavers). More specifically, the study aimed to examine the relationship between psychological distress, adult attachment, and early maladaptive schemas (EMS)[7] in a group of care leavers. A secondary aim was to augment existing literature on the relationship between internal working models (IWMs) within attachment theory (Bowlby, 1969), and EMS within schema theory (Young *et al.,* 2003).

Overall, 50 per cent of care leavers in this study reported having clinically significant levels of overall psychological distress (as measured by the CORE) and of these, 20 per cent reported distress severe enough to require intervention from specialist

[7] The 18 EMS were considered within their five schema domains for analyses, therefore the phrases 'EMS' and 'schema domains' are used interchangeably.

psychology services (CORE Partnership, 2007). With regards to attachment style, 68 per cent of care leavers were classified as having an insecure attachment style, a figure, which is markedly higher than the approximated 33 per cent of a general population who have been found to have an insecure attachment style (Ein-dor *et al.,* 2010). However, attachment style in this study was measured relative to care leaver peers, therefore 68 per cent is likely to be a very conservative estimate of how many care leavers would be classed as insecurely attached compared to a general population sample of age matched peers.

In this study, the care leavers who reported the highest levels of psychological distress also reported experiencing higher levels of attachment anxiety (negative IWM, of self), higher levels of attachment avoidance (negative IWM of others) and more prominent EMS, than those care leavers who reported lower levels of psychological distress. These findings were in accordance with all study hypotheses. The findings suggest that the concepts of attachment (and associated IWMs) and EMS are important considerations when thinking about the needs of care leavers with the highest levels of psychological distress. Study findings also provide support for existing arguments for looking at the relationships between IWMs within attachment theory and EMS within schema theory, specifically, for conceptualising EMS as specific components of IWMs (Bosmans *et al.,* 2010; Platts *et al.,* 2005; Simard *et al.,* 2011).

4.2 Summary of main findings for discussion

The interrelationships between the variables of psychological distress, adult attachment and schema domains in the present study are complex and numerous. As was hypothesised, significant differences were found between participants grouped by attachment style in terms of psychological distress and prominent EMS (within the five schema domains). Overall, the attachment style groups were found to have different relationships with all five schema domains. These differences were found between the care leavers with a fearful avoidant or preoccupied attachment

style, and those with a secure or dismissive attachment style. In order to provide a meaningful, concise and clinically relevant dialogue of findings, discussion of relationships between variables will be organised around the four attachment style classifications of fearful avoidant, preoccupied, dismissive and secure. Where schema domains significantly differentiate more than one attachment style from the others, for clarity they will be discussed related to the attachment style which had the highest mean score for the domain. Findings will be linked with evidence from previous studies however, as research to date in this area is limited and extensive comparisons with previous studies are not possible.

4.3 Fearful avoidant attachment style

Care leavers identified as having a fearful avoidant attachment style accounted for 38 per cent of the overall sample. They reported the highest significance of psychological difficulties, with mean scores falling into moderate to moderately severe categories across most areas of distress measured. In terms of the prominence of EMS, participants classified as having a fearful avoidant attachment style were found to be significantly different from the secure attachment style group on all five schema domains (fearful avoidant scoring higher). They were significantly different from the dismissive attachment style groups on the schema domains of 'disconnection and rejection' and 'other-directedness'. This group had the highest mean scores of all attachment style groups on the domains of 'disconnection and rejection', 'other-directedness' and 'over-vigilance and inhibition.' These three domains will be discussed below.

People with a fearful avoidant attachment style as classified by Bartholomew (1990) are characterised by high attachment anxiety and high attachment avoidance (negative IWMs of self and others; Holmes & Johnson, 2009). They view themselves as being unlovable and other people as malevolent and untrustworthy (Holmes & Johnson, 2009). Even though they may want relationships with other people they fear rejection to such an extent that they avoid any emotional closeness

(Bartholomew, 1990; Bartholomew & Horowitz, 1991). When combined, the three most prominent schema domains related to a fearful avoidant attachment style, 'disconnection and rejection', 'over-vigilance and inhibition' and 'other-directedness' contain EMS that include mistrust, defectiveness/unlovablity, admiration/recognition seeking and pessimism/worry among others (Young *et al.,* 2003). These represent key features of a fearful avoidant attachment style, including seeking recognition from others while at the same time having expectations that other people will probably cause hurt or humiliation if help is sought from them. The contradictions these schema domains result in when active together, illustrate the juxtaposition people with this attachment style find themselves in when in close relationships; they may want approval and recognition but fear hurt and humiliation.

'Disconnection and rejection'

The EMS within the schema domain of 'disconnection and rejection' are said by Young *et al.* (2003) to arise from beliefs that needs for love, safety, stability and nurturance within relationships are not going to be met (Young *et al.,* 2003). Experiences which lead to such beliefs revolve around childhood trauma, and people with prominent EMS in this domain are said by Young *et al.* (2003) to often be the most damaged. The domain of 'disconnection and rejection' was significantly correlated (with large effect sizes) with all aspects of psychological distress in this study. In multiple regression analysis examining the extent to which attachment and schema variables predicted psychological distress, this domain emerged as the only significant predictor variable of problems in subjective wellbeing[8] and life functioning[9] (two dimensions of psychological distress measured by the CORE).

A higher prominence of the schema domain 'disconnection and rejection' has been found to be associated with higher reporting of various difficulties, including chronic pain (Saariaho *et al.,* 2011) and past depressive episodes (Abela *et al.,* 2009). It has

[8] Items used to measure this according to the CORE include 'I have felt O.K. about myself'.
[9] Items used to measure this according to the CORE include 'I have felt humiliated or shamed by other people'.

also been found to either fully or partially mediate the relationships between the two attachment continua (attachment anxiety and attachment avoidance) and psychological distress in a study by Bosmans *et al.* (2010). Thus, the prominence of the schema domain of 'disconnection and rejection' amongst a group of care leavers, and its relationship with attachment insecurity and higher levels of psychological distress, seems to be supported in the present study. This finding is likely to have implications for service delivery in that care leavers with this attachment style may want and need help, but fear of rejection or fear of being hurt may mean that committing to a therapeutic relationship feels too overwhelming. This may help explain the observed intermittent or erratic engagement styles of care leavers with mental health services (Lamont *et al.,* 2009).

'Over-vigilance and inhibition'

EMS within the domain of 'over-vigilance and inhibition' include prominent beliefs of pessimism, worry and a fear that life could 'fall apart' (Young *et al.,* 2003). 'Over-vigilance and inhibition' was significantly correlated (large effect sizes) with all aspects of psychological distress in this study. It emerged as the only significant predictor variable in a multiple regression analysis examining the extent to which attachment and schema variables predicted higher reported problems/symptoms[10]. Abela *et al.* (2009) also found an association between higher prominence of EMS within this schema domain, and past experiences of depression.

Considering the definition of 'over-vigilance and inhibition', it might not be surprising that its presence was a predictor of problems/symptoms (as measured by the CORE), as living in fear of something going terribly wrong in life is likely to raise awareness of possible dangers, including somatic symptoms. In addition, living to rigid rules may result in less flexibility in the ways in which problems/symptoms are interpreted, perhaps serving to confirm schemas, thus rehearsing them further. The relationship of this schema domain to having negative IWMs of self (higher

[10] problems/symptoms measured include anxiety, nervousness, aches and unwanted thoughts.

attachment anxiety) may reduce confidence in personal abilities to overcome difficulties, while its relationship to a negative IWM of others (higher attachment avoidance) may make seeking or believing other people can help more difficult. Therefore the associations between this schema domain, attachment style and certain aspects of psychological distress may illustrate the presence of a self-perpetuating negative cycle.

'Other-directedness'

EMS within the domain of 'other-directedness' are said to arise from having had a childhood where acceptance is conditional, and where needs were disregarded in favour of the needs of others (parents or the wider public; Young *et al.,* 2003). The domain of 'other-directedness' was significantly correlated (medium or large effect sizes) with all aspects of psychological distress in the present study, although it was not a significant predictor of any aspect of psychological distress in multiple regression analyses. Bosmans *et al.* (2010) found that the relationship between attachment anxiety and psychological distress was completely mediated by the relationship between attachment anxiety and the schema domains of 'disconnection and rejection' and 'other-directedness'. This again suggests the significance of 'other-directedness' EMS and their role in linking functioning within relationships (adult attachment) with aspects of psychological distress. The significance of the schema domain of 'other-directedness' and its relationship to higher attachment anxiety was also supported by evidence in the present study, that the domain significantly differentiated the preoccupied attachment style group and the secure and dismissive attachment style groups (preoccupied attachment style group scoring higher).

The relationship between the 'other-directedness' schema domain and a fearful avoidant attachment style may result in some care leavers being perceived as overly compliant. These results suggest that such compliance may be due to negative IWMs of self and others. Relationships such care leaver's form may not be genuine

as they hold back their true self (due to a negative IWM of self as unlovable) and focus on pleasing others, but also have an underlying mistrust of their motives. Within therapeutic settings, such patterns of interaction may prove unhelpful for the care leaver, and if unaddressed may maintain unhelpful ways of coping and relating to others (Riggs *et al.,* 2011).

4.4 Preoccupied attachment style

Care leavers identified as having a preoccupied attachment style accounted for 16 per cent of the population of care leavers sampled. Overall, their levels of distress were less severe than those with a fearful avoidant attachment style (see section 4.3), but more severe than those with a dismissive attachment style (see section 4.5). They were found to be significantly different from the secure attachment style group on three schema domains: 'impaired autonomy and performance'; 'impaired limits'; and 'other-directedness'[11] (preoccupied group scoring higher). They were significantly differentiated from the dismissive attachment style group on the schema domain of other-directedness. As a group, they had the highest mean scores for the two schema domains of 'impaired autonomy and performance' and 'impaired limits'.

People with a preoccupied attachment style as classified by Bartholomew (1990) score high on attachment anxiety and low on attachment avoidance. They are said to have a negative IWM of themselves as essentially unlovable (Wei *et al.,* 2003) and a positive IWM of others who they need to be accepted and reassured by (Wei *et al.,* 2007), but expect to be rejected, because they view themselves as unlovable (Holmes & Johnson, 2009). When combined, the three most prominent schema domains that distinguished the preoccupied group from other attachment style groups ('impaired autonomy and performance', 'impaired limits' and 'other-directedness') contain the EMS of admiration/recognition seeking, practical

[11] The higher prominence of both 'impaired autonomy and performance' and 'impaired limits' also differentiated the care leavers with a fearful avoidant attachment style from those with a secure attachment style.

incompetence/dependence and insufficient self-control/self-discipline. These EMS may help explain some of the key features of a preoccupied attachment style, discussed further below.

The preoccupied and fearful avoidant attachment style groups did not emerge as being significantly different from each other on any of the distress dimensions or on any of the schema domains, although the care leavers with a fearful avoidant attachment style reported higher levels of psychological distress. One possible explanation lies in the suggestion that Young's conceptualisation of schemas reflect views of self more than views of others (Platts *et al.,* 2005). This may account for the limited differences found between the preoccupied and fearful avoidant groups, both of whom are characterised by high attachment anxiety (negative IWM of self). The study by Platts *et al.* (2005) also failed to find any significant differences between the preoccupied and fearful avoidant groups. This is perhaps a limitation of the schema measure used (YSQ-S3) in that it may not be able to adequately represent schemas associated with others rather than self.

'Impaired autonomy and performance'

The schema domain of 'impaired autonomy and performance' contains schemas relating to the inability to function as independently, competently or skilfully as age equivalent peers (Young *et al.,* 2003). The significance of this schema domain in the preoccupied attachment style group may be explained by the suggestion that in adult attachment terms, high attachment anxiety is associated with negative IWMs of self, and longing for approval and reassurance from others (Wei *et al.,* 2007). This finding is interesting as the majority of care leavers live alone by the age of 16-18 which is a much younger age than their peers, for whom the average age to leave home is 24 (Hannon *et al.,* 2010). Therefore, although many young care leavers live alone, they may lack the skills they would need to effectively do this. Study findings may point to an underlying psychological reason for what would appear to be a practical skills deficit. Without help and support to develop abilities in this area, care

leavers may continue to have difficulties in functioning independently into their adulthood. It would be interesting to investigate this further through interviewing care leavers in later adult life.

It is possible that as a coping mechanism, people with EMS in the domain of 'impaired autonomy and performance' avoid challenges in order to prevent feeling vulnerable and needing to seek reassurance (Young *et al.,* 2003). When considering implications for psychology services working with care leavers, consideration should be given to the fact that therapeutic interventions often inherently involve the ability to explore and access inner thoughts and feelings. Consequently, attention needs to be given to creating a safe space and to building therapeutic relationships prior to commencement of the intervention. Also, thought may need to be given to models of therapy used, as some brief therapies may not give great consideration to the importance of spending time forming a therapeutic relationship. Therefore it may be appropriate to consider less formal delivery of psychological therapies when working with care leavers for whom EMS in this schema domain may be prominent, along with considering difficulties they may experience with complying with therapies that involve 'homework' tasks. It may also be that developing independence from a therapist is a frightening experience, therefore thought needs to be given to preparing for therapy endings, and fostering independence, from early on in a therapeutic relationship.

'Impaired limits'

The schema domain of 'impaired limits' contains schemas related to difficulties with co-operation, respecting others' rights, keeping to commitments, delaying gratification, impulsivity and restraint (Young *et al.,* 2003). The prominence of this schema domain may in part explain why care leavers are highly represented within the criminal justice system and why many have been found to seek immediate rather than delayed gratification (DoH, 1999). The significance of this schema domain in the preoccupied attachment style group suggests that involvement in crime may be

related to having a negative IWM of self, perhaps involving beliefs such as ‘I’m worthless, unlovable’, and consequently ‘I don’t care if I’m punished’. Subsequently, punishments imposed may actually be desired, and rather than having the intended effect of being a reprimand, may reinforce beliefs about self and others. Similarly, difficulties with delaying gratification combined with difficulties functioning independently (evidenced by the significance of the ‘impaired autonomy and performance’ schema domain), may make tasks such as management of money and paying bills particularly challenging, especially when care leavers are expected to perform these tasks at such young ages.

4.5 Dismissive attachment style

Care leavers identified as having a dismissive attachment style accounted for just 14 per cent of the population of care leavers sampled. According to classification by Bartholomew (1990), adults with a dismissive attachment style score low on attachment anxiety and high on attachment avoidance. Consequently, it is likely that they have a positive IWM of themselves as lovable (Holmes & Johnson, 2009), described as a ‘defensive idealisation of self’ (Simard *et al.,* 2011), and a negative IWM of other people, seeing them as malevolent and untrustworthy (Brennan *et al.,* 1998). People with a dismissive attachment style are thought to have a high need for self-reliance, and are reluctant to self-disclose (Wei *et al.,* 2007).

A dismissive attachment style is one of the three insecure attachment styles (preoccupied, dismissive and fearful avoidant attachment styles). However, in this study, care leavers with a dismissive attachment style were found to be significantly different from the other two insecure attachment categories. The dismissive attachment style group had significantly lower prominence of schemas compared to the fearful avoidant group, on the two schema domains of ‘disconnection and rejection’ and ‘other-directedness’. They also had significantly lower prominence of schemas in the domain of ‘other-directedness’, compared to the preoccupied attachment style group. Additionally, on the distress dimension of subjective

wellbeing, the dismissive attachment style group's scores were significantly lower (suggesting less distress) than those of the fearful avoidant group. The average scores of the dismissive attachment style group were higher than for the securely attached group in most schema domains and in all aspects of psychological distress, however the difference was not significant. This suggests that in terms of psychological distress and prominent schema domains, the dismissive attachment style group were more similar to the secure attachment style group than the other two insecure attachment style groups.

This finding is supportive of previous research that has also been unable to differentiate between participants with a dismissive (or avoidant) attachment style and those with a secure attachment style (Declercq & Willemsen, 2006; Lopez *et al.,* 1998; Platts *et al.,* 2005). This is often attributed to the fact that individuals with a dismissive attachment style tend to underreport difficulties due to a high mistrust of others (Dozier & Lee, 1995; Platts *et al.,* 2005). Another possibility is that those with a dismissive attachment style may have learned to ignore or disregard unpleasant thoughts and feelings, and therefore would avoid recognition of any EMS (Simard *et al.,* 2011). Alternatively, it may be that having a positive IWM of self (low attachment anxiety), which is a feature of this attachment style, functions as a protective factor against psychological distress, at least in the short term. Interestingly, the care leavers with a dismissive attachment style in this study had the highest mean score for risk behaviours out of all the attachment style groups. Multiple regression analysis examining which attachment and schema variables predicted higher reported risk also revealed that the only significant predictor variable was attachment anxiety, which negatively predicted higher risk[12] behaviours. This suggests that the presence of higher attachment anxiety lowered the likelihood of risk taking behaviours, which is intriguing when considering that, according to Mikulincer and Shaver (2007), higher attachment anxiety is most consistently related to higher suicidal ideation.

[12] Items used to measure this according to the CORE include 'I have hurt myself physically or taken dangerous risks with my health.

In explanation of these seemingly inconsistent findings, it could be suggested that attachment anxiety lowers the likelihood of risk behaviours, as it makes help and reassurance seeking from other people more likely. Therefore, it is possible that when studies have found attachment anxiety to be related to risk behaviours, the risk behaviours may be serving the function of eliciting reassurance from other people. This links to the observation of the dismissive attachment style group above, when it was suggested that having a positive IWM of self (lower attachment anxiety) may be somewhat protective against psychological distress. However, it might be that in times of need, having a negative IWM of others (higher attachment avoidance) makes help seeking less likely, therefore risk behaviours may be used as coping mechanisms. Alternatively, it could be that the particular relationships regarding risk and attachment observed in the present study are a reflection on the early maltreatment experiences of care leavers, and the ways that they have learned to cope. Although the present study finding needs to be interpreted with caution (as it is based on a small sample size), it may raise important considerations regarding the relationships between risk taking behaviours and attachment, particularly among people who have suffered maltreatment. This is perhaps an area worthy of further research.

4.6 Secure attachment style

In this study, 32 per cent of participants were classified as having a secure attachment style relative to their care leaver peers. They had the lowest scores on all aspects of psychological distress and the lowest reported prominence on four out of five schema domains.

According to Bartholomew (1990), adults with a secure attachment style score low on attachment anxiety and low on attachment avoidance (positive IWMs of self and others). They have a positive IWM of themselves as deserving of love and of other people as responsive to, and accepting of, their needs (Holmes & Johnson, 2009). They typically view themselves as confident, worthy of love and assertive, and view

others as dependable, trustworthy and kind (Platts *et al.,* 2002). In this study, care leaver participants were classified into attachment style groups relative to each other and as such, the secure attachment style group only have a secure attachment style relative to their care leaver peers. It could thus be argued that those with secure attachment styles in this study might not be classified as secure when compared to the general population of young people. However, care leavers with a relatively more secure attachment style reported having the lowest levels of psychological distress and the least prominent schema domains. This suggests that amongst care leavers, those with a more secure attachment style are more likely to have better psychological functioning and lower levels of distress.

4.7 Conclusion

Clearly, causality cannot be inferred from the findings of this study. It could be that having a more secure attachment style is protective against psychological distress (Yirmiya, 2009), and having a more insecure attachment style is a predisposing or risk factor for psychological distress (Deklyen & Greenberg, 2008; Yirmiya, 2009). Conversely, it could be that higher psychological distress (within certain dimensions of distress) makes attachment security less likely. Whilst the former explanation is more in keeping with attachment theory, a longitudinal study would be required to test the direction of the relationship in order to infer causality. It is noteworthy that there are both subtle and marked differences between the different attachment style groups in terms of their relationships with psychological distress and the five schema domains. This suggests that services need to think carefully about how to tailor and modify interventions they offer and the ways in which it is possible to work with care leavers, particularly when the differing prominence of schema domains are taken into consideration.

4.8 Care/maltreatment experiences

All care leavers in this study possess the same defining features of having spent time in the care system as children, and having suffered childhood maltreatment. Given their differing self-reported levels of psychological distress, it was hypothesised that some of these differences might be explained by differing maltreatment and 'care' experiences. However, no significant relationship was found between the 'care' variables (age taken into care, number of placements in care and type of early maltreatment experienced) and any of the study variables of psychological distress, adult attachment and EMS.

This finding was counter-intuitive but when the complexities of the issues surrounding care experiences are taken into account, it is perhaps not surprising that there were no significant findings. For example, entering care at a younger age may mean less time exposed to maltreatment, but more care placements, while entering care when older may mean longer exposure to adverse early experiences, or exposure at a later age, but fewer care placements. In addition, with regard to number of placements since being in care, the qualitative nature of placements may be more important than the overall number of placements. Factors such as whether the placement changes were at the young person's request, whether or not the young people experienced the placement move as a loss and whether they felt happy when in their foster placements, may all have an impact.

Looking specifically at the impact of early maltreatment experiences in the present study, all of the care leavers had suffered neglect and half had suffered abuse in addition to neglect. No significant differences were found between the two groups on any of the study variables (in the areas of psychological distress, adult attachment and EMS). This may be because 'care' variables do not have an impact on the variables under investigation. Alternatively, this finding may be attributed to the poor quality of data available in social services files, resulting in difficulties

differentiating between the nature and types of experiences and abuse suffered by the young people.

This study also found that participants who entered care at a younger age had more placement moves than those who entered when they were older. This finding contradicts a commonly held assumption that children who are placed in care at a younger age experience greater placement stability and have fewer emotional difficulties than those placed in care when older (Hannon *et al.,* 2010).

For the present sample of care leavers, the above findings suggest that differences in past experiences should not be assumed to predict present distress, levels of attachment anxiety (IWM of self) and/or attachment avoidance (IWM of others), or prominence of EMS. For example, it should not be assumed that because a young person was taken into care at a younger age and had few placement moves, that they are able to form relationships more easily, or that they will have less psychological distress. It is more likely that such experiences affect relationships in different ways, and are understood or interpreted differently by the young people. This is in accordance with the opinion of Lumley and Harkness (2007), who stated that rather than it being the type of childhood maltreatment suffered that leads to specific types of difficulties, it may be the way in which maltreatment is interpreted or internalised that mediates between past abuse and present psychological distress. Thus it would seem that the impact of care variables are complex and multi-factorial, and require further investigation to be more thoroughly understood. Understanding these factors is important if the welfare of children in and leaving care is to be improved in the future.

4.9 Summary of discussion

Overall, care leavers with the highest reported levels of psychological distress also reported the highest levels of attachment insecurity, and the most prominent schemas when compared to their care leaver peers. The relationship between attachment styles and associated schema domains were explored, and results suggest that EMS may account for the conscious aspects of IWMs within attachment theory, as suggested by various authors (for example Bosmans *et al.,* 2010; Simard *et al.,* 2011). It is suggested that an understanding and awareness of prominent EMS may provide a useful template or starting point for thinking about effective psychological interventions for care leavers experiencing significant psychological distress. However, EMS cannot entirely account for all information included in IWMs which, based on the theories that inform them (such as object relations theory), are likely to include unconscious aspects of relational processes. Therefore, when providing psychological therapies, in addition to thinking about specific therapy models, consideration needs to be given to the therapeutic relationship formed, and to the wider, more qualitative aspects of service delivery.

In sum, it is thus suggested that the concepts of adult attachment theory and schema theory are both highly relevant to a care leaver population, making them important considerations when planning effective service delivery for care leavers and children within the care system.

The study was unable to reliably distinguish between the care leaver participants with dismissive or secure attachment styles, or between those with preoccupied or fearful avoidant attachment styles. Participants with a dismissive attachment style were significantly different from the other insecure attachment styles on some of the schema domains, but were not significantly different from the secure attachment style group. This brings into question the validity of classifying individuals as secure or insecure in terms of attachment style, and this is discussed later.

Although this study identified a strong positive relationship between a fearful avoidant or preoccupied attachment style and greater levels of psychological distress and attachment insecurity, it is not able to claim what experiences may have resulted in these being formed. Qualitative investigations or longitudinal studies would be needed in order to fully assess what experiences contribute towards, or protect against, higher attachment insecurity in children who are taken into care.

4.10 Theoretical implications

In this study, positive correlations were found between both continuums of attachment (attachment anxiety and attachment avoidance) and all schema domains (medium or large effect sizes). These findings are largely in agreement with the findings of studies by Bosmans *et al.* (2010) and Platts *et al.* (2005) who conclude that viewing the IWMs of attachment styles as cognitive schemas, offers a way of exploring and investigating the content of IWMs which is usable in research and clinical terms. Specific similarities and differences between the findings of the present study and those of Bosmans *et al.* (2010) and Platts *et al.* (2005) have been illustrated when discussing study findings. In sum, further research is needed on a wider scale with different populations to substantiate the relationships between IWMs in attachment theory and EMS in schema theory.

Based on the findings of this study, it seems that higher attachment anxiety and higher attachment avoidance are both associated with a greater prominence of EMS (observed within the five schema domains), and lower attachment anxiety and lower attachment avoidance are both associated with lower prominence of EMS (observed within the five schema domains). The research findings also substantiate the presence of a significant and positive relationship between the schema domain of ‘disconnection and rejection’, and higher attachment anxiety and higher attachment avoidance (or otherwise conceptualised as fearful avoidant attachment style). This schema domain significantly differentiated between the fearful avoidant and the secure attachment style groups.

There is currently a debate around whether attachment in adults should be viewed in continuous rather than categorical terms (Fraley, 2010). Various studies have used adult attachment questionnaires (the ECR and ECR-R) to measure attachment as continuous data (for example Bosmans *et al.,* 2010). Some researchers have had difficulties in representing those with dismissive attachment styles (for example Platts *et al.,* 2005), which supports a move into measuring attachment anxiety and attachment avoidance along continua. However, research which fails to look at attachment style categories may overlook the complexities of attachment. Within the present study significant differences across the four attachment style groups on measures of psychological distress and schema domains were observed. In addition, the profiles of participants with a dismissive attachment style were of particular interest and highlight issues for future research. If attachment were viewed in only continuous terms, it would not be possible to account for those who score highly on both attachment continua. For example, participants in the present study who were classified as having a fearful avoidant attachment style (high attachment anxiety and high attachment avoidance) were found to have the highest overall psychological distress and the highest average scores for three out of five of the schema domains. Consequently, it is recommended that future research does not dismiss attachment categories, as doing so may not fully encapsulate individual experiences.

4.11 Clinical implications and service provision

4.11.1 Care leavers

The findings of the present study raise a number of noteworthy clinical implications. Study findings suggest care leavers who reported the highest levels of psychological distress report experiencing higher levels of attachment anxiety (negative IWM of self) and attachment avoidance (negative IWM of others), and report more prominent EMS, particularly in what is often considered to be the most damaging schema domain (‘disconnection and rejection’; according to Young *et al.,* 2003), than those care leavers who report lower levels of psychological distress. This finding is important for services aiming to support and enhance the psychological wellbeing of

care leavers. It is suggested that consideration be given to the constructs of attachment and EMS when thinking about models of therapy chosen, but also when thinking more widely about service provision. However, some acknowledgement needs to be given to the underlying hypotheses regarding IWMs in attachment theory and EMS in schema theory and in particular, the stability of these structures (Bowlby, 1969; Young *et al.,* 2003). By adulthood, if negative IWMs and EMS are present, at least some may be the result of having had repeated aversive experiences throughout life. Consequently, therapies can help, but cannot change or take away the past. Perhaps the therapies that may be most useful are ones that focus on recognition of thoughts, noticing behaviours and patterns, coping techniques and acceptance, for example 'third wave therapies' such as mindfulness, Acceptance and Commitment Therapy, or perhaps Schema Therapy (by Young *et al.,* 2003). The efficacy of these interventions for care leavers would need further investigation but in theory, they may have something to offer this population.

It is well reported that the therapeutic relationship is one of the key elements for therapeutic change (Smith *et al.,* 2010). Bowlby described the therapeutic relationship as an attachment relationship (Smith *et al.,* 2010). According to Smith *et al.* (2010): 'Like a parent, the therapist is viewed as needing to provide a secure base for the client, which would then allow the client time, space and safety to explore and develop a greater understanding of themselves and the world.' (p.328.). Consequently, knowing the difficulties care leavers may have in forming a therapeutic relationship is likely to be an important consideration for services aiming to meeting their psychological needs. As noted by Riggs *et al.* (2011), if a client's patterns of attachment are known, a therapist can work to avoid a replication of previous maladaptive relationships patterns. The routine use of measures such as the ECR-R and the YSQ may indicate to services the best way to go about building relationships and may guide therapeutic intervention, thus tailoring interventions to meet the individual's needs.

A further important point is that therapeutic relationships exist between two people. If therapy is be collaborative, a therapist's attachment style will also impact upon the relationship (Smith *et al.,* 2010). Consequently, it is essential that those working with care leavers in a therapeutic capacity are mindful of the relationship they are entering in to, and the importance of obtaining reflective supervision in order to adequately manage the relationship, and best meet the needs of the young person. The issue of supervision and support is likely to be important for the wider demographic of people who work closely with care leavers (for example key workers and other social services staff), as the prominence of EMS combined with negative IWMs of self and others for some care leavers could work to break down relationships with staff. If such situations are reflected upon and support provided to staff members, breakdown may be averted, thus allowing young people greater opportunity for healthy relationships and wider support.

Giving further thought to service provision, services working with care leavers may need to work creatively and attend to the importance of flexible service provision when working with care leavers; understanding relationship needs, the importance of relationship building, and allowing time for therapy rather than focusing on the provision of brief therapies. As Young *et al.* (2003) state, when people have significant schemas in the domain of 'disconnection and rejection', they are unlikely to be able to form therapeutic relationships in short amounts of time, therefore making brief therapies redundant for this population and perhaps making consistent engagement with services difficult. Consequently, policies such as those employed in response to non-attendance may need to be revised in order to avoid discharging those who find engagement difficult, but have many psychological needs.

Rather than providing one-to-one therapies for care leavers in the first instance, thought may be given to involvement in group work, leisure activities and socialisation events which could all be underpinned and conducted within a therapeutic model, where psychological support could be provided on an ad hoc basis, giving young people time to build relationships. This may be particularly

advantageous for those with more dismissive attachment styles who may not be inclined to view other people as being able to help them, and who may not want to attend structured forms of psychological therapy. In addition, care leavers may benefit from having a service where it is possible to 'drop in' as well as having planned times for meeting. Such a service may work best if operated under a 'one stop shop' model where many different professionals work out of one location, meaning care leavers often frequent a building for a range of reasons. Such a model of service was identified in a survey by Cameron *et al.* (2007) as being most desirable to care leavers, as it provided emotional and practical support in a holistic way. However, services could be even more creative, fostering the common interests of young people and involving colleges in order to provide training and education. If such facilities also had psychologists and other therapists as intrinsic team members, psychological support and guidance could be provided in the ways suggested above, and time could be invested in the formation and maintenance of relationships.

In sum, for services aiming to meet the needs of young adult care leavers with significant levels of psychological distress, the findings of the present study suggest that consideration should be given to the constructs of adult attachment and early maladaptive schemas (EMS) when deciding on appropriate models of therapy employed. Schema theory may provide specific information for guiding therapeutic interventions, as it allows access to conscious beliefs which appear to be related to psychological distress. However, consideration of attachment theory in a broader sense may help when considering the wider aspects of service delivery, including the formation and maintenance of effective therapeutic relationships.

4.11.2 Children in care

The present findings also highlight the importance of early interventions for children who are in care, particularly for those who have developed the unconditional EMS aligned with the domain of 'disconnection and rejection' (Wright *et al.,* 2009). It is

interesting to note the average age that children in the present study came in to care (nine or ten), combined with the finding by Stallard (2007) regarding the instability of conditional schemas at such an age. This means that schemas may be more open to, and more easily changed if targeted when younger. Based on these findings it is suggested that children in care receive preventative psychological interventions to minimise further EMS becoming stable. Such interventions could be achieved through attachment focused foster placements being standard for all children who are in care. To achieve this, foster parents would require training and supervision in order to follow models of parenting such as those promoted by Dan Hughes (Hughes, 2009) or Kim Golding (Golding, 2008). In addition, more direct therapeutic work aimed at further enhancing attachment relationships, and challenging schemas that may have already been developed, could be provided by psychology services. It is possible that interventions such as these may go some way to averting the high number of care leavers with more highly prominent EMS, insecure attachment styles and high rates of reported psychological distress in the future. However, longitudinal studies would need to be conducted in order to assess the effectiveness of such interventions.

4.12 Methodological limitations

There are numerous methodological limitations that need to be taken into account when interpreting the results of the present study. These will be presented in four sections of limitations related to: participants; measures used; conceptual issues; and additional variables that might have been considered.

4.12.1 Participants

There was an inevitable bias in selection of participants through the study exclusion criteria. For example, as the attachment questionnaire measured adult romantic attachment, participants needed to have an experience of a boyfriend or girlfriend relationship in order to be included. Also, those who were most psychologically ‘unwell’ may have declined the invitation to participate due to them not feeling able to

meet with the researcher and complete questionnaires. Additionally, participants could not be in police custody at the time of participation, which may have excluded some care leavers within the given area. Also, care leavers with significant learning difficulties, or those who could not complete questionnaires using any aids they would normally use, were also excluded. Therefore, the care leavers who had not personally experienced being in a romantic relationship, those most psychologically unwell, those with the most antisocial behaviours, and those with learning disabilities, are likely to be underrepresented in the present study.

The ethnic diversity of the study sample was limited, but it was reflective of the demographics in the geographical area sampled. However, this does mean that results may not generalise to other populations of care leavers, where there is greater ethnic diversity. Further research should look at the experiences of ethnically diverse young adults leaving care.

This study had a mixed gender sample, as no study hypotheses were related to gender, and there is no gender specific attachment or schema theory, therefore no analyses in this area were performed. However, it is possible that there might have been gender differences, perhaps another area for further research.

The absence of an age equivalent non-care leaver control group means that the study is not able to claim that findings are entirely particular or exclusive to a care leaver population. However, even if there had been a comparison group included in this study, difficulties in comparing findings would have remained. For example, there would probably have been an issue regarding the differing educational attainment level of the groups, as the educational attainment of the present sample of care leavers falls below national averages for their ages. Also, there would be difficulty in assessing the early experiences of a comparison group in terms of maltreatment experiences. In the present study, this information was obtained from

social services files, but in a non-care leaver population, such information would not be available but may be salient. Therefore, although it would be interesting to compare findings between the present group of care leavers with a group of non-care leavers, there would still be limitations to such analyses. In sum, even if a control group had been included in analyses, they may have varied in too many important areas to make any comparisons meaningful. The best alternative, perhaps, would be if all questionnaires used had standardised norms available. This is discussed further in the next section.

4.12.2 Choice of measures

All of the measures used in the present study were self-report. Self-report questionnaires face a general criticism in that they require participants to accurately report and accurately recognise aspects of themselves and their functioning. In particular, Dozier and Lee (1995) found that people with a dismissive attachment style underreport psychological difficulties compared to ratings given by people who know them well. This brings in to question the validity of self-report measures and may be especially pertinent for participants who have difficulty trusting other people, as they may not want to answer honestly. In order to address this deficiency, alternative methods of data collection could be explored in future studies, for example 'implicit association tests', devised in order to explore 'unconscious roots of thinking and feeling' (project implicit, n.d.; also see Bosmans *et al.,* 2010). These are computer based measures that require participants to quickly assign attributes to concepts, therefore accessing unconscious rather than conscious processes. Such tools may be of interest to future research assessing adult attachment for example (as suggested by Bosmans *et al.,* 2010). However, such techniques have not been properly developed for this purpose as yet, therefore, though they face criticism at the present time, self-report measures are the best available tool currently available for measuring cognitions (Bosmans *et al.,* 2010).

4.12.2.1 Clinical Outcomes in Routine Evaluation (CORE)

There are a multitude of questionnaires available to measure psychological distress. The CORE (Evans *et al.,* 2005) is free to use and quick to complete, therefore making it a potentially useful tool for research, however, it is only able to assess specific areas of psychological distress. Therefore, alternative measures of psychological distress may provide information on different aspects of distress which the CORE is unable to measure. Other tools that might have been used include the Symptom Check List-90 (SCL-90; Derogatis *et al.,* 1973) as used by Bosmans *et al.* (2010). However, although a useful tool, it has 90 items so takes longer to complete than the CORE which may be off-putting to potential participants. Also, it is not free to use which makes research more expensive to conduct.

The distress dimensions which were not significantly different between attachment style groups were risk and problems/symptoms. The lack of differences observed between attachment style groups on these two distress dimensions, might be due to participants choosing to underreport difficulties, or due to a deficit of the CORE in its ability to represent these particular areas of difficulty. Alternatively, this finding may indicate that some aspects of psychological distress are less related to adult attachment than others. This may help explain the inconsistent findings of different studies looking at the relationships between attachment and the various aspects of psychological distress (Platts *et al.,* 2002; Zachrisson & Skarderud, 2010). It may be that some aspects of psychological distress are highly related to attachment security, while others are not.

4.12.2.2 Experiences in Close Relationships-Revised questionnaire (ECR-R)

A criticism of ECR-R (Fraley *et al.,* 2000) is that it does not measure security within attachment relationships as accurately as it measures insecurity (Fraley, 2000). This criticism, by the authors of the measure, is a matter of concern, but is attributed by

the authors to a flaw in the original set of items measuring attachment which were available at the time of its development (Fraley, 2000). The ECR and ECR-R were created by amalgamating the items from almost all other self-report measures of adult romantic attachment which existed at the time (Fraley, 2000). Therefore, this means the fact that the scale measures attachment insecurity more accurately than attachment security, is also likely to be a flaw of most other self-report measures which contributed to this item set.

There are no published norms for continuous data derived from the ECR-R, and no guidelines available on how to categorise people into attachment style groups as a result of their scores. This was despite making direct contact with one of the ECR-R authors (R.C.Fraley, personal communication, 12 December 2010) and with one of the authors of the Platts *et al.* (2005) paper (O. Mason, personal communication, 22 December 2010). As there were no guidelines available, after seeking statistical advice, a median score split was used to categorise participants. As a result, participants are classified into attachment style groups relative to each other. Although the ECR-R and ECR are amongst the most widely used tools available to measure adult romantic attachment at the present time, using a tool with standardised norms and guidelines may be more advantageous as results could be compared to those of other studies more readily. Some comparisons in the present study have been made with the findings of Bosmans *et al.* (2010) as they used the ECR-R to collect data from student participants and published their means and standard deviations. However, the comparisons it is possible to conduct with their findings are limited, because their sample was drawn from a population of young Flemish University students. Therefore, their cultural backgrounds are likely to be too different from that of the current sample of young people to be able to compare them extensively.

The ECR-R as used in this study is a measure of adult romantic attachment, not a measure of childhood attachments. As the stability between childhood and adult attachment style is a matter for debate (see section 1.5.2), it is not possible to

assume that adult attachment style is a true indicator of childhood attachments. Information regarding care leavers childhood attachment style may have been an interesting addition to the current study, but this is not information which is routinely collected by services when children are taken into care. It is possible to assess childhood attachments retrospectively however; this is done by asking questions related to experiences during childhood with parents. It could be argued that it would have been unethical to ask such questions within a research context, with young people known to have been separated from their parents due to difficulties including abuse and/or neglect.

It is possible to adapt the ECR and ECR-R to ask about peer relationships rather than romantic relationships (Fraley, 2010). If the measure had been used in this way, it may have been possible to have widened the inclusion criteria and allowed inclusion of those participants who may actively avoid romantic relationships. However, using the ECR-R in this way would have required alteration of the questionnaire items, which would have had an impact on the validity and reliability of the tool.

4.12.2.3 Young's Schema Questionnaire, short-form version-three (YSQ-S3)

A criticism of the YSQ-S3 (Young, 2005) used in the present study is that being the newest revision of the YSQ short-form means that comparison of results with other studies using older versions are limited. This is unfortunate, but as the YSQ is a measure based on practice based evidence, it is inevitable that in light of new evidence, it will be revised. It would thus be helpful if standardised norms were available on all versions of the YSQ as currently there are no standardised norms available, making it impossible to assess the potential significance of EMS against a general population.

4.12.3 Quality of background information on participants

Due to the way in which the reasons for participants being taken into care were recorded in social service files, a limited amount of meaningful data analyses could be performed. All had suffered neglect and half had suffered neglect plus abuse, but qualitative data on the nature of neglect and abuse was not available (as discussed in section 3.4 & 4.7). According to Lamont *et al.* (2009), social services systems have been improved in recent times and now do include more information on, for example, the reasons why children were brought into care. Therefore, this may be less of a problem in the future. However, this does little to help current and emerging care leavers to understand their past lives and experiences. Nor does it help services to plan for future provision as it is not possible to tell what it was from historical experiences that might have been damaging or protective.

4.12.4 Possible additional variables

Children who are in or leaving care face a multitude of risk factors such as social deprivation, poverty and lack of social support, which are all known to contribute to the development of mental health problems (Bebbington & Miles, 1989). Therefore, although the present study has found significant relationships between psychological distress, adult attachment style and EMS, it is acknowledged that there will be many other practical and social issues that also warrant consideration when aiming to fully and completely understand the needs of, and provide services for, a care leaver population. It would also be interesting to look at resilience in care leavers, as children do survive significant adversity and many function successfully in adulthood with examples of famous people such as Neil Morrissey and Seal who have spoken about their experiences of being in care as children. Also, in the present study a significant number of participants reported non-clinical levels of psychological distress, suggesting some resilience to distress.

4.13 Statistical limitations

The findings of this study are based upon information from a relatively small sample of care leavers, therefore results need to be treated with caution and cannot be generalised to care leavers as a population.

In order to minimise the chance of possible type one errors (for example, detecting significant difference where there is none), multiple comparisons were avoided, and where conducted, only those with p values lower than .01 should receive attention. Where significance at the $p<.05$ level was detected, results were discussed, but such findings should be approached with caution as it is possible that they arose by chance.

The sample size of the present study was just sufficient enough to allow the use of simultaneous linear regression analyses, but further research is needed to verify findings. The high correlations found between some schema domains in the present study may mean that it would be more appropriate to view EMS individually, rather than in their five schema domains, in order to add further depth to understanding the relationships between EMS and IWMs. However, this would have meant multiple correlational analyses if conducted in this study, therefore increasing the chances of errors and making data produced more difficult to understand, interpret and summarise.

It may have been possible to conduct non-parametric mediational analyses on the results obtained in the present study as used by Bosmans *et al.* (2010). Such methods were not chosen originally as using non-parametric analyses only would not have provided the types of analyses needed to fully explore the research hypotheses. However, they may be useful in further studies investigating the relationships between the constructs of attachment and schema more thoroughly.

4.14 Areas for future research

There is a paucity of research exploring the psychological wellbeing of care leavers. This area of research is thus relatively new and there are multiple avenues for further research. The present study needs replication in a larger sample of care leavers in order to more fully explore the relationships between the study variables. Specific areas for further research have already been suggested in this chapter. These include using a measure of peer attachment relationships with care leavers; the production of standardised norms for both the ECR-R and Young's Schema Questionnaires; the use of implicit measures for assessing attachment; and replication of the study in more ethnically diverse populations.

Further investigation into the relationships between attachment and risk within a care leaver population has also been recommended. In addition, an investigation of these concepts with older care leavers in order to obtain a life span perspective of the long-term effects of being in care is advised.

The lack of valid and reliable background information on the early maltreatment experiences of care leavers within the present study was disappointing, as it meant only limited analyses were possible. The present study did find that on the whole, the longer a participant had spent in care the more placements they had experienced. However, having experienced a greater number of placements was not significantly related to any of the other variables in the present study. According to attachment theory, for healthy development an infant needs one or more committed caregivers (Bretherton, 1992). When a child frequently moves from one foster placement to another the commitment of those caregivers may be questioned, or the child may question whether or not they themselves are 'good enough' to be looked after consistently. The effects of placement stability are an area for future research to investigate in more detail.

It would also be interesting to explore the concepts of attachment, psychological distress and EMS in a younger sample of children in care. Longitudinal research with children in care exploring these constructs could provide vital information on the development of EMS and how their formation can be prevented.

Additional research exploring the role of other mechanisms in the development of psychological distress among care leavers is suggested. The present study did not explore coping mechanisms, self-esteem or other concepts such as aggression and how they related to the variables which the study investigated.

4.14.1 Intervention studies

Suggestions have already been made regarding intervention studies examining the efficacy of training foster parents in attachment focused parenting models, and of providing formal therapy for children in care aimed directly at working to target schemas (see section 4.11.2). Replication of a study such as that by Stallard (2007; which investigated the stability of EMS in children over time) within a population of looked after children could provide further guidance on useful models of therapy for children in care. In addition, there remains a lack of research into interventions that best suit the needs of care leavers. Intervention studies that test the efficacy of therapies such as attachment based therapies and schema therapy (Young *et al.,* 2003), mindfulness and Acceptance and Commitment Therapies in this population, would be advantageous.

4.14.2 Alternative statistical methodology

The present study primarily aimed to investigate the concepts of psychological distress, adult attachment and EMS within a care leaver population, in order to better understand their psychological needs. Adopting a mediation model to facilitate understanding of the relationships between the study variables may provide further

insight into the theoretical relationships between these constructs, but was beyond the scope of the present study.

4.15 Conclusion

Overall, in the present study, the care leavers with the highest reported levels of psychological distress also reported the highest degree of attachment anxiety (most negative IWMs of self), highest degree of attachment avoidance (most negative IWMs of others), and the most prominent schema domains. Significant differences were found in the reported levels of psychological distress and prominence of schema domains between participants with different attachment styles. The most notable differences were between those with a secure attachment style and those with a fearful avoidant attachment style. Those with a secure attachment style reported significantly lower levels of psychological distress and significantly lower prominence of EMS than those with a fearful avoidant attachment style. Multiple regression analyses indicate that higher prominence of the schema domains of 'disconnection and rejection' and 'over-vigilance and inhibition' account for a significant proportion of the variance in different aspects of psychological distress measured.

The findings of the present study suggest that when considering psychological interventions for care leavers, regard should be given to their styles of adult attachment and the early maladaptive schemas (EMS) they have developed, when planning and developing effective therapeutic interventions.

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APPENDIXES

APPENDIX 1. List of terms used in literature searches

Terms are sorted by subject area:

Attachment. Attachment theory. Attachment style. Attachment classification. Insecure attachment. Secure attachment. Attachment type. Infant attachment. Childhood attachment. Adult attachment. Romantic attachment. Adult romantic attachment. Adult attachment style. Difficulties with attachment.

Schema. Schema therapy. Schema theory. Young's schema theory. Young's schema therapy. Young schema.

Psychological well being. Mental health. Well being. Psychological difficulties. Distress. Psychological distress.

Care leavers. Looked after children. Children leaving care. Young people leaving care. Aging out of care. Looked after children. LAC. Adults been in care. Childhood in care. Fostered. Adopted. Adoption breakdown. Affects of being in care. Experiences of care. Experiences of leaving care.

APPENDIX 2. Study variables

Measure	Variable
Demographics	Gender
	Age
	Ethnicity
	Marital status
	Number of GCSEs
	Employment status
	Age taken into care
	Reason for being taken into care
	Number of placements since being in care
	Adoption
	Reason for adoption breakdown
Clinical Outcomes in Routine Evaluation (CORE)	Overall psychological distress
	Subjective wellbeing
	Problems/symptoms
	Life functioning
	Risk
Experiences in Close Relationships-Revised (ECR-R)	Attachment anxiety
	Attachment avoidance
	Secure
	Preoccupied
	Dismissive
	Fearful avoidant
Young's Schema Questionnaire, Short-form version 3 (YSQ-S3)	Disconnection and rejection
	Impaired autonomy and performance
	Impaired limits
	Other-directedness
	Over-vigilance and inhibition

APPENDIX 3. Participant information sheet

SOUTH WALES DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
CWRS DOCTORIAETH DE CYMRU MEWN SEICOLEG CLINIGOL

PARTICIPANT INFORMATION SHEET

Version 2. 28/07/2010.

Title of Study:	**Psychological needs of young adults leaving the care system.**
Principal investigator:	Rhian Murphy, Trainee Clinical Psychologist.
Supervisors:	Dr Liz Andrew, Consultant Clinical Psychologist. Dr Jane Onyett, Consultant Clinical Psychologist.
Contact details:	Clinical Psychology Training, Archway House, Llanishen, Cardiff. e-mail: Rhian.Rees2@wales.nhs.uk telephone: 07749 551 680

We are inviting you to take part in a research study looking at the psychological needs of young care leavers. Everyone who takes part in this study will be paid £5 for their time. It should take no more than 1 hour to fill out all of the questionnaires. When completed, this study will be submitted as part of Rhian Murphy's training in Clinical Psychology.

Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read this information sheet carefully and discuss it with others if you wish. If you have any questions, or would like more information, please feel free to contact us anytime on the details above.

Thank you for reading this and for your interest in the research.

1st Floor, Archway House, 77 Ty Glas Avenue, Llanishen, Cardiff CF14 5DX
Llawr Cyntaf, Ty Archway, 77 Ty Glas Avenue, Llanisien, Caerdydd CF14 5DX
Tel/Ffon 029 2020 6464 Email/Ebost deborah.robinson2@wales.nhs.uk Fax/Ffacs 029 2019 0106

What is the study about?

We are doing this study in the hope that we can find better ways of helping people who have been in the care system as children. We hope that by better understanding the emotional/psychological needs of care leavers, we will be able to understand what does and does not help when planning services.

Why have I been chosen?

We are asking about 50 people to take part in the study. We will take the first 50 people who agree to take part. You are being asked because you have spent some time in care.

Do I have to take part?

No – you only take part if you want to. If you decide to take part you can withdraw at any time, without giving a reason. If you don't want to take part, or if you decide to stop and withdraw, it won't affect any of the care you get or services you are involved with.

What do I have to do?

If you do decide to take part, we will contact you in person and arrange a time for you to complete some questionnaires. You will be asked to sign a consent form to show you've agreed to take part in the study. You will also be asked to give the name of your personal advisor/key worker and permission for them to answer some questions about you (for example, about the number of placements you have been in whilst in the care system). Your personal information will be treated with the utmost respect by the researcher and again, all information will be anonymised. We will have to have consent from you for all parts of the study in order for you to be involved.

To start with you will be asked some general questions, such as your age and name of your personal advisor/key worker. Then you'll be asked to complete 3 questionnaires which are related to well-being and relationships. The questionnaires will be fully explained to you before you complete them, and we will be there to help if you have any questions of difficulties completing them. You need to have had an experience of being in a romantic relationship to be able to complete all of the questionnaires for this study. It does not matter if you are not currently in a relationship.

In total, all of this should not take any longer than 1 hour. You will be paid £5 for your time.

Who is organising and funding the research?

Cardiff and Vale University Health Board is funding and sponsoring the research.

Who has reviewed the study?

This research has been reviewed and approved by an Ethics Committee and by the NHS Research and Development Committee.

What if something goes wrong?

It is very unlikely that you will be harmed by taking part in this study, remember that you don't have to take part if you don't want to, and can stop taking part at any point. Please talk to us if you are worried or upset about something in the questionnaires.

In the very unlikely event that taking part harms you, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for legal action, but you may have to pay for it. Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal National Health Service complaints mechanism should be available to you.

If you would like more information about the project, please feel free to contact us:

Rhian Murphy, Clinical Psychology Training, 1st Floor, Archway House, Llanishen, Cardiff, CF14 5DX
Tel: 02920 206464
Mobile: 07749 551 680

APPENDIX 4. Consent form

SOUTH WALES DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
CWRS DOCTORIAETH DE CYMRU MEWN SEICOLEG CLINIGOL

CONSENT FORM Version 2. 28/07/2010.

Psychological needs of young adults leaving the care system.

Researcher: Rhian Murphy.

Participant Identification Number: ☐

Please put your initials in the boxes:

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ☐
3. I understand that the information I provide will be collected fairly, will remain secure and confidential, and held no longer than necessary for the purposes of this research. ☐
4. I agree to take part in the above study. ☐
5. I give permission for the researcher to contact my personal advisor/key worker, in order to ask them for some information about me and my experiences when in the care system. ☐

_____ _____ _____

Name of participant Date Signature

Contact details: _____

_____ _____ _____

Name of Researcher Date Signature

copy for participant; 1 copy for researcher.

CARDIFF UNIVERSITY

1st Floor, Archway House, 77 Ty Glas Avenue, Llanishen, Cardiff CF14 5DX
Llawr Cyntaf, Ty Archway, 77 Ty Glas Avenue, Llanisien, Caerdydd CF14 5DX

NHS WALES GIG

APPENDIX 5. Study flyer

Participants needed for a research study

Psychological needs of young adults leaving the care system.

You will be paid £5 for your time.

We are doing this study in a hope to find better ways of helping people who have been in the care system as children. We hope that by better understanding the needs of care leavers, we will be able to understand what does and does not help when planning services.

- Who can take part?

Care leavers aged 18-21 who are in contact with one of the Leaving Care Teams in Gwent. You need to have had an experience of being in a romantic relationship to be able to complete all of the questionnaires for this study. It does not matter if you're not in a relationship at the moment.

- What would it involve?

  Filling in 4 questionnaires. Your answers will be kept confidential and will be anonymous. This means that you will not be personally identifiable within any study findings. You will be asked to give your consent for the researcher to contact your personal advisor/key worker. This is so that the researcher can get information such as the number of care placements you have been in. All of your information will be treated with the utmost respect and will be stored anonymously.

- How long will it take?

  It should take one hour.

- What do I get out of it?

  We will pay you £5 for your time, and you will be helping in an important research study which will help us to better understand the psychological needs of people leaving the care system.

- What do I do if I would like to know more?

  Tell a member of staff in the Leaving Care Team. They will pass your details on to me, then I will contact you. You will be able to discuss the study further with me before finally decide whether or not you would like to take part, Or, contact me directly:

Rhian Murphy, South Wales Clinical Psychology Training Course, Archway House, Llanishen, Cardiff, CF14 5DX

Tel: 07749 551 680

Thank you!

APPENDIX 6. Approval from NHS UHB Research and Development Department (R&D)

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

Ysbyty Athrofaol Cymru
University Hospital of Wales

Heath Park,
Cardiff, CF14 4XW
Phone 029 2074 7747
Fax 029 2074 3838
Minicom 029 2074 3632

Parc Y Mynydd Bychan,
Caerdydd, CF14 4XW
Ffôn 029 2074 7747
Ffacs 029 2074 3838
Minicom 029 2074 3632

Eich cyf/Your ref
Ein cyf/Our ref
Welsh Health Telephone Network 1872
Direct line/Llinell uniongyrchol

Tel: 029 20746986
Fax: 029 20745311
CAV_Research.Development@wales.nhs.uk

From: Professor JI Bisson
R&D Director
R&D Office, 2nd Floor TB2
University Hospital of Wales
Cardiff
CF14 4XW

02 September 2010

Ms Rhian Murphy
Trainee Clinical Psychologist
Cardiff and Vale University Health Board
77 Ty Glas Avenue
Llanishen
Cardiff
CF14 5DX

Dear Ms Murphy

Project ID : 10/MEH/4882 : A Quantitative, Questionnaire Based, Exploration Of the Psychological Needs of Young Adults Leaving The Care System

Further to recent correspondence regarding the above project, I am now happy to confirm receipt of evidence of favourable opinion from the relevant NHS Research Ethics Committee.

Please accept this letter as confirmation of sponsorship by Cardiff and Vale UHB and permission for the project to begin.

Final documents approved for use with this project are:

Document	Version	Date
NHS RD Form	3.0	15-6-10
SSI Form	3.0	15-6-10
Protocol	2	28-07-10
Patient Information Sheet	2	28-07-10
Patient Debrief Sheet	1	
Patient Consent Form	2	28-07-10
Participant Flyer	2	28-07-10
Questionnaire: Demographic		
Questionnaire: Experiences in Close Relationships		
Questionnaire: Outcome measures		

May I take this opportunity to wish you success with the project, and to remind you that as Principal Investigator you are required to:

- Ensure that all members of the research team undertake the project in accordance with ICH-GCP and adhere to the protocol as approved by the Research Ethics Committee
- Inform the R&D Office if any external or additional funding is awarded for this project in the future
- Inform the R&D Office of any amendments relating to the protocol, including personnel changes and amendments to the actual or anticipated start and end dates
- Complete any documentation sent to you by the R&D Office or University Research and Commercial Division regarding this project
- Ensure that adverse event reporting is in accordance with the UHB adopted Cardiff and Vale NHS Trust Policy and Procedure for Reporting Research-Related Adverse Events (refs 164 & 174) and Incident Reporting and Investigation (ref 108)
- Ensure that the research complies with the Data Protection Act 1998
- Ensure that arrangements for continued storage or use of human tissue samples at the end of the approved research project comply with the Human Tissue Act, 2004 (for further information please contact Sharon Orton, HTA Coordinator OrtonS@cf.ac.uk).

If you require any further information or assistance, please do not hesitate to contact staff in the R&D Office.

Yours sincerely,

Professor Jonathan I Bisson
Cardiff and Vale University Local Health Board R&D Director

CC Dr Liz Andrew, Clinical Supervisor

APPENDIX 7. Approval from the NHS Research and Ethics Committee

GIG CYMRU NHS WALES
Canolfan Gwasanaethau Busnes
Business Services Centre

Dyfed Powys Research Ethics Committee
PO Box 108
Building 1
St David's Park
Carmarthen
SA31 3WY

Telephone: 01267 225045
Facsimile: 01267 225226

Mrs Rhian E Murphy
Trainee Clinical Psychologist
Cardiff and Vale University Health Board
1st Floor, Archway House.
77 Ty Glas Avenue
Llanishen
Cardiff CF14 5DX

27 July 2010

Dear Mrs Murphy

Study Title: **A quantitative, questionnaire based, exploration of the psychological needs of young adults leaving the care system.**

REC reference number: **10/WMW01/10**

The Research Ethics Committee reviewed the above application at the meeting held on 21 July 2010. Thank you for attending to discuss the study.

Ethical opinion

- The Committee and researchers agreed it was not necessary to access file/case notes of participants for the purposes of the research. The Committee were therefore reassured that the confidentiality of the participant would not be compromised.
- The Information Sheet, Consent Form and Protocol should be amended to reflect this amendment and copies sent to the Committee for their records.
- The Information Sheet should include further information in the introductory paragraph to explain that the study is being carried out to fulfil the requirements of the doctorate training programme. It was confirmed that Cardiff & Vale University Health Board headed paper would be used.

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

10/WMW01/10	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

pp Sue Byng

Mrs Sarah Jones
Alternate Vice-Chair

Email: sue.byng@wales.nhs.uk

Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments
"After ethical review – guidance for researchers"

Copy to: R&D office

Dyfed Powys Research Ethics Committee

Attendance at Committee meeting on 21 July 2010

Name	Profession	Capacity
Mr Hugo Cosh	Information Analyst/Statistician	Expert
Dr Anthony Evans	General Practitioner	Expert
Dr Roger Hayter	Consultant Geriatrician	Expert
Mr Keith Jones	Lay	Lay
Mrs Sarah Jones	Clinical Trials Nurse/Alternate Vice-Chair	Expert / Chair for the meeting
Mr Gareth Lewis (from 3pm onwards)	Pharmacist	Expert
Mr Graham O'Connor	Old Age Psychiatrist	Expert
Mr Jon Pearson	Physiotherapist	Expert
Mr David Peek	Lay member	Lay
Dr Gopinath Selvaraj	Associate Specialist in Anaesthetics	Expert
Ms Kate Williams	Lay	Lay

Also in attendance:

Name	Position (or reason for attending)
Mrs Sue Byng	Committee Co-ordinator

APPENDIX 8. Email confirming no additional R&D approval required (Aneurin Bevan)

Wed, 16 June, 2010 16:54:40
RE: R&D approval
From: Rosamund Howell (Aneurin Bevan Health Board - Research & Development)
<Rosamund.Howell@wales.nhs.uk>
To: amy canning <>

Dear Amy,
Thank you for your e mails and attachments. I apologise for not replying sooner but work has been chaotic as we had our first annual R&D Conference last week and I am now trying to catch up.
I have read your protocol and because you will be carrying out research involving the charity Action for children and will not be recruiting any Aneurin Bevan Health Board patients It will not be necessary to register your project with the Aneurin Bevan Health Board R&D Department.
Best Wishes,
Roz

--- On **Tue, 8/6/10, amy canning < >** wrote:

From: amy canning <>
Subject: R&D approval
To: rosamund.howell@wales.nhs.uk
Date: Tuesday, 8 June, 2010, 21:12
Dear Ros,

Following our conversation earlier today, I am writing to ask whether I and my colleague will require approval from Aneurin Bevan R&D office.

We will both be doing research projects with young care leavers in Gwent. We are obtaining R&D approval from Cardiff and Vale University NHS trust (as they are our employers) and NHS ethics approval (because although we are not using NHS patients as participants, there is currently no appropriate alternative ethical approval system). Dr Liz Andrew (who has been seconded to the Skills for Living project from Aneurin Bevan) is named on the forms as our clinical supervisor. We may also use the Skills for Living premises in Gwent, which are owned by the NHS, as a venue for participants to complete the research questionnaires.

I have attached copies of the protocols for both projects to this email. I would be grateful if you could confirm whether we will require R&D approval from yourselves.

Best wishes,

Amy

APPENDIX 9. Letter sent to the Service Managers of Social Services in five authorities in South Wales and permission received

SOUTH WALES DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
CWRS DOCTORIAETH DE CYMRU MEWN SEICOLEG CLINIGOL

South Wales Doctoral Programme in Clinical Psychology
1st Floor, Archway House
Llanishen
Cardiff
CF14 5DX
Tel: 02920 206464
Mobile: 07749 551 680

Dear

We are two trainee clinical psychologists on the South Wales Doctoral Programme in Clinical Psychology. As part of our doctoral qualification we are required to complete a large scale research project, and we have both chosen to examine aspects of the psychological needs of young care leavers. We are both supervised by Dr Liz Andrew, Clinical Psychologist, who works for the Caerphilly Leaving Care Team. We are writing to ask your permission to approach young care leavers (aged 18-21) in the Leaving Care Team in your locality to take part in our studies.

Care leavers often have high levels of psychological difficulties, including problems with aggression. Despite this, there has been very little research with this client group. We are hoping our studies will help to improve understanding of these issues in order to inform future interventions and service planning.

Rhian Murphy will be conducting a questionnaire based survey examining the relationship between adult attachment style, core beliefs, and current emotional difficulties. Amy Canning will be conducting a questionnaire based survey (plus a short computer task) examining the relationship between self-esteem and aggression. Participation in both studies will be voluntary and participants will be able to withdraw at any time. Participation in each study will take approximately one hour and the young people will be paid £5 for their time. We understand that the Leaving Care Team staff are very busy and we will ensure that the studies will require very little staff input and do not interfere with their work.
We have enclosed copies of the protocols and the participant information sheets with this letter, should you require any further information please do not hesitate to contact us or Dr Liz Andrew. We will be very happy to come and present the results of our studies to you and your staff on completion.

As we are both Cardiff and Vale University Health Board employees, the studies are funded by Cardiff and Vale and have been reviewed and approved by the Cardiff and Vale NHS Research and Development Committee. The studies will also be reviewed and approved by an NHS Ethics Committee. We will of course be adhering to the confidentiality and ethical guidelines set out by the British Psychological Society and NHS research governance, however we would be happy to sign an honorary contract or confidentiality agreement with your organisation in addition to this if you felt this was necessary.

Dr Andrew has discussed the projects informally with the Leaving Care Team managers and they have been very positive. **We would be grateful if you could confirm whether you are happy for the studies to go ahead by signing and returning the attached form in the stamped addressed envelope provided.**

Best wishes,

Rhian Murphy and Amy Canning

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

1.1.1

1.1.2

1.1.3

I ..... agree/do not agree (please delete as appropriate) for the Leaving Care Team in ????? to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

1.1.4

I ..... agree/do not agree (please delete as appropriate) for the Leaving Care Team in ????? to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: .....

Date: .....

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

I TRACY ALLISON agree/~~do not agree~~ (please delete as appropriate) for the Through Care (leaving care) Team in Monmouth to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

I TRACY ALLISON agree/~~do not agree~~ (please delete as appropriate) for the Through Care (leaving care) Team in Monmouth to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: D Price - Service Manager (on behalf of Tracy Allison)

Date: 30/09/10

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

I ...Jeanette Jenkins..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Newport to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

I ...Jeanette Jenkins..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Newport to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: ...J. Jenkins.....

Date: 21.9.10.

Please accept my apologies for the delay in responding but it has been a very busy time here in Newport of late.

I look forward to the opportunity of hearing/reading the results of your studies.

I hope it goes well. Best wishes

Jeanette

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

I Jane Moore agree/do not agree (please delete as appropriate) for the Leaving Care Team in Caerphilly to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

I Jane Moore agree/do not agree (please delete as appropriate) for the Leaving Care Team in Caerphilly to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: Jane Moore.

Date: 20th July '10

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

I CHRIS BRADLEY..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Blaenau Gwent to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

I CHRIS BRADLEY..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Blaenau Gwent to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: Chris Bradley. Service Manager.

Date: 23.7.10.

RESEARCH EXPLORING THE PSYCHOLOGICAL NEEDS OF YOUNG CARE LEAVERS

GARY JONES

I ..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Torfaen to be involved in the study 'An investigation into the relationship between self-esteem and aggression in young care leavers'.

I GARY JONES ..... agree/~~do not agree~~ (please delete as appropriate) for the Leaving Care Team in Torfaen to be involved in the study 'Psychological needs of young adults leaving the care system'.

Signed: .....

Date: 19/7/10

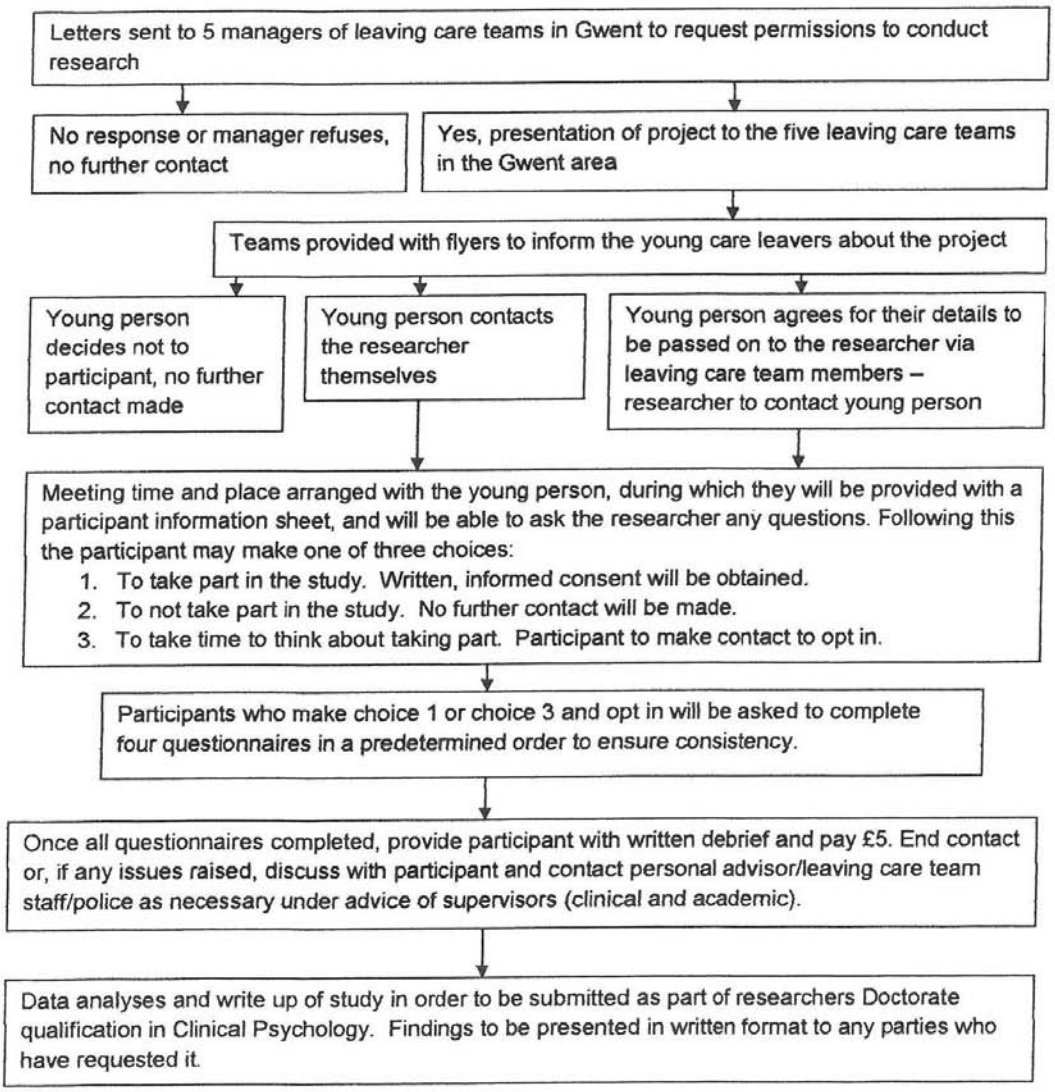
APPENDIX 10. Diagrammatic representation of study procedure

Illustration of research protocol

Version 1. 31/05/2010.

Psychological needs of young adults leaving the care system.

(N.B. Participants are able to withdraw from the research at any point).



APPENDIX 11. Study debrief letter

SOUTH WALES DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
CWRS DOCTORIAETH DE CYMRU MEWN SEICOLEG CLINIGOL

PLEASE KEEP YOUR COPY OF THE INFORMATION SHEET AND CONSENT FORM.

DEBRIEF FORM

Version 1. 31/05/2010.

Psychological needs of young adults leaving the care system.

Thank you for taking part in this study. We really appreciate you taking the time to help us.

The aim of this study is to see if, and how, your early life experiences and your experiences of being in the care system, have affected you.

The questionnaires we have asked you to complete looked at "attachment" – your relationships, and "schema" – your understanding of the world. You were also asked about your psychological well-being. We will compare the result of these three questionnaires in order to see if there are any patterns that would help us to explain the distress and difficulties that are often described by care leavers. We hope that this information will help us to better understand how mental health services for children, young people and adults might better address the needs of people who have had difficult experiences during their early life.

Please be assured that the information we have gathered will be kept anonymous and confidential, and you have the right to withdraw your data without explanation. You are entitled to have a research findings summary. This will be available on your request, from the researcher (contact details below), when the study is complete.

CARDIFF UNIVERSITY PRIFYSGOL CAERDYDD

1st Floor, Archway House, 77 Ty Glas Avenue, Llanishen, Cardiff CF14 5DX
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Tel/Ffon 029 2020 6464 Email/Ebost deborah.robinson2@wales.nhs.uk Fax/Ffacs 029 2019 0106

NHS WALES GIG CYMRU

If you would like any further information about the study, and if you would like to know about the results of the study, please contact us on:

Rhian Murphy South Wales Doctoral Programme in Clinical Psychology 1st Floor, Archway House 77 Ty Glas Avenue Llanishen, Cardiff CF14 5DX Tel: 02920 206464	**Dr Liz Andrew** Skills For Living The Woodlands Mamhillad Park Estate Pontypool NP4 OHZ Tel: 01495 767220

Below are the contact details of some people (organisations) you can speak to if you feel distressed or need help/advice.

The researchers do not accept responsibility for the contents of advice obtained via the contacts below. Contacts sourced via CLIC online and www.dynwales.org.

Support services and help lines

- **Samaritans**

Samaritans provides support for people who are experiencing feelings of distress or despair including those which could lead to suicide.

National 0845 790 90 90 (24 hour).

- **MIND**

Mind is the leading mental health charity in England and Wales. Working to create a better life for everyone with experience of mental distress.

MIND Rhymni Valley 01443 816 945.

MIND Torfaen 01495 757 393.

- **Community Advice and Listening Line**

CALL is the free mental health telephone helpline for Wales.

0800 132 737 (Mon-Friday 7am – 11pm, Sat – Sun, noon – midnight) or, you can text 'help' to 81066.

www.callhelpline.org.uk/

- **Papyrus**

Papyrus is a UK charity for those dealing with suicide, depression or emotional distress. There is a free helpline offering practical advice on suicide prevention.

0800 068 41 41.

www.papyrus-uk.org/

- **CLIC online**

An online channel and a quarterly magazine offering information, news and advice for all young people aged 11-to-25 in Wales. Information on a wide range of subjects and issues and where to get support in your local area. The online channel allows young people and the organisations that work with them to upload articles, pictures, videos, designs and publicise events and activities.

http://www.cliconline.co.uk/en/info/health/mental-health/

Drug and alcohol problems

- **GAP (Gwent Alcohol Project)**

GAP offers a range of services for people who are concerned about their own or someone else's drinking.
01633 252 045 (Monday - Thursday 9am - 1pm & 2pm - 5pm, Friday 9am - 1pm & 2pm - 4pm).

- **DAN 24/7 (All Wales Drugs and Alcohol Helpline)**

A bilingual telephone helpline providing a single point of contact for anyone in Wales wanting further information and help relating to drugs and alcohol. The helpline will assist individuals, their families, carers, and support workers within the drug and alcohol field to access appropriate local and regional services.
0800 633 55 88.

- **Drug and Alcohol Family Support (DAFS)**

A service which can offer support and information to individuals and families affected by substance misuse.
01495 240 824.

- **Fusion**

Fusion offers counselling and information to young people who are concerned about their own or someone else's alcohol or drug use.
0800 731 46 49.

- **Drugaid**

Provides help and support for people suffering from drug or alcohol addiction.
Blaenau Gwent 08700 600310.

- **Alcoholics Anonymous**

24 hour support for people with alcohol problems.
0845 769 75 55.

Finance

- **Job Centre**

Provides help and advice on jobs and training for people who can work and financial help for those who cannot.
Job information 0845 606 02 34.
Benefits 0800 055 66 88.

- **Citizen's Advice Bureau**

The Citizens Advice service helps people resolve their legal, money and other problems by providing free information and advice.
01495 292 659.

- **Speak Easy Advice Centre**

The Speakeasy offers free legal advice in the areas of debt and welfare benefits by solicitors and caseworkers. This service is available to anyone living in the local community and beyond.
029 20 453 111.

- **National Debt Line**

Helpline offering information and advice on debt. They also provide self help information packs and a range of fact sheets.
0808 808 40 00.

Police & Legal Services

- **Gwent Police Domestic Violence Unit**

Gwent Police has specialist police personnel on each division who are aware of the difficulties that you may be facing. They are available for you to speak to about how to stop domestic abuse, either for yourself or another.

Call 01633 838 111 and ask for Domestic Abuse Unit.

- **Community Legal Service Direct_**

Community Legal Advice is a free and confidential service paid for by legal aid to help with legal problems.
0845 345 43 45.

Children & Families

- **Children's Information Service**

Provides information about childcare and children's services in your area.
0800 032 33 39.

- **Parent Line Plus**

UK wide help line for anyone caring for children and young people.
0808 800 22 22.

- **NSPCC**

Giving children the help, support and environment they need to stay safe from cruelty.
National helpline 0808 800 5000.
Wales 029 20 267 000.

Health & Counselling

- **NHS Direct**

NHS Direct delivers telephone and internet information and advice about health, illness and health services day and night direct to the public, enabling patients to make decisions about their healthcare and that of their families.
0845 46 47.

- **C.A.L.L (Community Advice and Listening Line)**

This service provides support for anyone coping with mental illness, including sufferers' relatives and friends.
0800 132 737.

- **Relate**

Relate offers a wide range of services for couples, families and individuals. Providing support throughout all stages of people's relationships.

Pontypool 07866 382 489.

Brecon 01792 480 088.

APPENDIX 12. Demographics questionnaire

Demographics questionnaire

1. Demographics

1. Name of researcher

2. Participant ID number

3. Date completed

4. What is the name of the leaving care team you are associated with?

5. Who is your key worker / personal advisor?

6. Has consent been obtained to contact this person?

- ◯ Yes
- ◯ No

7. Has consent been obtained to access the participant's case file/notes (held by the leaving care team)?

- ◯ Yes
- ◯ No

8. What is your date of birth?

9. Gender?

- ◯ Male
- ◯ Female

Demographics questionnaire

10. What ethnic group do you consider yourself belonging to?

- ◯ White
- ◯ White British
- ◯ White Irish
- ◯ White Scottish
- ◯ White English
- ◯ Black Caribbean
- ◯ Black African
- ◯ Black Other
- ◯ Asian Indian
- ◯ Asian Pakistani
- ◯ Asian Bangladeshi
- ◯ Asian Other
- ◯ Mixed White & Black Caribbean
- ◯ Mixed White & Black African
- ◯ Mixed White & Asian
- ◯ Mixed Other
- ◯ Chinese
- ◯ Other Ethnic Group (please specify) _____

11. What is your marital status?

- ◯ Single
- ◯ Married/co-habiting
- ◯ Separated/divorced
- ◯ Widowed
- ◯ No information

12. What exams/qualifications do you have?

Total number GCSE passes: _____
Grade A-C: _____
Grade D-G: _____
Other qualifications: _____

Demographics questionnaire

13. What is your current employment status?

- ◯ Unemployed
- ◯ Employed
- ◯ Casual labour
- ◯ Part-time work
- ◯ No information

Demographics questionnaire

2. Questions to be directed to the key worker/personal advisor

1. At what age was the participant was taken into the care system?

2. Why were they were taken into care?

3. How many foster placements has the participant been in?

4. Has the participant ever been adopted?

- ◯ Yes
- ◯ No

5. If yes to Q4, please provide details (for example, how long the adoption lasted, if/when/why it broke down).

APPENDIX 13. Clinical Outcomes in Routine Evaluation (CORE; Evans *et al.*, 1998)

QUESTIONNAIRE REMOVED DUE TO COMPLY WITH COPYRIGHT RESTRICTIONS

APPENDIX 14. Experiences in Close Relationships-Revised (ECR-R; Fraley *et al.,* 2000)

QUESTIONNAIRE REMOVED DUE TO COMPLY WITH COPYRIGHT RESTRICTIONS

APPENDIX 15. Young's Schema Questionnaire, short-form version-three (YSQ-S3; Young, 2005)

QUESTIONNAIRE REMOVED DUE TO COMPLY WITH COPYRIGHT RESTRICTIONS

APPENDIX 16. Study risk protocol

Detection of significant risk protocol