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**UNIVERSITY OF SOUTHAMPTON**

FACULTY OF SOCIAL SCIENCES AND HUMAN SCIENCES

School of Psychology

**The Universal Benefits of a Sense of School Belonging During Adolescence: An  
Exploration of the Relationships between Parental and Peer Attachment Security,  
Shame and Pride**

by

**Alicia Eve Halton-Nathan**

Thesis for the degree of Doctorate in Educational Psychology

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UNIVERSITY OF SOUTHAMPTON

## **ABSTRACT**

FACULTY OF SOCIAL SCIENCES AND HUMAN SCIENCES

Educational Psychology

Thesis for the degree in Doctor of Educational Psychology

**THE UNIVERSAL BENEFITS OF A SENSE OF SCHOOL BELONGING DURING ADOLESCENCE:  
AN EXPLORATION OF THE RELATIONSHIPS BETWEEN PARENTAL AND PEER  
ATTACHMENT SECURITY, SHAME AND PRIDE**

Alicia Eve Halton-Nathan

A cross-sectional design was used to explore the associations between adolescent attachment relationships with parents, and peers and their sense of school belonging, on the role of self-conscious emotions (shame and pride), within a school context. An adolescent sample of 13-16 year olds (n=121) was recruited from two secondary schools in the South of England. Participants completed a daily online diary to measure shame and pride experiences. Results found that adolescents with insecure parental attachments experienced more shame on a daily basis than their securely attached peers; however, this relationship was significantly moderated by a sense of belonging in school. Adolescents with secure parental attachment experienced more pride on a daily basis. Sense of belonging in school was found to significantly moderate the positive relationship between secure parental attachment and pride. No significant relationships were found between peer attachment and shame and pride. Implications for Educational Psychologists and suggested directions for future research are also discussed.



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# DECLARATION OF AUTHORSHIP

I, ALICIA EVE HALTON-NATHAN, declare that this thesis and the work presented in it are my own and have been generated by me as the result of my own original research.

## **The Universal Benefits of a Sense of School Belonging During Adolescence: An Exploration of the Relationships between Parental and Peer Attachment Security, Shame and Pride**

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed: .....

Date:.....



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## Definitions and Abbreviations

$\alpha$  = Cronbach's Alpha

M = Mean

$N/n$  = Number of participants

$p$  = Probability

$r$  = Estimate of the Pearson product-moment correlation coefficient

SD = Standard Deviation

B = Unstandardised Regression Coefficient

SE = Standard Error

$t$  = T Statistic

PSSM = Psychological Sense of School Membership

IPPA-R = Inventory of Parental and Peer Attachment Revised

BPD= Borderline Personality Disorder

NSSI= Non Suicidal Self Injury

DEAD= Disordered Eating Attitudes and Behaviours

SVO= Social Value Orientations

SPP= Socially Prescribed Perfectionism

PSP= Perfectionistic Self Promotion

SCEMAS= Self-Conscious Emotions Maladaptive and Adaptive Scales

TOSCA= Test of Self-Conscious Affect





## Chapter 1:

### **What does the current literature suggest is the association between attachment relationships and emotional regulation during adolescence?**

The current systematic literature review examines the role of security of attachment relationships on emotional regulation within adolescent populations. Due to a paucity of research explicitly looking at attachment and emotional regulation, research that was yielded as part of the systematic search on internalising and externalising problems is also included in this review. Attachment relationships and emotional regulation will be defined, and the theoretical and empirical associations between these constructs within adolescent populations will be examined and discussed.

### **What is Attachment?**

Attachment is a specific outcome of the early care an infant receives. This is perceived to have an evolutionary basis as it promotes the safety and survival of infants (Bowlby, 1979, 1980). Through the infants' relationship with parents or primary caregivers, the child develops a cognitive schema or "internal working model" of social relationships (Bowlby, 1980). If an infant experiences its parents as providing them with warmth and comfort, they have an increased likelihood of developing a positive sense of self. In addition to this, infants with this experience of early care, expect positive reactions from others in relationships throughout their future development and into adulthood. This experience facilitates the development of a secure attachment, as the child has a "secure base" from which they feel safe and supported to develop independence by exploring and learning about the world around them (Bowlby, 1980). Children and young people who have grown up experiencing relationships with caregivers, who are responsive to their emotional needs, are more able to manage their own emotions and behaviour (Bretherton, 1985; Cassidy, 1994; Rutter, 1994). Children who develop within an environment in which they feel secure in their relationships with caregivers view themselves and others more positively (Hughes & Golding, 2012), and have a more secure sense of self. They are better able to interact and relate to others with a greater ability to experience empathy (van der Mark, van Ijzendoorn, & Bakermans-Kranenburg, 2002; Panfile, & Laible, 2012). Attachment is therefore related to

social, emotional skills and resilience and is fundamental to the adaptive development of children.

### **What is Emotional Regulation?**

Understanding emotional regulation is of specific interest to psychologists as adaptive emotional regulation is believed to precede adaptive human functioning and mental well-being (Gross & Munoz, 1995). Difficulties with regulating emotions have been found to be associated with a wide range of mental health problems (Repetti, Taylor, & Seeman, 2002). Emotional regulation has been defined as the efforts an individual makes to manage, modulate, inhibit and enhance emotions (Cicchetti, Ganiban, & Barnett, 1991; Kopp, 1982, 1989; Thompson, 1994 as cited in Calkins, Gill, Johnson, & Smith, 1999) or put more simply, the ability to regulate emotions and emotional responses (Gross, 1998). Thompson (1994) adds that emotional regulation involves both intrinsic and extrinsic processes responsible for managing emotions towards achieving personal goals.

However this relatively wide definition can be seen as indicative of there not currently being complete agreement about how emotional regulation should be more specifically defined (Gross, 1998; Gratz, & Roemer, 2004; Aldao, Nolen-Hoeksema, & Schweizer, 2010). Yet it is widely agreed within the literature in this area that competent emotional regulation plays a significant role in the ability to form and maintain positive social relationships (Eisenburg, Spinrad & Smith, 2004 as cited in Schwarz, Stutz & Ledermann, 2012). This is pertinent, as significant risk factors for depression have been identified as emotional dysregulation (Yap et al., 2011) and having a lack of social support (Vaughan, Foshee, & Ennett, 2010).

### **The Relationship between Attachment and Emotional Regulation**

Schore (2001) has suggested that poor attachment relationships may lead to poor emotional regulation and self-worth. In a meta-analysis of the impact of attachment in adolescence, differences in attachment security have also been found to affect measures of interpersonal functioning, social competence, assertiveness, self-esteem, identity development, general life satisfaction, and emotional adjustment (Rice, 1990). The results of this review suggest that attachment security has an impact on a range of outcomes,

many of which also appear to be associated with emotional regulation. Perhaps this is because “a central tenet of attachment theory is that early interactions with attachment figures form a critical context for later emotion regulation” (Brenning & Braet, 2013, p. 107). Secure attachments which lead to the experience of receiving sensitive responsive care have also been found to affect the physiology of infants including their hormone levels and brain development. As a consequence this has an effect on the emotional development of the infant (Gerhardt, 2004).

When infants experience stress the hormone cortisol is released. Responsive caregivers are able to sooth infants in distress, which enables them to recover from the stressful experience, resulting in a reduction in cortisol levels. As children grow, the experience of reducing the arousal from stress provided by a caregiver becomes internalised. Children are then able to self soothe and therefore regulate and manage their own emotions. By contrast infants with unresponsive caregivers experience prolonged periods of high levels of cortisol without being soothed by an adult. This affects the development of their brain and these children therefore experience greater difficulties in regulating their own emotions and as a consequence their behaviour (Gerhardt, 2004).

The difference an attachment style makes to the ability to regulate emotions is believed to continue from childhood into adolescence and adulthood. Shaver and Mikulincer (2002) proposed a model for late adolescents and adults that suggests individuals with different insecure attachment styles have different approaches to emotional regulation. Individuals with anxious attachment styles typically fear being abandoned and therefore use hyper- activating emotional regulation strategies to gain attention and emotional availability from others. However, individuals who have avoidant attachment styles are concerned that psychological closeness leads to rejection. Therefore they are more likely to use suppressing forms of emotional regulation strategies such as denial so that stress is reduced by minimising negative emotions.

Empirical evidence has been found to support the difference in emotional regulation strategies dependent on attachment style, both in infants and adults (Brenning & Braet, 2013). However, currently less is known about the impact of attachment on emotional regulation during adolescence.

## **The Impact of Attachment on the Development of Children and Young People**

Increasingly the social and emotional aspects of child development, including non-cognitive skills and emotional regulation have been discovered to account increasingly for differences in the educational attainment of children and young people (Heckman & Rubenstein, 2001 as cited in Moullin, Waldfogel & Washbrook, 2014). Additionally, insufficiently developed non-cognitive skills in early childhood have been found to be associated with poor educational attainment as well as a number of risky and criminal behaviours in adolescence populations in the UK. This association was particularly pronounced in male adolescents and those from families with low incomes (Carneiro, Crawford, & Goodman, 2011 as cited in Moullin, Waldfogel & Washbrook, 2014).

Furthermore, while there is extensive literature on the topic of attachment in infants and young children, the research on attachment in adolescence is more limited (Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Scott, Briskman, Woolgar, Humayun, & O'Connor, 2011). This may be because adolescence is a time in which individuals typically separate from their parents and spend more time investing in peer social relationships. During this period adolescents may appear less dependent on parental relationships than during earlier childhood. In adolescence parental relationships involve increased autonomy; however the quality of the attachment relationship remains fundamental to adolescent wellbeing (Milan, Zona & Snow, 2013).

Psychological security during this period of development has been described as being fundamentally linked to the ability to maintain a sense of relatedness whilst simultaneously developing autonomous relationships with significant others and developing emotional regulation skills to support this progression into adulthood (Allen, McElhaney, Land, Kuperminc, Moore, O'Beirne-Kelly & Kilmer, 2003).

Given that it appears that attachment relationships in adolescence remain fundamental to adaptive human development and future well-being this appears to be an area of research which would benefit from further examination.

Allen, McElhaney, Kuperminc and Jodl (2004) highlighted that during adolescence, the attachment system can be regarded as part of the emotional regulation system of an individual. Through this the adolescent has an internal working model which acts as a template for how they view themselves in relation to others in relationships. This influences future beliefs and behaviours to reduce potential exposure to distressing experiences and increase experiences which enhance felt security.

Brumariu and Kerns (2010) completed a review of the empirical literature on the relationship between parent-child attachment and internalising symptoms during childhood and adolescence. Their review found that insecure attachments are related to the development of internalising problems. However they found it was difficult to draw conclusions about the specific patterns of insecure attachment and internalising problems. Attachment to both mothers and fathers appeared to have a similar effect, yet it was noted that much less research has been conducted on father-child attachments. One model was proposed that linked insecure attachment and anxiety, and another which linked it with depression. The anxiety model suggested that attachment insecurity and over-controlling and overprotective parenting have a bi-directional relationship on each other. They are both associated with children having difficulty monitoring, expressing and understanding emotions and developing less active coping strategies. This, amongst other factors such as low perceived self-efficacy and hypervigilance to threat, is related to anxiety (Chorpita & Barlow, 1998; Thompson, 2001; Vasey & MacLeod, 2001; Weems & Silverman, 2006).

The model for depression suggests that attachment insecurity and low parental acceptance or rejection have a bi-directional relationship and that this is related to overregulated displays of emotion, poor emotional literacy and a passive and ruminative coping style (Casey, 1996; Ebata & Moss, 1991; Kobak & Ferenz-Gillies, 1995; Silk, Steinberg & Morris, 2003). This, among other variables such as low self-worth and thoughts about loss and failure, is associated with the development of depression. Overall this review found no consistent moderators for the relationship between insecure attachment and internalising problems.

## **Adolescent Development and Mental Health**

Research indicates that levels of attachment security and emotional regulation are interconnected and that these constructs appear to have a significant impact on the functioning and well-being of children and young people (Brumariu & Kerns, 2010; Gerhardt, 2004; Gresham & Gullone, 2012; Rice, 1990; Schore, 2001; Shaver & Mikulincer, 2002). In addition to this, within the context of increasing concern about the mental health of adolescents (Collishaw, Maughan, Goodman & Pickles, 2004; NHS England, 2014), this review of the current literature, which aims to understand more about how emotional regulation is affected by attachment security in this age group, is timely and will be of interest to Educational Psychologists and a range of other professionals involved in supporting young people, families and schools.

## **Aims and Objectives of Current Literature Review**

The objective of the current literature review is to evaluate the published research to examine what the current literature finds to be the implications of attachment security in adolescence on emotional regulation.

Adolescence has been defined as the period of development when children are transitioning from childhood to adulthood, usually between the ages of 10-20 years (Susman & Rogol, 2004). Adulthood is typically accepted as beginning at 18 when legal status as an adult is achieved, although it has been argued that over the past 50 years the developmental period recognised as adolescence has extended into early adulthood (Mandarino, 2014).

The adolescent period has been further described as being formed of three age-based stages, early adolescence (10-14), middle adolescence (15-17), and late adolescence (18-20) (Elliott & Felman, 1990). For the purpose of this review, early and middle adolescence will be examined. Late adolescence is excluded as much research on this age group includes largely adult samples such as undergraduate students. For this reason samples with a mean age or under 10 or over 18 were excluded from the review.

## **Method**

### **Search Strategy, Data Sources and Search Procedures**

This literature review is based on systematic searches of two databases, PsychINFO and Web of Science. The two databases were explored using specific search terms. The thesaurus of the database was also used to search similar concepts to the specific search terms. The search terms included: attachment behaviour, attachment theory, attachment disorders, emotional regulation, emotional stability, emotional security and emotions. Various combinations of terms were combined with OR and AND. In PsychINFO, the results were limited by publication (peer review journal only), written in English, human and adolescent populations (Appendix A). In Web of Science the results were filtered by publication type (article only) and English language only. A total of 70 articles were identified with a further five added in through hand and reference searches; 70 articles were evaluated by the title and abstract with 39 articles being discounted. Of the total, 31 articles were accessed in full, with 25 meeting the inclusion and exclusion criteria for this review (see Figure 1 and Appendix B).



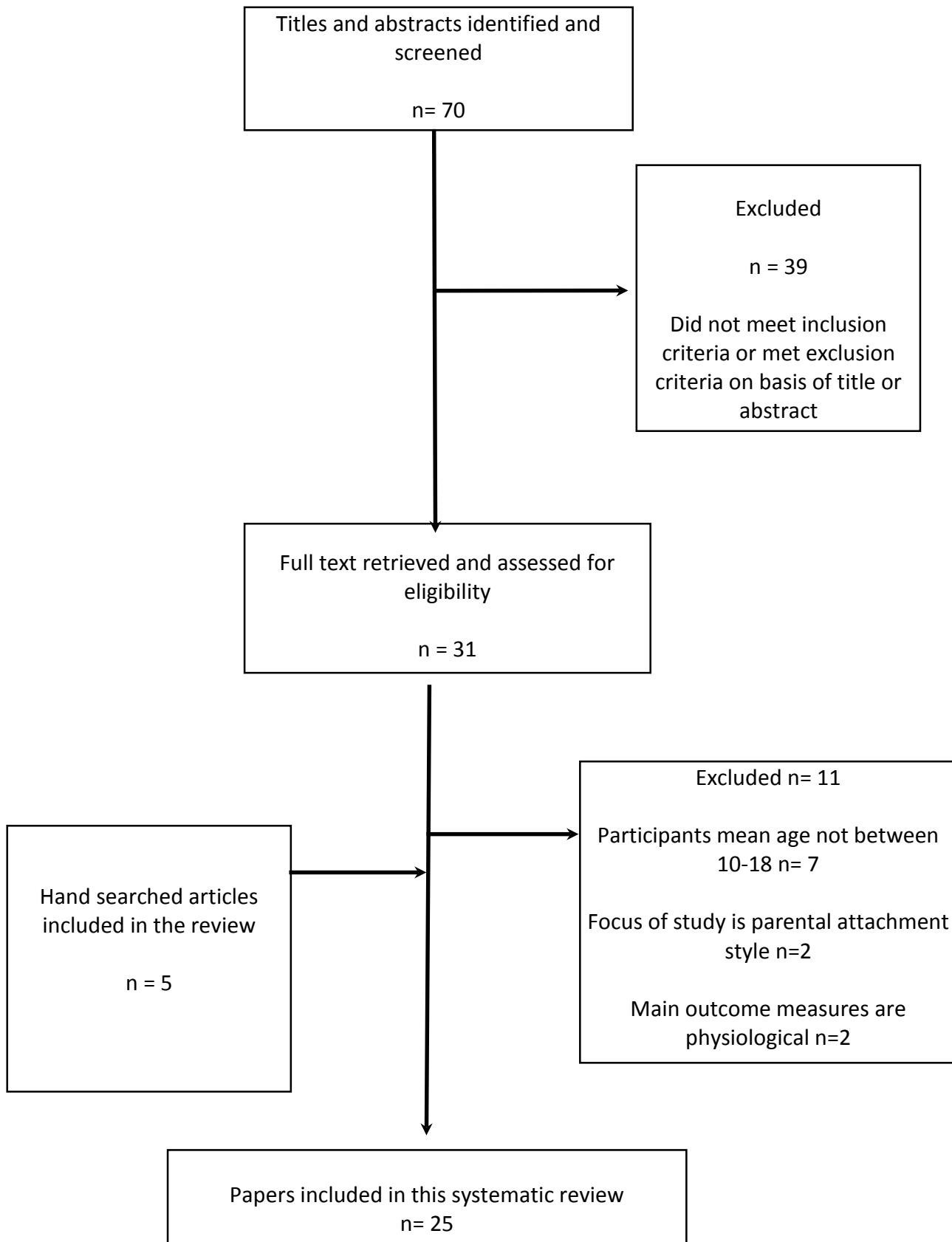


Figure 1. Flowchart of Literature Review Process.

## **Findings**

The systematic search identified three main topic areas for discussion:

1. The impact of attachment security on emotional regulation in adolescence.
2. The impact of attachment security on internalising emotions in adolescence.
3. The impact of attachment security on externalising emotions in adolescence.

The systematic literature search revealed that there is currently a paucity of research explicitly examining the impact of attachment security on emotional regulation in adolescence. Although the search detailed above yielded 25 published papers, only nine of these are described as examining emotional regulation. Additionally, only seven of the papers were found to use a specific measure of emotional regulation. The remaining 17 papers examine constructs which can be viewed as closely relating to emotional regulation, but which fall into the broader categories of internalising or externalising problems. Ten papers examined associations between attachment security and internalising problems. A further five papers reported research on the attachment security in adolescence and externalising problems.

## **Attachment Security and Emotional Regulation**

It has been acknowledged in the literature that there is a lack of reliable and varied measures of emotional regulation in adolescence (Phillips & Power, 2007; Gresham & Gullone, 2012; Kullik & Petermann, 2013). This may help to explain the limited research in this area. Due to the small number of studies examining attachment and emotional regulation in adolescence, a wide definition of emotional regulation has been used. One study has been included, in which a measure of emotional dysregulation was been obtained, via researcher- coded videos of parent-adolescent interactions (Hershenberg, Davila, Yoneda, Starr, Miller, Stroud, & Feinstein, 2011). Another study has been included in which emotional and regulatory responses were measured over a four day period, via adolescents' self-rating of emotional responses to positive life events. A follow- up interview, to assess how the participants either 'savoured' or 'dampened' their emotional responses to a specific positive event (Gentzler, Ramsey, Yuen Yi, Palmar & Morey, 2014), took place. Of the seven studies which used a published measure of emotional regulation, only the research by Brenning, Soenens, Braet and Bosmans, (2012) and Brenning and

Braet (2013) used the same measure: the Emotion Regulation Inventory (ERI; Roth, Assor, Niemiee, Ryan & Deci, 2009). The same measure of attachment is also used in both these studies: the Experiences in Close Relationships Scale- Revised (ECR-R; Fraley, Waller, & Brennan, 2000) The results of these two papers will be examined first, as owing to the use of the same emotion regulation and attachment measure, their results can be compared and contrasted with greater precision.

Brenning et al. (2012) conducted two cross sectional studies on non-clinical samples in Belgium to examine the relationship between attachment, emotional regulation and depressive symptoms in early adolescence. Study one was completed on a sample of 339 participants between the ages of 12 and 14 years in which the mean age of the sample was 12.6 years. Attachment was measured using the children's version of the ECR-R (Fraley et al., 2000) which assesses levels of attachment anxiety and avoidance. Study one found that attachment anxiety was related to emotional dysregulation and attachment avoidance was related to suppression of emotions. Both attachment anxiety and avoidance were positively associated with symptoms of depression in adolescents. Study two was carried out on a sample of 746 adolescents aged between 8 and 14 years; the mean participant age was 12 years and the same measures of attachment and emotional regulation were used as in study one. However, the ERI was revised slightly to focus more specifically on sadness rather than negative emotions more widely.

The results of study two found that both avoidant and anxious attachment styles and dysregulative and suppressive emotional regulation strategies were positively associated with depressive symptoms. Findings also indicated that adolescents who perceived their parents as responsive and supportive of their autonomy were negatively related to anxious and avoidant attachment styles and depressive symptoms. Parental responsiveness was also negatively associated with emotional dysregulation and autonomy support was negatively associated with both dysregulation and suppression of emotions.

More recently, Brenning and Braet (2013) conducted two cross sectional studies in Belgium to examine the associations between attachment styles and emotional regulation of anger and sadness in early adolescence. Study one (n=197, mean age=13.54)

found that for individuals with attachment avoidance, emotional regulation strategies were dependant on the specific emotion involved. Suppression of sad emotions was found to be more common than suppression of anger emotions. However, in individuals with attachment anxiety both anger and sadness were positively associated with suppression and dysregulation of emotions. Attachment avoidance was positively associated with suppression of sadness and anger dysregulation. Older adolescents reported more avoidant attachments than younger participants. Study two (n=310, mean age=14.26) found that dysregulation and suppression of sad emotions was more common than with anger emotions. Attachment anxiety was positively associated with dysregulation and suppression of anger and sadness, but not suppression of anger. However, attachment avoidance was positively associated with suppression of sadness and anger dysregulation. Both attachment anxiety and avoidance were positively related to symptoms of depression and aggressive behaviour. This study also found older participants reported more avoidant attachments and suppression of sadness than in younger adolescents.

Both studies by Brenning et al., (2012) and Brenning and Braet (2013) have concluded that avoidant and anxious attachments are associated with depressive symptoms in adolescence. This suggests that there is a significant relationship between the constructs of attachment and emotional regulation, and that interaction between them may have a substantial impact on the mental health of adolescents.

The conclusions of these studies however need to be viewed within the context of the remit and limitations of the research. These studies were all cross sectional in design and therefore it is not possible to infer the direction of the relationships between variables. Additionally as with all research based on correlational methods, causality between variables cannot be assumed. Both studies by Brenning et al., (2012) and Brenning and Braet (2013) also relied on self- reported data. Whilst this is an effective way to gain insight into the internal experiences of individuals, this methodology is at risk of common method variance as well as social desirability biases.

Positive mental health and adaptive functioning is associated with experiencing and appropriately being able to express a range of emotions. Children and young people first experience emotions, and receive feedback on their emotional reactions with their parents or carers. For this reason it is interesting that only one of the studies has

examined emotional regulation during an interaction with a parent. The majority of research used only self-report measures of emotional regulation in adolescents.

However, Hershenberg et al. (2011) have studied emotional regulation within parent-daughter dyads during a positive interaction task, where dyads in a laboratory environment were asked to speak for two minutes about what they most liked about each other. Attachment security was also assessed using the Family Attachment Interview (Bartholomew & Horovitz, 1991). This found that adolescent attachment security was associated with increased positive and reduced negative behavioural displays and less emotional dysregulation within a situation which required the establishment of intimacy with a parent. This finding could be viewed as supporting the suggestions from the results of the previous two papers that attachment insecurity affects emotional regulation and can increase depressive symptoms in adolescents. However, due to the non-naturalistic nature of this study and the restricted (female only) sample the results may not generalise to the wider adolescent population.

Only one study has examined the association between attachment security and emotional regulation in relation to positive emotions. Perhaps this is unsurprising as the role of positive emotions has been described as neglected within the field of adolescent psychopathology (Gilbert, 2012). Nonetheless, one recent piece of research has begun to explore this area. Gentzler et al. (2014) examined the relationship between attachment style and emotional regulation in relation to positive emotions. The sample contained fifty-six participants aged between 10-14, with a mean age of 11.88 years. Attachment was measured using the Security Scale (Kerns, Klepac & Cole, 1996), and measures were also taken of adolescent temperament, positive emotional reactions to events, and responses to positive events (either savouring or dampening). Adolescent temperament was measured by parent report alone which Muris and Meester (2009) found can be prone to bias and be incongruent with other measures of temperament. Adolescents completed four daily reports in which they described their most positive and negative event and their immediate emotional reaction to that events. Researchers developed codes to categorise the different reported positive and negative events.

Initial analysis revealed that female adolescents reported more intense initial positive affect and more dampening in response to positive events than males. Males also reported more secure attachments with their fathers than females; they also rated lower on negative emotionality than females. Attachment security with fathers appeared to be related to higher levels of savouring behaviours following a positive event. Savouring of positive experiences has been found to increase happiness (Jose, Lim & Bryant, 2012) which can provide a buffer against depressive symptoms. Dampening or minimising the positive emotions felt following a positive event has been linked to a range of negative outcomes including depressive symptoms (Raes, Smets, Nelis & Schoofs, 2012).

However the results of the Gentzler et al. (2014) study should be interpreted with some caution due to the small sample size and its largely Caucasian American participants. Due to the limitations of this type of sample it is unclear whether these findings would generalise to the wider adolescent population. Replication of this study and further longitudinal research would be helpful in enabling firmer conclusions to be drawn.

Depressive symptoms in adults have been found to be associated with attachment insecurity (Bakermans-Kranenburg & Ijzendoorn, 2009) and similarly the current search has also yielded many papers linking attachment in adolescence with depression.

Similar to the studies by Brenning et al. (2012), Kullik and Petermann (2013) investigated whether emotional regulation mediates the relationship between attachment and depression in German adolescents. Participants were a sample of 127 females with a mean age of 14.50 years and 121 males with a mean age of 14.31 years. Attachment was measured using a short version of the Inventory of Parent and Peer Attachment (IPPA) and emotional regulation was measured using the Regulation of Emotion Questionnaire (REQ; Phillips & Power, 2007). Mediation analysis was conducted using the procedures outlined by Baron and Kenny (1986) who propose that mediation exists when the independent variable (parental and peer attachment, in this study) correlates significantly with the dependant variable (depressive symptoms, in this study). In addition to this the independent variable (parental and peer attachment) is significantly related to the mediator (emotional regulation, in this study). The mediator (emotional regulation) is significantly related to the dependant variable (depressive symptoms) when the independent variable of parental and peer attachment is controlled for. Also the

relationship between the independent variable (parental and peer attachment) and the dependant variable (depressive symptoms) reduces significantly when the mediator (emotional regulation) is controlled for.

The results of the hierarchical multiple regression analysis in this study, revealed that attachment to parents and peers was significantly related to depressive symptoms in adolescent females ( $\beta = -.27, p < .01$ ). Attachment to parents was significantly related to both internal ( $\beta = -.26, p < .01$ ) and external ( $\beta = -.22, p < .05$ ) dysfunctional emotional regulation. Attachment to peers was significantly related to internal dysfunctional emotional regulation ( $\beta = -.25, p < .01$ ). In males attachment to parents and peers was significantly related to self-reported symptoms of depression ( $\beta = -.33, p < .001$ ). Internal and external dysfunctional emotional regulation was found to be a partial mediator by bootstrapping for the relationship between attachment to parents and depression in males ( $3.04 \leq b \leq 12.71$ ). In females internal dysfunction of emotional regulation was a full mediator in the relationship between attachment to parents and depression ( $4.71 \leq b \leq 13.19$ ) and partially mediated the indirect effect of attachment to peers and depressive symptoms ( $4.43 \leq b \leq 13.72$ ).

The Kullik and Petermann (2013) study importantly has begun to explore how attachment relationships with peers as well as with parents influence adolescent emotional regulation and affect depressive symptoms. Again as in the other papers described so far, attachment security and emotional regulation appear to have a significant influence on depressive symptoms in adolescents. More recently researchers have begun to explore the influence of attachment and emotional regulation on other areas of clinical concern.

Tatnell, Kelada, Hasking and Martin (2014) examined whether interpersonal factors such as attachment, social support and non-suicidal self-injury (NSSI) were mediated by interpersonal factors such as self-esteem, self-efficacy and emotional regulation as measured by the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). The ERQ contain 10 items, of which six measure cognitive reappraisal strategies and four measure emotional suppression. In this study, attachment was measured using the Adolescent Attachment Questionnaire (West, Rose, Spreng, Sheldon-Keller & Adam, 1998). The 1973

participants with a mean age of 13.89 were from a community sample of Australian high school students. The relationship between attachment and NSSI was partially mediated by self-esteem, self-efficacy and cognitive reappraisal. A strong relationship was found between attachment anxiety and onset of NSSI. This research has the largest sample size of any of the papers published on the topic on attachment security and emotional regulation in adolescence. It is also the only study with a longitudinal design which was therefore able to explore interactions and effects between the different variables measured over time, and follow up to find out the impact on NSSI. With regards to the measure of emotional regulation, the dimension of cognitive reappraisal was found to have a significant impact on NSSI onset in those with anxious attachments. Perceived family support was also highlighted in this study as protecting against NSSI which can be seen as providing support for the view that attachment relationships in adolescence are significant in terms of supporting positive emotional regulation strategies and psychological health.

A version of the ERQ (Gross & John, 2003), which was revised for child and adolescent samples, was used by Gresham and Gullone (2012) to explore the relationship between personality variables and attachment, as measured by the IPPA, on the two emotional regulation strategies, suppression and reappraisal. Within a non-clinical adolescent sample, they found that more communication related to attachment security, and predicted higher reappraisal and less suppression use. Alienation, an indication of attachment insecurity predicted lower levels of reappraisal and increased suppression use. This suggests that reappraisal is associated with secure attachment, and suppression with insecure attachment. Reappraisal is believed to be a more adaptive emotional regulation strategy than suppression, which is associated with poorer mental health (John & Gross, 2004).

All of the six studies described so far in this review have been conducted on non-clinical samples from the adolescent population, and the results of the studies have highlighted areas of clinical concern most prominently in terms of depressive symptoms, but also in the field of self-harm. The following two pieces of research have been carried out on clinical populations.

Kim, Sharp and Carbone (2014) studied a clinical sample of 228 adolescents with a mean age of 15.43, who were displaying traits of Borderline Personality Disorder (BPD). In



this paper, emotional and interpersonal dysregulation (pervasive deficits in emotional regulation and interpersonal relationships) was defined as being understood to make up the central characteristics of BPD. The use of both positive and negative emotional regulation strategies, and maternal and paternal attachment were examined. In this study, attachment was assessed using The Security Scale (Kerns, Klepac & Cole, 1996) and emotional regulation was measured with The Cognitive Emotion Regulation Questionnaire (Garnefski, Van Den Kommer, Kraaij, Teerds, Legerstee & Onstein, 2002). Hierarchical regression analysis tested a model in which positive and negative emotional regulation strategies mediated the link between parental attachment security and BPD features whilst controlling for the effect of gender. Attachment security was found to protect against BPD by increasing positive emotional regulation strategies. Negative emotional regulation strategies were found to reduce the protective effects of attachment security and positive regulation strategies and therefore increase clinically significant BPD traits. The study provides support to the concept that attachment security promotes positive emotional regulation and in turn supports more positive psychological health both in clinical and non-clinical adolescent samples. However these results should be interpreted with a degree of caution, as due to the cross-sectional design of the study, these results cannot be viewed as implying causation between the different variables that have been examined. In addition to this, the inpatient sample in this study may limit the generalisability of the results to a wider population. The use of self-report measures is a limitation as all analysis is based solely on each individual participant's self-perception of the constructs, and therefore may not be objective or may differ from external views.

The final study in this section of the literature review was conducted on a clinical all male sample. Zaremba and Keiley (2011) examined how emotional regulation mediates the relationship between attachment and internalising and externalising behaviours within a clinical population of 62 American adolescent males who have sexually offended; the mean age of participants was 15.8. Attachment security was assessed using the Attachment Scale (Collins & Read, 1990) and The Emotion Regulation Checklist (Shields & Cicchetti, 1997) was administered to assess emotional regulation. Their results found that internalising and externalising behaviour, and adaptive and maladaptive emotional

regulation is related to attachment security. Emotional regulation mediated the relationship between attachment and externalising behaviour, but not in internalising behaviour. Within this sample, adolescents' maladaptive emotional regulation strategies seemed to have more influence on problem behaviours than adaptive emotional regulation. As in the previous study discussed above, the conclusions that can be drawn from this research are limited by its cross-sectional and self-report design within a clinical population.

From reviewing the past nine papers it appears that there is a strong association between attachment and emotional regulation. In non-clinical populations attachment security has been associated with depression (Brenning et al., 2012; Kullik & Petermann, 2013) as well as aggression (Brenning & Braet, 2013). Attachment insecurity has also been associated with maladaptive emotional regulation strategies, (Gresham & Gullone, 2012) self-harm (Tatnell et al., 2014) and increased positive and reduced negative behavioural displays (Hershenberg et al., 2011). Gentzler et al. (2014) found paternal attachment security was associated with increased savouring after a positive event. Within clinical populations, Kim et al. (2014) found attachment security protected against BPD and resulted in fewer internalising and externalising behaviours (Zeremba & Keiley, 2011).

### **Attachment Security and Internalising Problems**

The following ten papers have explored levels of adolescent attachment security and its relationship with internalising problems. As was highlighted in the first eight papers discussed as part of this review, depressive symptoms appear to be a dominant theme as well as a number of other symptoms of clinical concern including disordered eating, self-harm and suicide related thoughts and behaviours.

Milan et al. (2013) highlight that while theoretically attachment has been the foundation of a large number of studies on child and adolescent maladjustment there is little empirical evidence on the impact of early insecurity in attachment to caregivers and increased internalising behaviour in later life. The authors acknowledge that children develop within environments which contain multiple risk and protective factors. Milan et al. (2013) set out to examine which particular developmental pathways lead to internalising behaviour in adolescence.

Early attachment security was measured using a modified version of the Strange Situation (Cassidy, Marvin, & the MacArthur Working Group, 1992 as cited in Milan et al., 2013). At age 15, attachment was measured using the Behavioural Systems questionnaire (Furman & Wehner, 1999). Adolescent internalising at age 15 was measured using the Children's Depression Inventory (CDI-S; Kovacs, 1992), the Loneliness and Dissatisfaction Scale (LSDS; Asher, Hymel, & Renshaw, 1984) and the Youth Self Report (YSR) Anxiety/Depression and Withdrawal subdomains (Achenbach, 2001).

For those adolescents with insecure early attachments, maternal negative emotions during transition to adolescence predicted significantly less parental availability during parent-adolescent interactions and increased adolescents' preoccupation with parental relationships. The amount that preoccupation with parental relationships was related to internalising symptoms was dependant on gender as well as attachment history.

This paper is one of the very few pieces of longitudinal research. Milan et al. (2013) have examined attachment security over a 15 year period, during infancy using a Strange Situation procedure and also using an adolescent self-report measure of attachment. This research emphasises the importance of secure attachments in infancy and adolescence in protecting against the risk of developing a wide range of internalising problems during the transition to adolescence.

Muris et al (2014) looked specifically at the relationship between attachment security and the self-conscious emotions of shame and guilt during late childhood and adolescence by conducting two cross-sectional studies. Study one was conducted on a non-clinical sample of 688 children aged between 9-13 years with a mean age of 10.39 years. A self-report measure of attachment was used in the study, the Attachment Questionnaire for Children (AQC; Muris et al. 2000). Proneness to experiencing self-conscious emotions was also measured by self-report with a vignette-based measure: The Self-Conscious Emotions Maladaptive and Adaptive Scales (SCEMAS; Stegge & Ferguson, 1994). Hierarchical multiple regression analysis was conducted to explore whether shame and guilt accounted for a significant proportion of the variance in anxiety symptoms. Results found that girls reported more self-conscious emotions than boys, and significant overlaps between different self-conscious emotions were also found. A

significant effect was found between avoidantly attached children (those that are concerned that psychological closeness leads to rejection) and higher levels of guilt in reaction to ambiguous scenarios, compared to securely attached children (those who have experience of attentive caregivers who have met their emotional needs and have developed trust in others as well as the ability to be self-reliant). Significant differences were also found between shame scales within the SCEMAS and secure, avoidant and ambivalent attachment styles (those who fear being abandoned and therefore present as attention-needing and emotionally demanding to gain emotional availability from others). Ambivalently attached children consistently reported higher levels of shame in reaction to both ambiguous and unambiguous scenarios than their securely attached peers. When guilt scores were added into the analysis these results remained consistent. Scores of ruminative guilt were higher in ambivalent and avoidant attached children compared to those with secure attachments. When shame was controlled for, this effect of attachment style was no longer significant.

Study two was conducted on a sample of 102 clinically referred adolescents aged from 13-18 years with a mean age of 15.46 years. As adolescence is a period of development where peer relationships gain increased importance, Muris et al. (2014) have included a measure of attachment to peers. The majority of the adolescents had externalising problems and were known to police for aggressive behaviour, damage or theft of property or possession of drugs. A sample non-clinical group of 33 adolescents with a mean age of 15.6 years was also included in the study. Attachment was measured using the IPPA (Armsden & Greenberg, 1987) and self-conscious emotions were again assessed using the SCEMAS. Results also found that adolescents reported more shame than guilt and ruminative guilt. Unambiguous scenarios produced more guilt than shame. As in study one, girls reported more unambiguous and ruminative guilt and shame than boys. Girls also reported higher levels of communication with peers than boys. The clinical group of adolescents reported lower levels of self-conscious emotions than the non-clinical group, with the exception of the levels of guilt and shame in response to ambiguous scenarios. The clinical and non-clinical groups were found to have few differences in attachment quality. Contrary to what might be expected, the clinical group reported higher levels of trust in peers than the non-clinical group. The non-clinical group did however have a small sample size which may explain this unexpected result. Within

the clinical group increased levels of self-conscious emotions were associated with communication with parents and peers. Alienation was associated with higher levels of maladaptive forms of shame and guilt.

These results again indicate that insecure attachment relationships increase maladaptive forms of self-conscious emotions which could put young people at risk of developing internalising problems. The result of the research within the clinical adolescent group is not what would be expected based on attachment theory and was not what was hypothesised by the authors. Later in this section of the review further unexpected results within clinical groups will be described and discussed. Once again the results of this study need to be viewed within the context of the limitations of this type of research which is cross sectional and correlational in design and based on participant self-reported scores. The viewed small sample size within the non-clinical group is also a significant limitation of this research.

As well as researching the potential influence of attachment security with peers in adolescence, some researchers have begun to consider individually the different impact of maternal and paternal attachment on internalising problems.

One such study was completed by Boone (2013). In this paper the relationship between maternal and paternal attachment, two forms of perfectionism, - perfectionistic self-promotion (PSP- the need to appear perfect to other people and not display or disclose imperfections in public) and socially prescribed perfectionism (SPP- the need to appear perfect in order to meet the perceived standards of others and therefore gain or maintain love and approval)-, and binge- eating symptoms was explored. The non-clinical sample consisted of 328 Belgium adolescents with a mean age of 17.1. A four step mediation analysis was conducted as well as exploration of the correlations between variables. The results showed that an anxious attachment style was positively correlated with PSP and binge- eating. PSP fully mediated the relationship between binge- eating and having an avoidant attachment style with a father.

The results of this study suggest that attachment security influences adolescent perfectionism and binge- eating behaviour. It also supports the suggestion that maternal and paternal attachment security can affect adolescent internalising problems in different

ways. The results of this study are limited by the cross-sectional and correlational nature of the design, which precludes the ability to imply any type of causation between variables. The measurement of all constructs within the study being measured by participant self-report is an additional limiting factor.

Another study to investigate the role of attachment security with internalising problems, related to eating disorders within a non-clinical population, was completed by Milan and Acker (2014). They conducted longitudinal research over a 12 year period to examine the relationship between early attachment quality and the risk of disordered eating in adolescent girls. The sample consisted of 447 girls with a mean age of 15.1 years at the end of the study. Results found that early attachment quality was not associated with disordered eating attitudes and behaviours (DEAB). Attachment quality however, did moderate the relationship between eating disorder risk factors and DEABs. In girls with insecure attachment histories, higher body mass index at age 15 predicted increased DEABS. Maternal negative affect alongside weight gain during puberty was found to indirectly predict DEAB due to increased preoccupation with parental relationships. These associations were not found in adolescent girls who had secure attachment relationships. This supports the view that attachment quality during infancy provides resilience against eating disorders. These results also highlight the importance of maternal relationships into adolescence in promoting positive mental and physical health and well-being.

Woodhouse, Ramos-Marcuse, Ehrlich, Warner and Cassidy (2009) investigated whether adolescent attachment security and other attachment-related representations, such as the extent to which they perceive their parents to be a secure base, mediate and moderate the links between symptoms of depression and anxiety in parents, and depressive symptoms in adolescents. This is another study which examines attachment relationships with mothers and fathers separately to evaluate the different potential contributions to the development of internalising problems. This study used participant self-reported data to assess depressive symptoms. Attachment style and psychological symptoms were measured using questionnaire data collected from mothers, fathers and the adolescent participants. Adolescent attachment style was also assessed in a laboratory using an adult attachment interview.

The results of the hierarchical multiple regression analysis found that adolescent attachment moderated the relationship between parent and adolescent psychological

symptoms. Adolescents who perceived their mother as a secure base mediated the relationship between adolescent and maternal depressive symptoms. However, viewing fathers as a secure base was not found to have a mediating role. Parental anxiety symptoms were not associated with perceptions of either parent as a secure base or with depressive symptoms in adolescence. This study begins to provide evidence for how internalising problems such as depressive symptoms can be transmitted inter-generationally through families as associations were found between paternal depressive symptoms and reduced perceptions of the father as a secure base. If therefore having a father with depression affects their child's perceptions of them as a secure base and in turn reduces the likelihood of developing a secure attachment, much of the research discussed in this review would suggest that this increased the risk of the child developing depressive symptoms. As with the majority of studies within this review the results need to be interpreted with caution. This study has a number of limitations including small sample size, which may affect the stability of the interactions which were found. All participants were from two parent families, which may limit the generalisability of the results to those from other family compositions. The cross-sectional design also limits our ability to infer how stable the observed interactions might be over a period of time. Additionally the correlational nature of the study means that causation within the interactions cannot be inferred. However, a strength of this study, and a feature which has been unusual within this literature review, is that data about psychological symptoms and attachment was collected from both parents as well as participants. This potentially makes the results of this study more objective than many of the studies which rely solely on self-reported data.

One hypothesis that has been proposed as to how attachment relationships are associated with depressive symptoms is via the mechanism of rumination (Ruijten, Roelofs & Rood, 2011). A meta-analysis has found significant associations between rumination and depressive symptoms in young people (Rood, Roelofs, Bögels, Nolen-Hoeksema & Schouten, 2009). Having a ruminative response style has been described as repetitively and passively thinking about negative emotions and the symptoms and causes of these emotions (Nolen-Hoeksema, 2000).

Ruijten, Roelofs and Rood (2011) investigated the role of rumination on the relationship between attachment quality and depressive symptoms in a non-clinical sample for adolescents. The study used a sample of 455 high school students in the Netherlands between the ages of 12-18 with a mean age of 14.3 years. Attachment was measured using the IPPA-R (Armsden & Greenburg, 1987: Dutch version: Muris Meesters, van Melick, & Zwambag, 2001). Self-report measures of depression and rumination were also taken. Results found significant associations between depressive symptoms and rumination and all aspects of attachment except for communication with peers. Regression analysis revealed that the three qualities of attachment variables: trust in parents, communication from peers and alienation from peers, significantly accounted for a proportion of the variance in symptoms of depression. Within a mediation analysis a distinction can be made between different effects and their equivalent weights. The total effect of an independent variable (IV) on a dependant variable (DV) is made from the direct effect (weight  $c$ ) of the IV on the DV and an indirect effect (weight  $a*b$ ) of the IV on the DV through a suggested mediator (M). Weight  $a$  represents the effects of the IV on the M. Weight  $b$  is the effect of the M on the DV, partialling out the effect of the IV. The indirect effect is the multiplication of the unstandardised regression weight of the IV on the M and the weight of the M on the DV (Ruijten, Roelofs & Rood, 2010). Mediation analysis discovered that variables that represented attachment quality were significantly associated with depression and rumination scores. As a mediator of depression, rumination was found to be positively and significantly associated. Rumination partially mediated that relationship between trust in parents and depression symptoms as well as between alienation from peers and depression symptoms. Full mediation was found between communication with peers and depressive symptoms, and unexpectedly communication with peers was positively associated with depression. This research suggests that both attachment relationships with parents and peers affect rumination and in turn depressive symptoms.

The first four papers described in this section of the review have mainly explored the relationships between attachment security and internalising problems in non-clinical samples. The following four papers have begun to explore these constructs within clinical adolescent populations.



Venta, Mellick, Schatte and Sharp (2014) examined whether the relationship between attachment security and depression was mediated by thoughts of thwarted belongingness and perceived burdensomeness. Thwarted belongingness is defined in this study as the perception an individual has about themselves as having unmet needs to belong, and holding the belief that they are not cared about. Perceived burdensomeness is defined in this study as an individual's sense that they do not contribute to those around them and that they are a burden to others. The Venta et al. (2014) study also explored how these same constructs mediated the relationship between attachment security and suicide-related thoughts. This study was conducted on a clinical inpatient sample of 124 adolescents with a mean age of 14.69. Attachment related schemas were measured using the Security Scale (KSS; 1996) a self-report measure. Thwarted belongingness and perceived burdensomeness were measured using the Interpersonal Needs Questionnaire (INQ; Van Orden, Witte, Gordon, Bender & Joiner, 2008), two widely used self-report measures of depression and suicide-related thoughts were also used in the study. Results of the mediational analysis found that males reported higher levels of maternal attachment security than females; therefore gender was controlled for during later analysis. Higher levels of self-reported depression was associated with lower levels of attachment security to mothers and increased levels of thwarted belongingness and perceived burdensomeness. Significant relationships were found between maternal attachment security, thwarted belongingness and perceived burdensomeness and suicide-related thoughts. Negative correlations were found between maternal attachment security and thwarted belongingness, but not perceived burdensomeness, suggesting that attachment security is only related to thwarted belongingness. Thwarted belongingness was also found to be a mediator in the relationship between depression and level of maternal attachment security. Thwarted belongingness again was found to be a mediator between self-reported, suicide-related thoughts and level of maternal attachment security.

This research supports the view that attachment insecurity increased depressive symptoms and emphasised the importance of having a sense of belonging in promoting psychological well-being and protecting against depressive symptoms. Whilst the results of this study represent a valuable contribution to the evidence base around attachment

and depressive symptoms, it is important to also acknowledge the limitations of this study. As has been previously described when critiquing other papers as part of this review, the cross-sectional design of this study does not enable causal interpretations to be made. This study also only assessed maternal attachment security, meaning that contribution of attachments towards fathers or other caregivers is neglected. All data was collected via only one reporting source: participant self-reported measures. In addition to this as in other studies completed within clinical samples, the generalisability of the results to wider populations may be limited.

Many of the papers in this review have explored the relationship between attachment security and depression; however there has been relatively little research into attachment and other areas of clinical concern. One explanation for this may be due to the prevalence of depression, making it an area of increased research attention. On the other hand it could be that a unique association exists between attachment insecurity and depressive symptoms in adolescence.

However, Cawthorpe, West and Wilkes (2004) did examine the relationship between felt security of attachment and depression within a clinical sample of 51 hospitalised depressed female adolescents, and 22 within a comparison group who had received other psychiatric diagnosis; the mean age of participants was 15.5 years with an age range between 13-18 years. The Adolescent Attachment questionnaire (AAQ; West, Rose, Spreng, Sheldon-Keller, & Adam, 1998) was used as a measure of felt security of attachment within the participant's perceived primary attachment relationship. The AAQ provides measures of perceived unavailability within the primary attachment relationship and of angry distress held by the participant toward their attachment figure. The attachment variables were found to have higher angry distress and unavailability scores for the depression group compared to the group with other diagnoses.

The results of this study indicate that there may be something specific about attachment insecurity increasing levels of clinically significant depression in comparison to other clinical diagnoses. These result should however be interpreted with caution due to the small sample size of the groups.

The papers in this review appear to find that attachment insecurity has an influence on depression in adolescence, and this condition is associated with a high risk of suicide

(Fombonne, Wostear, Cooper, Harrington, & Rutter, 2001). The following two papers have researched the relationships between attachment security and suicide within clinical adolescent samples.

Venta and Sharp (2014) studied the relationship between attachment organization and suicide within a clinical sample of inpatient adolescents. Participants were assessed using the Child Attachment Interview (Target, Fonagy, & Shmueli-Goetz, Data & Schneider, 2007) as having one of four attachment styles: secure, preoccupied, dismissing or disorganised attachment. Suicide ideation within the past year was assessed using self-report and interview measures. Results found that attachment organisation was not significantly related to suicide- related thoughts and behaviour. However, findings supported previous research that indicates that internalising behaviour is related to suicide attempts, suicidal ideation and self-harm, and that externalising behaviour is related to an increased risk of self-harm.

Similar to the research by Muris et al. (2014) that did not find the hypothesised link between attachment and shame and guilt within a clinical sample, this study by Venta and Sharp (2014) also did not find the expected link between attachment security and suicide- related thoughts and behaviour. In order to further explore the potential contribution of attachment insecurity and suicide, Sheftall, Schoppe-Sullivan and Bridge (2014) examined the attachment security in a demographically matched group of 40 adolescents who had attempted suicide and 40 who had never attempted suicide. The average age of participants was 15.56 years and the sample contained 40 males and 60 females. The researchers used a clinical sample of adolescents who had attended behavioural health clinics or hospital emergency departments in Ohio USA. Self-report measures were completed about attachment, family cohesion, depression, and history of attempted suicide. The measure of attachment used was the Experiences in Close Relationships Scale (ECR) a 36 item measure containing two dimensions of attachment insecurity: anxiety and avoidance. In this sample the ECR showed high reliability on both dimensions (Cronbach's  $\alpha = .91$ ). The results of this study found that those who had attempted suicide reported significantly higher for attachment avoidance and anxiety. Attachment avoidance predicted suicide attempts when family cohesion and depressive symptoms were controlled for. This study, unlike the research by Venta and Sharp (2014),

did find the expected relationship between attachment anxiety and avoidance on attempting suicide within a clinical adolescent sample.

In conclusion the previous 10 papers review have indicated that insecure attachments are associated with maladaptive forms of shame and guilt, perfectionism, disordered eating, anxiety, depression, rumination within non-clinical populations. In clinical populations attachment insecurity was associated with depression and suicide-related thoughts and behaviour.

### **Attachment and Externalising Behaviours**

The final section of this literature review will examine research which has explored the relationships between attachment security and externalising problems in adolescence. Within adult populations, externalising behaviour, including violence against others and self, has been associated with a dismissing attachment style (Bakermans-Kranenburg & Ijzendoorn, 2009).

Allen et al. (2007) investigated the relationship between adolescent attachment security in paternal and peer relationships and depression and externalising behaviour. An American, non-clinical sample of 167 early adolescents were repeatedly assessed over a three year period. During wave one the mean age was 13.36, at wave two it was 14.29 and at wave three it was 15.22 years respectively. Adolescent attachment was assessed using the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996) and Q-set (Kobak, Cole, Ferenz-Gillies, Fleming & Gamble; 1993). The Q-set was designed to closely mirror the AAI classification system but to provide a continuous measure of attachment classification. Adolescents and their parent took part in a perceived differences task which involved both parties being separately asked to discuss an area of disagreement within their family. The two parties were then reunited and the audiotape of what the adolescent had said was played back to them and their parents. Separate sessions were recorded between the adolescent and their mother and father. These sessions were coded to produce scores associated with, *promoting or undermining relatedness*, *promoting or undermining autonomy* and *use of harsh conflict tactics*. A similar task was conducted between adolescents and their closest friend to produce a score for *call for emotional support from closest friend*, *observed adolescent autonomy and relatedness*

*with peers*, as well as scores for *promoting or undermining relatedness*, and *promoting or undermining autonomy with peers*. Measures were also taken of popularity, negative peer pressure and overall quality of relationships with peers. Depression symptoms were measured using the Child Depression Inventory (Kovacs & Beck, 1977) and externalising behaviours were measured using a shortened version of the Child Behaviour Checklist (Achenbach & Edelbrock, 1991). Results found that adolescent security of attachment organisation was associated with the successful development of autonomy at the same time as keeping a sense of relatedness with both fathers and peers. Attachment insecurity was associated with increased levels of externalising behaviour and higher and more persistent patterns of depressive symptoms throughout adolescence. It is interesting that this research highlights the importance of maintaining a sense of relatedness during adolescence. This appears to be a similar construct to having a sense of belonging. As already described, the research by Venta, Mellick, Schatte and Sharp (2014) found that having a thwarted sense of belongingness mediated the relationship between maternal attachment insecurity and both depression and suicide-related thoughts. This suggests that having a good sense of belonging is a protective factor against psychological distress during adolescence.

The following two papers have examined the role of attachment security on aggression as a specific form of externalising problem behaviour.

Miga, Hare, Allen and Manning (2010) investigated how attachment states of mind and self-reported attachment styles within a relationship predict aggression in adolescent romantic relationships. The study accessed a community sample of 93 American adolescents with a mean age of 14.28 at the start of the research. Preoccupied attachment states of mind at age 14, as measured by the Adult Attachment Interview, predicted verbal aggression towards a partner at age 18. Adolescents with more dismissing attachment states of mind were associated with higher levels of victimisation by verbal aggression from a partner at age 18. Analysis of self-reported romantic attachment styles found significant positive associations between adolescent reported victimisation by verbal and physical aggression from a partner and partner reported attachment anxiety. Attachment anxiety was significantly positively associated with increased perpetration of physical aggression in relationships.

Gallarín and Alonso-Arbiol (2012) examined the relationship between parenting practices, maternal and paternal attachments and aggression in a Spanish sample of 554 adolescents with a mean age of 17.2 years. Findings showed that secure attachment to parents of both genders was predicted by parental acceptance and involvement. Parental coercion and imposition negatively predicted attachment to parents. Insecure attachment to fathers was found to be predictive of aggression in adolescence. This is another piece of research which accentuates the distinct contributions of maternal and paternal attachment.

Sarracino, Presaghi, Degni and Innamorati (2011) also separately assessed attachment security to mothers and fathers. They conducted cross sectional research on a community sample of 169 Italian adolescents with a mean age of 11.83. Adolescents were found to be more securely attached to the parent of the same gender. Attachment security with a parent of the opposite gender was related to decreased levels of externalising problem behaviour and more conservative Social Value Orientations such as valuing security, benevolence and conformity. Sensation-seeking, which was defined as the dispositional risk of a range of problem behaviours, was found to predict lower levels of attachment security to parents of both genders. This research suggests that attachment security promotes conformity, increased social awareness and reduced externalising behaviours which may in turn increase a sense of belonging to a community or peer group.

Dawson, Allen, Marston, Hafen and Schadt (2014) examined whether preoccupied and dismissing insecure attachment styles during adolescence predicted externalising behaviour as reported by the participant and their peers in early adulthood. The role of maladaptive coping strategies was explored as to whether they mediated the relationship between insecure attachment and externalising behaviour in early adulthood. The Adult Attachment Interview was used to measure attachment at age 14 in 184 participants. These participants were interviewed with their closest peer. Preoccupied and dismissing attachment styles were found to predict self-reported externalising behaviour in early adulthood. However, only preoccupied attachment style predicted peer-reported externalising behaviour. In adolescents with a dismissing attachment style, maladaptive coping skills mediated the relationship with self-reported externalising behaviour in early

adulthood. This paper emphasises the need for greater understanding of coping skills and emotion regulation within participants with different attachment styles.

Scott, Briskman, Vulgar, Humayun and O'Connor (2011) investigated whether attachment security during adolescence provides a unique effect on anti-social behaviour which is distinct from other measures of parent-adolescent relationship quality. Data was collated from three separate samples in the South of England. One high risk clinical sample of adolescents who had been referred to mental health services when aged between three to seven years old for anti-social behaviour. A moderate risk sample was drawn from a population on children who had been rated highly on a measure of conduct problems. A third normative risk community sample was drawn from schools in South London. The total number of adolescents in the sample was 248 with 77% of participants aged between 11-15 years. Attachment was as measured by the Child Attachment Interview (Target, Fonagy & Shmueli-Goetz, 2003) which was found to be modestly associated with a range of different measures of current parent-adolescent relationship quality. Attachment was also found to be consistently associated with significant indicators of psychological adjustment such as parent- reported oppositional defiance disorder symptoms and teacher- reported emotional and behavioural difficulties. Regression analyses suggest that attachment security did explain the variance in adolescent psychological adjustment distinct from other measures of parent-adolescent relationship.

In conclusion the previous six papers' reviews have indicated that insecure attachment is associated with a range of different externalising behaviours including aggression, symptoms of oppositional defiance disorder and teacher- reported emotional and behavioural difficulties.

### Discussion

The aim of this systematic literature review was to examine the role of security in attachment relationships on emotional regulation within adolescent populations.

Overall the review has found that there is a significant lack of research about how attachment security affects emotional regulation in adolescence. However it is promising that this important issue appears to be of growing interest to the research community, as many of the studies within this review have been published recently with only three of the studies (Cawthorpe et al., 2004; Allen et al., 2007; Woodhouse et al., 2009) predating 2010.

The reviewed literature broadly fell into three areas, namely studies that had investigated the role of emotional regulation and attachment; internalising problems and attachment or externalising problems and attachment, all within adolescent samples with a mean participant age of between 10 and 18 years. Within the 24 studies reviewed a number of key themes emerged throughout the three different areas. Most prominently was the association between attachment and depressive symptoms; this link was found in both clinical (Cawthorpe et al., 2004; Venta et al., 2014) and non-clinical (Allen et al., 2007; Woodhouse et al., 2009; Ruijten et al., 2011; Brenning et al., 2012; Kullik & Peterman, 2013; Milan et al., 2013) adolescent samples. This is in keeping with previous research which found that depressed adolescents report significantly lower levels of secure parental and peer attachment relationships than their non-depressed peers (Armsden, McCauley, Greenberg, Burke & Mitchell, 1990). In addition to this, insecure attachment is associated with depression and is a risk factor for suicide (Brumariu & Kerns, 2010).

As well as depressive symptoms a number of other outcomes of clinical concern were highlighted by studies in this review. Within clinical samples, associations were found between attachment insecurity and Borderline Personality Disorder (Kim et al., 2014), suicide-related thoughts and behaviour (Venta et al., 2014) and suicide attempts (Sheftall et al., 2014). It is notable that some of the studies within clinical samples found unexpected results. For example Muris et al. (2014) found that communication in parental and peer relationships, which is generally accepted as a marker of attachment security, was positively related to the self-conscious emotions of shame and guilt in both



adaptive and maladaptive varieties. A similar unexpected result was found by Venta and Sharpe (2014); there was no evidence for any relationship between attachment security and suicide- related thoughts and behaviour.

Within non-clinical samples, results of a number of studies also emphasised the association between attachment and outcomes of clinical concern including binge eating (Boone, 2013,) disordered eating attitudes and behaviours (Milan & Acker, 2014), self-harm (Tatnell et al., 2014), aggression (Miga et al., 2010; Gallarin et al., 2012) and anti-social behaviour (Scott et al., 2011). Milan et al. (2013, p. 381) have offered a possible explanation for why unexpected results in relation to attachment may be found within clinical samples, suggesting that “individuals with different attachment histories may differ in their ability or willingness to report negative affect, and the reliability of self-report symptom measures for different attachment groups is not established”.

It is interesting to consider why more of the research in this area has looked at depressive symptoms specifically over the other outcomes of clinical concern. This may be because depression is one of the most prevalent psychological difficulties across the world (Murray & Lopez, 1997), and therefore prioritised as a research area. On the other hand it may be that there is a unique influence of attachment insecurity on emotions in adolescence which results in depressive symptoms as suggested in the research by Cawthorpe et al. (2004). However given the small sample size in this study (n=73) there is a need for further research before any firm conclusions can be established.

### **Strengths and Limitations of the Current Review**

This literature review has a number of limitations due to the lack of published research exploring the relationship between attachment security and emotional regulation in adolescence. Only one of the studies that included a measure of emotional regulation, by Tatnell et al., (2014) was based on longitudinal research.

Of the studies which were yielded in the search and can be considered to have explored emotional regulation in the form of internalising and externalising problems, the majority also used a cross-sectional design to explore relationship between attachment security and a range of variables at one time point only. Of the 24 papers in this review

only six have used a longitudinal design (Dawson et al., 2014; Miga et al., 2010; Allen et al., 2007; Milan & Acker, 2014; Milan et al., 2013; Tatnell et al., 2014). In addition to this only two studies compared the outcomes of attachment security in different adolescent groups such as those with depression and those with alternative psychiatric diagnoses (Cawthorpe et al., 2004), and adolescents who has attempted suicide with those who had never attempted suicide (Sheftall et al., 2014).

Another limitation of this search is that the majority of the studies assessed attachment using self-report measures, which have the potential to be misunderstood by participants or completed without giving due consideration to whether the answers provided fully reflect their underlying views. An additional methodological issue with this type of design is common method variance, whereby variance in scores can be more due to the method of measurement rather than the underlying constructs being assessed. Just seven of the 25 studies assessed attachment using interview methods (Hershenberg et al., 2011; Woodhouse et al., 2009; Venta & Sharp, 2014; Allen et al., 2007; Miga et al., 2010; Dawson et al., 2014 & Scott et al., 2011).

It is notable that within the other 18 studies in this review that used self-report measures of attachment there is little consistency across the measures used to assess attachment. Only the IPPA (Armsden & Greenburg, 1987) The Security Scale (Kerns et al., 1996) and The Experiences in Close Relationships Scale (Fraley et al., 2000) have been administered in more than one study. This makes it difficult to compare across studies due to potential differences in the operationalisations of attachment.

### **Directions for Future Research and Conclusion**

Two additional emerging themes that this review has noted is the role of rumination and having a sense of belonging in affecting outcomes between adolescent attachment insecurity and psychological well-being. Rumination was associated with attachment insecurity and internalising problems such as depression (Ruijten et al., 2011) and the self-conscious emotions of shame and guilt (Muris et al., 2014).

The important impact on having a sense of belonging during adolescence was discussed in the study by Allen et al. (2007), although this study used the term 'sense of relatedness'. Additionally the study by Venta et al. (2014) found significant relationship between attachment insecurity feelings of thwarted belongingness and suicide -related

thoughts. Thwarted belongingness was also found to mediate the relationship between level of attachment security towards a mother and both depression and suicide-related thoughts. This appears to be an important area for future research given that insecure attachment as a risk factor for suicidal behaviour has been described as under-researched (Sheftal et al., 2014).

Other areas that this review has highlighted as worthy of future research are the differences in attachment security towards mothers, fathers, and peers. A number of studies in this review have assessed these three different types of attachment orientations separately and their results suggest that different outcomes emerge within adolescent populations. Finally it would be interesting to explore further the relationships between different attachment dimensions and the effect on positive emotions, as noted in only one study in this review (Gentzler et al., 2014).

In conclusion this literature review has found that limited research exists on the impact of attachment on emotional regulation in adolescence but that there appears to be a significant relationship between attachment insecurity and internalising problems with depressive symptoms being the most prominent within the literature. Associations have also been found between attachment and externalising problems and a range of other areas of clinical concern. Due to the wide ranging implications of insecure attachment in mental health and wellbeing in adolescence more research is needed to ensure that appropriate preventative measures and support can be established.





## Chapter 2:

### **The Universal Benefits of a Sense of School Belonging During Adolescence: An Exploration of the Relationships between Parental and Peer Attachment Security, Shame and Pride**

#### **Introduction**

This empirical paper examines the role of attachment to parents and peers and a sense of belonging at school on the self-conscious emotions of shame and pride in adolescence. A sense of belonging or belongingness is described and explored in terms of its potentially protective role in moderating a relationship between insecure parental and peer relationships and feelings of shame during the school day. Associations between attachment security, sense of school belonging and pride will also be explored. Shame is defined as a negative emotion associated with feeling inadequate, small, helpless, and of experiencing a humiliated feeling about the core 'self'. Shame is distinguishable from guilt, also a self-conscious emotion, which is defined as remorse over a specific action, and a negative feeling about that action. Guilt, unlike shame, is associated with reparative behaviours such as apologising (Lewis, 1971).

Attachment theory suggests that the development of primary attachment relationships occur early in an infant's life. It is viewed as having an evolutionary basis to promote the safety and survival of infants (Bowlby, 1979; 1980). Infants develop a template or "internal working model" of social relationships based on their experiences of their relationship with their primary caregiver (Bowlby, 1980). Responsive care from a primary attachment figure helps to ensure that the infant's emotional needs are met. The response an infant receives from their caregiver at times of distress is believed to be critical to how children learn to understand and regulate their emotional experiences. If an infant's distress is met with responsiveness and comfort, children learn strategies to regulate their emotions which involve seeking support from others and a secure attachment orientation is likely to develop (Ainsworth et al., 1978; van Ijzendoorn et al., 1995, as cited in Scott Brown & Wright, 2001). Infants with this experience of early care

are likely to develop a more secure sense of self. These infants also develop into children who expect positive reactions from others in relationships throughout their future development and into adulthood. Secure attachment orientations are adaptive, as the child perceives their primary caregivers as a 'secure base' from which they feel safe and supported to develop independence by exploring and learning about the world around them (Bowlby, 1980).

Bartholomew and Horowitz (1991) suggest that how individuals see themselves in relation to others, as a result of their early relationships, tends to lead to the development of four different attachment orientations in adulthood. 'Securely' attached adults are believed to have internalised a positive view of themselves and others. This means they can be comfortable with both separation and closeness in relationships. Individuals with a 'dismissive' attachment orientation are believed to have developed a positive view of the self but negative view of others. This perspective leads them to value increased independence and less intimacy in relationships. On the other hand, individuals with a 'preoccupied' attachment orientation are seen as having a negative view of themselves and a positive view of others. Such individuals can feel unworthy of love and belonging and are motivated to maintain closeness to others in relationships. They can feel distressed when the closeness they require is not achieved or is under threat. The fourth and final orientation is described as 'fearful' these individuals are believed to have internalised negative views of both themselves and others. This is thought to lead to feelings of low self-worth and avoidance of social relationships. This theory by Bartholomew and Horowitz (1991) on the impact of attachment on adult relationships and emotions has been well supported with empirical evidence. For instance, secure individuals report more relationship satisfaction and higher levels of trust, experiencing more positive than negative emotions, better emotional regulation and conflict resolution skills, than insecurely attached adults (Lopez, Gover, Leskela, Sauer, Schirmer & Wyssmann, 1997).

Attachment insecurity has also been associated with a wide range of emotional difficulties during adolescence, as outlined in chapter one. Additionally Keskin and Cam (2010) found that adolescents with insecure attachment styles had significantly higher levels of emotional symptoms, hyperactivity-inattention and lower levels of prosocial

behaviour. Insecure attachment styles were also associated with increased reporting of mental health symptoms. However, adolescents with secure attachment styles had higher levels of pro-social behaviour, lower levels of emotional symptoms, conduct problems, hyperactivity-inattention and peer relationship problems. This research indicates that attachment security can have a positive impact on peer relationships during adolescence. The relationship between attachment and peer relationships will be further explored in this paper.

Research has also begun to explore the development of attachment across the lifespan and how attachment orientations can change. Aikins, Howes, and Hamilton (2009) conducted a longitudinal study on the stability of attachment over time and the development of attachment insecurity during adolescence. In this study attachment to a mother was assessed at three time points, over a 15 year period. Attachment was assessed initially at 12 months, four years and finally at age 16. More secure attachment histories were associated with lower levels of both internalising and externalising symptoms, lower levels of loneliness during adolescence and better relationships between the mother and adolescent during this period. Attachment insecurity was associated with more frequent negative life events, negative teacher relationships during middle school and low friendship quality in early adolescence. The results of this study found that attachment orientations can change over time which indicates that exploring factors which may support more secure attachment orientations in adolescents is a valuable area of research. This study also notes the association between attachment insecurity and difficulties with peer and teacher relationships during early adolescence.

Both these two studies have illustrated that insecure attachment orientations appear to have a significant influence on a wide range of emotional and social outcomes during adolescence. However, relatively little is known about attachment orientations and specific individual emotions such as shame and guilt (Muris et al., 2014). Even less research has explored the role of attachment security and its relationship with experiencing positive emotions (Gentzler et al., 2014). Compared to negative emotions, positive emotions gain little research attention (Fredrickson, 2004). Seligman and Csikszentmihalyi (2000) suggest this is due to the traditional focus of psychology on



problems and remedies for those problems. Indeed, “self-conscious emotions (e.g., shame, pride) are fundamentally important to a wide range of psychological processes, yet they have received relatively little attention” (Tracy & Robins, 2004, p103). In order to address this gap in the literature around the potential associations between attachment and self-conscious emotions, both the emotions of shame and pride will be included in the study. By neglecting to research more positive emotions (such as pride) alongside emotions with more negative emotions (such as shame) we risk missing opportunities to more holistically advance our knowledge of human emotions. By conducting research which explores both negative and positive emotions, psychology is able to better understand and contribute to promoting psychological well-being and resilience as well as preventing psychological distress. Additionally whilst it is widely acknowledged that parental attachment relationships remain central across the lifespan, important changes occur in adolescence, when peers may become significant as attachment figures (Bowlby, 1969; Rowe & Carnelley, 2005).

Therefore in order to address this gap in the literature the present study aims to examine the relationships between parental and peer attachment, and feelings of both shame and pride during adolescence. As there is currently only a small amount of research exploring the relationship between attachment and shame across the lifespan and only one study that has explored this relationship in child and adolescent populations (Muris et al., 2014), research on adult populations are included in this paper. The inclusion of studies within adult populations is informative as they can be used to highlight areas of consistency and inconsistency in the relationship between the constructs of attachment and shame within different aged populations. Where research highlights areas of inconsistency between adult and child populations, this leads to the development of areas of interest for future research to investigate and attempt to resolve.

### **Shame, Pride and Belonging**

Shame and pride are self-conscious emotions, which mean that they encompass an individual’s own reactions to their characteristics or conduct and typically also include a perception about how their actions would be viewed by others (Muris & Meesters, 2014).

Therefore, an individual experiences pride when they perceive an action specifically related to them as positive and they feel that others will also view the action as positive. An individual is likely to experience shame when they experience a negative situation and associated emotions and recognise that the cause of the situation is their own negative attributes. Shame, pride and other self-conscious emotions such as guilt enable us to monitor our relationships with others and promote the development of socially adaptive behaviours (Tangney & Tracey, 2012). Self-conscious emotions have a self-evaluative role and are associated with feelings of worthiness (Turner & Schallert, 2001). Experiencing these emotions therefore may enhance the ability of individuals to be accepted within social groups and as a consequence experience a sense of belonging. This evaluative element of self-conscious emotions has a valuable role in monitoring levels of acceptance within social relationships. This is particularly important because humans are inherently social creatures with a strong need to belong, make connections with others and feel accepted (Baumeister & Leary, 1995).

Shame is generally characterised by feeling inferior and worthless, leading to a desire to remove oneself from the situation which has elicited the feelings of shame (Tracy & Robins, 2004). Shame can however, play an adaptive role in regulating social behaviour, often defensiveness or avoidance, which may serve as a system that communicates submission (Gilbert, 1997). Nevertheless, dysregulation of shame within the adult population has been found to be consistently positively correlated with an extensive range of psychological disturbances including anger and aggression, post-traumatic stress disorder, anxiety disorder, eating disorders, personality pathology, substance misuse, suicidal and self-injurious behaviour (Muris et al., 2014). Research indicates that shame within child and adolescent populations has a similar relationship with the type of psychological disturbances, outlined above, as it does in adult populations. Muris and Meetsters (2014) found that in 22 empirical studies within child and adolescent populations, shame was positively correlated with both internalising and externalising problems. This paper was based on a comprehensive review of the empirical literature in this area of research. The statistical basis for the conclusions drawn by Muris and Meetsters (2014) is a meta-analysis of empirical research with correlational design.

The correlational nature of this research does prevent the implication of any causation between variables. However when many correlational studies have similar results within an area of research, this indicates that further longitudinal research would prove illuminating.

Shame appears to play a significant role in childhood maladjustment (Elliott, 2013; Golding & Hughes, 2012; Muris & Meester, 2014) which would make this relationship of interest to Educational Psychologists (EPs). The current knowledge base for the association between childhood maladjustment and shame is however limited by frequently being based on correlational research that is cross-sectional in design or based on psychological theory rather than research. However the current research findings indicate that this is an area which warrants further investigation. The promotion of psychological well-being and helping prevent psychological distress in children and young people is important as adversities experienced during childhood are highly correlated with poor mental health outcome during adulthood (Green et al, 2010).

Educational Psychology is a profession primarily concerned with the promotion of wellbeing in children and young people through the application of psychological knowledge (Fallon, Woods & Rooney, 2010). However, there is a paucity of literature examining the way in which children and adolescents experience shame. This makes this study well placed to expand and contribute to the knowledge base of Educational Psychology.

Bowlby (1980) theorised about the relationship between attachment and shame. He proposed that negative emotions, including shame, are products of attachment relationships specifically when connected with actual or threat of loss. Therefore individuals with insecure attachment styles may perceive themselves as less worthy within relationships and be sensitised to emotions associated with loss and shame.

Lewis (1971) identified the fundamental role of the self in shame and the experience of the whole self, rather than a specific action, being experienced as flawed and intolerable. By contrast guilt involves negative feelings and regret about a specific action. Lewis (1971) additionally theorised that the experience of shame is significant within attachment relationships and described shame as involving a failure of a primary

attachment bond resulting in a feeling of non-acceptance. These theories appear to suggest that those with insecure attachments, particularly those with negative views of themselves (preoccupied and fearful) would be more vulnerable to feeling shame. This would indicate that further research into the relationship between attachment and shame could prove illuminating.

### **Adult Research Exploring the Relationship between Attachment and Shame**

The first empirical research into the relationship between attachment and shame found that higher shame levels were reported by insecurely attached participants during mid-life than those with secure attachments (Wells, 1996, as cited in Gross & Hansen, 2000). This may be due to those with insecure attachment styles having a less secure sense of self. Therefore when they experience an event as shameful this may be perceived as highly threatening and induce concern about rejection.

Lopez et al. (1997) further explored the relationship between adult attachment style, shame and guilt-proneness and relationship problem-solving attitudes and behaviours. In their study, participants were 142 undergraduates, with a mean age of 21 years old, who were mostly (93%) in some form of relationship at the time. The participants completed a range of categorical and continuous self-report attachment measures and the (TOSCA; Tangney et al., 1989) a vignette based assessment of shame and guilt proneness. The results of this study indicated that, after controlling for participants' relationship status, attachment styles were significantly related to shame-proneness and collaborative problem-solving, but not guilt-proneness. Participants who were insecurely attached with a 'preoccupied' or 'fearful' attachment style experienced higher levels of shame than 'secure' or 'dismissing' individuals. This finding supports the view of the self being central to the experience of shame. It also supports the hypothesis that those with negative self-perceptions are more vulnerable to feelings of shame. As in the majority of research within this area data is based on self-reported information provided by one member of a couple within a relationship. In addition to this the vignette based measure of shame and guilt requires participants to imagine how they might feel in a hypothetical shame or guilt inducing situation. This data may therefore lack ecological

validity for the participants or they may not be skilled at accurately predicting their emotional reactions to the given situations. Again like many of the studies in this area of research the cross-sectional and correlational design does not allow for causation to be implied.

More recent research has focused solely on the relationship between attachment and shame, without guilt. Gross and Hanson (2000) investigated the relationship between attachment style and shame. As attachment theory would predict secure attachment was negatively correlated with shame, however fearful and preoccupied attachment styles were positively associated with shame. Contrary to what had been hypothesised, a dismissive attachment style was not related to shame. Again this supports the theory that those with negative self-perceptions are the most likely to experience feelings of shame.

Wei et al. (2005) also researched the relationship between attachment and shame within a sample of 299 undergraduate students. They examined basic psychological needs satisfaction, defined as the need for autonomy, competence and relatedness, as a mediator between adult attachment (either avoidance or anxiety) and distress defined as shame, depression and loneliness. The authors used structural equation modelling to fit a regression model to the data. Results indicated that basic psychological needs satisfaction partially mediated the relationship between attachment anxiety and shame, depression, and loneliness. Partial mediation means that the mediating variable (basic psychological needs) accounts for some, but not all, of the relationship between the independent variable (attachment anxiety or avoidance) and dependent variable (shame, depression, loneliness). Partial mediation suggests that there is not only a significant relationship between the mediator (basic psychological needs) and the dependent variable (shame, depression, loneliness), but also some direct relationship between the independent variable (attachment anxiety or avoidance) and dependent variable (shame, depression, loneliness). Wei et al. (2005) also found that basic psychological needs satisfaction fully mediated the relationship between attachment avoidance and shame, depression, and loneliness. Full mediation occurs when the inclusion of the mediation variable (basic psychological needs satisfaction) means that the relationship between the independent variable (attachment anxiety or avoidance) and dependent variable (shame, depression, loneliness) no longer significant. However, as with other research, it is also of a cross-

sectional, correlational design and therefore causal relationships cannot be established. An additional limitation of this study is that it relied fully on self-report data which lacks objectivity and may be prone to bias.

The results of these three studies involving the relationship between attachment and shame within adult populations indicate that attachment insecurity is positively associated with the shame-proneness of adults and that various factors such as relatedness have an effect on this relationship. In self-determination theory, a feeling of a sense of belongingness or connectedness to an individual or groups is defined as relatedness (Deci & Ryan, 2000). The results of the research by Wei et al. (2005) found that the effects of relatedness appeared to have a protective effect on adults with insecure attachments from the experience of shame, depression and loneliness. It would therefore be interesting to extend this study to examine whether an adolescent's sense of belonging in school could also protect those with insecure attachments from feelings of shame.

### **Child and Adolescent Research Exploring the Relationship between Attachment and Shame**

Muris et al. (2014) have carried out the first two cross sectional studies using a child and adolescent population into the relationship between attachment, shame, and guilt. Their first study used a non-clinical sample of children aged between 9-13 years old (N = 688) who completed the Attachment Questionnaire for Children (ACQ; Muris et al, 2000) and a vignette-based measure for assessing shame and guilt: the Test of Self-Conscious Affect (TOSCA; Tangney, Wagner & Gramzow, 1989). Results revealed that children who classified themselves as insecurely attached displayed higher levels of shame and maladaptive forms of guilt in comparison with securely attached children. The second study used a sample of adolescents aged 12-18 years (N = 135) who had been referred to a clinical setting due to externalising problems and a non-clinical control group sample (N= 33). Adolescents completed the Inventory of Parental and Peer Attachment (IPPA; Armsden & Greenberg, 1987) and the TOSCA. Contrary to what may have been expected, the results found that clinical adolescents generally experienced less shame and guilt than

the non-clinical group. This may suggest that other variables affect the relationship between attachment and shame within a clinical sample, such as repression or dissociation of shame. In the clinical sample, communication to parents and peers was related to higher levels of shame and guilt, and alienation was associated with higher levels of maladaptive forms of shame and guilt. These results support the theory that attachment insecurity is related to individuals' predisposition to experience shame and guilt. However there appears to be a gap in the literature related to the relationship between attachment security and shame-proneness within a non-clinical sample of adolescents. The finding that, within the clinical sample, feelings of alienation were associated with increased levels of maladaptive forms of shame and guilt raises the additional question about whether a sense of belonging within school may moderate feelings of shame within adolescent populations. Feeling alienation can be considered to be on the opposite end of the emotional spectrum to feeling a sense of belonging.

### **Belongingness, Attachment and Wellbeing**

The need for individuals to feel that they belong in the world and are accepted has long been recognised in psychological research (Frehill & Dunsmuir, 2015). The widely cited work of Maslow (1954) and his theory of a hierarchy of needs believed to motivate human behaviour, places 'belonging' as the third most important human need. In this model, individuals are motivated to satisfy lower-level needs before working to satisfy higher-level needs. The need to 'belong' is only preceded by 'physiological' and 'safety' needs being met. In Self-Determination Theory (Deci, Vallerland, Pelletier & Ryan, 1991) the need for relatedness to others, alongside competence and autonomy is considered essential for well-being.

Empirical research has begun to provide evidence to support these theories, with belongingness being associated with a wide range of positive effects on both the physical and mental wellbeing of individuals (Baumiester & Leary, 1995). Baumiester and Leary "suggest that belongingness can be almost as compelling a need as food and that human culture is significantly conditioned by the pressure to provide belongingness" (1995, p.498). Having a sense of belonging has been found to be a significant protective factor in

the lives of children experiencing many social disadvantages and adversity (Werner & Smith, 2001).

The security of attachment relationships with parents has the potential to affect adolescents' feelings of belongingness in a range of different ways. Firstly, the initial feeling of belonging that a secure attachment relationship provides an infant with at the start of their development may lay the foundation for feeling that they belong, within future social relationships and in groups. Secondly, shame is an intensely painful emotion which has an overwhelming effect on the sense of self of an individual and has a damaging influence on their ability to be empathetic. This effect of shame on empathy can produce a range of difficulties within social relationships (Leith & Baumeister, 1998). The effect of shame on empathy may result in difficulties in peer relationships and therefore thwarted feelings of belongingness. Finally, research has found that children with insecure attachments are at increased risk of having poorer peer relationships, than those with secure attachments (Kerns, Klepac & Cole, 1996; Aikins et al, 2009; Keskin & Cam, 2010). In turn poorer peer relationships are likely to reduce the sense of belonging these children feel, as they may lack a secure peer group.

In a meta-analysis, Schneider, Akinson and Tardif (2001) found an association between attachment to a mother and friendship quality in childhood and early adolescence. Poorer friendship quality during adolescence may reduce feelings of belongingness, which may in turn affect wellbeing. Cheng & Furnham (2002) posit that having positive relationships with others has a significant protective influence on the development of emotional wellbeing of adolescence. Importantly student belongingness has been found to reliably predict achievement, engagement, and perseverance (Freeman, Anderman & Jensen, 2007; Goodenow, 1993; Hurtado & Carter, 1997; Patrick, Ryan & Kaplan, 2007, as cited in Spitzer & Aronson, 2015).

When individuals have a good sense of belonging they may be less prone to experience shame. Shame has been defined as "the intensely painful feeling or experience of believing that we are flawed and therefore unworthy of love and belonging" (Brown, 2012, p.69). Indeed, neuropsychological research has suggested that



social rejection activates similar neural pathways to those activated when individuals experience physical pain (Eisenberger & Lieberman, 2004; MacDonald & Leary, 2005; Kross, Berman, Mischel, Smith & Wagner, 2011). Therefore, individuals who have more insecure attachment styles, who may more easily feel “flawed” and at risk of rejection are likely to be more vulnerable to the painful experience of shame. Research within adult populations has found that individuals with insecure attachment orientations are particularly vulnerable to feelings of shame (Lopez et al. 1997; Gross & Hansen, 2000; Wei et al., 2005). However, little research has examined whether those with more insecure attachments are more vulnerable to feeling rejected.

Within an early adolescent population Natarajan, Somasundaram and Sundaram (2011) examined how the emotions involved with being sensitive to rejection are associated with security of attachment to both mothers and fathers. Rejection sensitivity was described as “the cognitive-affective processing disposition to defensively expect, perceive and over-react to perceived rejection by others (Natarajan, Somasundaram & Sundaram, 2011, p 378). Results found that attachment security, as measured by the IPPA, towards mother and fathers were significantly correlated and that attachment security towards mothers was higher than towards fathers. Attachment insecurity with mothers was found to significantly predict rejection sensitivity in early adolescence. Only the attachment dimensions of trust in fathers and alienation from fathers influenced adolescent rejection sensitivity. This study supports the theoretical link that those with more insecure attachments are more sensitive to feeling rejected and therefore may be less secure in their feelings of belongingness and acceptance.

It has been suggested that early attachment experiences which result in insecure attachment orientations may engender feelings of shame as well as a strong need for feeling approval and acceptance (Banai, Mikulincer & Shaver, 2005; Hewitt, Flett & Mikail, 2014; Horney, 1950, as cited in Chen, Hewitt and Flett, 2015). Shame has been found to correlate significantly with the need to belong and insecure attachment orientations (Chen et al, 2015). It may be that insecurely attached individuals have a strong desire to feel a sense of belonging, potentially as a way of compensating for unmet early attachment needs for security and acceptance. In addition to this if, as recent research has indicated, insecurely attached individuals are more vulnerable to feeling shame, it

could be informative to explore whether increased feelings of belongingness could protect such individuals from feelings of shame.

In conclusion self-conscious emotions have an adaptive role as they help to facilitate social interaction which is important for maintaining individual's inclusion in social groups and as a consequence providing them with a sense of belonging to that group. However the dysregulation of shame is maladaptive and associated with psychopathology (Muris & Meesters, 2014).

### **Sense of School Belonging and Peer Relationships**

Early adolescence has been described as a developmental period when children become increasingly concerned about maintaining worth and approval, and self-protective motives can strongly influence behaviour (Harter, 2006; Rosenberg, 1986 as cited in Thomaes, Bushman, Stegge & Olthof, 2008). In addition to this, Roeser, Eccles & Sameroff (2000) described early adolescence as a highly important developmental period. In no other time period, apart from infancy, is the interaction between individual and collective influences more prominent. Therefore adolescents may be particularly sensitive to emotions related to their sense of self within their community. A review by McLaughlin and Clarke (2010) suggests that there is a relationship between adolescents' social connections to school, their operation within their social worlds, and their academic outcomes. Booth-LaForce et al. (2005) propose that friendship can mediate a lack of family support and have a positive effect on the psychosocial well-being of children in early adolescence. The ability to form peer relationships, especially in school, appears to have a direct effect on how adolescents respond to crises. This indicates that, for adolescents with insecure attachment relationships with their parents, peer attachments at school can be a protective factor.

Peer relationships are one factor which can affect children and young people's feelings about being connected, and of belonging in their school environment. A sense of school belonging has been defined as *"...students' sense of being accepted, valued, included and encouraged by others (teachers and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class"*

(Goodenow, 1993, p.25). Research on the impact of a sense of school belonging has indicated that it is positively associated with academic effort and self-efficacy, positive self-affect, educational expectations and the amount of time spent on homework (Sánchez, Colón & Esparza, 2005). McMahon, Wernsman and Rose (2009) argue that a sense of school belonging is one of the most significant factors affecting engagement, motivation and achievement.

An absence of a sense of school belonging has been associated with early school leaving (Altenbaugh, Engel & Martin, 1995). More recent research found that lacking a sense of school belonging was associated with absenteeism in secondary school students (Frehill & Dunsmuir, 2015). It has also been associated with academic problems, gang membership, violence, delinquency and crime (Catalano, Haggerty, Oesterle, Fleming & Hawkins, 2004). This research indicates that where students lack a sense of belonging in school they are at increased risk of being motivated to have their belonging needs met in less socially desirable ways, such as by becoming a gang member. It is most concerning that research has also associated lacking a sense of school belonging with school shootings in America. Wike and Fraser (2009) found that *“In nearly all school shootings, perpetrators appear to have felt little attachment to their schools, teachers, or peers”* (p. 165). School conditions also appear correlated with shootings, with these seeming to be more likely in schools with a high amount of social stratification, low bonding and attachment between teachers and students, and few opportunities for student involvement (Wike & Fraser, 2009). Retrospective case analyses of school shootings have found troubled peer relationships and humiliation as antecedents of such events (Verlinden, Hersen & Thomas, 2000). As a research methodology retrospective case analysis does have limitations. For example we are unaware of how many students also experience peer rejection and humiliation and do not go on to be involved in any form of school violence. However, this research on the link between a sense of school belonging, and positive outcomes for students, and the lack of a sense of belonging being identified as a significant social risk factor, suggests that it is a construct which warrants further research.

It is of relevance to the current study. The paper by Verlinden, Hersen and Thomas (2000) referenced the role of humiliation in school based violence, as humiliation is a

similar self-conscious emotion to shame. McMillan (1996) posited that effective communities protect their members from shame in social exchanges. It would therefore be of interest to consider if adolescents who perceive themselves as having a strong sense of belonging in school are protected from feelings of shame.

### **Research Questions**

This study set out to explore the following research questions:

- Do adolescents with insecure parental attachments experience more shame on a daily basis than their more securely attached peers?
- Do adolescents with insecure peer attachments experience more shame on a daily basis than their more securely attached peers?
- Does having a strong sense of belonging in school reduce daily experiences of shame in adolescents?
- Does having a strong sense of belonging in school increase daily experiences of pride in adolescents?

### **Hypotheses**

The aim of the current study is to test the following hypothesis:

- Adolescents with more insecure parental and peer attachments experience more shame and less pride in comparison to their more securely attached peers.
- Having an increased sense of school belonging in school reduces feelings of shame in adolescents.
- Having an increased sense of school belonging in school increases feelings of pride in adolescents.

## Method

### Participants

Participants were recruited from two secondary schools in the South of England using opportunistic sampling. Letters were sent to the school to provide the Head Teachers with written information about the research and a consent form for them to sign up to the study if they were willing to do so (Appendix C, D, E). Information sheets that would be given to parents and students about the questionnaires and the daily online shame and pride diary were given to the Head Teachers to read through before deciding whether to go ahead with the study (Appendix F, G, H). After written consent was received from the Head Teacher, the opportunity to take part in the study was offered to all year nine students.

Participants were 121 students aged between 13 and 16 ( $M=14.3$ ,  $SD=0.94$ , 65 females, 56 males). The nationality of the students was mainly British with 84.3 % of the sample identifying as belonging to this group. Of the other nationalities included in the sample 3.3% identified as Brazilian, 2.5% Portuguese, and 1.7% Polish. The remaining 8.2% of the sample consisted of individual participants who self-identified with a range of other different nationalities.

Two secondary schools located in the South of England took part in the study. Initially all year 9 students in both schools were invited to take part in the study during whole year group assemblies, approximately 600 students. In one school this involved the researcher discussing the study during a year nine assembly; in another school this was done by a member of school staff. At the end of the assemblies, students who were interested in being participants were given information sheets about the study for themselves and their parents, and an opt-in parental consent form to return to the school (Appendix F, G, I). This recruitment strategy yielded 46 participants from one school and 27 from the other. In order to recruit a larger sample, students from years 10 and 11 were also approached, and 36 more opt-in parental consent forms were returned. Appendix J shows a flow diagram of attrition through the different stages of the research.

## **Design**

This study used a correlational design to explore the relationships between attachment to parents and peers, sense of belonging in school and the self-conscious emotions of shame and pride. A set of measures for each of these constructs was assessed concurrently and a daily diary measure (Appendix H) of perceived shame and pride was emailed to participants for the 10 school days following the administration of the initial pack of measures (Appendix K).

## **Measures**

### **Sense of school belonging**

Sense of school belonging was assessed using The Psychological Sense of School Membership Scale (PSSM) a measure developed by Goodenow (1993). Sense of school belonging refers to students' feelings of being respected, accepted, included and supported in their school (Frederickson & Dunsmuir, 2009). It was developed for students aged 10-14 and consists of 18 items on students perceptions of personal acceptance, inclusion, respect and encouragement with participation. Student's perceptions of the responses they receive from school staff and peers are also included. Responses to each item are on a five-point scale from 'not at all true' to 'completely true'. Item numbers 3, 6, 9, 12 and 16 are negatively phrased and therefore reverse scored. Goodenow (1993) reported good internal consistency and reliable values of .77 to .88 for students aged between 9-14 years old on the PSSM. Moderate test-retest reliability of .78 over a four week period with a sample of 13 year olds was found (Hagborg, 1994). In the current sample Cronbachs alpha was 0.826 which indicates a high level of internal consistency for this scale.

### **Attachment to Parents and Peers**

Attachment was assessed using a simplified version of the Inventory of Parental and Peer Attachment (IPPA) originally developed by Armsden and Greenberg (1987) which assesses attachment in older adolescent and young adults. This assesses attachment to

parents as well as attachment towards peers. Three scale scores can be obtained for trust, communication and alienation. The trust scale is representative of mutual understanding and respect. The communication scale measures amount and quality of spoken language and the alienation scale is indicative of anger and interpersonal isolation. Gullone and Robinson (2005) revised the IPPA to form the IPPA- R. In the IPPA-R the parent scale consists of 28 items and the peer scale 25 items. Responses for each item are on a three point scale from 'never true' to 'always true'. Both parental and peer attachment scales contain the same three subscales as the IPPA, and can be examined together to provide an overall measure of attachment security. The summary score of parent or peer attachment is calculated by evaluating the level of trust and communication relative to the alienation sub-scale. All six items that form the alienation sub-scale are reverse scored, which means that higher scores reflect more secure attachment. High construct validity has been reported (Gullone & Robinson, 2005). Additionally, Armsden and Greenberg (1987) established excellent test– retest reliability for parental attachment (.93) and peer attachment (.86) after three weeks. In this sample Cronbachs alpha was 0.89 which indicates a high level of internal consistency for this scale.

### **Shame and Pride**

The participants' self-reported feelings of shame and pride were measured over a period of 10 school days using an experience sampling approach. A daily diary type questionnaire was emailed to each participant for 10 school days following completion of the initial measures pack. Participants were provided with a simple definition of shame and pride, and asked to report if they had experienced either shame or pride on that day and the intensity of their feelings of shame and pride on a one to five scale. In order to discourage participants from stating that they had not experienced either shame or pride, in order to complete the diary measure more quickly, dummy questions about emotions were included when participants reported no shame or pride. (Appendix H).

### **Ethical Considerations**

Due to the sensitive nature of this study a number of ethical issues had to be considered before the research began. To ensure that parents were fully aware of what

their children were being invited to take part in, opt-in consent was required (Appendix I). In addition to this, when the students took part in the study, it was made clear to them that they had the right to withdraw from the study at any point, and that there would be no negative consequences as a result of choosing to discontinue taking part. This information was verbally explained before students completed the measures packs, and in written form as part of the student information sheet, and as part of the debriefing information (Appendix L). Debriefing information and the last page of the online diary measure contained information about counselling support that could be accessed in the event of any distress (Appendix H). Requesting participants reflect on their experience of pride alongside shame was intended to minimise the potential for feelings of low mood as both positive and negative events could be reflected upon.

Participants who took part in the research and completed all ten days of the diary data would receive a £20 Amazon voucher and were entered into a prize draw with the opportunity to win one of three £50 vouchers. The decision to pay participants was taken based on understanding the significant amount of time they would be giving to complete the study. The payment was therefore intended to compensate the participants for the time taken to complete the daily questionnaires over a ten day period. Payment of participants requires ethical consideration, with one of the greatest potential risks being the possibility that a participant may experience psychological distress, but continue with the research because they are highly motivated by the financial reward. In order to safeguard participants against this, it was made clear, both verbally and as part of written debriefing information, at the start of the research that participants should feel free to withdraw from the study at any time. Participants were encouraged to contact any members of the research team if they experienced any difficulties or issues related to taking part in the research. If any participants made contact indicating that they were experiencing any difficulties completing the research, they were still given the £20 voucher for taking part. The few participants who made contact only raised issues related to technical difficulties in completing the online questionnaires.



## Procedure

After the study received both research governance approval and ethical approval from the University of Southampton's ethical committee (Appendix M), schools were approached to take part in the study. Two researchers contacted schools directly to ask for their participation in the study. Data for this study was collected alongside another researcher also studying shame and pride within a school context. Where staff within schools expressed an interest in taking part in the study, letters and sheets containing key information for schools, parents and students were sent to the head teachers for consideration. Two schools agreed to take part in the research. After written consent to participate was obtained from Head Teachers, students were invited to take part in the study. Letters and study information sheets were sent to parents of students who had expressed an interest in taking part, asking for opt-in consent. Parental opt-in consent was deemed most appropriate due to the sensitive nature of some of the information being obtained as part of the study, most specifically around parental attachment and the potential risk for students to experience distress following prompting to reflect on their own feelings of shame.

Once parental consent was obtained, the researchers collected the students' data in schools for Part one of the research. Prior to commencing the measures pack, the researchers read the participant information sheet to all students and requested written assent to participate in the study (Appendix M). The measures pack was completed during school time (Appendix K). In both schools the researchers were available for the full duration of the period the students spent completing the measures pack. This enabled the researchers to respond to any questions from the students, and to any other issues which may have arisen. A member of school staff was also present at each school during this part of the data collection. In one school participants completed their measures pack as a group of 45 year nine students. In the second school data was collected from separate groups of approximately 25 year nine, year ten and year eleven students. The measures pack took approximately 30-45 minutes to complete. Once the students had completed the tasks, they were given a debrief sheet (Appendix L) and the opportunity to ask the researchers any questions about the task that they had just completed. The measures packs were all labelled with individual participant identification numbers to

enable data to be analysed anonymously. Participants provided some demographic data including their nationality and date of birth on the front of their measures pack. They were also asked to provide an email address so that the following part of the study, which involved completing a daily diary measure of shame and pride, could be sent to them.

Part two of the research involved each participant, who had completed the measures pack and provided the researchers with a working email address, being emailed a link to Lime Survey, an online survey platform, for the following 10 school days. Participants followed the link to a questionnaire which asked them about their own perceptions about feelings of shame and pride during the school day. The questions about pride were included as a mood lifting activity as well as a way of collecting data on this emotion. During all online data collection, participants were reminded that they could contact the researchers with any questions, and that they should seek support from the school counsellor, if they felt that their participation in the research was affecting their emotional well-being.

In order to compensate participants for engaging with the study throughout the 10 day time period they were informed that those who completed at least eight out of the 10 days of the diary would receive a £20 Amazon voucher. In addition to this those who completed all 10 days would be entered into a prize draw to have the chance to win one of three £50 Amazon vouchers.

All data were then fully anonymised and analysed using both SPSS 21 (Statistical Package for the Social Sciences) and SAS (Statistical Analysis System).

## **Results**

121 participants completed the initial pack of measures. Due to participant attrition, 103 participants went on to complete the daily shame and pride questionnaires. If all of these participants had completed all ten days, this would have provided shame and pride data for 1030 days. However some participants did not complete all of the days. In total, shame data was obtained for 803 days and pride data was obtained for 802 days. Overall participants reported experiencing shame on 144 out of 803 days (17.9%). For pride,

participants reported experiencing this emotion on 302 out of 802 days (38%).

Participants either reported no shame or pride or rated their level of shame or pride on a 1-5 scale. Average shame scores were calculated for each participant by adding together their total shame rating score and dividing it by the number of days that participants completed. Average pride scores were calculated in the same way.

The descriptive statistics relating to the students' self-reported scores of parental and peer attachment, school belonging and average shame and pride are shown in Table 1.

Table 1

<b>Measure</b>	<b>Variable</b>	<b><i>M</i></b>	<b><i>SD</i></b>
IPPA-R (Parent Scale)	Parental Attachment	2.58	.41
IPPA-R (Peer Scale)	Peer Attachment	2.42	.38
PSSM	School Belonging	3.87	.61
Shame	Amount of Shame	0.47	0.56
Pride	Amount of Pride	1.24	1.06

### Correlations

Pearson's correlation coefficients were computed to assess the inter-correlations between parental and peer attachment, sense of school belonging, shame and pride.

	Measure	1	2	3	4	5
1	Pride	1	.023	.256**	.185	.166
2	Shame		1	-.311**	-.219	-.274**
3	Parent Attachment			1	.281**	.476***
4	Peer Attachment				1	.586***
5	School Belonging					1

\* $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

Moderate positive correlations were found between, parental attachment and school belongingness  $r(119) = .476, p < .000$ , and peer attachment and school belongingness  $r(119) = .586, p < .000$ . Weak positive correlations were found between parental and peer attachment  $r(119) = .281, p < .001$ , and between parental attachment and pride  $r(100) = .256, p < .009$ . Weak negative correlations were also found between parental attachment and shame  $r(100) = -.311, p < .001$ , and school belongingness and shame  $r(100) = -.274, p < .005$ .

### Multiple Regression Analysis

Prior to conducting a hierarchical multiple regression, relevant assumptions of this statistical analysis were tested. There was no evidence of violations of the assumptions of normal distribution, homoscedasticity and multicollinearity. A sample size of 121 was deemed adequate, given three independent variables to be included in the analysis (parental/peer attachment and sense of school belonging). Tabachnick and Fidell (2001) report there needs to be a minimum of ten participants per independent variable to run a regression.

The assumption of singularity of independent variables (parental/peer attachment and sense of school belonging) was met, as they were not a combination of other independent variables. The examination of correlations revealed that no independent variables were highly correlated.

### Shame

I entered average daily shame ratings as dependent variables into a hierarchical linear regression. On step 1, I entered the main effects of parental attachment and school belonging. On Step 2, I added the interaction between parental attachment and school belonging. I present the results of these analyses in Table 2. Results revealed that adolescents with insecure attachment to parents experienced more shame than those with secure parental attachment. I conducted parallel analyses for attachment to peers (Table 2). These analyses indicated that attachment to peers was not significantly related

to shame, which indicates that there is a unique association between parental (compared to peer) attachment and shame in adolescence.

As predicted, a sense of school belonging moderated the association between parental attachment and shame (Attachment x Belonging interaction, Table 2). I depicted the interaction pattern in Figure 2. Specifically, simple slope analyses revealed that, when school belonging was low (-1 SD), adolescents with insecure (compared to secure) parental attachment experienced more shame,  $B = -0.41$ ,  $SE = 0.16$ ,  $t(98) = -2.66$ ,  $p = .009$ . When school belonging was high (+1 SD), however, the relation between parental attachment and shame was not significant,  $B = 0.10$ ,  $SE = 0.25$ ,  $t(98) = 0.41$ ,  $p = .679$ . Looked at in a different way, higher levels of school belonging predicted reduced shame among adolescents with insecure parental attachment (-1 SD),  $B = -0.33$ ,  $SE = 0.13$ ,  $t(98) = -2.52$ ,  $p = .013$ . Among adolescents with secure parental attachment (+1 SD), the association between school belonging and shame was not significant,  $B = 0.03$ ,  $SE = 0.14$ ,  $t(98) = 0.21$ ,  $p = .831$ .

### **Pride**

I conducted the same analysis as for shame, but with pride. I found a different pattern for pride (Table 3). Adolescents with secure parental attachment experienced more pride. Attachment to peers was not significantly related to pride, indicating a unique link between parental (compared to peer) attachment and pride in adolescents.

Furthermore, a sense of school belonging moderated the positive association between secure (compared to insecure) parental attachment and pride (Attachment x Belonging interaction, Table 3). I depicted the interaction pattern in Figure 3. To be precise, when school belonging was low, the association between parental attachment and pride was not significant,  $B = 0.41$ ,  $SE = 0.28$ ,  $t(98) = 1.44$ ,  $p = .154$ . When school belonging was high, however, adolescents with secure (compared to insecure) parental attachment experienced more pride,  $B = 1.53$ ,  $SE = 0.46$ ,  $t(98) = 3.35$ ,  $p = .001$ . Looked at in a different way, higher levels of school belonging predicted increased pride among adolescents with secure parental attachment,  $B = 0.51$ ,  $SE = 0.25$ ,  $t(98) = 2.04$ ,  $p = .044$ . Among adolescents

with insecure parental attachment, the link between school belonging and pride was not significant,  $B = -0.27$ ,  $SE = 0.24$ ,  $t(98) = -1.14$ ,  $p = .258$ .

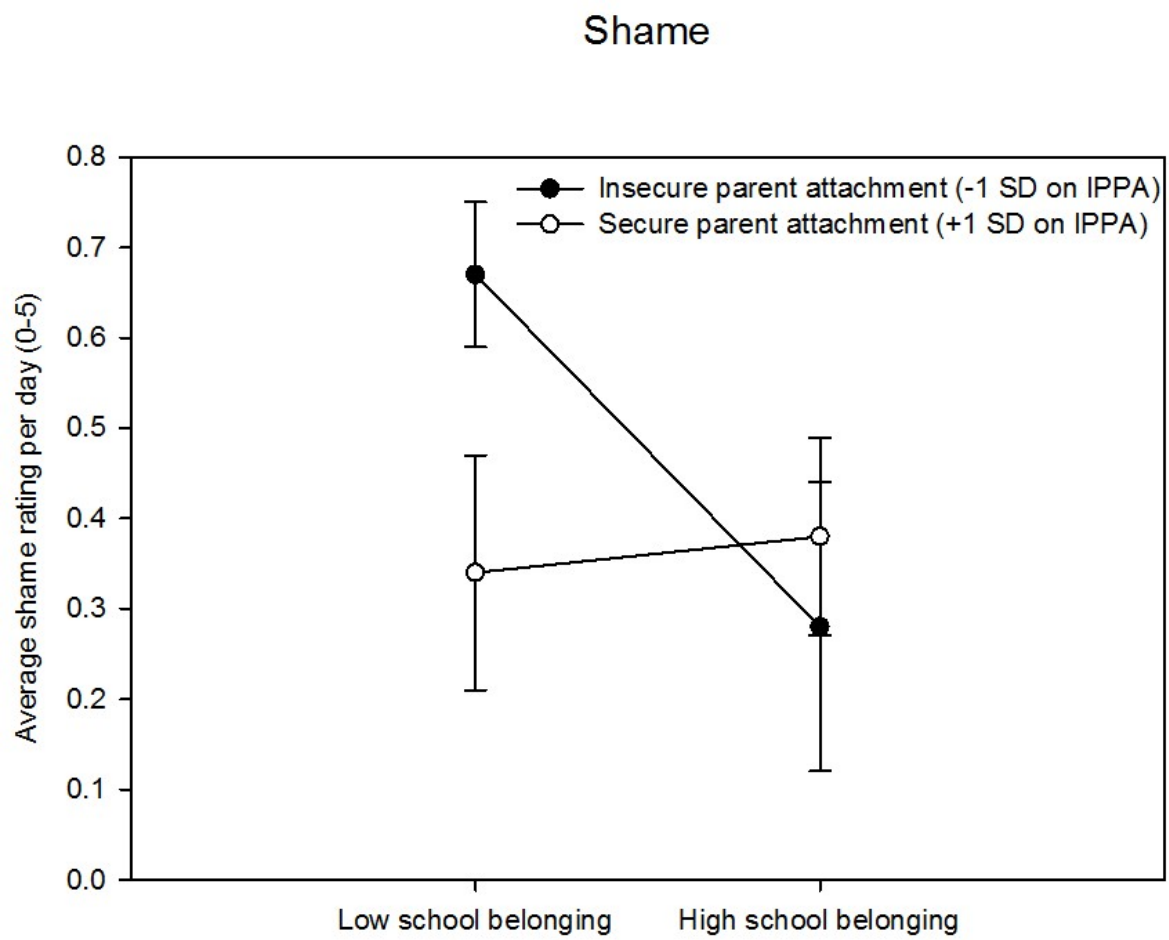


Figure 2. Average daily shame rating as a function on high compared to low school belonging for those with secure and insecure parental attachments. Error bars represent standard errors.



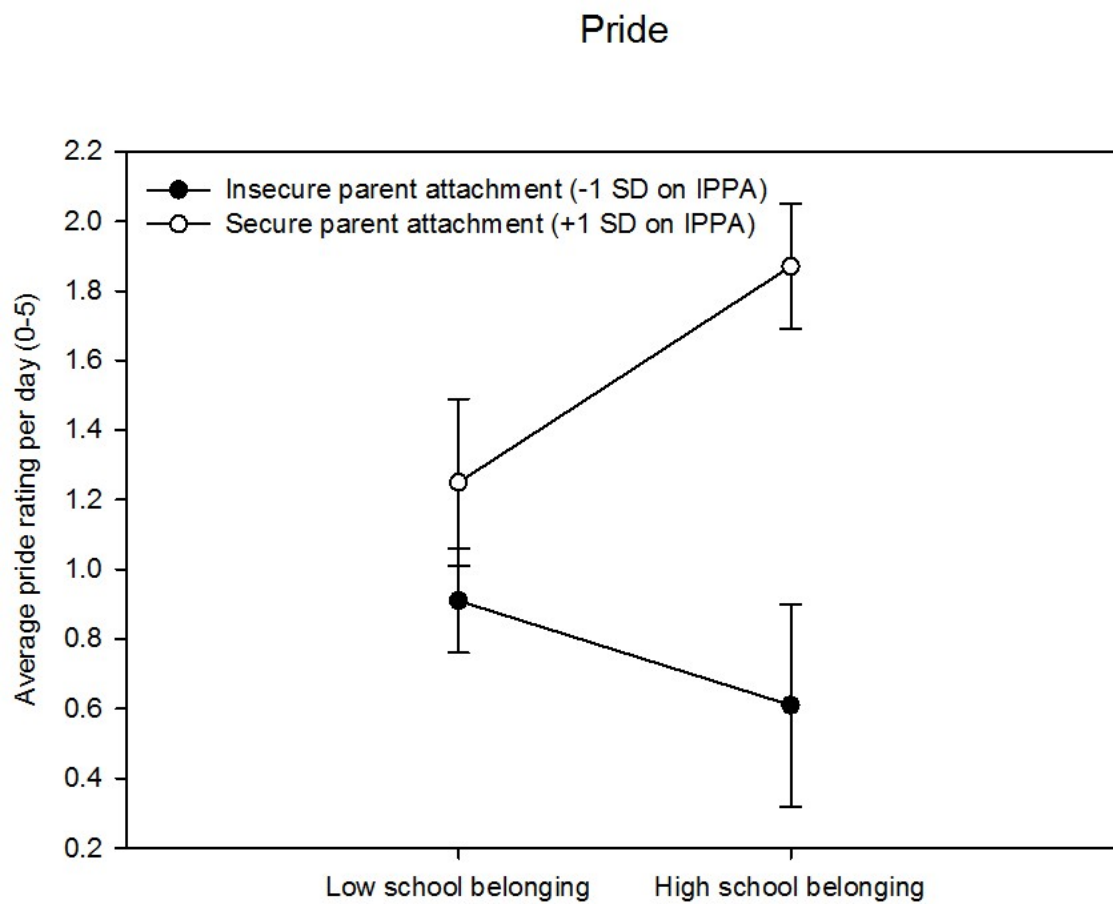


Figure 3. Average daily pride rating as a function on high compared to low school belonging for those with secure and insecure parental attachments. Error bars represent standard errors.

Table 2. *Average Daily Shame Rating As A Function Of Attachment To Parents (Parental Attachment Analyses) And Peers (Peer Attachment Analyses) And School Belonging.*

	Parental attachment analyses				Peer attachment analyses			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Step 1								
Attachment	-0.33	0.15	-2.15	.034	-0.14	0.18	-0.78	.436
School belonging	-0.16	0.11	-1.50	.138	-0.22	0.12	-1.89	.062
Step 2								
Attachment x Belonging	0.43	0.20	2.18	.032	0.03	0.21	0.13	.893

*Note.* Degrees of freedom equal 99 for Step 1 tests and 98 for Step 2 tests.

Table 3. *Average Daily Pride Rating As A Function Of Attachment To Parents (Parental Attachment Analyses) And Peers (Peer Attachment Analyses) And School Belonging.*

	Parental attachment analyses				Peer attachment analyses			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Step 1								
Attachment	0.58	0.28	2.07	.041	0.38	0.34	1.12	.266
School belonging	0.10	0.20	0.50	.621	0.16	0.21	0.74	.460
Step 2								
Attachment x Belonging	0.93	0.36	2.59	.011	0.60	0.39	1.54	.126

*Note.* Degrees of freedom equal 99 for Step 1 tests and 98 for Step 2 tests

## Discussion

The current study has found that adolescents with insecure parental attachments experience more shame on a daily basis than their securely attached peers. Sense of belonging in school was found to significantly moderate the relationship between attachment and shame in those with insecure attachments, such that the lack of secure attachment predicted increased shame when school belongingness was low, but not when it was high. In addition to this, adolescents with secure parental attachments experienced more pride on a daily basis than their insecurely attached peers. Sense of belonging in school was found to significantly moderate the positive relationship between secure parental attachment and pride. Secure attachment predicted increased pride when school belongingness was high, but not when it was low. No significant relationships were found between shame, pride and peer attachment. This supports the view that relationships with parents have a unique influence on the emotional lives of individuals “from the cradle to the grave” (Bowlby, 1979, p. 129).

### Attachment and Shame

The finding that those with insecure parental attachments experience increased feelings of shame supports the hypothesis of this study and is consistent with the work of Lewis (1971) and Golding and Hughes (2012) who theorised that insecure parental attachment was associated with feelings of shame. The results of the current study are also consistent with previous studies within adult populations (Lopez et al., 1997; Gross & Hansen, 2000; Wei et al., 2005) which found that attachment insecurity was associated with shame. Within child and adolescent populations the recent paper by Muris et al. (2014) also found that insecurely attached children aged between 9-13 reported higher levels of shame than securely attached children. However, within a largely clinical sample of adolescents, aged between 12-18 and who had been referred for externalising problems, attachment insecurity with parents and peers was associated with less shame. The result of this study on clinically referred adolescents represents an anomaly within the burgeoning evidence base, investigating the relationship between attachment and shame.

This finding, by Muris et al (2014) is congruent with the theory by Golding and Hughes (2012) which suggests that more insecurely attached children may find the experience of shame so intolerable that they defensively use a “shield against shame” (p. 155). This consists of denial and minimisation of the shame inducing behaviour as well as blame and rage against others, when experiencing feelings of shame.

There appears to be a significant difference in the relationship between attachment and shame in clinical and non-clinical adolescent populations which indicates that this is an area of attachment and shame research which would benefit from further exploration. Muris et al. (2014) found low levels of shame in adolescents with insecure attachments and externalising behaviour, research has also indicated that children with conduct difficulties experience fewer self-conscious emotions (Kochanska et al., 2005, 2009). It would therefore be interesting for future research to examine the relationship between shame and attachment in clinical adolescent samples with both internalising and externalising difficulties. It may be that externalising difficulties relate to a lack of self-conscious emotions, such as shame, but that internalising difficulties are associated with increased amounts of them. Understanding this could help us to better comprehend their role and function within the wider population. However, research exploring the relationship between attachment security and shame within either non-clinical adult or child populations is extremely limited (Muris et al., 2014) and more empirical evidence is required to gain a greater understanding of this association. This is particularly important given the suggestion that “childhood experiences of shame change who we are, how we think about ourselves and our sense of self-worth” (Brown, 2012, p. 226).

The current study signifies the first attempt to explore attachment security and shame within a non-clinical adolescent population, and therefore can be viewed as significantly contributing to psychological knowledge in this area. Given that theory and existing research suggests that individuals with insecure attachments are more vulnerable to feeling shame, which places them at increased risk of a range of mental health problems (Muris et al., 2014) additional research within this area is valuable and would be of particular interest to psychologists.

### **Attachment and Pride**

Tracy and Robins (2004) suggest that “people feel pride when their attention is focused on themselves, activating public and/or private self-representations; when they appraise events as relevant to and congruent with identity goals; and when they attribute the cause of events to some internal factor, taking credit for the situation” (p. 116).

Pride is widely viewed as a positive emotion, the only positive self-conscious emotion, which may be the most important emotion there is in terms of motivating social behaviour (Tracy & Robins, 2007). The current study found that adolescents with secure parental attachment experience more pride on a daily basis. This also represents a valuable contribution to our psychological understanding of the relationship between parental attachment and self-conscious emotions during adolescence. This finding fits with attachment theory which suggests that positive early relationships with caregivers facilitate the development of individuals with positive self-perceptions (Bowlby, 1980; Bartholomew & Horowitz, 1991). It is therefore logical that a positive self-perception would facilitate emotions which involve feeling positive about the self, due to a specific situation or action, as pride does. As has been previously mentioned little research interest is directed at positive (compared to more negative) emotions (Fredrickson, 2004; Gilbert, 2012). Therefore, the results of this study can be viewed as providing an insight into how attachment security can affect the predisposition of adolescents to experience the positive self-conscious emotion of pride.

However, having stated that pride is a positive emotion, the pride literature in fact differentiates between two different forms of pride. These are described as consisting of authentic pride, associated with accomplishment, and hubristic pride, associated with arrogance. Authentic pride is related to personality traits such as extraversion, agreeableness, conscientiousness, and genuine self-esteem, while hubristic pride is not related to these traits but is associated with narcissism and shame-proneness (Tracy & Robins, 2007).

Research into the implications of dysregulated pride is extremely limited (Muris & Meesters, 2014). Furukawa, Tangney and Higashibara (2012) conducted cross-cultural

research on the self-conscious emotions of shame, guilt and pride in children living in Japan, Korea and the USA and in all three cultures pride correlated positively with adaptive guilt emotions. This may be due to guilt motivating reparative behaviour which children then feel proud of. However, pride was also associated with the externalisation of blame following a negative event rather than owning any responsibility. It has been suggested that “such external attributions of blame may reflect defensive, self-serving biases to support perceptions leading to pride” (Furukawa et al., 2012, p.104). Cross cultural differences were observed, as in Japanese children there was an association between pride and shame. This may be because both emotions help maintain social connectedness and because in Japanese culture pride is not a desirable emotion which may therefore induce shame.

Exploring these two different forms of pride was beyond the remit of the current study. Yet the relationship that was found between pride and secure attachment offers an interesting opportunity for further research to consider the influence of attachment on both authentic and hubristic pride. In addition to this, the relationship found in this study between attachment and shame, and the suggestion that feelings of pride and shame can be linked, indicates that further research could prove illuminating.

### **Sense of Belonging in School**

An additional unique contribution of the current study is the finding that a sense of school belonging has beneficial effects for both adolescents with insecure and secure parental attachments. Belongingness in school was found to moderate the relationship between insecure attachment and shame. Put differently, a high sense of school belonging was found to buffer those with insecure parental attachments from feelings of shame within a school context. This is particularly significant as insecurely attached adolescents were found to experience more shame than their more securely attached peers.

In addition to this, a sense of school belonging moderated the relationship between secure attachment and pride. Or looked at another way, a high sense of school belonging was found to act as a catalyst for pride, within adolescents with secure parental

attachment, a group who were found to be more likely to experience pride in comparison with their more insecurely attached peers.

Having a sense of belonging in school is associated with both a positive view of peer relationships as well as relationships with teachers and other school staff (Osterman, 2000). Within the literature the term “school attachment” is used interchangeably to describe a sense of belonging in school (Libbey, 2004; Peter, Taylor, Ristock, & Edkins, 2015). This is particularly interesting given that the results of the current study suggest school “belonging” or “attachment” may have the capacity to compensate for a lack of secure parental attachment in terms of reducing the experience of shame in adolescents with insecure parental attachments.

Little research has examined the potential for a sense of school belonging to compensate for a lack of secure parental attachment on different emotional outcomes. Shochet, Homel, Cockshaw & Montgomery (2008) explored the relationships between parental and peer attachment, sense of school belonging and depression. Their results did not find such beneficial effects of belongingness on depressive symptoms as the current study did on shame and pride. Shochet et al. (2008) found that a sense of school belonging only partially mediated the relationship between parental attachment and depressive symptoms, and they found no significant moderation effect. More recently Oldfield, Humphrey, and Hebron (2015) examined the relationships between parental and peer attachment and school belongingness on adolescent mental health outcomes. They found that more insecure parental attachment (rather than peer attachment or school belongingness) predicted both conduct problems and emotional difficulties. However peer attachment and school belongingness were significant predictors of prosocial behaviour, although interestingly not parental attachment. Peer attachment and school belongingness were both found to mediate the relationship between parental attachment and prosocial behaviour. Neither peer attachment nor school belongingness was found to significantly moderate the relationship between parental attachment and mental health outcomes.



The results of the study by Oldfield et al. (2015) are congruent to a large extent with the findings of the current study, in that the unique influence of parental attachment (rather than peer attachment or school belongingness) accounts for variation in negative effect whether this be shame or mental health issues more widely. However where the findings of the current study differ is related to the capacity for school belongingness to moderate the relationships between parental attachment and emotions in adolescence.

The moderation effects of school belongingness on shame and pride found in the current study may be due to the close theoretical links between self-conscious emotions such as shame and pride and being accepted or potentially rejected by social groups. Self-conscious emotions have a function in regulating social and interpersonal behaviour and encouraging people to behave in socially desirable ways in relationships (Tangney & Tracey, 2012). This can be seen as facilitating the capacity of individuals to form and maintain relationships and therefore enable them to experience a sense of belonging within social groups.

The relationship between self-conscious emotions and belonging may be why outcome measures, used in previous research, related to depression (Shochet et al., 2008) or mental health issues. Oldfield et al., (2015) did not find school belongingness moderated the influence of parental attachment. They did find that school belongingness significantly predicted prosocial behaviour which could be viewed as being associated with actions likely to be associated with pride.

The results of the current study fit succinctly with the belongingness hypothesis (Baumeister & Leary, 1995), which suggests that although attachment to parents and positive peer relationships are important to the emotional adjustment of an individual, those who do not have a sense of connection within a wider group or community are vulnerable to experiencing increased emotional distress.

### **Limitations, Strengths and Directions for Future Research**

It is acknowledged that the present study has a number of limitations. Firstly, the research design is cross-sectional which means that conclusions about cause and effect

relationships cannot be drawn. Future research with a longitudinal design is required to more fully explore whether attachment security influences feelings of shame as indicated by (Lewis, 1971; Lopez et al., 1997; Gross & Hansen, 2000; Wei et al., 2005; Muris et al., 2014).

An additional limitation of the study is that it relied solely on self-report measures of all constructs being examined, attachment, sense of belonging, shame and pride. Data that is self-reported can yield conservative measures of psychological constructs due to social desirability biases. Also, results are limited by the emotional literacy of participants and their ability to reflect on their feelings about their parents, peers and school, as well as their daily experience of feeling shame and pride. Future research should consider the use of more multi-modal methods of data collection, such as the use of attachment interviews and parent or teacher reported perspectives on adolescent shame and pride.

Another potential issue is that parental attachment was assessed as a single construct rather than examining it separately for mothers and fathers. Recent research has indicated that attachment to mothers and fathers can have differing outcomes on adolescents' emotions (Natarajan et al., 2011; Gossens, Braet, Bosmans & Decaluwé, 2011; Gentzler et al., 2014). However, a single measure of parental attachment was used to prevent the completion time of the initial measures from taking too long for the students, which may have resulted in fatigue.

Alternative measures of attachment security with primary carers, who might not be parents, such as foster carers were not used. This may have influenced how some students completed the measure. Future research could explore the impact of school belonging on shame and pride in vulnerable populations, such as children in the care of a local authority and those with mental health issues. It could also be interesting to explore both authentic and hubristic pride.

A strength of the current study is that it utilised widely used standardised measures of parental and peer attachment (IPPA-R: Gullone & Robinson, 2005; Shochet et al., 2008) which were accessible to the adolescent population from which the sample was drawn. The measure used to quantify sense of belonging in school (PSSM) based on Goodenow

(1993) is also widely used within published research (Peter et al, 2015). The high Cronbach's alphas found within all standardised scales used, indicates that the students were able to consistently respond to the particular emotional dimension that was being assessed. The use of a daily experience sampling approach to assess shame and pride was also a significant strength of this study. This enabled the researcher to calculate an average amount of shame and pride over a ten day period based on the self-reported experiences of adolescents. Previous research in this area has tended to use vignette-based measures such as the TOSCA which assesses anticipated emotional responses to hypothetical situations. Emotional responses provided on these types of scales can be quite different from emotional responses in reaction to real life events (Robinson & Clore, 2002).

An additional strength of this study is that it has significantly contributed to the knowledge base about the effect of parental attachment on the self-conscious emotions of shame as well as pride. This study has also extended previous research on attachment and shame to explore the moderating role of a sense of belonging in school. The finding that adolescents who have more insecure attachments with parents may be protected from experiencing shame if they have a good sense of belonging in school, has significant implications for interventions. In addition to this, the results of this study suggest that securely attached adolescents may be supported to experience increased feelings of pride by having a high sense of belonging in school. Viewed in conjunction with each other, these results indicate that there may be universal benefits for both insecurely attached adolescents, and their securely attached peers, in finding ways to increase feelings of belongingness within schools.

### **Practical Implications**

Improving the psychological well-being of all children is a fundamental aim for Educational Psychologists (Fallon et al., 2010). In addition to this, supporting the social and emotional development of vulnerable children, such as those with insecure parental attachments, is of great importance to the profession. Children with insecure attachments are frequently found in some of society's most vulnerable groups, such as children in care. As these vulnerable children are at risk of academically underachieving

(O'Sullivan & Westerman, 2007), interventions to build resilience and support them at school are of paramount importance to many different professional groups, not only to Educational Psychologists, but also to teachers, social workers and nurses amongst others.

The aim of this literature review and empirical study was to increase understanding about the implications of attachment security on emotions during adolescence. This has several practical implications for Educational Psychologists. Firstly, the literature reviewed in chapter one has highlighted the implications of attachment insecurity during adolescence on a wide range of outcomes associated with emotions. A significant proportion of papers reviewed revealed links between attachment and depression in both clinical (Cawthorpe et al., 2004; Venta et al., 2014) and non-clinical samples (Allen et al., 2007; Woodhouse et al., 2009; Ruijten et al., 2011; Brenning et al., 2012; Kullik & Peterman, 2013; Milan et al., 2013). Given the prevalence (and apparent rise) of this mental health issue (Collishaw, Maughan, Natarajan & Pickles, 2010), this appears to be an area requiring research attention. Secondly, the empirical study has added to the growing evidence base which suggests that individuals with insecure attachments experience more shame. This study is the first to find a relationship between attachment and shame within a non-clinical adolescent sample. It is also the first to use an experience sampling technique to gather data on the frequency of shame experiences over time, rather than a measure based on responses to vignettes. The additional finding that insecurely attached adolescents experience less pride than their securely attached peers also represents a unique contribution to the evidence base.

The moderating effect of sense of school belonging that was found in relation to both the emotions of shame and pride is particularly significant for Educational Psychologists working at a systemic level within schools. The results of the current study support the ecosystemic approach (Bronfenbrenner, 2005) which many Educational Psychologists apply to their work (Woolfson, Whaling, Stewart & Monsen, 2003). This study provides evidence to suggest that increasing an adolescent's security at a school level can moderate for attachment insecurity at a familial level, and therefore compensate for the predicted negative effect of shame on mental health and emotional

well-being. This indicates that Educational Psychologists should be supporting schools to develop ways to increase a sense of belonging for their students.

The effect that a sense of school belonging may increase feelings of pride in adolescents with secure parental attachments would also be of interest to Educational Psychologists, particularly when considered from the perspective of positive psychology, the study of positive emotions and well-being (Seligman & Csikszentmihalyi, 2000). The broaden-and-build theory (Fredrickson, 2004) of positive emotions suggests that positive emotions, such as pride, broaden the thoughts and experiences of individuals. This is believed to build resilience and greater well-being. Therefore increasing positive feelings of pride may lead to increases in other positive emotions.

Educational Psychologists would be in a position to extend this research to evaluate how schools can effectively promote a sense of belonging in their students and what the impact of this might be more widely for school staff. Educational Psychologists are also well placed to disseminate research evidence to teachers and school staff about the impact of parental attachment security on the emotional well-being of students. Bowlby (1980) suggests that those with less secure attachments are prone to increased difficulties in social relationships. This may mean that they have an increased prevalence of difficulties with both peer and teacher relationships, which in turn could have a negative impact on their sense of school belonging.

## **Summary**

The aim of the current study was to explore the relationship between parental and peer attachment and a sense of school belonging on shame and pride in adolescence. The findings of this study indicate that adolescents with insecure (compared to secure) parental attachment experience more shame, and those with secure (compared to insecure) parental attachment experience more pride. The role of adolescents' sense of belonging in school was explored as a moderator of relationships between parental attachment and both shame and pride. A sense of school belonging was found to reduce shame in those with insecure attachments and increase pride for those with secure attachments. The results of this study provide evidence to support the importance of a sense of belongingness in school on the emotions experienced during adolescence.











# Appendices

## Appendix A

### Literature Review Search Terms and Exclusion Criteria

#### **Search 1: Psychinfo (via Ebsco conducted between September 2014-January 2015)**

Attachment Behaviour OR Attachment Theory OR Attachment Disorders

AND

Emotional Regulation OR Emotional Stability OR Emotional Security OR Emotions

AND

Adolescence

#### **Search 2: Web of science (conducted by via Ebsco; September 2014- January 2015)**

Citation databases used:

Science Citation Index Expanded (SCI-EXPANDED) 1970- present

Social Sciences Citation Index (SSCI)- 1970- present

Arts & Humanities Citation Index (A&HCI)- 1975- present

Book Citation Index- Science (BKCI-S) -2008 present

Book Citation Index- Social Sciences & Humanities (BKCI-SSH) 2008-present

### **Exclusion Criteria**

Focus of the study is parental attachment style.

Papers were excluded if participants had a mean age under 10 or over 18.

Physiological and biological measures taken.

Non- empirical papers.

Papers published before 2004.

**Examples of papers excluded at the first stage of the literature review, screened by title and abstract**

Reference	Rationale for Exclusion
Fagundes, C. P., Diamond, L. M., & Allen, K. P. (2012). Adolescent attachment insecurity and parasympathetic functioning predict future loss adjustment. <i>Personality and Social Psychology Bulletin</i> , 38(6), 821-832.	Physiological measures included.
Pepping, C. A., Davis, P. J., & O'Donovan, A. (2015). The Association between State Attachment Security and State Mindfulness. <i>PloS one</i> , 10(3)	Non-relevant topic area.
Davis, L., & Jowett, S. (2014). Coach–athlete attachment and the quality of the coach–athlete relationship: implications for athlete’s well-being. <i>Journal of sports sciences</i> , 32(15), 1454-1464.	Non-relevant topic area.
Crugnola, C. R., Ierardi, E., Gazzotti, S., & Albizzati, A. (2014). Motherhood in adolescent mothers: Maternal attachment, mother–infant styles of interaction and emotion regulation at three months. <i>Infant Behavior and Development</i> , 37(1), 44-56.	Focus on adolescent mother-infant interaction and emotional regulation.
Owens, K. A., Haddock, G., & Berry, K. (2013). The role of the therapeutic alliance in the regulation of emotion in psychosis: an attachment	Focus on emotional regulation as part of the therapeutic alliance in the care of those with psychosis

perspective. <i>Clinical psychology &amp; psychotherapy</i> , 20(6), 523-530.	
Palosaari, E., Punamäki, R. L., Qouta, S., & Diab, M. (2013). Intergenerational effects of war trauma among Palestinian families mediated via psychological maltreatment. <i>Child abuse &amp; neglect</i> , 37(11), 955-968.	Non-relevant topic area.
Beckes, L., Coan, J. A., & Morris, J. P. (2013). Implicit conditioning of faces via the social regulation of emotion: ERP evidence of early attentional biases for security conditioned faces. <i>Psychophysiology</i> , 50(8), 734-742.	Non-relevant topic area.
Starr, L. R., Hammen, C., Brennan, P. A., & Najman, J. M. (2013). Relational security moderates the effect of serotonin transporter gene polymorphism (5-HTTLPR) on stress generation and depression among adolescents. <i>Journal of abnormal child psychology</i> , 41(3), 379-388.	Physiological measures included.
Zilcha-Mano, S., Mikulincer, M., & Shaver, P. R. (2011). An attachment perspective on human–pet relationships: Conceptualization and assessment of pet attachment orientations.	Non-relevant topic area.

<p><i>Journal of Research in Personality</i>, 45(4), 345-357.</p>	
<p>Koen, V., van Eeden, C., &amp; Rothmann, S. (2013). Psychosocial Well-Being of Families in a South African Context: A Prospective Multifactorial Model. <i>Journal of Psychology in Africa</i>, 23(3), 409-418.</p>	<p>Non-relevant topic area.</p>
<p>Schuengel, C., Sterkenburg, P. S., Jeczynski, P., Janssen, C. G. C., &amp; Jongbloed, G. (2009). Supporting affect regulation in children with multiple disabilities during psychotherapy: A multiple case design study of therapeutic attachment. <i>Journal of Consulting and clinical Psychology</i>, 77(2), 291.</p>	<p>Focus on emotional regulation during psychotherapy.</p>
<p>Raby, K. L., Cicchetti, D., Carlson, E. A., Cutuli, J. J., Englund, M. M., &amp; Egeland, B. (2012). Genetic and Caregiving-Based Contributions to Infant Attachment Unique Associations With Distress Reactivity and Attachment Security. <i>Psychological science</i>, 23(9), 1016-1023.</p>	<p>Biological measures taken.</p>

## Appendix B

### Key Information from Papers Extracted for Literature Review

Author(s)	Study characteristics	Participant characteristics	Outcomes
1. Brenning, Soenens, Braet and Bosmans, (2012)	<b>Measures:</b> The ECR-R (Fraley, Waller, & Brennan, 2000). The Children's Depression Inventory. The Emotion Regulation Inventory. The revised Child Report on Parental Behaviour Inventory. <b>Country:</b> Belgium <b>Design:</b> cross-sectional	Study one: n=339 mean age= 12.6 Study two: n=746 mean age= 12 Gender: mixed Non-Clinical	Inconclusive evidence was found for emotion regulation as a mediator for associations between attachment and depressive symptoms. Parental responsiveness and support of autonomy is related differently to attachment anxiety and avoidance.
2. Brenning and Braet (2013)	Measures: The Experiences in Close Relationships Scale- Revised (ECR-R; Fraley, Waller, & Brennan, 2000).	Study one: n=197 mean age=13.54 Study two:	Emotional regulations strategies are depend on the specific emotions involved for those with attachment avoidance. In those

	Emotion Regulation Inventory (ERI; Roth, Assor, Niemiee, Ryan, & Deci, 2009). Country: Belgium Design: Cross-sectional	n=310 mean age=14.26 Gender: mixed Non-Clinical	with attachment anxiety was related to emotional dysregulation regardless of the emotion involved. Attachment avoidance and anxiety is associated with internalising and externalising problems because of different emotional regulations strategies.
3. Hershenberg, Davila, Yoneda, Starr, Miller, Stroud, & Feinstein (2011)	Measures: Family Attachment Interview, Chronic Stress Interview and The Parent-Adolescent Positive Interaction Task. Country: USA Design: cross-sectional	N: 74 Mean age: 13.45 Gender: all female Non-Clinical	Adolescent attachment security was associated with increased positive and reduced negative behavioural displays and less emotional dysregulation within a situation which required the establishment of intimacy with a parent.
4. Gentzler, Ramsey, Yuen Yi, Palmar and Morey (2014).	Measures: The attachment Security Scale (Kerns, Klepac, &	N: 56 Mean: 11.88	More evidence was found for temperament influencing

	<p>Cole, 1996). A daily experience sampling diary rating for emotional reactions to positive event on a 0-4 scale. The Early Adolescent Temperament Questionnaire-Revised, parent-report form.</p> <p>Country: USA</p> <p>Design: cross-sectional</p>	<p>Gender: mixed</p> <p>Non-Clinical</p>	<p>emotional responses to positive life events than attachment.</p> <p>Emotionality predicted more dampening of positive affect and effortful control predicted more savouring and prolonged positive affect. Secure attachment to fathers was related to more savouring of a positive event.</p>
5. Kullik and Petermann (2013)	<p><b>Measures:</b> Centre for Epidemiological Studies-Depression scale. The Emotion Regulation Questionnaire (Phillips &amp; Power, 2007). The Inventory of Parental and Peer Attachment (Armsden &amp; Greenburg, 1987).</p> <p><b>Country:</b> Germany</p> <p><b>Design:</b> cross-sectional</p>	<p>Girls: N= 127</p> <p>Mean age: 14.50</p> <p>Boys: N= 121</p> <p>Mean age: 14.31</p> <p>Gender: mixed</p> <p>Non-Clinical</p>	<p>Significant relationships were found between attachment to parents and peers, emotional regulation difficulties and depression. In boys internal and external dysfunctional emotion regulation partially mediated the relationship between parental attachment and depression. In girls</p>



			internal dysfunctional emotion regulation mediated the relationship between parental attachment and depression and partially mediated the relationship to peer attachment.
6. Tatnell, Kelada, Hasking and Martin (2014)	<p><b>Measures:</b> The Self-Harm Behaviour Questionnaire (Zimet et al. 1988). The Adolescent Attachment Questionnaire (West et al. 1998). Emotion Regulation Questionnaire (Gross &amp; John, 2003). Additional measure of self-efficacy, self-esteem and social support were taken.</p> <p><b>Country:</b> Australia</p> <p><b>Design:</b> longitudinal (two time points, 12 month interval)</p>	<p>N= 1973</p> <p>Mean age: 13.89</p> <p>Gender: mixed</p> <p>Non-clinical sample</p>	<p>Self-harm had increased in the sample from 8.3% to 11.95% at follow up. Perceived family support was the most significant variable in the onset, maintenance and cessation of self-harm. Attachment anxiety was associated with the onset of self-harm. Self-esteem and self-efficacy were the most significant intrapersonal variables effecting onset of self-harm. Cognitive reappraisal, self-esteem</p>

			and self-efficacy mediated the relationship between attachment anxiety and self-harm onset.
7. Gresham and Gullone (2012)	<b>Measures:</b> IPPA-R and the ERQ-CA <b>Country:</b> Australia <b>Design:</b> Cross-sectional	N:682 Mean age:13.56 Gender: mixed Non-clinical	Attachment security was associated with the more adaptive emotional regulation strategy of cognitive reappraisal. Attachment insecurity was more associated with emotional suppression which has been linked to poorer mental health outcomes.
8. Kim, Sharp and Carbone (2014)	<b>Measures:</b> The Security Scale (Kerns, Klepac, & Cole, 1996). The Cognitive Emotion Regulation Questionnaire (Garnefski et al., 2002). The Personality Assessment Inventory-Adolesent, Borderline Features Scale (Morey, 2007).	N=228 Mean age: 15.43 Gender: mixed Clinical (inpatients)	Positive and negative emotion regulation strategies were associated in the link between attachment insecurity and features of Borderline Personality Disorder (BPD) in different ways. Secure attachments protected against BPD

	<b>Country:</b> USA <b>Design:</b> Cross-sectional		by supporting positive emotion regulations strategies. Negative emotion regulation strategies reduce the protective effect of secure attachment and positive emotion regulation strategies resulting in more clinically significant BPD traits.
9. Zaremba and Keiley (2011)	<b>Measures:</b> Attachment Scale (Collins & Read, 1990). Youth Self-Report (Achenbach, 1991). The Emotion Regulation Checklist (Shields & Cicchetti, 1997). <b>Country:</b> USA <b>Design:</b> Cross-sectional	N=62 Mean age: 15.8 Gender: All male Clinical sample (sexual offending behaviour, incarcerated)	Attachment is related to adaptive and maladaptive emotion regulation strategies. Attachment is also related to internalising and externalising behaviour. Emotion regulation was found to mediate the relationship between attachment and externalising behaviour, but not internalising behaviour. Maladaptive emotion

			regulation had a stronger effect on problem behaviours than adaptive emotion regulation.
10. Milan, Zona and Snow (2013)	<b>Measures:</b> The centre for epidemiologic studies depression scale (Radloff, 1977), State-Trait Anger Scale (Spielberger,1988) Videotaped parental observations, The Behavioural Systems Questionnaire (Furman & Wehner, 1999), Child Depression Inventory (Kovacs, 1992), Loneliness and Dissatisfaction Scale (Asher, Hymel & Renshaw, 1984) and Youth Self Report (Achenbach,2001) and A modified Strange Situation (Cassidy et al. 1992).	N: 910 Mean age : 15.1 Gender: Mixed Non-clinical sample	<p>In adolescents with insecure early attachments, maternal negative emotions during transition to adolescence predicted significantly less parental availability during parent-adolescent interactions and increased adolescents' preoccupation with parental relationships.</p> <p>The amount that preoccupation with parental relationships was related to internalising symptoms was dependant on gender as well as attachment history.</p>

	<b>Country:</b> USA <b>Design:</b> longitudinal (15 years)		
11. Muris et al (2014)	<b>Measures:</b> Study one: The Attachment Questionnaire for Children (Muris et al. 2000). The Self-Conscious Emotions Maladaptive and Adaptive Scales (SCEMAS; Stegge & Ferguson, 1994). Study two: The Inventory of Parental and Peer Attachment (IPPA: Armsden & Green, 1987) and SCEMAS. <b>Country:</b> The Netherlands <b>Design:</b> Cross-sectional	Study one: n=688 mean age=10.39 Non-Clinical Study two: n=135 Mean age=15.46. Gender: mixed Mainly Clinical (externalising problems)	In study one attachment insecurity was associated with higher levels of shame and maladaptive forms of guilt. In study two clinical adolescents were found to report lower levels of shame and guilt than their non-clinical peers. In the clinical group communication with parents and peers was related to increased levels of self-conscious emotions. Feelings of alienation were associated with higher levels of maladaptive forms of shame and guilt.

12. Boone (2013)	<p><b>Measures:</b> ECR-R (Fraley, Waller, &amp; Brennan, 2000). The People in My Life (PIML; Cook, Greenburg, &amp; Kusche, 1995). Bulimia Scale of an eating disorder inventory and a range of perfectionism scales.</p> <p><b>Country:</b> Belgium</p> <p><b>Design:</b> Cross-sectional</p>	<p>N= 328</p> <p>Mean age: 17.1</p> <p>Gender: mixed</p> <p>Non-Clinical</p>	<p>Attachment anxiety was positively associated with socially prescribed perfectionism (SPP), perfectionistic self-presentation (PSP) and binge eating. Avoidant attachment with a mother was positively associated with SPP, whereas with a father it was associated with PSP and binge eating.</p>
13. Milan and Acker (2014)	<p><b>Measures:</b> A wide range of measures were used to assess attachment and disordered eating over time (see full paper for details). During adolescence attachment was assessed using the Behavioural Systems Questionnaire (BSQ; Furman &amp; Wehner, 1999).</p>	<p>N=447</p> <p>Final mean age: 15.1</p> <p>Gender: all female</p> <p>Non-Clinical</p>	<p>Early attachment security moderated the relationship between adolescent eating disorder risk and disordered eating attitudes and behaviour (DEAB). In girls with insecure attachment histories higher BMI at age 15 predicted more DEAB. Weight gain during puberty and maternal</p>

	<b>Country:</b> USA <b>Design:</b> Longitudinal (12 years)		negative affect predicted greater preoccupation with parental relationships and increased DEAB.
14. Woodhouse, Ramos-Marcuse, Ehrlich, Warner, and Cassidy (2009)	<b>Measures:</b> Adolescent attachment was assessed using and Adult Attachment Interview (George, Kaplan, & Main, 1996) and the Parent as a Secure Based Scale Revised (Cassidy & Woodhouse) a child depression inventory was also administer. Parents completed a depression and psychological symptoms inventory.  <b>Country:</b> USA <b>Design:</b> Cross-sectional	N: 189 Age: 11 <sup>th</sup> grade 16-17 year old Gender: mixed Non-clinical sample	Adolescent attachment moderated the association between parental and adolescent psychological symptoms. Adolescent perceptions of their mother as a secure base mediated the relationship between depressive symptoms in mothers and adolescents. Paternal depressive symptoms were related to lower perceptions of the father as a secure base.
15. Ruijten, Roelofs and Rood (2011)	<b>Measures:</b> IPPA (Armsden & Greenburg, 1987). The Beck	N: 255 Mean age: 14.3	Trust in parents, communication with peers and alienation from

	<p>Depression Inventory (BDI, Beck et al., 1996) and the Ruminative Response Scale (RRS, Nolen-Hoeksema &amp; Morrow, 1991).</p> <p><b>Country:</b> The Netherlands</p> <p><b>Design:</b> Cross-sectional</p>	<p>Gender: mixed</p> <p>Non-clinical sample</p>	<p>peers explained a significant proportion of the variance in depression scores. The relationship between depressive symptoms and communication with peers was fully mediated by rumination. Depressive symptoms were partially mediated by parental trust and alienation from peers.</p>
16. Venta, Mellick, Schatte, and Sharp (2014)	<p><b>Measures:</b> The Security Scale (Kerns, Klepac, &amp; Cole, 1996) BDI (Beck et al, 1996), YSR (Achenbach &amp; Rescorla, 2001) and the Interpersonal Needs Questionnaire.</p> <p><b>Country:</b> USA</p> <p><b>Design:</b> Cross-sectional</p>	<p>N: 124</p> <p>Mean age: 14.69</p> <p>Gender: mixed</p> <p>Clinical (psychiatric inpatients)</p>	<p>Maternal attachment insecurity was significantly correlated with depression, feelings of thwarted belongingness and suicide related thoughts. Thwarted belongingness was found to mediate the relationship between level of maternal attachment security and</p>



			both depression and suicide related thoughts.
17. Cawthorpe, West, and Wilkes (2004)	<p><b>Measures:</b> The Adolescent Attachment Questionnaire (West, Rose, Spreng, Sheldon-Keller &amp; Adam, 1998). A range of other measures were also administer to establish which group participants belonged in and to assess self-esteem, social support, and hopelessness.</p> <p><b>Country:</b> Canada</p> <p><b>Design:</b> Case comparison study</p>	<p>N: 73. 51 (depression) 22 (other diagnoses)</p> <p>Mean age: 15.5</p> <p>Clinical (psychiatric inpatients)</p>	Lower levels of self-esteem and peers support alongside higher levels of angry distress and a perception of the family as being unavailable was found to increase depression.
18. Venta and Sharp (2014)	<p><b>Measures:</b> The Child Attachment Interview (Target, Fonagy, Shmueli-Goetz &amp; Schneider, 2007)</p> <p>A measure of deliberate self-harm was used and a diagnostic</p>	<p>N: 194</p> <p>Mean age:16.0</p> <p>Gender: mixed</p>	<p>No evidence was found for any relationship between attachment security and suicide related thoughts and behaviour.</p> <p>Internalising disorder was</p>

	interview for suicidal ideation (see full study). <b>Country:</b> USA <b>Design:</b> Cross-sectional	Clinical sample (inpatient psychiatric)	associated with increased suicide ideation, attempted suicide and self-harm. Externalising disorder was associated with increased self-harm only.
19. Sheftall, Schoppe-Sullivan, and Bridge (2014)	<b>Measures:</b> ECR (Brennan, Clerk, & Shaver, 1998) The Family Alliance scale of the Reasons for Living Inventory (Osman et al., 1998) BDI (Beck et al., 1996) Columbia University Suicide History Form (Mann et al., 1992). <b>Country:</b> USA <b>Design:</b> Case comparison study	N: 80, (40 never suicidal) and (40 suicide attempted). Mean age: 15.56 Gender: mixed Clinical sample (attending outpatient facilities)	Higher attachment anxiety and avoidance was significantly associated with those who had attempted suicide. Attachment avoidance not anxiety was found to predict suicide attempt status when depressive symptoms and family alliance were controlled for.
20. Allen, Porter, McFarland, McElhaney and Marsh (2007)	<b>Measures:</b> Adult Attachment Interview (AAI; George, Kaplan & Main, 1996) and Q-Set (Kobak et al., 1993) IPPA (Armsden &	N: 167 Mean age: 13.36 (wave one) 14.29 (wave two) 15.22 (wave three)	Attachment security was linked to the successful development of autonomy while continuing to have a sense of relatedness with fathers

	<p>Greenburg, 1987) and a range of other measures for externalising behaviour, depressive symptoms and quality of relationships (see full paper).</p> <p><b>Country:</b> USA</p> <p><b>Design:</b> Longitudinal (3 years)</p>	<p>Gender: mixed</p> <p>Non-clinical sample</p>	<p>and peers. Attachment insecurity was linked to externalising behaviour and increased depression symptoms throughout adolescence.</p>
21. Miga, Hare, Allen and Manning (2010)	<p><b>Measures:</b> AAI (George, Kaplan &amp; Main, 1996) The Self-report measurement of adult attachment (Brennan, Clark, &amp; Shaver, 1998). A self-report scale for conflict in relationships and experience of psychological maltreatment was also completed (see full paper).</p> <p><b>Country:</b> USA</p> <p><b>Design:</b> Longitudinal (4 years)</p>	<p>N: 93</p> <p>Mean age: 14.28 (time one) 18.25 (time two). Romantic partners mean age 19.07 (time two)</p> <p>Gender: mixed</p> <p>Non-clinical sample</p>	<p>Increased attachment insecurity-preoccupied at age 14 was predicted of psychological aggression in relationships at 18. Increased attachment insecurity-dismissing was predictive of being a victim of psychological aggression in a romantic relationship four years later. Attachment anxiety in romantic partners was linked to perpetrating physical and</p>

			psychological aggression in relationships.
22. Gallarin and Alonso-Arbiol (2012)	<b>Measures:</b> IPPA (Armsden & Greenburg, 1987) Questionnaire based measures of direct and indirect aggression and parental socialization were also completed (see full paper)  <b>Country:</b> Spain  <b>Design:</b> Cross-sectional	N: 554  Mean age: 17.2  Gender: mixed  Non-clinical sample	Acceptance and involvement of each parent positively predicted security of attachment to that parent. Coercion and imposition negatively predicted attachment security to that parent. Paternal attachment insecurity predicted aggression in adolescence.
23. Sarracino, Presaghi, Degni and Innamorati (2011)	<b>Measures:</b> The Security Scale (Kerns et al., 1996) Youth Self Report (Achenbach, 1991) and questionnaire based measures of Social Value Orientations and Sensation Seeking.  <b>Country:</b> Italy  <b>Design:</b> Cross-sectional	N:169  Mean age: 11.83  Gender: mixed  Non-clinical sample	Attachment security towards the parent of the opposite gender was predictive of more conservative social value orientations and decreased levels of externalising problem behaviour. Sensation seeking was predictive of self-enhancement and more openness

			to change values and in girls less attachment security with parents.
24. Dawson, Allen, Marston, Hafen and Schad (2014)	<b>Measures:</b> AAI (George, Kaplan & Main, 1996) COPE questionnaire (Carver, Scheier, & Weintraub, 1989) <b>Country:</b> USA <b>Design:</b> Longitudinal (8 years)	N: 184 Mean age: 14.27 (time one) 21.62 (time two) 22.58 (time three). Gender: mixed Non-clinical sample	Self-reported externalising behaviour was predicted by preoccupied and dismissing attachment styles. Only preoccupied was predictive of peer reported externalising behaviour. Maladaptive coping strategies mediated the relationship between a dismissing attachment style and self-reported externalising behaviour in the future.
25. Scott, Briskman, Vulgar, Humayun and O'Connor (2011)	<b>Measures:</b> The Child Attachment Interview (Target, Fonagy, & Shmueli-Goetz, 2003) addition al measures of general adjustment	N:248 Mean age:14.2 (normative risk) 11.0 (moderate risk) 13.2 (High risk) Gender: mixed	Secure attachment representations was related to psychological adjustment in adolescence, such as parent reported symptoms of Oppositional Defiance Disorder and

	and antisocial behaviour were also taken (see full paper). <b>Country:</b> UK <b>Design:</b> Cross-sectional	High risk group is a clinical sample, the moderate risk group had scored in the top 41% of their classes on a conduct problems scale and the normative risk group was drawn from a community sample.	teacher reported emotional and behavioural difficulties.
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## Appendix C



Dear [headteacher's name],

Our names are Ellen Cook and Alicia Halton-Nathan and we are writing to you from the School of Psychology at the University of Southampton. We are involved in a research study, supervised by Dr Sander Thomaes, Senior Lecturer, and Dr Tim Wildschut, Senior Lecturer, which aims to investigate the causes and consequences of shame and pride in adolescents. We are particularly interested in the types of situations that trigger feelings of shame and pride and what adolescents do to cope with these feelings. We would like to invite you to take part in our thesis research project.

The study has been fully approved by the University of Southampton Ethics Committee and consists of two parts. The first phase involves asking students to complete a brief questionnaire pack, which includes measures of; **attachment style, ability mindset, nostalgia, their sense of belonging and certain personality traits (eg narcissism)**. The task should take approximately 30-40 minutes to complete. The researchers can run this session. We will explain the research to the students and will provide all of the paperwork. We will require the presence of a teacher during this session.

The second phase requires the students to complete a short online daily questionnaire, in order for them to reflect on their shame/pride experiences. This will involve students ticking boxes to indicate their responses and should take no longer than 10 minutes, each day for two weeks (ten school days). Students can access the diary online, for ease of completion.

In order to carry out this research, we require access to adolescents through schools and this is the reason we are contacting you. Our aim is to gather data from approximately 250 adolescents aged 13-17 years old, during three school weeks in the autumn/winter term 2014/15. We do not expect anything from your teachers or staff, other than to be there when we carry out phase one (questionnaires). Once we have permission to enter your school, we will then send a letter to parents requesting consent for their child to take part. Students will also be asked to give their assent to take part.

This is a good opportunity for young people to take part in real-life psychological research and we would be extremely grateful if you would allow us to conduct this study in your school. Students will receive amazon vouchers for taking part and we will also be able to purchase some books for your school library as a token of our gratitude for your taking part. Please see additional School information sheet, for full details of the study and the benefits to you.

Please find enclosed copies of the questionnaire and the letter/consent form we intend to send out to parents. If you are interested in taking part or would like more information, please do not hesitate to contact us at [emc1g12@soton.ac.uk](mailto:emc1g12@soton.ac.uk) or on 07934376249 or [aehn1v07@soton.ac.uk](mailto:aehn1v07@soton.ac.uk) . You can also contact Dr Sander Thomaes at [s.thomaes@soton.ac.uk](mailto:s.thomaes@soton.ac.uk) and Dr Tim Wildschut at [r.t.wildschut@soton.ac.uk](mailto:r.t.wildschut@soton.ac.uk).

We look forward to hearing from you.

Kind regards, Ellen Cook and Alicia Halton-Nathan

Educational Psychology Postgraduate Researchers



## Appendix D

### Study Information Sheet for Schools (*Version 1*)

**Study Title:** Understanding Adolescent Shame and Pride in a School Context

**Ethics Reference:** 12511

**Researchers:** Ellen Cook, Alicia Halton-Nathan, DEdPsych Students

**Supervisors:** Dr Sander Thomaes – Senior Lecturer & Dr Tim Wildschut - Senior Lecturer

#### **What is the study about?**

The aim of this study is to investigate and understand what causes teenagers to feel ashamed and proud. We are interested in the types of situations that trigger feelings of shame and pride and what adolescents do to cope with these feelings. We will look at how teenagers respond differently to experiences of shame and pride depending on a range of variables. For example their attachment styles, ability mindset, their sense of belonging and certain personality traits.

Shame has been linked to a wide range of negative psychological outcomes and there is currently very little research about shame in adolescence. Therefore, our aim is to enhance knowledge of this area, in order to be able to better promote more positive psychological outcomes for young people.

#### **Why has this school been approached to take part?**

We are interested in researching adolescent's experiences of shame and pride. We are therefore approaching mainstream secondary schools in order to give us access to this population.

#### **What is the school required to do to take part in the research project?**

We will initially need one hour with the students who have agreed to take part. During this time, they will be asked to complete a range of questionnaires as discussed above. We will then ask students to complete a daily questionnaire about their experience of shame and pride for a two week period. This will be a brief task (approximately 10 minutes) which students will be expected to complete in their own time online. Upon completion of the study, all students will be debriefed and given information to take away with them about the aims and purpose of the research. This will include information about how to contact the researchers after the study has finished, as well as how they can access support, if they would like to talk about any issues that might arise due to the nature of the study.

#### **What benefits are there to the school for taking part in this research project?**

- A range of measures will be taken from the students who take part in the study. We will be able to share our generalised results, based on the data we collect about young people's sense of school membership, sense of belonging, ability mindset, self-esteem and attachments.
- We can offer school staff training on either attachment or growth mindsets.
- We will also be able to provide your school with £200 in vouchers, which can be used to purchase equipment or any books required.
- If you would like, your school can be named and thanked in the write up and publication of our research for having contributed to the psychological knowledge of this area.

**What benefits will there be for the students who take part?**

- Students will receive a complimentary pen for having completed the initial pack of questionnaires.
- Every student who completes the daily shame and pride questionnaire (for at least 80% of the requested two weeks, 10 school days) will receive a £20 Amazon voucher.
- In addition, every student who completes 100% of the daily shame and pride questionnaire will also be entered into a prize draw, to have the chance of winning an additional £50 in Amazon vouchers.

**How will consent be obtained?**

We will need the schools head teacher to consent to the school taking part. Student participation in the study is dependent on parents/carers opting in to give consent for their child to take part. Student assent will then also be taken.

**What if something goes wrong?**

If students become distressed at any point during the research they will be signposted to local counselling services. It is highly unlikely that taking part in this study would cause harm to your students. However, if you do have any reason to complain about any aspect of the study, you can do so by contacting the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ; (023) 8059 5578; [slb1n10@soton.ac.uk](mailto:slb1n10@soton.ac.uk).

**What will happen to the results of the study?**

Our results will be written up into a report, which will be submitted for publication in the appropriate psychology journals. Results may also be presented at scientific conferences. Individual participants will not be identified or recognisable in the report because only group data will be reported. At the end of the study we will provide your school with a copy of our report. If you would find it beneficial we would be also be happy to present our findings to your school.

**Ethical Approval**

This study has been approved the University of Southampton Ethics Committee.

**Contact Information**

If you would like any more information about the study, please contact:

Student Researcher: Ellen Cook

[Emc1g12@soton.ac.uk](mailto:Emc1g12@soton.ac.uk)

Student Researcher: Alicia Halton-Nathan

[Aehn1v07@soton.ac.uk](mailto:Aehn1v07@soton.ac.uk)

Supervisor: Dr Sander Thomaes, Lecturer

[s.thomaes@soton.ac.uk](mailto:s.thomaes@soton.ac.uk)

Supervisor: Dr Tim Wildschut, Senior Lecturer

[r.t.wildschut@soton.ac.uk](mailto:r.t.wildschut@soton.ac.uk)

## Appendix E

### SCHOOL CONSENT FORM (*Version 1*)

**Study title:** Understanding Adolescent Shame and Pride in a School Context

**Researcher names:** Ellen Cook, Alicia Halton-Nathan

**Supervisors:** Dr. Sander Thomaes & Dr Tim Wildschut

**Ethics reference:** 12511

*Please initial the boxes if you agree with the statements below:*

I have read and understood the study information sheets (both  
Parent and Participant) (Version 1.0, 28/09/2014) and the letter

☐

I agree to the school taking part in this research project and

☐

I understand that student's individual participation is voluntary  
and they may withdraw at any time without their legal rights

☐

I agree to commit to the necessary arrangements, as outline in the  
Information sheets (Version 1.0, 28/09/2014), in order for the researchers to  
conduct the study in the school.

☐

#### **Data Protection**

*I understand that information collected about the school and students, during their participation in this  
study will be completely confidential, stored on a password protected computer and will only be used for the  
purpose of this study.*

School's Name.....

Head Teacher's Name.....Date.....

Head Teacher's Signature.....

## Appendix F

### Study Information Sheet for Parents (*Version 1*)

**Study Title:** Understanding Adolescent Shame and Pride in a School Context

**Ethics Reference:** 12511

**Researchers:** Ellen Cook, Alicia Halton-Nathan, DEdPsych Students

**Supervisors:** Dr Sander Thomaes – Senior Lecturer & Dr Tim Wildschut - Senior Lecturer

#### **What is the study about?**

The aim of this study is to investigate and understand what causes teenagers to feel ashamed and proud.

#### **Why has my child been chosen?**

Your child is invited to take part in this study because we are interested in the experiences of 13-17 year old adolescents. The headteacher has granted permission for us to conduct our research in their school; your child has not been singled out to take part.

#### **Does my child have to take part?**

Participation in the study is completely voluntary and children cannot participate without consent from their parent/guardian. At the beginning of the study, once consent has been given by you, we will explain what the study involves to your child. If they are happy to take part after hearing about it, they can begin. **Please complete and return the attached parental consent form to confirm your consent to your child's participation.**

#### **What does the study involve?**

During school time, your child will be presented with a questionnaire on a range of psychological measures including mindset, sense of belonging within school, attachment to parents and peers, self-esteem, nostalgia, narcissism and shame and guilt. They will be asked to complete all of the questionnaires; this should take approximately 30-40 minutes.

After completion of the initial questionnaires your child will be invited (via email) to complete an online daily questionnaire, for a two week period (10 school days). They will be asked to provide tick box responses to questions about when they have experienced shame or pride that day.

Upon completion of the study, all children will be debriefed and given information to take away with them about the aims and purpose of the research. This will include information about how to contact the researchers after the study has finished.

#### **How will my child's information be used?**

All information provided by your child will only be used by the researchers for the purpose of this study. All responses are confidential and will be stored in a locked cabinet, along with consent forms signed by parents, in the School of Psychology at the University of Southampton.

### **What will happen to the results of the study?**

*Our results will be written up into a report, which will be submitted for publication in the appropriate psychology journals. Results may also be presented at scientific conferences. Individual participants will not be identified or recognisable in the report because only group data will be reported. If you would like to receive a copy of the completed report, please contact us using the contact details below after completion of the study.*

### **What if something goes wrong?**

If your child becomes distressed at any point during the research they will be signposted to local counselling services. It is highly unlikely that taking part in this study could cause harm to your child. However, if you do have any reason to complain about any aspect of the study, you can do so by contacting the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ; (023) 8059 5578; [slb1n10@soton.ac.uk](mailto:slb1n10@soton.ac.uk)

### **What benefits will there be for the students who take part?**

Every student who completes the initial questionnaire will receive a free pen. Every student who then completes the daily shame and pride questionnaire (for at least 80% of the requested two weeks, 10 school days) will receive a £20 Amazon voucher. In addition, every student who completes 100% of the daily shame and pride questionnaire will also be entered into a prize draw, to have the chance of winning an additional £50 in Amazon vouchers.

### **Ethical Approval**

This study has been approved the University of Southampton Ethics Committee.

### **Contact Information**

If you would like any more information about the study, please contact:

Student Researcher: Ellen Cook

[Emc1g12@soton.ac.uk](mailto:Emc1g12@soton.ac.uk)

Student Researcher: Alicia Halton-Nathan

[Aehn1v07@soton.ac.uk](mailto:Aehn1v07@soton.ac.uk)

Supervisor: Dr Sander Thomaes, Lecturer

[s.thomaes@soton.ac.uk](mailto:s.thomaes@soton.ac.uk)

Supervisor: Dr Tim Wildschut, Senior Lecturer

[r.t.wildschut@soton.ac.uk](mailto:r.t.wildschut@soton.ac.uk)

## Appendix G

### Participant Information Sheet (*Version 1.0*)

**Study Title:** Understanding the Triggers and Consequences of Shame and Pride in Adolescents

**Ethics Reference:** 12511

**Ethics Committee:** slb1n10@soton.ac.uk

**Researchers:** Ellen Cook, Alicia Halton-Nathan, DEdPsych Students

**Supervisors:** Dr Sander Thomaes & Dr Tim Wildschut

*Please read the following information carefully.*

The aim of this study is to investigate and understand what causes teenagers to feel ashamed and proud.

#### **What does the study involve?**

**The study is formed of two parts:**

- **Part 1**

During school time you will be presented with a questionnaire on a range of topics including mindset, sense of belonging within school, attachment to parents and peers, self-esteem, nostalgia, narcissism and shame and guilt. You will be asked to complete all of the questionnaires; this should take approximately 30-40 minutes.

- **Part 2**

You will be invited to complete an online daily questionnaire, for a two week period Monday to Friday (10 school days), the weekends are not included. You will be asked to provide tick box responses to questions about whether you have experienced shame or pride that day. You will be asked to complete this questionnaire in your own time, either at home or at school and you can log on via a web link that we will email to you. This task should take less than five minutes each day.

#### **What will happen to the questionnaires I complete?**

All information provided by you will only be used by the researchers for the purpose of this study. All responses are strictly confidential. Please let the researcher know if you feel uncomfortable or would like to stop for any reason. All data will be entered into an electronic file which will be password protected and can only be accessed by the research team. You can withdraw from the study at any time without any consequences.

#### **What are the benefits of taking part in this study?**

- Every student who completes part 1 of the study will get a free pen.
- Every student who completes the two week shame and pride questionnaire (part 2) for at least 80% of the time, will receive a £20 Amazon voucher.
- In addition, every student who completes 100% of the daily shame and pride questionnaire will also be entered into a prize draw with the chance of winning an additional £50 amazon voucher.

### **What happens if I feel uncomfortable or unhappy about anything during the study?**

During part 1 of the study, two researchers will be present and you can ask them questions about the study and your participation at any point. At the end of part 1, you will be provided with information about a member of school staff who you can speak to about the study if you are feeling unhappy about it and information about how to access local counselling services for young people. You will also be provided with information of who you can speak to within your school about the study, if you are feeling unhappy about it. In addition, you can contact the research team at any point during the study on the email addresses given below.

### **Ethical Approval**

This study has been approved the University of Southampton Ethics Committee.

### **Contact Information**

If you would like any more information about the study, please contact:

Student Researcher: Ellen Cook

[Emc1g12@soton.ac.uk](mailto:Emc1g12@soton.ac.uk)

Student Researcher: Alicia Halton-Nathan

[Aehn1v07@soton.ac.uk](mailto:Aehn1v07@soton.ac.uk)

Supervisor: Dr Sander Thomaes, Lecturer

[s.thomaes@soton.ac.uk](mailto:s.thomaes@soton.ac.uk)

Supervisor: Dr Tim Wildschut, Senior Lecturer

[r.t.wildschut@soton.ac.uk](mailto:r.t.wildschut@soton.ac.uk)

.....

Please feel free to ask any questions at any time. If you are happy to take part in this study, please complete the student assent form given to you by the researchers.

**Thank you!**

## Appendix H

### **Daily Online Diary Questionnaire**

The following questions were displayed within the domain of Lime Survey.

<https://www.limesurvey.org/en/>

### **Daily Welcome Message For Participants**

Welcome! Please answer the following questions. Remember, we are interested in your experiences, so there are no right or wrong answers. Please complete ALL questions. Many thanks

### **Definition of shame displayed for participants**

Shame can be defined as: the painful feeling that you experience when you have done something dishonourable, improper, ridiculous, or foolish.

### **Question 1**

#### **1. Did you experience feelings of shame today?**

(Yes/No response; If 'yes' continue to question 1b, if 'No' continue to question 1c)

#### **1b. How much Shame did you experience today?**

1= not a lot, 2=a little, 3=moderate, 4=quite a bit, 5=a lot

#### **1c. 'NO' questions**

1. Today I made choices based on my own interests and values, or did things that express my interests and values (yes/no)
2. Today I took on and mastered hard challenges, or other things happened that made me feel capable (yes/no)
3. Today I felt close and connected with other people, or I felt a strong sense of intimacy with other people (yes/no)
4. Today someone close to me supported me, or I felt he/she cared deeply about me (yes/no)
5. Today I felt nostalgic



**To what extent did you experience the feelings below today? (on a scale of 1-5)**

**Today I felt...**

1. as if I was my true self
2. authentic (I felt “real”, like the person I really am inside)
3. as if I was really being me
4. good about myself
5. as if I value myself more
6. connected with my past
7. as if important aspects of my personality remain the same across time
8. ready to take on new challenges
9. optimistic about my future
10. connected to loved ones
11. loved
12. as if life is meaningful
13. as if life is worth living
14. inspired
15. filled with inspiration
16. energetic
17. purposeful
18. nervous
19. on edge
20. uneasy
21. unable to concentrate
22. sad
23. discouraged
24. hopeless
25. happy
26. in a good mood
27. joy

28. calm

**Definition of pride displayed for participants**

Pride can be defined as: the pleasurable feeling that you experience when you have done something honourable, extraordinary, sensible or worthwhile.

**Question 2**

**2. Did you experience feelings of pride today?**

(Yes/No response: If 'yes' continue to question 2b, if 'No' end of diary)

**2b. How much pride did you experience today?**

1= not a lot, 2=a little, 3=moderate, 4=quite a bit, 5=a lot

**Daily Debrief For Participants**

Thank you for taking part in this questionnaire today. Don't forget to do the same again tomorrow, for your chance to win a further £50 in Amazon vouchers! We would like to remind you that your individual data will remain strictly confidential and that only group data will be reported. We hope that you have enjoyed taking part in our research today, but if you feel that you have been affected in any way by remembering your experiences of shame, you can get in touch with your school counsellor who will be able to help you. Alternatively, you can contact national support services on: <http://www.youthaccess.org.uk>  
[http://www.youngminds.org.uk/for\\_children\\_young\\_people](http://www.youngminds.org.uk/for_children_young_people)



## Appendix I

# UNIVERSITY OF **Southampton**

**PARENTAL CONSENT FORM (Version 1)**

**Study title:** Understanding Adolescent Shame and Pride in a School Context

**Researcher names:** Ellen Cook, Alicia Halthon-Nathan

**Supervisors:** Dr. Sander Thomaes & Dr Tim Wildschut

**Ethics reference:** 12511

*Please initial the boxes if you agree with the statements below:*

I have read and understood the study information sheet (Version) 1.0, 28/09/2014).

☐

I agree to my child taking part in this research project and agree

☐

I understand my child's participation is voluntary and they may withdraw at any time without their legal rights being affected

☐

## **Data Protection**

*I understand that information collected about my child during their participation in this study will be completely confidential, stored on a password protected computer and will only be used for the purpose of this study.*

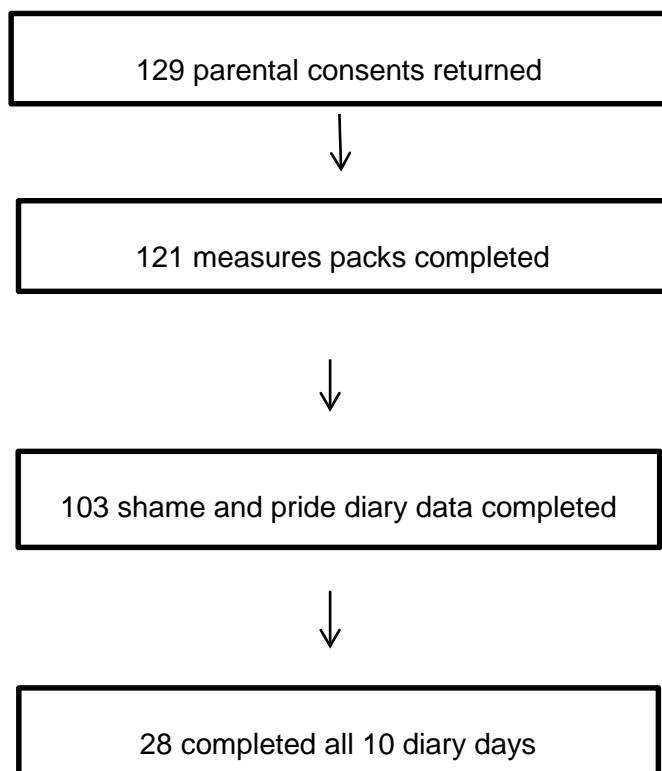
Child's Name.....Class.....

Parent's Name.....Date.....

Parent's Signature.....

## Appendix J

Flow diagram of Participant Attrition at Each Stage of Data Collection





# UNIVERSITY OF Southampton

My date of Birth is \_\_/\_\_/\_\_

Tick if you are: Male ☐ or Female ☐

**My email address is:** (this is where we will send the daily online questionnaire to, please write this clearly):

---

Yes, I am happy for you to remind me to complete the online questionnaire each day, for two weeks, via a text message. **My Mobile telephone number is:**

---

ID no: \_\_\_\_\_

**A.** Please circle one number for each of the following statements, depending on how much you either agree or disagree with it:

		Dissagree a lot	Dissagree a little	Neither agree not disagree	Agree a little	Agree a lot
1	I feel like a real part of my school.	1	2	3	4	5
2	People here notice when I'm good at something.	1	2	3	4	5
3	It is hard for people like me to be accepted here.	1	2	3	4	5
4	Other pupils in this school openly take my opinions seriously.	1	2	3	4	5
5	Most teachers at my school are interested in me.	1	2	3	4	5
6	Sometimes I feel as if I don't belong here.	1	2	3	4	5
7	There is at least one teacher or other adult in this school I can talk to if I have a problem.	1	2	3	4	5
8	People at this school are friendly to me.	1	2	3	4	5

9	Teachers here are not interested in people like me.	1	2	3	4	5
10	I am included in lots of activities in my school.	1	2	3	4	5
11	I am treated with as much respect as other pupils.	1	2	3	4	5
12	I feel very different from other pupils here.	1	2	3	4	5
13	I can really be myself at school.	1	2	3	4	5
14	The teachers here respect me.	1	2	3	4	5
15	People here know I can do good work.	1	2	3	4	5
16	I wish I were in a different school.	1	2	3	4	5
17	I feel proud of belonging to my school.	1	2	3	4	5
18	Other pupils here like me the way I am.	1	2	3	4	5



**B** . Please circle a response (1, 2, or 3) for each of the following statements,

depending on how true the statement is for you:

		Never true (1)	Sometimes true (2)	Always true (3)
1	My parents respect my feelings.	1	2	3
2	My parents are good parents.	1	2	3
3	I wish I had different parents.	1	2	3
4	My parents accept me as I am.	1	2	3
5	I can't depend on my parents to help me solve a problem.	1	2	3
6	I like to get my parents' view on things I'm worried about.	1	2	3
7	It does not help to show my feelings when I am upset.	1	2	3
8	My parents can tell when I'm upset about something.	1	2	3
9	I feel silly or ashamed when I talk about my problems with my parents.	1	2	3
10	My parents expect too much from me.	1	2	3
11	I easily get upset at home.	1	2	3
12	I get upset a lot more than my parents know	1	2	3

	about.			
13	When I talk about things with my parents they listen to what I think.	1	2	3
14	My parents listen to my opinions.	1	2	3
15	My parents have their own problems, so I don't bother them with mine.	1	2	3
16	My parents help me to understand myself better.	1	2	3
17	I tell my parents about my problems and troubles.	1	2	3
18	I feel angry with my parents.	1	2	3
19	I don't get much attention at home.	1	2	3
20	My parents support me to talk about my worries.	1	2	3
21	My parents understand me.	1	2	3
22	I don't know who I can depend on.	1	2	3
23	When I am angry about something, my parents try to understand.	1	2	3
24	I trust my parents.	1	2	3
25	My parents don't understand my problems.	1	2	3
26	I can count on my parents when I need to talk about a problem.	1	2	3
27	No one understands me.	1	2	3
28	If my parents know that I am upset about something, they ask me about it.	1	2	3

## Appendix

		<b>Never true (1)</b>	<b>Sometimes true (2)</b>	<b>Always true (3)</b>
1	I like to get my friends' opinions on things I'm worried about.	1	2	3
2	My friends can tell when I'm upset about something.	1	2	3
3	When we talk, my friends listen to my opinion.	1	2	3
4	I feel silly or ashamed when I talk about my problems with my friends.	1	2	3
5	I wish I had different friends.	1	2	3
6	My friends understand me.	1	2	3
7	My friends support me to talk about my worries.	1	2	3
8	My friends accept me as I am.	1	2	3
9	I feel the need to be around my friends more often.	1	2	3
10	My friends don't understand my problems.	1	2	3
11	I do not feel like I belong when I am with my friends.	1	2	3
12	My friends listen to what I have to say.	1	2	3
13	My friends are good friends.	1	2	3
14	My friends are fairly easy to talk to.	1	2	3
15	When I am angry about something, my friends try to understand.	1	2	3
16	My friends help me to understand myself better.	1	2	3

17	My friends care about the way I feel.	1	2	3
18	I feel angry with my friends.	1	2	3
19	I can count on my friends to listen when something is bothering me.	1	2	3
20	I trust my friends.	1	2	3
21	My friends respect my feelings.	1	2	3
22	I get upset a lot more than my friends know about.	1	2	3
23	My friends get annoyed with me for no reason.	1	2	3
24	I tell my friends about my problems and troubles.	1	2	3
25	If my friends know that I am upset about something, they ask me about it.	1	2	3

**Thank You for taking part!**

**Please put your pen down and await further instructions.**

## Appendix L



### Final Participant Debrief (*Version 1.0*)

**Study Title:** Understanding Adolescent Shame and Pride in a School Context

**Ethics Reference:** 12511

**Ethics Committee:** slb1n10@soton.ac.uk

**Researcher:** Ellen Cook, DEdPsych Student

emc1g12@soton.ac.uk

**Researchers:** Alicia Halthon-Nathan, DEdPsych Student

aehn1v07@soton.ac.uk

**Supervisor:** Dr. Sander Thomaes, Senior Lecturer

s.thomaes@soton.ac.uk

**Supervisor:** Dr. Tim Wildschut, Senior Lecturer

r.t.wildschut@soton.ac.uk

Thank you for taking part in this study.

The aim of this study was to explore and understand the causes and consequences of feeling ashamed and proud. We are particularly interested in these feelings because research has shown that they are both experienced frequently during adolescence.

The results of this study will be written up into a report, which will likely be published in a scientific journal. We would like to remind you that your individual data will remain strictly confidential and that only group data will be reported. If you or your parents/carers would like a copy of the final report, please get in touch with any of the researchers named above.

We hope that you have enjoyed taking part in our research but if you feel that you have been affected in any way by remembering your experiences of shame, you can get in touch with your school counsellor who will be able to help you. Below, you can find their name and contact details.

Once again, thank you for participating in this study.

**Your School Counsellor**

Details provided

## Appendix M

**From:** ERGO [ergo@soton.ac.uk]

**Sent:** 28 October 2014 23:29

**To:** Cook E.M.

**Subject:** Your Ethics Submission (Ethics ID:12511) has been reviewed and approved

Submission Number: 12511

Submission Name: Main Study: Understanding Adolescent Shame and Pride in a School Context

This email is to let you know your submission was approved by the Ethics Committee.

Please note that you cannot begin your research before you have had positive approval from the University of Southampton Research Governance Office (RGO) and Insurance Services. You should receive this via email within two working weeks. If there is a delay please email [rgoinfo@soton.ac.uk](mailto:rgoinfo@soton.ac.uk).

Comments

None

[Click here to view your submission](#)

28 October 2014 23:29

Submission Number: 12511

Submission Name: Main Study: Understanding Adolescent Shame and Pride in a School Context

This email is to let you know your submission was approved by the Ethics Committee.

Please note that you cannot begin your research before you have had positive approval from the University of Southampton Research Governance Office (RGO) and Insurance Services. You should receive this via email within two working weeks. If there is a delay please email [rgoinfo@soton.ac.uk](mailto:rgoinfo@soton.ac.uk)

Appendix

Comments

None

[Click here to view your submission](#)

-----  
ERGO : Ethics and Research Governance Online

<http://www.ergo.soton.ac.uk>  
-----

DO NOT REPLY TO THIS EMAIL

Research Governance Feedback on your Ethics Submission (Ethics ID:12511)

Actions

To:

Halton-Nathan A.E.

Inbox

19 November 2014 08:55

Submission Number 12511:

Submission Title Main Study: Understanding Adolescent Shame and Pride in a School

Context:

The Research Governance Office has reviewed and approved your submission

You can begin your research unless you are still awaiting specific Health and Safety approval (e.g. for a Genetic or Biological Materials Risk Assessment) or external ethics review (e.g. NRES).The following comments have been made:

Submission ID : 12511

Submission Name: Main Study: Understanding Adolescent Shame and Pride in a School Context

Date : 19 Nov 2014

Created by : Ellen Cook

This is to confirm that the work detailed in your protocol and Ethics Application will be covered by the University of Southampton insurance programme. As Chief or Principle Investigator you are responsible for the conduct of the study and you are expected to:

1. Ensure the study is conducted as described in the protocol/study outline approved by this office
2. Advise this office of any amendment/change to the protocol, methodology, study documents, research team, participant numbers or start/end date of the study
3. Report to this office as soon as possible any concern, complaint or adverse event arising from the study

Failure to do any of the above may invalidate your ethics approval and therefore the insurance agreement, affect funding and/or sponsorship of your study; your study may need to be suspended and disciplinary proceedings may ensue.

On receipt of this letter you may commence your research but please be aware other approvals may be required by the host organisation if your research takes place outside

the University. It is your responsibility to check with the host organisation and obtain the appropriate approvals before recruitment is underway in that location.  
May I take this opportunity to wish you every success for your research.

## Appendix N

### Participant Assent FORM (Version 1)

UNIVERSITY OF  
**Southampton**

**Study title:** Understanding Adolescent Shame and Pride in a School Context: A Pilot Study

**Researcher names:** Ellen Cook, Alicia Halton-Nathan

**Supervisors:** Dr. Sander Thomaes & Dr Tim Wildschut

**Ethics reference:** 12511

*Please initial the boxes if you agree with the statements below:*

I have read and understood the participant information sheet  
(Version 1, 28/09/2014).

☐

I agree to take part in this Pilot research project and agree for my  
data to be used for the purpose of this study, as outlined in the

☐

I understand my participation is voluntary and I may withdraw at

☐

#### **Data Protection**

*I understand that information collected about me during my participation in this study will be completely confidential, stored securely at the University and will only be used for the purpose of this study.*

Participant's Name.....Class.....



## Appendix

Date.....

Participant's Signature.....

## List of References

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