It's all about relationships: the role of adult attachment style and locus of control in predicting aggression and the likelihood of a person accommodating and reacting constructively to perceived negative events in intimate relationships.

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I confirm that the thesis submitted is the outcome of work that I have undertaken during my programme of study, and except where explicitly stated, it is all my own work.

I confirm that the decision to submit this thesis is my own.

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I confirm that the work has been conducted ethically and that I have maintained the anonymity of research participants at all times within the thesis.

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Abstract

Paper one is a literature review of nine empirical studies. It reviews what is known about the relationship between adult attachment style and conflict resolution in intimate relationships. The findings highlighted that those individuals who have a more secure attachment style demonstrate more displays of positive behaviour, less displays of negatively construed behaviour, use more mutually focussed conflict resolution strategies, and report having increased confidence in resolving conflict, compared to those with an insecure attachment orientation. Other factors, such as gender, may also influence this relationship. Some of the studies were limited by a lack of generalisability, and whilst some papers break down the individual subcategories of insecure attachment and how these relate to their results throughout, others break down the subcategories with some results and at other times they refer to insecure attachment as a whole, which makes it difficult to compare results between the studies and draw firmer conclusions.

Paper two is an empirical study. This was online-based research which explored the relationship between adult attachment orientation, locus of control orientation, aggression and accommodation in intimate relationships. Fifty-three participants took part in the study. A standard multiple regression analysis was conducted on the data. Findings indicated a significant relationship between the attachment orientation 'anxiety' and aggression, and the attachment orientation 'avoidance' and accommodation. The results did not support the hypothesis that locus of control would predict aggression and accommodation. The findings are discussed along with their clinical implications, limitations and direction for future research.

Paper three is an executive summary. This has been written as an accessible document intended for dissemination of the research findings. The research background, method, findings, clinical implications and future research recommendations have been summarised within this report.

Paper	One:	Literature	Review

How is adult attachment style related to how a person responds to conflict in intimate relationships?

Total word Count: 6,927 words (excluding reference list and appendices as per award requirements)

This paper has broadly been prepared in accordance with the requirements of the Journal of Attachment and Human Development. Author Guidelines are listed in Appendix D.

Abstract

The aim of this review was to examine research investigating links between adult attachment style and conflict resolution in intimate relationships. A relationship has been demonstrated between these variables in the research literature, but a critique of the methodology employed to gather such data, consideration of clinical implications from a clinical psychology and mental health perspective, and recommendations for future research has not been presented in a structured, systematically generated review, which is what this review report sets out to do. In May 2018 seven databases were searched and a hand search undertaken, which resulted in nine papers for review once inclusion and exclusion criteria had been applied. All papers were quantitative in design, with exploration of the relationship between adult attachment style and conflict resolution in intimate relationships, as main areas of focus. The evidence consistently suggests that those individuals who have a more secure attachment style demonstrate more displays of positive behaviour, less displays of negatively construed behaviour, use more mutually focussed conflict resolution strategies, and report having increased confidence in resolving conflict. For example, those participants with a more insecure attachment orientation demonstrated less of these behaviours, however there was some variation in the results with regards to the type of insecure attachment these results applied to. For example, those with a more secure attachment orientation demonstrated more positively perceived behaviour, compared to those categorised as having a dismissing or preoccupied attachment. Clinical implications and future research recommendations are discussed.

Introduction

This review sets out to explore the relationship between adult attachment styles and how a person responds to conflict in intimate relationships. For the purposes of this review intimate relationships are considered to be those which involve a physical and/or emotional connection and can otherwise be described as a romantic relationship.

Attachment theory

The main underpinnings of attachment theory were developed by John Bowlby from his research into maternal deprivation, (Bowlby, 1973). Attachment theory provides a framework for understanding interpersonal behaviour. Bowlby's early work demonstrated that children experience intense anguish and mental pain when separated or bereaved of a primary care-giver, Bowlby theorised this as being the result of a fundamental bond being broken between the child and their care-giver. This bond is proposed as being an attachment between child and care-giver, developed through the availability of the care-giver in meeting the child's needs. Bowlby set out to discover the nature and development of that bond, which led to his theory of attachment.

Attachment theory assumes that an individual's well-being is greatly influenced by one's experience of close and supportive relationships with others during childhood, and that these experiences shape subsequent interactions and behaviour towards others, such as interactions within romantic relationships (Bowlby, 1973; Hans, 2005). For example, it can influence how they respond to conflict and other events. It is further proposed that the parent-child relationship offers a meaningful context for socialisation to different emotions (Brumariu, 2015). This may impact on the individual's ability to regulate their emotions as they grow into adolescence and adulthood, for example, being able to regulate emotions by self-soothing, which have been shown to be associated with a secure child and care-giver relationship (Mikulincer and Shaver, 2004).

Attachment is seen as an evolutionary behavioural system, designed to protect a child from harm (Holmes, 2014; 2012). When a secure attachment is formed with a care-giver, even after a temporary separation, a 'relaxed' state is likely to be experienced by the child when reunited. Children would seek to retain or attain proximity to a care-giver if they experience distress or if there is a threat of separation. Even after a temporary separation, a securely attached child is still likely to actively explore their environment in the presence of their care giver, as demonstrated by the Strange Situation procedure undertaken by Ainsworth, Blehar, Waters and Wall (1978). A securely attached child is also likely to demonstrate reduced exploration, distress and proximity seeking behaviours in the presence of a stranger. Alternatively, an avoidantly attached child may not greet their care giver and appear unaffected when reunited after a temporary separation and may go on to display sudden anger or frustration, and an anxiously/ambivalently attached child may alternate between proximity seeking behaviour and displays of anger or resistance when reunited after a separation.

Bowlby theorised that the impact of such experiences becomes internalised and results in the development of mental representations of self and others, namely, an internal working model (IWM) of attachment and relationships (Bowlby, 1980).

Internal working model

Internal working models (IWM) of attachment are refined throughout childhood, through various interactions and changes with the caregiving environment, such as the availability of the primary care-giver (Bowlby, 1980). Bowlby surmised that through these experiences children develop expectations, in times of need, about their care-giver's responsiveness and availability, which continues to shape their expectations of others as they grow into adulthood. A consistent pattern of care giving reaffirms these expectations, which strengthens the child's internal working model and

attachment orientation. For instance, demonstrating a secure attachment relationship with an intimate partner as an adult, likely reflects secure attachment experiences with a primary caregiver when they were a child.

Attachment orientation

Based on their attachment experiences and the development of an IWM, as a child reaches adolescence and adulthood they develop an attachment orientation, which is activated when they experience different events in a relationship, such as distress for example (Bowlby, 1980; Simpson & Rholes, 1998; Holmes, 2014; 2012). With regards to children, attachment orientations are categorised slightly differently than adults. Children are categorised as secure, ambivalent, disorganised or avoidantly attachment. Alternatively, although overlapping with childhood categories, adult attachment orientations are typically defined as either secure or insecure; with insecure having three sub-categories of anxious/ambivalent attachment, dismissive/avoidant attachment and disorganised/disorientated attachment (Ainsworth, Blehar, Waters & Wall, 1978; Main & Soloman, 1986). Adult attachment orientations are also not static; a person might demonstrate behaviours and responses associated with each of the orientations at any given time (George, Kaplan & Main, 1996). However, they may be categorised as having a particular orientation when they demonstrate more behaviours and responses that are associated with one orientation than another.

If a person experienced inconsistent care and support as a child and developed an insecure attachment style, they may be prone to displaying unhelpful responses to threats of abandonment or rejection as a means to try and retain the attachment to the care-giver (Holmes, 2014; 2012). It is theorised that the individual will then be more likely to display these responses in their intimate relationships when faced with a similar threat as an adult. For instance, a loved one begins to spend increasing amounts of time away from home for their new job, which causes the partner to feel less

important, less loved and fear their loved one will fall out of love with them. As a result an anxiously/ambivalently attached individual may display hostility and anger towards their loved one in the days leading up to them leaving, for a work trip for example. Whereas, an avoidantly attached individual may appear initially unaffected but may later display sudden hostility, and a disorganised/disorientated attached individual may display contradictory behaviour such as proximity, comfort seeking behaviours alongside rejecting behaviours. Consequently, this can weaken the bonds within the relationship and their loved one may feel alienated and no longer as close to their partner as a result (Bowlby, 1973).

Conflict resolution

Conflict can be defined as a disagreement or argument between people with differing principles or opinions (Cambridge English Dictionary, 2018). However, the term conflict is synonymous with many other behaviours or acts such as protesting, disputing, debating, confrontation, discord and violence, with such words having the power to evoking feelings of danger and threat (Stewart, 1998). In intimate relationships, conflict may arise due to disagreement over personal goals, priorities, values, interests and intentions (Zeidner & Kloda, 2013). A key feature in maintaining healthy intimate relationships is how conflict is resolved and whether this is done effectively (Gottman & DeClaire, 2001). An important part of resolving conflict effectively is considered to be the facilitation of trusted and open communication between the people involved in the conflict (Deutsch, 2014). However, achieving clear communication can be extremely difficult during the heat of a conflict event.

According to Bowlby (1973), an individual's perceptions of conflict and conflict resolution in intimate relationships is related to their attachment orientation and how anxious they feel about their partner. For example, research has demonstrated that poor conflict resolution has been shown by those with an anxious/ambivalent attachment orientation due to the level of distress and rumination they experience about the conflict event (Mikulincer,

Shaver, & Pereg, 2003). Alternatively, avoidantly attached individuals may minimise the conflict and actually recover well. However, minimisation and avoidance of facing and resolving the conflict may lead to problems if the person also represses their feelings about the conflict, or their feelings are rejected or denied by their partner (Stewart, 1998), which over time can lead to increased experiences of stress (Pearlin, Mullan, Semple, & Skaff, 1990).

When considering Bowlby's theory of attachment, it can be surmised that individuals who have an anxious/ambivalent, avoidant, or disorganised/disorientated attachment orientation, may experience difficulty managing conflict in intimate relationships (Creasey & Ladd, 2005). This is particularly the case since effective regulation of emotions and maintenance of harmonious interactions with a partner when experiencing stress, are key features of good conflict management (Creasey & Ladd, 2004). However, those with an insecure attachment orientation are more likely to have poor emotion regulatory skills compared to those with a secure attachment orientation. For instance, according to research by Mikulincer (1998), when a person who had a secure attachment orientation was faced with expressions of anger during a conflict event, they were observed to display more accommodating and constructive coping attempts. This served the purpose of trying to maintain the relationship with the person displaying anger, rather than reacting in an equally destructive way, which is proposed as a response more likely to be displayed by those with an insecure attachment orientation.

Research has demonstrated that more anxiously/ambivalently attached individuals may demonstrate poorer conflict recovery compared to their avoidantly, disorganised or securely attached counterparts (Mikulincer et al, 2003). This may stem from their perceptions of the support and care they are receiving during a conflict event, such as not feeling they are getting enough support and feeling their needs are not being met (Bowlby, 1973). Highly anxious individuals may be more likely to display coercive, hostile or dominating behaviour when faced with conflict in an attempt to regain some control over the conflict situation for fear that it is a threat to their relationship (Feeney, Noller & Callan, 1994). Displays of such behaviour may also be the result of experiencing defensive, hurt and angry feelings (Stewart, 1998).

Observational studies have further demonstrated that when an anxiously attached person experiences increased distress during conflict, through displays of negatively perceived behaviour from their partner for example, they are more likely to also reciprocate with negative behaviour (Fincham, 2003)..When reflecting on the event they are also more likely to make more negatively perceived than positively perceived statements about the conflict event.

Effectively resolving conflict may involve skills such as negotiation, clear communication, problem solving (Stewart, 1998) and a level of forgiveness (May, Kamble & Fincham, 2015) between the people involved in the conflict. For example, research has demonstrated that individuals with a secure attachment orientation were more likely to display forgiveness, and express more positive emotion when a partner engaged in potentially destructive conflict act such as betrayal, which led to better conflict recovery (Lawler-Row, Younger, Piferi, & Jones, 2006). Links have also been demonstrated with reacting constructively to threatening conflict events in intimate relationships when a person has a more secure attachment orientation, such as regulating emotion, displaying less defensive behaviour, and showing a commitment to resolve the conflict (Tran & Simpson, 2009).

Reacting less constructively to conflict events may involve the externalisation of problems, such as a person blaming others and not taking responsibility for their own difficulties and has been linked with a person having a more insecure attachment orientation and decreased satisfaction in intimate relationships (L'Abate & Weeks, 1976; Mikulincer, 1998). Additionally, during times of stress and conflict, partners in intimate relationships may try to be supportive but say or do things which are perceived as unhelpful by the recipient (Abbey, Andrews & Halman, 1992), and such perceptions are negatively associated with well-being (Rook, 1984). This may lead to the conflict remaining unresolved or on-going, which can threaten a person's mental health (Fincham, 2003).

Mental health

One's mental health well-being is considered to be determined by a number of factors, such as our biological makeup, socioeconomic circumstances and environmental factors, and is something which enables a person to fulfil a number of functions and activities (WHO, 2016; Mental Health Foundation, 2018). For instance, expressing and managing a range of both positive and negative emotions, coping and adapting to change and maintaining good interpersonal relationships. However, when experiencing regular and severe distress, research has demonstrated that people may be more susceptible to mental health difficulties and other associated difficulties. For example, they may experience depression, hopelessness, suicidal ideation (Ciarrochi, Deane & Anderson, 2002), and physical health difficulties and disease (Fincham, 2003).

According to the Office for National Statistics (2015), maintaining good interpersonal relationships and connections with other people is extremely important to one's overall health and well-being. This provides a source of support and security for a person, and promotes their emotional needs, which is a factor that can aid a person's recovery from mental health difficulties (Lyberg, Holm, Lassenius, Berggren, Severinsson & Högskolan, 2013). Research has illustrated how having an insecure attachment orientation may hinder the ability to maintain healthy supportive relationships (Bowlby, 1980), which is considered one of a number of factors which help maintain a person's mental health (WHO, 2016; Mental Health Foundation, 2018).

Rationale

Evidence has been presented above, which shows links between an individual's attachment orientation, their mental health and well-being, and how they interact with others in intimate relationships. This review will consider research which explores the link between adult attachment style and conflict resolution in intimate relationships. When an initial scoping search was undertaken there was a breadth of research around attachment

style development and the impact of this on various aspects of intimate relationships. However, only one review could be found which provided a cohesive synthesis of attachment style and conflict resolution (Feeney & Karantzas, 2017). The review presented evidence of a relationship between adult attachment style and conflict resolution, however it was a narrative review, underpinned by principles of social psychology, and did not critique the methodology utilised to obtain the results and conclusions, or consider clinical implications and future research. Further exploration using a more structured and systematic approach to appraising research exploring these links, underpinned by principles from clinical psychology and mental health research, alongside exploration of the clinical implications of the research and the methodology used, was considered clinically and academically relevant so as to firm up the evidence available purporting a link between adult attachment and conflict resolution.

The aim of the review will be to provide an in-depth picture regarding the relationship between adult attachment styles and how a person responds to conflict in intimate relationships, and the methodology employed to undertake such research. This review will identify further areas for research, and highlight the clinical relevance of the findings for mental health professionals.

Research question

How is adult attachment style related to how a person responds to conflict in intimate relationships?

Method

Search strategy

The following databases were searched in May 2018; MEDLINE, CINAHL, PsychINFO, EMBASE, PubMed, BNI, and AMED. An additional hand search of reference lists from key texts also took place.

A limitation with the method employed with this review is acknowledged, as it only reviews published papers. Peer-reviewed papers can result in an over reporting of results and be affected by publication bias. However, due to a peer-review providing a standard of quality and increasing the validity of research papers, only peer-reviewed papers were considered in this review.

The following search terms were used ("conflict resolution" OR "conflict" OR "conflict management" OR "conflict (psychology)" OR "conflict of interest" OR "conflict situation" OR "family conflict" OR "marital relations" OR "marital conflict" OR "human relation" OR "forgiveness" OR "negotiation" OR "criticism" OR "collaboration" OR "disputes" OR "diplomacy") AND ("adult attachment" OR "attachment" OR "attachment style") AND ("intimate relationships" OR "love relationships" OR "romantic relationships").

Inclusion criteria

- Published in English, due to lack of translation resources
- Peer-reviewed paper
- Participants aged 18+ at time of participation
- Participants completed a measure of adult attachment and conflict resolution
- Participants were currently or previously in an intimate relationship
- The relationship between adult attachment and conflict resolution were the main areas of focus

Exclusion criteria

- Adult attachment style and conflict resolution were only explored in relation to other factors, without exploration of their potential relationship with each other
- Focus on participants' perception of their partner's attachment style
 rather than their own attachment style

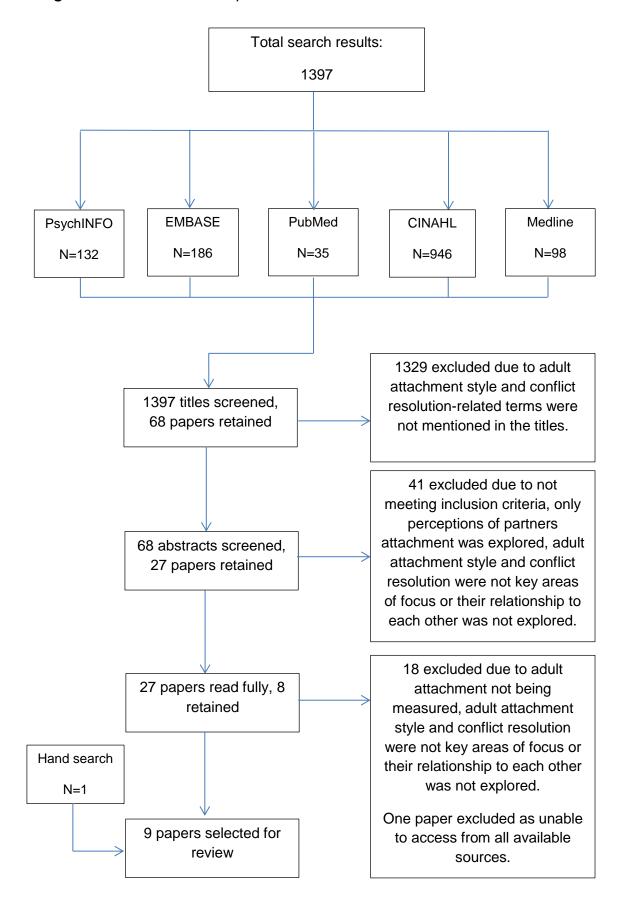
Study selection

There were three stages to the selection process, firstly the research papers were screened by title, then by abstract and then a full read of the research paper (see figure 1). In instances where it was not clear from the title and abstract screening whether the paper was relevant, a full read of the paper was undertaken to determine suitability. Hand searching produced an additional paper. In total, this search strategy resulted in nine papers for review.

Critical appraisal tool

All nine papers were analysed using a critical appraisal checklist (appendix A), which included questions from the Downs and Black appraisal checklist (Downs & Black, 1998), and the Critical Appraisal Skills Programme tools (Critical Appraisal Skills Programme, 2014). Although, each of these appraisal tools provided a comprehensive guide to reviewing literature, both included questions unrelated to the method of the reviewed articles and each provided questions the other did not. The checklist provided each paper with a score for quality (see appendix B). A data extraction table based on the use of the critical appraisal checklist is provided in appendix C.

Figure 1: Literature search process flow chart



Results

Study characteristics

All nine papers included in the review were quantitative in design. Eight papers were cross-sectional designs (Campbell, Boldry, Simpson & Kashy, 2005; Creasey, 2002; Creasey & Ladd, 2005; Creasey & Hesson-McInnis, 2001; Gouin et al. 2009; Pistole, 1989; Shi, 2003; Clymer, Ray, Trepper & Pierce, 2006), and one was longitudinal, with the time points between data collection stages being 1 year from baseline to follow-up (Haydon, Jonestrask, Guhn-Knight & Salvatore, 2017). All studies clearly reported their research aims and expectations/hypotheses. Appendix B details a summary of each paper included in this review. All nine studies were conducted in the United States of America.

Review of methodology

Sample

Most studies specified the sexual orientation of their participants, which has implications for the generalisability of results; four of the papers used heterosexual individuals or couples (Creasey & Ladd, 2005; Creasey, 2002; Gouin et al, 2009; Campbell et al, 2005), four did not specify sexual orientation (Creasey & Hesson-McInnis, 2001; Pistole, 1989; Shi, 2003; Clymer et al, 2008) and one used couples of mixed sexual orientation (Haydon et al, 2017).

Sample sizes ranged from 130-448 for individual participants and 35-103 for participant couples, however only one paper demonstrated that their participant sample had sufficient power (Haydon et al. 2017). Participants were recruited primarily from College or University student populations (Creasey, 2002; Creasey & Hesson-McInnis, 2001; Pistole, 1989; Creasey & Ladd, 2005; Campbell et al, 2005; Shi, 2003; Clymer et al, 2008), one from the communities in Western New England (Haydon et al, 2017), and one

from both the community and a University student population (Gouin et al, 2009).

Participants were recruited using various methods. Two papers utilised the same participant sample (Creasey, 2002; Creasey & Ladd, 2005) which provides a limited pool of participants. All data was collected at first contact but analysed at different time points. All participants were University students initially recruited through flyers, which were posted across campus and distributed by University staff. Of the remaining seven papers, the level of detail regarding method of recruitment varied. Five papers gave little information; one paper stated the participants were from a psychology department subject pool (Creasey & Hesson-Innis, 2001), and four stated they recruited University or college students but did not specify how they were recruited (Pistole, 1989; Campbell et al, 2005; Shi, 2003; Clymer et al, 2008). Of the remaining two papers, one recruited from the community and student populations through advertising in newspapers, radio, and community and campus notice boards, and through receiving referrals from other participants (Gouin et al, 2009), and the final paper advertised via paper and electronic posts to community bulletin boards for general population recruitment (Haydon et al, 2017). All studies were conducted in the United States of America.

Measures

All studies utilised well established measures for assessing adult attachment, whereas the assessment of conflict resolution varied between the use of validated measures and author developed measures. For the author developed measures, methods for validation were clearly described. Alongside the use of established questionnaires and interview methods for measuring adult attachment and conflict resolution, one study incorporated the physical measurement of plasma cytokine blood levels as a way of physiologically establishing whether a person is experiencing the negatively perceived emotion of stress (Gouin et al, 2009), four incorporated observed interaction tasks, for example, to observe and note facial expression, voice

tone and content, and body gestures during tasks, which were coded using validated coding systems or likert scale measures (Campbell et al, 2005; Creasey & Ladd, 2005; Gouin et al, 2009; Haydon et al, 2017), and one also utilised a likert scale design diary procedure (Campbell et al, 2005).

Adult attachment

There was some variation in the studies with regard to whether they assessed attachment developed through relationships with a parent, or romantic partner specific attachments. However, given both are theorised to be underpinned by the central tenets of attachment theory, during the development of inclusion/exclusion criteria for this review, a distinction between either type was not felt pertinent. Although, this may be an area for consideration in future reviews/research.

Creasey (2002) and Creasey and Ladd (2005) both used the validated Adult Attachment Interview (AAI) (George et al. 1996), which assesses attachment to parental figures rather than romantic partners. The remaining seven papers used validated questionnaires measuring romantic partner specific attachments.

Creasey and Hesson-McInnis (2001) utilised the Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994). The Experiences in Close Relationships Questionnaire, (Brennan et al. 1998) was used by Gouin et al. (2009) and a similar measure was used by Haydon et al. (2017); The Experiences in Close Relationships – Relationships Structures Measure (ECR-RS) (Fraley, Heffernan, Vicary & Brumbaugh, 2011).

Pistole (1989) utilised the Adult Attachment Style Questionnaire (Hazen & Shaver, 1987). Pistole notes how the developers of this measure do not report reliability data, however Pistole sought reliability data through repeated administration of the measure and found it had adequate consistency. The Adult Attachment Questionnaire (AAQ) (Simpson et al. 1996) was utilised by Campbell et al. (2005) and Clymer et al. (2006), and

Shi (2003) used the Multiple-Item Measure of Adult Romantic Attachment (Brennan et al. 1998).

Conflict resolution

There was variation with the way conflict resolution was measured. Six of the nine papers utilised well established measures only, two utilised researcher-devised measures, and one utilised both researcher-devised and well established measures. For the researcher-devised measures, the researchers sought validation, clearly described their processes for doing so and provided validation statistics.

As a way of measuring responses during conflict, Creasey, (2002) and Creasey and Ladd, (2005) used the validated Specific Affect Coding System (SPAFF) (Gottman, 1996), and Creasey, (2002) and Creasey and Hesson-McInnis, (2001) used the validated Managing Affect and Differences Scale (MADS) (Arellano & Markman, 1995).

Gouin et al. (2009) utilised the Rapid Interaction Coding System (RMICS) (Heyman, 2004) to code negative and positive behaviour during conflict and supportive events behaviour, such as psychological abuse, hostility, withdrawal, and self-disclosure and problem solving. Pistole, (1989) and Shi, (2003) utilised the Rahim Organizational Conflict Inventory (ROCI) (Rahim, 1983), and Clymer et al. (2006) used the Conflict Tactics Scale (CTS) (Straus, 1979).

Likert-scale measures and coding systems were developed, validated and implemented by three of the nine studies. These were utilised to measure affect and cognitive appraisals regarding level of confidence in coping with negative emotions and behaviour (Creasey & Hesson-McInnis, 2001), conflict behaviour, resolution and recovery sabotage (Haydon et al. 2017), and distress and behaviour (Campbell et al. 2005). Haydon et al. (2017) also used an adapted version of the dyad-level scales (Collin's et al. 1999), to measure negative affect.

Study limitations

The majority of papers reported their main results clearly and all gave exact probability values, however eight did not provide confidence interval data, which would have supported the strength of the significance finding demonstrated by the probability value, determined the effect, and would have allowed for the results to be considered in more detail.

For all except one study (Haydon et al. 2017), a power calculation was not provided so it was not possible to determine if the sample used had sufficient power. This makes it harder to establish if the papers had sample sizes adequate enough to identify a statistically significant effect. However, the sample sizes of all studies in relation to the variables being measured seemed reasonable.

All nine studies were limited with regards to generalisability of their results to the wider population, for example, seven recruited only from University student populations. Additionally, although providing implications for future research was adequate with six of the papers, three could have benefitted from providing more detail regarding this (Campbell et al. 2005; Shi, 2003; Pistole, 1989). For example, one study suggested future research should aim to clarify which facets of each measure used in the study are mainly responsible for generating the effects reported, with little other consideration for how future research could build on the study findings (Campbell et al. 2005).

Eight out of the nine papers provided a good description of their study limitations however one paper by Shi, (2003) did not provide this information. This leaves the study's results and conclusions open to criticism.

Main findings

Behavioural Responses

Five out of the nine studies reported significant findings regarding a relationship between a person having a more secure attachment orientation

and displaying more positively perceived behaviour, such as displaying affection/empathy, interest, validation, excitement, and shared humour in response to a conflict event (Creasey, 2002; Creasey & Hesson McInnis, 2001; Gouin et al. 2009; Shi, 2010; Campbell, 2005). Those with a more secure attachment orientation demonstrated more positively perceived behaviour, compared to those categorised as having a dismissing or preoccupied attachment. However, there was some variation between the studies with how such results were discussed. For example, some studies differentiate between the individual subcategories of insecure attachment orientations at some points and not at others; referring only to insecure attachment, which makes it more difficult to make direct comparisons to the results of other studies and draw firm conclusions.

Unlike the other papers included in this review, Creasey (2002) was the only study to present all results separately in terms of gender, which makes it easier to consider any possible gendered differences in results. Creasey's study found that more positively perceived behaviour was displayed by securely attached female participants, compared to insecurely attached females, during a conflict event. Some differences were also found between the insecure attachment orientations for male participants regarding the amount of positively perceived behaviour displayed. Male participants categorised as having an unresolved-insecure attachment orientation displayed less positive behaviour than those categorised as having a preoccupied or dismissing attachment orientation.

For three of the remaining five papers which documented results relating to displays of positively perceived behaviour, there was consensus with their results (Creasey & Hesson McInnis, 2001; Gouin et al. 2009; Shi, 2010). The three studies demonstrated that those with a more secure attachment orientation demonstrated more positively perceived behaviours, such as displaying affection/empathy and validation for example, in response to a conflict event than more insecurely attached participants. Campbell's, (2005) study also noted a trend in their results relating to this; however this result was not significant.

Regarding displays of negatively perceived behaviour, such as dominating, belligerence, contempt, stonewalling, anger, sadness and defensiveness, four out of the nine studies found a significant relationship with a person's attachment orientation. Three of the studies found that those with a secure attachment orientation displayed less negatively perceived behaviour than their more insecurely attached counterparts (Creasey, 2002; Creasey & Hesson-Innis, 2001; & Creasey & Ladd, 2005). No differentiation was given regarding the type of insecure attachment and displays of positively perceived behaviour; however those more unresolved/insecurely attached displayed more negatively perceived behaviour such as domineering. This is supported by Gouin et al. (2009) who found similar results but there was variation regarding the type of insecure attachment orientation, with those more avoidantly attached demonstrating more negatively perceived behaviour than those more anxiously attached.

With regards to displays of positively or negatively perceived behaviour, there was variation within the studies with regards to whether a distinction was made between different types of positive and negative behaviours, which places limitations on the conclusions which can be drawn, and impacts on the ability to draw clinical implications from the results. Two of the papers only refer to either positive or negative behaviour without reference to specific behaviours (Creasey & Hesson-Innis, 2001; & Gouin et al. 2009). However, four out of the nine studies explored specific behaviours and found significant results relating to their relationship with attachment orientation during conflict events (Creasey, 2002; Creasey & Ladd, 2005; & Campbell et al. 2005).

Creasey (2002) found participants' categorised as unresolvedinsecure demonstrated increased levels of defensiveness and domineering behaviour during a conflict event than their unresolved-secure counterparts. Additionally, female unresolved-insecurely attached participants displayed more contempt than unresolved-secure participants.

Commensurate findings were demonstrated by Creasey and Ladd (2005) and Campbell et al. (2005) with regards to domineering behaviour.

Participants with an avoidant or unresolved-insecure attachment orientation demonstrated more domineering behaviour than more securely attached participants. Creasey and Ladd (2005) found those with a more insecure attachment orientation demonstrated more defensive behaviour. However, some differences were found within the individual subcategories of insecure attachment, with those categorised as having a disorganised or unresolved-insecure attachment style demonstrating more domineering behaviour than those categorised as preoccupied (Creasey & Ladd, 2005).

One study explored the behaviours of verbal and physical aggression (Clymer et al. 2006), and found those participants who were categorised as more ambivalently attached displayed increased amounts of these behaviours than those categorised as avoidantly attached or more securely attached. Additionally, those more anxiously attached were more likely to sabotage recovery from conflict than their more securely attached counterparts (Haydon et al. 2017).

Resolution strategies

Two studies explored specific conflict resolution strategies and found significant results (Pistole, 1989; & Shi, 2010). Those participants with a more secure attachment style were more likely to display the mutually focussed resolution strategies of integrating and compromising in an attempt to resolve a conflict event, than more avoidantly or anxiously attached participants. Those categorised as a having a more anxious attachment orientation were also shown to display more obliging behaviour than more avoidantly attached participants in both studies. Shi (2010) also found that those more anxiously attached compared to securely attached participants demonstrated more avoidance of conflict behaviour.

An additional finding by Clymer et al. (2006) demonstrated a trend for more securely attached participants to display more reasoning skills during conflict within intimate relationships than those with a more insecure attachment style; however, this result was not statistically significant.

Emotion regulation and perceptions of conflict

Campbell et al. (2005) explored participant perceptions of conflict and its escalation. They found that those categorised as more anxiously attached perceived more conflict to occur in their relationship, for it to escalate faster, for there to be more long-lasting consequences as a result of the conflict, and reacted more negatively to conflict than more securely attached participants.

One study explored participant displays of and regulation of emotion during conflict (Creasey & Hesson-McInnis, 2001), and found that those with an anxious attachment orientation experienced more negative emotion, such as anger and fear. Those with a more anxious attachment also reported less confidence in their ability to regulate their emotion and behaviour during conflict events with intimate partners than more securely attached participants. Experiencing increased negative emotions is commensurate with results from Gouin et al. (2009), were higher following a conflict event with an intimate partner for those categorised as more anxiously attached compared to participants who were more securely attached.

Discussion

All nine studies included in this review highlighted a significant relationship between conflict resolution and specific adult attachment orientations in their results. Insecure attachment orientations were associated with increased amounts of negatively perceived behaviour and negative affect than there more securely attached counterparts. However, the way such results are discussed varies between the studies. Whilst some papers break down the individual subcategories of insecure attachment and how these relate to their results throughout, others break down the subcategories with some results and at other times they refer to insecure attachment as a whole, which makes it difficult to compare results between the studies and draw firmer conclusions.

Whilst a number of the studies were methodologically sound, there are a few issues that need to be highlighted before firm conclusions regarding the impact of attachment style on conflict resolution can be made. Firstly, there are issues with the samples used in the studies. Two of the studies were produced from the same data collection set, which provides a limited pool of participants', and there is a lack of variability in the research given that three out of the nine papers included the same lead or joint lead researcher. Additionally, three of the papers recruited from the same geographical area in America, which causes implications in terms of generalisability of results.

A further point regarding generalisability is that all but two papers only recruited from University or College student populations, which highlights a lack of variability of population samples. Furthermore, three studies recruited only heterosexual individuals or couples only, with it being unclear if this was intentional or not, five did not specify sexual orientation, and one stated they recruited participants with mixed sexual orientations. This further limits the generalisability of results and indicates that a portion of the population may be underrepresented by the research explored in this review.

The majority of sample sizes were moderate, however only one study (Haydon et al. 2017), conducted a power calculation to determine appropriate sample size, which means it is difficult to determine if the results obtained demonstrated a statistically significant effect.

Two out of the nine papers used the same measure to establish adult attachment orientation (AAI) (Creasey, 2002; Creasey & Ladd, 2005), which although a widely used measure, is one which measures familial attachment experiences. Whereas the other seven papers used measures assessing working models of attachment in romantic relationships specifically, which may be more relevant to the aims of their study. Further consideration could be given to how attachment is measured in relation to the aims of a study, the validity of the measure, and its ability to be compared with the measures used in similar research.

One of the nine studies did not set an inclusion/exclusion criteria relating to length of time in their current or previous relationship. Although the mean length of relationship was around 2 years in the majority of studies, the actual range of relationship length varied between less than 6 months to over 11 years. This may impact the results obtained regarding resolution and response to conflict and may have posed as a confounding variable.

All studies used self-report measures either solely or alongside other methods, such as observations of interaction tasks, or a diary procedure. Whilst there are many advantages to using self-report measures, there are criticisms applicable to the accuracy of the data obtained with self-reports, specifically the reliability of the data. However, the use of observational tasks, alongside self-reported data in the studies by Campbell et al, 2005; Creasey & Ladd, 2005; Gouin et al, 2009; Haydon et al, 2017, increased the reliability of the results obtained.

Future research could focus on increasing the variety of population groups included, paying particular attention to under-represented populations such as those with different sexual orientations, and those outside of student populations, for example clinical and forensic populations. There also appears to be a lack of research outside of America, so it would be beneficial to conduct research in different countries and cultural settings, so firmer conclusions can be drawn regarding the relationship between adult attachment orientations and conflict resolution in intimate relationships. Future research may also benefit from reporting and discussing all results with more reference to the individual subcategories of insecure attachment so a more direct comparison can be made between studies in the same area. Only one study reported results in terms of gender and found differences in their results, therefore it may be beneficial to explore a gendered aspect to attachment and conflict resolution in the future. Finally, it is unclear if assessing familial attachment to parental figures compared to romantic partner attachments impacted on the results, therefore this may benefit from further exploration.

Clinical implications

Results of the research reviewed suggest that targeting the coping and management of conflict for those individuals suffering interpersonal difficulties, during therapeutic interventions may improve their mental health and well-being and their interpersonal relationships. Psycho-education and promoting an understanding of a person's attachment style may play an important role in helping an individual gain insight into their difficulties and the function underlying them. For example, using cognitive-behaviour strategies to help a client modify their expectancies related to unrealistic or problematic beliefs and attitudes, which are associated with insecure attachment orientations (Holtzworth-Munroe, Stuart & Hutchinson, 1997), about their romantic partners.

Consideration of and assessing attachment orientations may also help to explain certain client presentations, for example, missing appointments, difficulties with engagement and the level of attention required from the therapist during sessions. Furthermore, couples-based worked may find it useful to consider the attachment orientations of the couple and its possible impact on their relationship. However, it may be pertinent to bear in mind attempts to alter or increase client insight into the effects of attachment orientation may take time (Bowlby, 1988), which presents difficulties for time-limited interventions and resource limited services.

Limitations of the review

Firstly, the number of studies reviewed is limited and this makes conclusions difficult to draw. Additionally, whilst the use of peer reviewed, published journal articles was appropriate for this review, it is acknowledged that only reviewing published papers may have resulted in an over reporting of positive results and be affected by publication bias. It is also acknowledged that some papers addressing these topic areas may have been discarded as a result of the inclusion and exclusion criteria and the

choice of search terms employed. Finally, there was only one sole reviewer undertaking this review and a standardised appraisal tool was not employed.

Conclusions

All studies reported a relationship between adult attachment style and how a person responds to, or resolves conflict in intimate relationships. The evidence consistently suggests that those individuals who have a more secure attachment style demonstrate more displays of positively perceived behaviour and less displays of negatively perceived behaviour, more use of mutually focussed conflict resolution strategies and report increased confidence in resolving conflict compared to more insecurely attached participants. However, there was variation with the methods employed by the studies, which makes the potential impact of confounding variables unclear.

The findings of this review go some way to answering the research question as the findings show a relationship between adult attachment style and conflict resolution in intimate relationships. However, these results would need to be considered with caution due to the methodological flaws, in particular the inability to generalise the results obtained to the wider population.

These findings pose clinical implications to those working with individuals experiencing interpersonal difficulties; however, more research is needed to strengthen the research covered in this review, specifically regarding research being conducted with different populations and in different countries and cultural settings.

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Appendices

Appendix A. Quality Appraisal Checklist

- 1. Is the hypothesis/aim/objective of the study clearly described?
- **2.** Are the characteristics of the participants included in the study clearly described?
- 3. Are the main findings of the study clearly described?
- **4.** Does the study provide estimates/discussion of the random variability in the data for the main outcomes?
- **5.** Have actual probability values been reported?
- **6.** Were the participants in the study representative of the entire population from which they were recruited?
- 7. Was the research design appropriate to address the aims of the research?
- **8.** Were the statistical tests used to assess the main outcomes appropriate?
- 9. Were the main outcome measures used accurate (valid and reliable)?
- **10.** Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?
- **11.** Did the study have sufficient power to detect a clinically important effect?
- 12. Are the results generalizable to the local population?
- **13.** Are the limitations of the study discussed?
- 14. Is clinical as well as statistical significance discussed?

All questions originate from the Downs and Black appraisal checklist (Downs & Black, 1998), and the Critical Appraisal Skills Programme tools (Critical Appraisal Skills Programme, 2014)

Appendix B: Critical Appraisal Scoring Table

Article	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q10	Q.11	Q.12	Q.13	Q.14	Total /14
Creasey (2002)	1	1	1	1	.5	1	1	1	1	0	UTD	0	1	1	10.5 75%
& Hesson-McInnis (2001)	1	1	1	1	.5	1	1	1	1	1	UTD	0	1	1	11.5 82.1%
Gouin et al. (2009)	1	1	.5	0	1	UTD	1	1	1	.5	UTD	.5	1	.5	9 64.3%
Pistole (1989)	1	1	1	0	.5	1	1	1	1	UTD	UTD	0	1	.5	9 64.3%
Creasey & Ladd (2005)	1	1	1	0	.5	1	1	1	1	1	UTD	0	1	1	10.5 75%
Campbell et al. (2005)	1	1	1	1	.5	1	1	1	1	1	UTD	0	1	.5	11 78.6%
Shi (2003)	1	1	.5	1	.5	1	1	1	1	0	UTD	0	.5	.5	9 64.3%
Haydon et al. (2017)	1	1	1	0	1	1	1	1	1	1	1	.5	1	1	12.5 89.3%
Clymer et al. (2006)	1	1	1	0	.5	.5	1	1	1	1	UTD	0	1	1	10 71.4%

Key: 0 = criteria not met, 0.5 criteria partially met, 1 = criteria fully met, UTD

⁼ unable to determine

Appendix C: Data extraction table

Author and Date	Sample	Data collection	Aim & Main findings	Strengths	Limitations
		methods			
• Creasey	• N= 145	Adult Attachment	To specify any relationship	Clear aims and	Limited
(2002)	heterosexual	Interview (George	between internal working	predictions/hypotheses.	generalisability.
	student	et al. 1996).	models of attachment and	Clinical significance,	Unable to
	couples from	Specific Affect	conflict management	areas for future	determine if the
	the USA.	Coding System	behaviours in young adults	research and	sample had
	Mean age:	(SPAFF; Gottman,	involved in a romantic	limitations were	sufficient power.
	19.98 years	1996).	relationship.	discussed.	Confidence
	old.	Managing Affect	Significant differences found	Reliable and valid	intervals not
	Mean length	and Differences	between secure and	measures used.	reported.
	of current	Scale (MADS;	insecure attachments with	Multiple measures	
	relationship:	Arellano &	regards to the amount of	used to increase	
	20 months.	Markman, 1995).	positive and negative	reliability of results.	
			behaviours displayed and	Exact p values were	
			with the types of negative	discussed.	
			behaviours displayed.	Supplemental analysis	
				carried out to improve	
				reliability of results.	
Creasey &	• N= 357	Relationship Scales	To examine associations	Clear aims and	Limited
Hesson-	student	Questionnaire	between attachment	predictions/hypotheses.	generalisability.
McInnis	individuals	(RSQ; Griffin &	orientations and coping with	Clinical significance,	Unable to
WOITHIO	from the USA.	Bartholomew,	conflict in romantic	areas for future	

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
(2001)	Mean age: 20.37 years old. Mean length of current relationship: 23 months.	 1994). Managing Affect and Differences Scale (MADS; Arellano & Markman, 1995). 5-point likert-scale used to measure the intensity of 3 types of affect experienced during conflicts. Researcher-devised 10-item measure assessing cognitive appraisals of confidence in coping during conflict. Factor analysis demonstrated internal consistency. 	relationships. Individuals with insecure attachments were more likely to display negative as opposed to positive behaviours, experience increased negative emotions, and have less confidence in their ability to regulate their emotions, behaviour and use behavioural copying strategies during conflict, compared to those with secure attachments.	research and limitations were discussed. Reliable and valid measures used, or tested for such when devised own measure. Exact p values were given.	Determine if the sample had sufficient power. Confidence intervals not reported.

-	Author and Date		Sample		Data collection methods		Aim & Main findings		Strengths		Limitations
•	Gouin, Glaser, Loving, Malarkey, Stowell, Houts & Kiecolt- Glaser (2009)	•	35 heterosexual married couples, from general population and students from the USA. Mean age: 37.64 years old Mean length of current marriage: 11.23 years.	•	The Experiences in Close Relationships Questionnaire (Brennan et al. 1998). The Rapid Interaction Coding System (RMICS; Heyman, 2004). Measure of Plasma IL-6 using Quantikine Hugh Sensitivity Immunoassay Kits (R&D Systems, Minneapolis, Minn).	•	To explore the idea that attachment style influences physiological responses to marital stress, which is measured by looking for inflammatory markers in blood samples. Those who are more avoidantly attached demonstrated increased levels of inflammatory responses and displays of negatively perceived behaviour compared to positively perceived behaviour.	•	Clear aims and predictions/hypotheses. Clear protocol – good replicability. Clear inclusion and exclusion criteria. Areas for future research and limitations were discussed. Reliable and valid measures used. Exact p values were given.	•	Limited generalisability. Unable to determine if the sample had sufficient power. Clinical significance of results could have been discussed in more detail. Confidence intervals not reported.
•	Pistole (1989)	•	psychology student individuals from the USA.	•	Hazen & Shaver's (1987) single item measure was used to measure attachment style.	•	To consider adult attachment style in relation to conflict resolution and relationship satisfaction. Those with a secure	•	Clear aims and predictions/hypotheses. Limitations were discussed. Reliable and valid	•	Limited generalisability. Unable to determine if the sample had

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	 Mean age not specified. Mean length of relationship not specified – a study requirement was 1 or 2 important love relationships. 	 Rahim Organizational Conflict Inventory (ROCI; Rahim, 1983). The satisfaction and cohesion subscales of the Dyadic Adjustment. Scale (Spanier, 1976). 	attachment style were more likely to use integrating and compromising conflict strategies than those with an insecure attachment orientation.	measures used. • Exact p values were given.	sufficient power. Clinical significance of results could have been discussed in more detail. Confidence intervals not reported. Limited detail regarding future research options. Lack of detail given regarding protocol
• Creasey & Ladd (2005)	130 heterosexual student individuals	 Adult Attachment Interview (George et al. 1996). Relationship Scales 	Exploring associations between people's representations regarding their romantic partners and	 Clear aims and predictions/hypotheses. Clearly identified procedure. 	Limited generalisability.Unable to determine if the

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	from the USA. Mean age: 19.6 years old. Mean length of current relationship: 19.6 months	Questionnaire (RSQ; Griffin & Bartholomew, 1994). • Specific Affect Coding System (SPAFF; Gottman, 1996).	their conflict behaviour, with it being predicted that this would be moderated by a person's generalised attachment representations/orientation. Those with a more insecure attachment style were more likely to display negative behaviour during conflict, such as domineering or defensiveness, than those with a more secure attachment style.	 Reliable and valid measures used. Use of multiple measures strengthened results obtained. Use of multiple coders. Clinical significance, areas for future research and limitations were discussed. Exact p values were given. 	sample had sufficient power. Confidence intervals not reported.
• Campbell, Simpson, Boldry & Kashy (2005)	103 heterosexual student couples for part 1, with 98 also participating in part 2. All from the USA	Adult Attachment Questionnaire (AAQ; Simpson et al. 1996). Perceived Relationship Quality Components Scale (PRQC; Fletcher, Simpson & Thomas,	Two part study, exploring how perceptions of relationship-based conflict and support are associated with relationship satisfaction/closeness using attachment theory as a guide. More anxiously attached	 Clear aims, hypotheses/predictions, procedure and description of data analysis Regression coefficients clearly identified. Reliable and valid measures used. 	 Limited generalisability. Unable to determine if the sample had sufficient power. Confidence intervals not

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	 Mean age: Males: 19.63 years old Females: 18.90 years old Mean length of current relationship: 17.45 months 	 2000). Rosenberg's (1965) measure of selfesteem. Researcher designed likert scale daily diary. Researcher designed 9-point scale providing an index of selfperceived distress following conflict. Researchers individually rated video recordings of conflict resolution task. 	individuals perceive less positive behaviour during conflict, increased amounts and severity of conflict events in their relationship, and increased long term consequences following conflict than do those with a more secure attachment orientation.	 Use of multiple raters/coders and used a two-part design to the study to increase reliability of results. Clinical significance and limitations were discussed. Exact p values were given. 	reported. • Lack of detail about the measures used for rating video recordings and the development of the self-report measure.
• Shi (2003)	448 student individuals from the USA	Multiple-Item Measure of Adult Romantic	Examined whether in romantic relationships adult attachment was predictive	Clear aims and predictions/hypotheses.Reliable and valid	Limited generalisability.Unable to

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	Mean age: 21.9 years old Current or past relationship mean length: 24 months	Attachment (MIMARA; Brennan et al. 1998). Rahim Organizational Conflict Inventory-II (ROCI-II; Rahim, 1983). The Relationships Assessment Scale (RAS; Hendrick, 1988).	of conflict resolution behaviours and satisfaction. Those with more insecure attachment orientations were more likely to display less positive behaviour during conflict and increased displays of domineering behaviour. Those with a more secure attachment style demonstrated more displays of integrating and compromising behaviours during conflict.	measures used. Clinical significance was discussed. Exact p values and confidence intervals were given. Regression coefficients clearly identified.	determine if the sample had sufficient power. Lack of information around study limitations and implications for future research. More detail around procedure would have increased replicability.
Haydon Jonestrask, Guhn-Knight & Salvatore (2017)	100 mixed sexual orientation couples from communities in Western New England.	The Experiences in Close Relationships Relationships Structures Measure (ECR-RS; Fraley, Heffernan, Vicary & Brumbaugh, 2011).	 Explored the dyadic attachment processes associated with recovery from conflict in romantic relationships. Those with more insecure attachment orientations 	 Clear aims, predictions/hypotheses and procedure. Reliable and valid measures used. Clearly illustrated how sample had sufficient 	 Limited generalisability. Unclear inclusion & exclusion criteria. Confidence

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	Mean age: 26.8 years old Mean length of current relationship: 3.2 years	The Relationships Assessment Scale (RAS; Hendrick, 1988). Individual-level scales adapted from the dyad-level scales used to code shared and negative affect (Collins et al. 1999) Researcher devised and validated likert scales measuring conflict behaviour, resolution, and recovery sabotage.	were more likely to sabotage recovery from conflict compared to their more securely orientated counterparts.	power to determine an effect. Training provided to raters of the conflict task. Inter-rater reliability provided for the likert-scales. Exact p values given and analysis coefficients provided. Clinical significance, limitations and future research were discussed.	intervals not provided.
Clymer Ray, Trepper & Pierce (2006)	N= 200 student individuals (primarily female). All from the USA.	 Adult Attachment Questionnaire (AAQ; Simpson et al. 1996). Conflict Tactics Scale (CTS; Straus, 	 Assessing the relationship between attachment style, conflict resolution and sexual satisfaction in romantic relationships. Those with a more secure 	 Clear aims, predictions/hypotheses and procedure. Reliable and valid measures used. Exact p values given. 	 Limited generalisability. Unable to determine if the sample had

Author and Date	Sample	Data collection methods	Aim & Main findings	Strengths	Limitations
	 Mean age: 27years old Mean length of current relationship: 5.7 years 	 1979). Index of Sexual Satisfaction (ISS; Hudson, Harrison & Crosscup, 1981). Dyadic Adjustment Scale (DAS; Spanier, 1976). 	attachment were more likely to use reasoning skills during conflict compared to more anxiously attached, and more anxiously attached were more likely to use both verbal and physical aggression in response to conflict.	 Regression coefficients clearly identified. Clinical significance, limitations and future research were discussed. 	sufficient power. Unclear inclusion and exclusion criteria. Confidence intervals not provided.

Appendix D. Journal submission guidelines

About the Journal

Attachment & Human Development is the leading forum for the presentation of empirical research, reviews and clinical case studies that reflect contemporary advances in attachment theory and research. AHD is the official journal of the Society for Emotion and Attachment Studies (SEAS) and the official journal of the International Attachment Network (IAN).

AHD publishes original research, meta-analytic reviews (and occasionally) narrative reviews based on attachment theory. Submissions that include multi-method approaches (including interviews or observations), and a longitudinal design, are especially welcome. While reliance on widely used and previously validated methods is the norm, AHD also publishes papers that introduce new attachment methods. Intergenerational patterns of attachment, emotion-regulation, children's social and emotional development, the effects of loss and trauma, are common topics addressed by the journal. Submissions that include physiological or genetic data, together with attachment variables, addressing core questions in developmental science are welcome. Submissions typically include attachment as a predictor or an outcome, or attachment as a moderator or mediator of developmental outcomes.

AHD aims to be the source for reliable and valid research, and reviews, based on the theories advanced by John Bowlby and Mary Ainsworth. The journal is of interest to developmental, social and clinical psychologists, psychiatrists and psychotherapists, and other mental health professionals including social workers, couple and family therapists.

- Empirical Reports should conform to APA standards, with a legible abstract, followed by sections that include an introduction, method, results, and discussion.
- Theory/Review Papers should make an original, testable and/or useful extension/revision to theory and previous literature concerning attachment processes and human development.

• Clinical Case Studies should provide an account of previous clinical theory in an organized and up-to-date manner distinct from the clinical case material. Further, the clinical case material should occupy no more than a third of the paper. The first third should include only relevant background theory, while the final third should aim to discuss the descriptive presentation of the clinical case material against the background of existing theories and/or modifications needed to accommodate the clinical material.

Empirical Reports, Theory/Review Papers and Clinical Case Studies

- Should be written with the following elements in the following order:
 title page; abstract; keywords; main text introduction, materials and
 methods, results, discussion; acknowledgments; declaration of
 interest statement; references; appendices (as appropriate); table(s)
 with caption(s) (on individual pages); figures; figure captions (as a list)
- Should be between 6000 and 7500 words, inclusive of the abstract.

Style Guidelines

Please refer to these quick style guidelines when preparing your paper, rather than any published articles or a sample copy.

Any spelling style is acceptable so long as it is consistent within the manuscript.

Please use double quotation marks, except where "a quotation is 'within' a quotation". Please note that long quotations should be indented without quotation marks.

Formatting and Templates

Papers may be submitted in Word format. Figures should be saved separately from the text. To assist you in preparing your paper, we provide formatting template(s).

Word templates are available for this journal. Please save the template to your hard drive, ready for use.

If you are not able to use the template via the links (or if you have any other template queries) please contact authortemplate@tandf.co.uk.

Font: Times New Roman, 12 point, double-line spaced. Use margins of at least 2.5 cm (or 1 inch). Guidance on how to insert special characters, accents and diacritics is available here.

Title: Use bold for your article title, with an initial capital letter for any proper nouns.

Abstract: Indicate the abstract paragraph with a heading or by reducing the font size. Check whether the journal requires a structured abstract or graphical abstract by reading the Instructions for Authors. The Instructions for Authors may also give word limits for your abstract. Advice on writing abstracts is available here.

Keywords: Please provide keywords to help readers find your article. If the Instructions for Authors do not give a number of keywords to provide, please give five or six. Advice on selecting suitable keywords is available here.

Headings: Please indicate the level of the section headings in your article:

- 1. First-level headings (e.g. Introduction, Conclusion) should be in bold, with an initial capital letter for any proper nouns.
- 2. Second-level headings should be in bold italics, with an initial capital letter for any proper nouns.
- 3. Third-level headings should be in italics, with an initial capital letter for any proper nouns.
- Fourth-level headings should be in bold italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.

Fifth-level headings should be in italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.

Paper two: Empirical Paper

It's all about relationships: the role of adult attachment style and locus of control in predicting aggression and the likelihood of a person accommodating and reacting constructively to perceived negative events in intimate relationships.

April 2019

Total word count: 7,969 words (excluding reference list and appendices as per award requirements)

This paper has broadly been prepared in accordance with the requirements of the Journal of Attachment and Human Development. Author Guidelines are listed in Appendix A.

Abstract

Attachment theory postulates that an individual's relationships with others as an adult are greatly influenced by their experiences during childhood. Attachment experiences are said to influence how individuals behave in intimate relationships, how they respond to stress and other emotion-invoking experiences. For example, whether they are more likely to express anger, or react constructively and accommodate perceived negative events. This regression study investigated whether adult attachment style and locus of control orientation; a person's perceived ability to control the outcome of events, predict the degree to which a person is likely to express anger/aggression and how they react to potentially destructive, negatively perceived events in intimate relationships. These are all factors which have been linked with satisfaction in intimate relationships. Participants were staff and students from a West Midlands University (n = 53) who completed an online battery of self-report measures. Participants were mostly female, n = 50, and within the 18-35 age category. Locus of control was not a predictor of anger expression or accommodation in intimate relationships. Adult attachment styles of 'anxiety' and 'avoidance' were the only significant predictors of aggression and accommodation. Limitations and considerations for future research are discussed.

Key words: Adult attachment, locus of control, intimate relationships, aggression, anger, accommodation, gender.

Introduction

Attachment Theory

Attachment theory provides a framework for understanding interpersonal behaviour and was first developed by John Bowlby from his research into maternal deprivation (Bowlby, 1973). It is assumed that a person's experience of relationships during childhood shape their behaviour and interactions towards others as an adult and impacts on their overall wellbeing (Bowlby, 1973; Hans, 2005). Bowlby's early work with children who were deemed to have emotion-related difficulties, illustrated that children experienced anguish and distress when separated, for example, through bereavement, from their primary care-giver. Bowlby theorised this as being the result of a fundamental bond between the child and care-giver being broken. An attachment between a child and their care-giver is purported to develop through the availability of the care-giver in meeting the child's needs. However, if there is unpredictability with the care and support provided, attachment theory proposes a person is likely to experience intense distress (Bowlby, 1988).

As a child grows they develop an attachment orientation, which is activated when they experience distress (Bowlby, 1980; Simpson & Rholes, 1998; Holmes, 2014; 2012). Childhood attachment orientations are typically categorised as being secure, anxious/ambivalent, disorganised or avoidant. Whereas, although overlapping, adult attachment orientations are typically defined as secure or insecure; with insecure having three sub-categories of dismissive/avoidant, anxious/ambivalent, and disorganised/disorientated (Ainsworth, Blehar, Waters & Wall, 1978; Main & Soloman, 1986). It is theorised that different patterns of care-giving are linked to the development of different insecure attachment orientations (Bowlby, 1980). For instance, a care-giver who is frequently preoccupied and dismissive of their child's needs and emotions is linked to the development of an avoidant attachment orientation (Ainsworth, Blehar, Waters & Wall, 1978; Main & Soloman, 1986: Bowlby, 1980; Feeney & Noller, 1996). This is because a child is likely to learn to hold back their own emotions as displays of emotion have failed to

get their needs met previously. The development of an anxious/ambivalent attachment is linked to a care-giver flitting between being responsive to the child's needs and then unresponsive, which leads the child feeling uncertain about whether their needs will or won't be met. As a result they will likely feel the need to pay close attention to their care-givers emotional state. A disorganised orientation is linked to a care-giver being unable to provide a protective safe base for the child due to being unable to process their own emotions effectively, for example displaying intense anger and abuse. This leads to the child being unable to learn ways to get their needs met as the care they are receiving is so unpredictable and scary and as a result they may suppress their own needs.

The attachment bond between a child and their care-giver is considered to be an evolutionary behavioural system, designed to protect a child from harm (Holmes, 2014; 2012). When a child's needs have been appropriately met through consistent patterns of care-giving, a secure attachment is formed. Even after a temporary separation from their care-giver, a securely attached child is likely to experience a 'relaxed' state when reunited. However, after a temporary separation, an anxiously/ambivalently attached child may not experience a 'relaxed' state and instead may alternate between displaying proximity seeking behaviour and acts of anger or resistance towards their care-giver. Similarly, an avoidantly attached child may not experience a 'relaxed' state, but may either greet their care-giver; appearing initially unaffected by the separation, or they may display sudden anger.

It is theorised that the impact of such experiences then becomes internalised and an internal working model (IWM) of attachment is developed (Bowlby, 1980). IWM's are described as mental representations of self and others, which are strengthened through consistent patterns of care-giving experienced as a child. Children will incorporate their early attachment experiences into their IWM and develop expectations in times of need about their care-giver's availability, which shapes their overall expectations of others as they grow into adulthood (Feeney & Noller, 1996). Within intimate

relationships insecure attachment orientations may present in the following ways; an anxious/ambivalent attachment may be marked by a fear of abandonment, jealousy, obsessiveness, anxiety and seeking extreme closeness, whilst those more dismissive/avoidantly attached may experience discomfort with closeness and depending on others for their needs (Feeney & Noller, 1996). Those more disorganised/disorientatedly attached may be confused and have no strategy to have their needs met; they may feel depressed, passive, angry or non-responsive in relationships and feel frightened or be frightening at times (Ainsworth et al., 1978; Main & Soloman, 1986).

Regarding intimate relationships, which for the purposes of this study is defined as an interpersonal relationship involving physical and/or emotional intimacy of a romantic kind, attachment insecurity is associated with less relationship satisfaction (Feeny, Noller & Callan, 1994; Mikulincer, 1998; Ridge & Feeney, 1998). According to the Office for National Statistics (2015), maintaining good relationships and connections with other people, for example, in intimate relationships, is extremely important to one's overall well-being. Therefore, exploring the influences of attachment orientation within intimate relationships is an ever growing area of research, for instance, exploring the link between attachment orientation and anger. According to Bowlby (1988), although anger can be a normal, functional response to certain life events, if a person has been exposed to repeated threats of abandonment or rejection as a child, and develops an insecure attachment style, they may be more likely to display dysfunctional anger in their intimate relationships when faced with a similar threat.

Anger Expression

According to DiGiuseppe and Tafrate (2007), when considering the impact of expressed emotion in relationships, it is likely that certain expressed emotion, such as dysfunctional anger, will have a negative impact in intimate relationships. It is proposed that this is because anger is more likely to be expressed in the home environment compared to other

environments, such as public places, and is more commonly expressed towards people we care about.

Anger and intimate partner violence are well researched areas within psychological literature; however, the focus has primarily been on physical displays of aggression/violence. According to Kar and O'Leary (2013), research into the area of psychological aggression is increasing but is still an under-researched area. This may account for some of the gendered differences with displays of anger highlighted in research. Psychological aggression can be understood primarily as verbal acts that are intended to humiliate, blame, criticise, dominate, intimidate, isolate, and threaten (Follingstad, Coyne & Gambone, 2005). According to Kar and O'Leary (2013), in their study exploring the gendered aspect of psychological aggression in a sample of 453 married parents, psychological aggression for many women, in comparison to men, was perceived as more harmful. This is supported by a study into the role of emotional abuse, such as psychological ridicule and humiliation, in physically abusive relationships (Follingstad, Rutledge, Berg, Hause & Polek, 1990). This study found out of 234 women who experienced abuse in relationships, 72% had reported that in comparison to physical aggression, a more negative impact was experienced as a result of psychological aggression. The terms psychological aggression and emotional abuse have been used interchangeably in research but for the purposes of consistency the term psychological aggression/abuse will be used throughout the rest of this study. In Follingstad et al's. (1990) study, a form of psychological abuse, which had one of the most negative impacts, was shown to be the act of ridicule. It was theorised that this had the most impact due to its attacking nature on a woman's self-esteem, which could result in feelings of worthlessness and hopelessness.

When considering different types of aggression, research has highlighted that the way anger is expressed can differ by gender (Edalati & Redzuan, 2010). For instance, men tend to resort to acts of physical aggression, compared to women who are more likely to use more hidden forms of psychological or emotional aggression, such as malicious gossiping, spreading rumours and other acts which may cause harm to another but the

aggressive intent is masked (Conway, 2005; Denson, O'Dean, Blake & Beames, 2018). This is further supported by research conducted with 453 married couples, which found women demonstrated higher mean levels of psychological aggression compared to men (Kar & O'Leary, 2013). It is thought that because women use more covert ways of expressing anger/aggression their aggressions are more often overlooked in research since there is no physical, destructive, or obvious threat to partners or society (Conway, 2005; Denson et al., 2018).

Not only how likely a person is to express anger, but also how likely they are to react in a constructive way and accommodate perceived negative acts, are also important factors to consider when exploring intimate relationships.

Accommodation

Accommodation refers to the willingness of a partner to modify their behaviour and inhibit the urge to react destructively, and potentially exacerbate a situation, when a partner has engaged in a potentially destructive or negatively perceived act (Rusbult, Verette, Whitney, Slovik & Lipkus, 1991). Instead when a person accommodates they react more constructively in an attempt to calm a situation and reduce distress and conflict. Destructive acts can be when a partner is being thoughtless, spending less time than normal at home, yelling/shouting or displaying physical aggression, for example. Research which measured levels of accommodation in relationships established that the act of accommodation is a critical factor in maintaining good interpersonal relationships (Overall & Sibley, 2010), and can help build trust within a relationship (Wieselquist, Rusbult, Foster, & Agnew, 1999).

When considering adult attachment style and accommodation in intimate relationships, Mikulincer (1998) found that when a securely-attached person was faced with expressions of anger from their partner, in comparison to those with an anxious/ambivalent or avoidant attachment

style, they tended to display more accommodating and constructive behaviours. For example, they were more likely to be adaptive with their responses in order to try and maintain the relationship, rather than reacting in a less constructive way by displaying aggression or escapist, avoidant behaviour. This is further supported by research which demonstrated that reacting constructively to threatening events in intimate relationships is linked to more secure attachment orientations (Tran & Simpson, 2009).

With regards to reacting in a less constructive manner when faced with potentially destructive acts, a meta-analysis of 64 studies into relationship conflict demonstrated a small but significant difference between men and women with regards to displays of high intensity behaviours (Woodin, 2011). High intensity behaviours were described as acts such as hostility and distress for example. During marital conflict women were found to display more high intensity behaviours of hostility and distress than men.

Reacting constructively to potentially destructive, negatively perceived acts may increase overall relationship satisfaction; however, a threat to this may be a person's locus of control orientation.

Locus of Control

Locus of control (LOC) concerns a person's beliefs about their perceived ability to control events and their outcomes (Rotter, 1954). Perceived control over events and their outcome tend to fall in one of two locus of control orientations: internal or external (Levenson, 1981). An internal locus of control is when a person has the perceived ability to control events and problems in their life. The associated outcomes are interpreted as something internal to them, such as being due to their temperament or emotional state, and being something which has occurred through their own efforts and work. An external locus of control orientation is considered to be when a person views events and problems in their life as external to them, such as being under the control of someone else or being due to chance or 'fate'. To illustrate; a person feeling frustrated and not delivering a

presentation very well may view the situation as due to them not being given enough time to prepare the presentation (external LOC), rather than them not being organised enough with their time to prepare the presentation well (internal LOC).

According to social learning theories, the development of locus of control and the way a person appraises a situation is through a pattern of reinforcements, usually in the form of rewards or punishments, which are experienced through previous social interactions and experiences (Bandura, 1977). Through reinforcement people develop expectancies and cross-situational beliefs about what will determine if they do or do not get reinforced in life. Rotter (1954) proposed that people fall on a continuum between very internal and very external, which can be situation specific.

The impact of locus of control orientation has been explored in relation to various factors, for example, performance in academia and occupation, recovery from health related conditions, and expression of emotion, such as anger. When considering the impact of locus of control and anger expression, there is current research which demonstrates that those with an internal, as opposed to an external, locus of control orientation exhibit lower levels of physical aggression (Schmidt, Lisco, Parrott, & Tharp, 2016; Whitaker, 2013). However, interestingly, Deming and Lochman (2008) report conflicting results. They highlighted that some research has shown an internal locus of control may be linked with higher levels of anger expression. Further research into the relationship between anger and locus of control seems pertinent.

With regards to locus of control and accommodation, there does not appear to be research which has specifically explored a potential relationship. The aim of this study was to extend what is known about the relationship between adult attachment style, locus of control, and expression of anger and accommodation of perceived destructive events in intimate relationships. The research thus also focuses on accommodation and LOC, which does not appear to have previously been the focus of research, though

exploration of a potential relationship may add to the knowledge base within those areas.

Hypotheses

- An insecure attachment style and external locus of control orientation will be associated with a decreased ability to accommodate perceived negative events in intimate relationships.
- 2. A more secure attachment style and internal locus of control orientation will be associated with a decreased likelihood of expressing anger.
- **3.** Gender will be associated with a likelihood of expressing anger and accommodation of perceived negative events in intimate relationships.

Materials and Methods

Design

The study was cross-sectional with data collected at one time-point.

Prior to data collection an a-priori power analysis was undertaken using G*Power (Erdfelder, Faul, & Buchner, 1996). Based on previous research sample sizes (Lawler-Row, Younger, Piferi, & Jones, 2006; Mikulincer, 1998; Nisenbaum & Lopez, 2015), a medium effect size was indicated. For a multiple regression with two criterion variables; aggression and accommodation, and four predictors: attachment style (attachment avoidance and attachment anxiety), locus of control and gender, for a medium effect size of 0.15, with power set at 0.8, and alpha set at 0.05, 84 participants were required. However, after data collection had stopped, and prior to data analysis the decision was made not to include gender as a variable given there were fifty female participants compared to only three male participants who took part in this study. For a multiple regression with

two criterion variables and three predictors; attachment style (attachment avoidance and attachment anxiety) and locus of control, for a medium effect size of 0.15, with power set at 0.8, and alpha set at 0.05, 76 participants were required.

Participants

Fifty-three participants took part in this study, 50 females and three males, and all participants were 18 years or older and were staff members or students at a West Midlands University. Please see Table 1 for participant age ranges.

Table 1: Age range categories of participants.

Age range	n
18-25 years	19
26-35 years	24
36-45 years	8
46-55 years.	2

Other than participants being over the age of 18 years and being a student or staff member of a West Midlands University, there were no direct exclusions for participation in this study.

University students and staff members were selected as an appropriate participant sample for this study due the study not focussing on a particular population group. This decision is supported by arguments from some researchers (Kardes, 1996; Lucas, 2003) who suggest that students are appropriate research participants when the research emphasis is on

basic psychological processes, or the theory tested links to human behaviours are independent of sample characteristics, for example, characteristics belonging to a particular population group. Additionally, Mook (1983) notes that if the research is more concerned with theory than a particular population group then the makeup of the participant sample if less relevant. However, it is noted by the researcher that the use of only University student and staff members restricts generalisability of results to the wider general population. However, this is often more related to the use of student only participants' (Peterson & Merunka, 2014), therefore in an attempt to increase participant variability in this study, staff members as well as students were invited to participate.

Procedure

Following ethical approval (appendix B), which was gained from Staffordshire University, firstly poster advertisements (appendix C) illustrating information about the study and email contact details of the researcher were posted in various public locations around the University, such as in male and female rest rooms and on notice boards. Due to poor response from the poster adverts, next an information sheet (appendix D), providing details about the study and contact information for support services, such as the Samaritans helpline, should these be needed, was also sent to various staff members within different departments in the University asking for the email to be forwarded on to students and staff who were part of that department. If email contact was made with the researcher, potential participants were sent a link to the study survey in a reply email (appendix E). A quick response (QR) code, which is a machine-readable code typically used for storing website links or other information for reading by a mobile device with internet access, was also provided on the posters. Potential participants could scan the code using their mobile device to gain access the survey online. Due to slow recruitment through poster and email methods, a final method of recruitment was through the use of the West Midlands University's sona online service, which is a research website controlled by the University and is a means through which students and staff can promote their research and recruit participants. Sona enables a researcher to send emails to any student or University staff member who is registered on the site to invite them to participate in their study. Even though the required number of participants had not been reached, data collection stopped due to coming to the end of a time-limited data collection period.

Data was collected online through the use of Qualtrics survey software (Qualtrics, 2018). Participants initially read an information page, followed by a consent page (appendix F), prior to completing the questionnaires. Each participant was asked to electronically tick the boxes on the consent page to say they agreed to participate and understood what was expected prior to accessing the questionnaires. It was stressed to participants that they could withdraw from the study at any point up until they pressed the 'submit' button at the end of the survey. Participants were made aware on the information and consent forms that withdrawal after this point was not possible, as all responses were anonymised. Participants were informed that completion of the questionnaires would take between 20-30 minutes.

Measures

All four questionnaires (appendix G) used in this study were standardised measures designed to assess adult attachment style, locus of control orientation, accommodation and anger/aggression.

Adult Attachment

The Experiences in Close Relationship Scale-Short Form (ECR-S; Wei, Russell & Mallinckrodt, 2007), is a validated twelve-item shortened form of the Experiences in Close Relationship Scale (ECR; Brennan, Clark, & Shaver, 1998) and was used to measure adult romantic attachment. The measure has two dimensions of insecure attachment; attachment avoidance

and attachment anxiety. Six questions relate to attachment anxiety and six to attachment avoidance. There is a minimum score of 7 and a maximum score of 42; people who score higher on either or both dimensions are assumed to have an insecure adult attachment orientation and, by contrast, people with low levels of attachment anxiety and avoidance are assumed to have a more secure adult attachment orientation. All 12 items are scored on seven point Likert scale from 1, 'strongly disagree' to 7, 'Strongly agree'. For example, 'I need a lot of reassurance that I am loved by my partner'. Scale reliabilities are acceptable with the coefficient alphas ranging from .77 to .86 for the anxiety subscale, and from .78 to .88 for the avoidance subscale across six studies undertaken to determine reliability, validity and factor structure of the short version of the ECR-S (Wei, Russell & Mallinckrodt, 2007).

Locus of Control

Rotter's Locus of Control Scale (Rotter, 1966) is a validated forced choice paradigm measure, which was used to capture participants' locus of control orientation. Participants are instructed to choose between an internal or external interpretation, for example, 'In my case getting what I want has little or nothing to do with luck / Many times we might just as well decide what to do by flipping a coin'. There are twenty-three items measuring LOC orientation and six filler items, which are questions that are similar in style to the others but do not measure LOC. Instead they are used to reduce chances of social desirable responding by obscuring the purpose of the questionnaire. Scores from the six filler questions were not included in the total score. A score of 1 is given to all responses related to an external orientation, and 0 for internal orientation responses. The overall score (maximum of 23) of the scale indicates whether a person trends more towards an external or internal LOC orientation. A meta-analysis of 120 studies using Rotter's LOC scale demonstrated average reliability of a = .70(Ng, Sorensen & Eby, 2006).

Anger Expression

The Aggression Questionnaire (Buss & Perry, 1992), a widely-used validated measure of anger/aggression in adults, was used to measure anger in this study. Four factors are assessed: physical aggression, verbal aggression, anger, and hostility. Participants rate twenty-nine items, for example, 'If I have to resort to violence to protect my rights, I will.'; 'I have trouble controlling my temper', using a five point Likert scale, with 1 representing 'extremely uncharacteristic of me' and 5 'extremely characteristic of me'. Scoring can be completed two ways, either a total score of aggression, which can range from 29-145; the higher the score the more likely a person is to express anger, or separate subscale scores for each of the four types of aggression listed above. For this study, the total score for aggression was used as exploring specific types of aggression were not the main focus of this research. Scale reliabilities are acceptable with a total score coefficient alpha of .89 (Buss & Perry, 1992).

Accommodation

The Rusbult Accommodation Scale (Rusbult, Verette, Whitney, Slovik & Lipkus, 1991) is a validated sixteen-item instrument examining the way a person responds to certain conflict situations in close relationships, and was used to measure accommodation in this study. Participants rate each item, for example, 'when my partner behaves in an unpleasant manner, I calmly discuss things with him/her', on an eight point Likert scale, with 1 representing 'never do this' and 8 'constantly do this'. Scoring can be completed in two ways; a total score of accommodation, or four subscale scores representing two constructive (accommodating) and two deconstructive response types. The total score is calculated by reverse scoring the deconstructive response items, and scores can range from 0-128. The total score for accommodation was used for this study as exploring specific types of constructive or deconstructive response were not the main focus of this research. Scale reliabilities are acceptable, ranging from a =.73 and a =.85 between the four subscales (Rusbult et al. 1991).

Participants' gender and age were also collected.

Data Analysis

All data analyses were undertaken using the statistical analysis software package SPSS version 25 for windows (IBM Corporation, 2017). Before analysis there were 63 sets of participant data, 10 (15.9%) of which withdrew from the study before completion and were therefore not included in the analysis.

In order to check the assumptions for regression, the data were checked to ensure there were no significant violations to normality, linearity, and homoscedasticity (appendix H). Accommodation was the only variable found to violate checks for normality. This suggested that the distribution of the sample differed from a normal distribution (Field, 2005). To check this bootstrapping was undertaken, which made little difference to the model (appendix I). Therefore, it was anticipated that the degree of violation could be managed by the strength of the model.

A multiple regression analysis was undertaken, using the 'enter' method. The initial model comprised all predictor variables (adult attachment style; anxiety or avoidance, and locus of control) against the criterion variable (anger expression or accommodation).

Results

Given the gender imbalance of the participants who took part in this study, gender was not included in the analysis and therefore hypothesis 3 is not addressed in the results section of this report. However, the potential impact of gender is explored further in the discussion and limitation sections of this report.

A multiple regression analysis was carried out to see if adult attachment style and locus of control predicted the likelihood of a person

expressing anger, and accommodating perceived negative events in intimate relationships. The mean, standard deviation and range for each variable can be found in Table 2.

Table 2: Descriptives for Criterion Variables (aggression, accommodation) and Predictor Variables (attachment style: anxiety, attachment style: avoidance, and locus of control), including mean and standard deviation (SD).

	Mean	Standard	Participant minimum
		Deviation	- maximum
Anxiety	22.8	7.3	9 – 38
Avoidance	14.9	6.4	6 – 37
Locus of control	13.1	4.2	1 – 21
Aggression	72.8	15.5	50 – 103
Accommodation	75.7	14.5	42 - 111

As part of the regression analysis correlations among all variables were examined. Pearson's correlations between the predictor and criterion variables can be found in Table 3. Aggression was moderately positively correlated with the adult attachment style 'anxiety' (r = .433). Therefore, as scores on the aggression measure increase so do scores on the 'anxiety' subscale of the ECR-S to a moderate degree. Accommodation was moderately negatively correlated with the adult attachment style 'avoidance' (r = -.442). Therefore, as scores on the accommodation measure decrease, scores on the 'avoidance' subscale of the ECR-S increase. There were very weak positive correlations between locus of control and 'aggression' (r = .119), 'avoidance' and 'aggression' (r = .212), and a very weak negative

correlation between 'anxiety' and 'accommodation' (r = -.146); indicating no concern that these measures were measuring the same thing.

Table 3: Pearson's correlations for predictor and criterion variables.

	Aggression	Accommodation
Anxiety	.433**	146
Avoidance	.212	442**
Locus of control	.119	003

^{**} p < 0.01

Multiple Regression Analyses

With two criterion variables; aggression and accommodation, two multiple linear regression analyses were performed.

Aggression

Regression coefficients for the criterion variable 'aggression' and predictor variables can be found in Table 4.

Table 4: Multiple regression model for predictors ECR-S; 'anxiety' and 'avoidance', and locus of control, and criterion variable 'aggression'. Standard and un-standardised coefficients and significance values.

	β	В	SE	Sig.
Anxiety	.408	.864	.269	.002
Avoidance	.176	.428	.308	.171
Locus of control	.092	.337	.465	.472

Note: $R^2 = .225$; Adjusted $R^2 = .177$

Adult attachment style 'anxiety' was a significant predictor of aggression, which supports part of hypothesis 2 with regards to a more secure attachment style being associated with a decreased likelihood of expressing anger. Using this model it was found that anxiety explained a proportion of the variance in the likelihood of a person expressing anger in intimate relationships (F = 4.74, p < 0.05, $R^2 = .23$, R^2 Adjusted = .18). The regression model was re-run with only the significant predictor and criterion variable to improve the precision of the model. Regression coefficients for the significant predictor and criterion variable are reported in Table 5.

Table 5: Multiple regression model for significant predictor of aggression: ECR-S 'anxiety'. Standard and un-standardised coefficients and significant values.

	β	В	SE	Sig.
Anxiety	.433	.917	.267	.001

Note: $R^2 = .187$; Adjusted $R^2 = .171$

Using this model it was found that anxiety explained a proportion of variance in the likelihood of a person expressing anger in intimate relationships (F = 11.76, p < 0.05, $R^2 = .19$, R^2 Adjusted = .17).

Accommodation

Regression coefficients for the criterion variable 'accommodation' and predictor variables can be found in Table 6.

Table 6: Multiple regression model for predictors ECR-S; 'anxiety' and 'avoidance', and locus of control, and criterion variable 'accommodation'. Standard and un-standardised coefficients and significance values.

	β	В	SE	Sig.
Anxiety	102	202	.254	.431
Avoidance	432	981	.291	.001
Locus of control	011	036	.439	.935

Note: $R^2 = .206$; Adjusted $R^2 = .158$

Adult attachment style 'avoidance' was a significant predictor of accommodation, which supports part of hypothesis 1 regarding an insecure attachment style being associated with a decreased ability to accommodate perceived negative events in intimate relationships. Using this model it was found that avoidance explained a proportion of the variance in the likelihood of a person accommodating perceived negative events in intimate relationships (F = 4.24, P < 0.05, $R^2 = .21$, R^2 Adjusted = .16). Attachment style 'anxiety' and locus of control did not predict accommodation. The regression model was re-run with only the significant predictor to improve the precision of the model. Regression coefficients for the significant predictor and criterion variables are reported in Table 7.

Table 7: Multiple regression model for significant predictor of accommodation: ECR-S 'avoidance'. Standard and un-standardised coefficients and significant values.

	β	В	SE	Sig.
Avoidance	442	-1.003	.285	.001

Note: $R^2 = .196$; Adjusted $R^2 = .180$

Using this model it was found that avoidance explained a proportion of the variance in the likelihood of a person accommodating perceived negative events in intimate relationships (F = 12.40, p < 0.05, $R^2 = .20$, R^2 Adjusted = .18).

Discussion

This aim of this study was to investigate the impact of certain factors on intimate relationships; specifically it set out to establish whether adult attachment style, locus of control orientation, age and gender predicted the degree to which a person is likely to express anger/aggression and how they react to potentially destructive, negatively perceived events in intimate relationships. However, due to the gender imbalance of participants who took part in the study gender was not included in the analysis, therefore hypothesis 3 was not tested, although the potential impact of gender on the variables in this study is explored within this discussion and the study limitations section.

The findings of this study indicated that for the population of participants included in this research, those with a more anxious adult attachment style were more likely to express anger/aggression, and those with a more avoidant adult attachment style were less likely to accommodate perceived negative acts in intimate relationships, compared to their secure counterparts. The results did not support the idea that a relationship would

be observed between a person's locus of control (LOC) orientation, and their expression of anger and accommodation. Not finding a link between LOC and expression of anger is surprising given the findings from previous research (Deming & Lochman, 2008; Schmidt, Lisco, Parrott, & Tharp, 2016; Whitaker, 2013). It is also pertinent to note that the researcher found no other studies exploring a potential link between LOC and accommodation; therefore this may be one of the first studies to explore such a relationship. This area would benefit from further exploration through taking into consideration the findings and limitations of the current study.

A relationship between a more anxious attachment style and displays of aggression is supported by Clymer, Ray, Trepper, and Pierce (2006). Their research found that those more anxiously attached displayed increased amounts of verbal and physical aggression in intimate relationships than those more securely attached. Similarly, compared to those with a more secure attachment, those more anxiously attached may be more likely to experience negative emotions like anger (Creasey & Hesson-McInnis, 2001), and be less able to regulate their emotions effectively (Trans & Simpson, 2009).

Gouin et al. (2009) also found a link between those more insecurely attached and displays of negatively perceived behaviour, such as anger; however, there was variation regarding the type of insecure attachment orientation this related to. Those more avoidantly attached demonstrated more negatively perceived behaviour compared to those more anxiously attached. This is in contrast to the results of the current study which found those more anxiously attached were more likely to display behaviour such as aggression, compared to those more avoidantly attached.

Some research purports that highly anxious individuals may be more likely to display coercive and hostile behaviour, for example, aggression or dominating behaviour, when faced with conflict in interpersonal relationships (Feeney, Noller & Callan, 1994), which further supports the results of this study. In such cases it is theorised that the conflict may pose a perceived threat to the relationship, leading to possible rejection, and such behaviours

are employed in an attempt to regain some control over the situation (Feeney et al., 1994). However, research has also demonstrated gendered differences with responses to conflict; women were found to display more high intensity behaviours of hostility and distress compared to men (Woodin, 2011). This is interesting to note when considering the participants in the current study were predominantly female. The impact of gender on the findings in this study warrant further exploration.

Those more avoidantly attached being less likely to accommodate perceived negative events is supported by Gouin et al. (2009). Their research illustrated those with an avoidant attachment demonstrated less accommodative responses to conflict, and displayed more negatively perceived behaviour, such as dominating and defensiveness, than those more anxiously or securely attached (Creasey, 2002; Creasey & Hesson-Innis, 2001; & Creasey & Ladd, 2005), though the results in relation to a specific type of insecure attachment was not discussed in these studies. However, it is interesting to note that typical presentations of an avoidant attachment style in intimate relationships may be demonstrated by discomfort with closeness and depending on others for their needs, with a person appearing distant and disengaged emotionally (Ainsworth, Blehar, Waters & Wall, 1978; Main & Soloman, 1986). This appears somewhat in contrast to a person displaying behaviours such as dominating and defensiveness. A person may be more likely to act passively with an avoidant attachment, which on the surface may appear to be more accommodative in nature. It may be beneficial for future research to explore how accommodation is captured and measured with exploration of an overlap with attachment presentations.

Research by Mikulincer, Shaver, and Pereg (2003) demonstrated that poor recovery from conflict has been shown by individuals with a more anxious/ambivalent attachment style because of the distress and rumination they experience about the conflict event. Similarly, observational studies have demonstrated that when an anxiously attached person experiences increased distress during a conflict event, they are more likely to reciprocate

with negative behaviour (Fincham, 2003), particularly if they perceive that their partner is also displaying negative behaviour.

This is further supported by Tran and Simpson (2009), whose research demonstrates links between those more securely attached, compare to those more insecurely attached, reacting constructively to threatening conflict events in intimate relationships. Reacting constructively can be displaying less defensive behaviour, and showing a commitment to resolving the conflict through displaying affection/empathy and shared humour, for example (Campbell, Simpson, Boldry, & Kashy, 2005; Creasey, 2002; Creasey & Hesson McInnis, 2001; Gouin et al., 2009; Shi, 2010), and more mutually focussed resolution strategies of integrating and compromising (Pistole, 1989; & Shi, 2010). This is commensurate with results from the current study which demonstrated those more avoidantly attached were more likely to react in a less accommodating way to perceived negative events, such as conflict, and those more anxiously attached were more likely to display aggression, compared to those more securely attached. However, there is a lack of consistency with the studies above with regards to differentiating between the different insecure attachment styles, which makes it difficult to draw firmer comparisons and conclusions.

In the present study the results did not support the idea that a relationship would be observed between a person's locus of control orientation, and their expression of anger and accommodation of perceived negative acts in intimate relationships. According to Österman et al. (1999), an external locus of control orientation is associated with a person having tendencies for displaying aggression; however, the results were only significant for male compared to female participants. Additionally, individuals with a more external locus of control were shown to have poorer interpersonal relationships (Kang, et al., 2015; Martin et al., 2005; Österman et al., 1999). Given there were only three male compared to fifty female participants in the current study this provides a possible explanation for the difference in results.

Furthermore, in contrast to the results of this study, research has demonstrated that those with a more internal locus of control orientation may be more attentive to events which are relevant for maintaining a sense of well-being (Lefcourt, Gronnerud, & McDonald, 1973), which can be related to reacting more constructively and accommodating perceived negative events. Those with an internal locus of control orientation may also react to frustration in a constructive fashion (Brissett & Nowicki, 1973), and may be likely to employ strategies such as demonstrating humour, in an attempt to reduce perceived conflict, for example, displays of anger by a partner (Prerost, 1983). However, these studies had participant sample sizes ranging from 65 to 144. Therefore, some of the difference in the findings between these and the current study may be partly due to the current study being underpowered. Additionally, further consideration should also be given to the impact of a possible relationship between attachment style and locus of control, which was not explored in this study. Previous research has highlighted a predictive relationship between a disorganized and avoidant attachment style and an external locus of control (Roazzi, Attili, Di Pentima & Toni, 2016).

An influencing factor in displays of aggression or accommodation in intimate relationships may be the partner's attachment style. A partner of a similar insecure style may go against one's expectations of how a romantic partner should behave. For instance, an avoidantly attached person may expect their partner to be clingy, demanding, and dependent, and an anxious person might expect their partner be rejecting, avoid intimacy, and withdraw from the relationship (Kirkpatrick & Davis, 1994). So if both partners are avoidantly attached for example, they may both be more likely to avoid close intimacy, appear disengaged and distant. It is proposed that it is less likely for these relationships to last over time. Partner attachment style may have acted as a confounding variable and accommodated for some of the variance in results demonstrated in this study. For instance, it may have affected the level of conflict experienced in relationships, how this was resolved, and may have also affected the attachment style displayed by a partner. This is due to attachment styles not being static; a person might

demonstrate behaviours and responses associated with each of the orientations at any given time depending on the context and relational experiences they are going through (George, Kaplan & Main, 1996).

It seems pertinent to note that in the final regression model, with aggression as the criterion variable, 18.7% (R²) of the variance was accounted for. This implies that 81.3% of the variation in results is explained by other variables, which were not included in this study. Similarly in the final model, with accommodation as the criterion variable, 19.6% (R²) of the variance was accounted for, which implies 80.4% of the variation in results is explained by other variables which were not included in this study.

Clinical implications

The findings of this research suggest that it may be beneficial for therapeutic interventions to target the management of conflict and other perceived negative events, alongside exploring the likelihood of experiencing and expressing anger, with individuals suffering relational difficulties. This may improve their overall well-being and interpersonal relationships. Psychoeducation and promoting an understanding of a person's attachment style may also play an important role in helping an individual gain insight into their difficulties and the function underlying them. Particularly when presentations, such as demonstrating avoidant patterns of responding, or describing other less constructive reactions to certain experiences within intimate relationships, are evident.

Assessing attachment may also aid understanding of dynamics within the client-therapist relationship. For instance, clients with high attachment anxiety may be difficult to reassure and be perceived to require an excessive amount of attention and contact (Maunder, Panzer, Viljoen, Owen, Human & Hunter, 2006). Maunder et al. explored a potential relationship between patient attachment style and Doctor reported difficulty with patient interactions. This study found 75% ('preoccupied' attachment17%, 'dismissing' 19% and 'fearful' 39%) of those with an insecure attachment

style were also rated as interactionally difficult by treating Doctors, compared to 2% of those categorised as securely attached. To help alleviate difficulties associated with attachment insecurity, research has demonstrated the effectiveness of various approaches. For instance, mentalisation-based treatment in combination with DBT may improve certain aspects of attachment security (Edel, Raaff, Dimaggio, Buchheim, & Brüne, 2017), and using cognitive-behaviour strategies may help a client modify expectancies related to unrealistic or problematic beliefs and attitudes, which are associated with insecure attachment orientations (Holtzworth-Munroe, Stuart & Hutchinson, 1997), about their romantic partners. Additionally, therapies for depression may effectively assess and desensitise a fear of positive emotions, such as compassion, which is associated with insecure adult attachment (Gilbert, McEwan, Catarino, Baião, & Palmeira, 2014).

Limitations and future research

Future research could expand on this study to include participants outside of University student and staff populations. Utilising a nationwide randomly selected sample might be increase the generalisability of results to the wider population.

The measures used in the current study capture information relevant to the aims of this study, however further thought could be given to the choice of measures used and overall study design when considering future research. For example, when considering the measurement of adult attachment an alternative measure could be the Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994). This measure allows flexibility and adaptation depending on the type of close relationship being explored. However, for the purposes of this study this measure was not utilised as only orientations regarding intimate relationships was being measured. Additionally, this study only utilised self-report measures and whilst there are many advantages to using self-report measures, there are criticisms regarding the reliability of the data obtained due to socially desirable responding. However, there are also arguments to suggest that

socially desirable responding is reduced with online research due to impersonal nature and social distance provided by the internet (Newman, Des Jarlais, Turner, Gribble, Cooley, & Paone, 2002). For example, a review of opt-in online panels found there were higher amounts of socially undesirable attitudes and behaviours reported in self-report web-based questionnaires compared to the amount reported in face-to-face interviews (AAPOR, 2010). Future research may find it beneficial to incorporate the use of qualitative methods or mixed methods.

Furthermore, the use of online data collection, although having the benefit of being easily accessible for participants, is reliant on participants self-identifying that they correctly met the inclusion criteria prior to participation. This means there is somewhat less control over the recruited sample. Future research may also benefit from including additional inclusion criteria relating to experience of intimate relationships, for example specifying that participants have experienced an intimate relationship for a given amount of time. This was not included as part of the current and it was assumed that having read the information page regarding the purpose and background to the study that participants who gave consent to take part will have had experience of an intimate relationship. However, it would have been beneficial to have included this aspect more explicitly as an inclusion or exclusion criteria.

The participants in this study were predominantly female; therefore differences between gender and expression of anger and accommodation were unlikely to be demonstrated to a statistically significant level. Future research should attempt to include more gender-balanced samples in order to explore the potential relationship between gender and aggression and accommodation, which have been highlighted in previous research (Kar & O'Leary, 2013; Woodin, 2011). In order to get greater parity regarding gender, future research may consider the use of quota or purposive sampling or recruiting a larger participant sample from the wider general population. Additionally, with a more gender balanced sample, calculating the different subscales of the aggression measure rather than using the total score as utilised in the current study, may also provide support for the differences in

types of aggression displayed by males and females reported in some studies.

Furthermore, as noted, an influencing factor for displays of aggression or accommodation may be the attachment style of a person's partner in an intimate relationship (Kirkpatrick & Davis, 1994). For instance, avoidant-avoidant and anxious-anxious attachment pairings in intimate relationship are less likely to last over time due to violations of their expectations of how a romantic figure is supposed to act. It may be useful for future research to establish whether there is a mediating role played by a partner's attachment style, and the length of time the relationship has been established, on the dependent variables within this study.

Given there were only 53 participants included in this study and 76 were needed to meet requirements for a medium effect size, it was an underpowered study. Therefore, interpretation of results is advised with caution and replication with future research should aim for a larger sample size to strengthen the results obtained.

Despite the limitations, this study provided further evidence in support of a relationship between adult attachment style and expression of anger and accommodation of perceived negative events in intimate relationships. The findings indicated that adult attachment style was a significant predictor of anger and accommodation in this sample. However, locus of control orientation was not a significant predictor. Although underpowered, this study appears to have demonstrated results which warrant further investigation, especially given this was the first study known to the researcher to explore a potential link between LOC and accommodation.

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Appendices

Appendix A: Journal author/submission guidelines

About the Journal

Attachment & Human Development is the leading forum for the presentation of empirical research, reviews and clinical case studies that reflect contemporary advances in attachment theory and research. AHD is the official journal of the Society for Emotion and Attachment Studies (SEAS) and the official journal of the International Attachment Network (IAN).

AHD publishes original research, meta-analytic reviews (and occasionally) narrative reviews based on attachment theory. Submissions that include multi-method approaches (including interviews or observations), and a longitudinal design, are especially welcome. While reliance on widely used and previously validated methods is the norm, AHD also publishes papers that introduce new attachment methods. Intergenerational patterns of attachment, emotion-regulation, children's social and emotional development, the effects of loss and trauma, are common topics addressed by the journal. Submissions that include physiological or genetic data, together with attachment variables, addressing core questions in developmental science are welcome. Submissions typically include attachment as a predictor or an outcome, or attachment as a moderator or mediator of developmental outcomes.

AHD aims to be the source for reliable and valid research, and reviews, based on the theories advanced by John Bowlby and Mary Ainsworth. The journal is of interest to developmental, social and clinical psychologists, psychiatrists and psychotherapists, and other mental health professionals including social workers, couple and family therapists.

 Empirical Reports should conform to APA standards, with a legible abstract, followed by sections that include an introduction, method, results, and discussion.

- Theory/Review Papers should make an original, testable and/or useful extension/revision to theory and previous literature concerning attachment processes and human development.
- Clinical Case Studies should provide an account of previous clinical
 theory in an organized and up-to-date manner distinct from the clinical
 case material. Further, the clinical case material should occupy no
 more than a third of the paper. The first third should include only
 relevant background theory, while the final third should aim to discuss
 the descriptive presentation of the clinical case material against the
 background of existing theories and/or modifications needed to
 accommodate the clinical material.

Empirical Reports, Theory/Review Papers and Clinical Case Studies

- Should be written with the following elements in the following order:
 title page; abstract; keywords; main text introduction, materials and
 methods, results, discussion; acknowledgments; declaration of
 interest statement; references; appendices (as appropriate); table(s)
 with caption(s) (on individual pages); figures; figure captions (as a list)
- Should be between 6000 and 7500 words, inclusive of the abstract.

Style Guidelines

Please refer to these quick style guidelines when preparing your paper, rather than any published articles or a sample copy.

Any spelling style is acceptable so long as it is consistent within the manuscript.

Please use double quotation marks, except where "a quotation is 'within' a quotation". Please note that long quotations should be indented without quotation marks.

Formatting and Templates

Papers may be submitted in Word format. Figures should be saved separately from the text. To assist you in preparing your paper, we provide formatting template(s).

Word templates are available for this journal. Please save the template to your hard drive, ready for use.

If you are not able to use the template via the links (or if you have any other template queries) please contact authortemplate@tandf.co.uk.

Font: Times New Roman, 12 point, double-line spaced. Use margins of at least 2.5 cm (or 1 inch). Guidance on how to insert special characters, accents and diacritics is available here.

Title: Use bold for your article title, with an initial capital letter for any proper nouns.

Abstract: Indicate the abstract paragraph with a heading or by reducing the font size. Check whether the journal requires a structured abstract or graphical abstract by reading the Instructions for Authors. The Instructions for Authors may also give word limits for your abstract. Advice on writing abstracts is available here.

Keywords: Please provide keywords to help readers find your article. If the Instructions for Authors do not give a number of keywords to provide, please give five or six.

Headings: Please indicate the level of the section headings in your article:

- 5. First-level headings (e.g. Introduction, Conclusion) should be in bold, with an initial capital letter for any proper nouns.
- 6. Second-level headings should be in bold italics, with an initial capital letter for any proper nouns.
- 7. Third-level headings should be in italics, with an initial capital letter for any proper nouns.

- 8. Fourth-level headings should be in bold italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.
- Fifth-level headings should be in italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.



ETHICAL APPROVAL FEEDBACK

Researcher name:	
	Helen Niccolls
Title of Study:	
	Attachment style and locus of control – effect on
	expressing anger
Status of approval:	Approved

Thank you for addressing the committee's comments. Your research proposal has now been approved by the Ethics Panel and you may commence the implementation phase of your study. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

You should arrange to meet with your supervisor for support during the process of completing your study and writing your dissertation.

When your study is complete, please send the ethics committee an end of study report. A template can be found on the ethics BlackBoard site.

Signed: Dr Roozbeh Naemi

Chair of the Health Sciences Ethics Panel

Date: 22.03.2018

Appendix C: Poster advertisement



Does attachment style and locus of control predict the likelihood of a person expressing anger, or how they respond to potentially destructive acts in intimate relationships?

Are you a **Student** or **Staff** member of Staffordshire University? If yes, would you be free for 20-30 minutes to complete an online questionnaire?



My name is Helen Niccolls and I am a Doctoral student undertaking a piece of research looking at the effects of adult attachment style and locus of control orientation on certain aspects of intimate relationships.

What would you need to do?

It is an online questionnaire, using Qualtrics survey software. It can be completed anywhere you chose as long as you have access to a computer or mobile device and should take no longer than 20-30 minutes to complete in total.

Your participation is completely anonymous!

Would you like to participate?

Please take a slip below and email the researcher for a link to the survey or to ask for further information.

Alternatively, scan the QR code opposite to access the survey.

Thank you!!



Appendix D: Information sheet

Study Title: Does attachment style and locus of control predict the likelihood of a person expressing anger, or how they respond to potentially destructive acts in intimate relationships?

Background and reasons for the study:

My name is Helen Niccolls and I am a student at Staffordshire University undertaking a piece of research on whether adult attachment style and locus of control orientation predicts how likely a person is to express anger/aggression, and how they react to potentially destructive, negative acts by a partner in intimate relationships. Through investigation, it is hoped that awareness of the influence of adult attachment style and locus of control orientations in intimate relationships will be increased.

What does it involve?

Following reading this information page, there is a consent page to read and tick to give consent, following which you will be asked two questions about your gender and age, followed by four short questionnaires. In total it should take no longer than 20-30 minutes to complete online.

Do I have to take part?

No, your participation is entirely voluntary. If you do decide to take part you can withdraw from the study at any time before you submit your completed questionnaire online. Withdrawal from the study after this point will not be possible as participation is anonymous and therefore it will not be possible to identify individual participants from this point. If you decide to take part it is important that you answer each question. If you have missed a question you will be diverted back to it before being able to progress to the next set of questions.

Are there any benefits, risks or disadvantages of taking part?

There are no specific benefits to gain from completing this study, however, it is hoped that this study will contribute to understanding adult attachment style and locus of control orientations, and how they may be linked to our experiences in intimate relationships.

There are no identified risks or disadvantages of taking part. The questions included in this study are not designed to cause distress, however it is possible that the nature of some of the questions may cause some emotional distress or anxiety. Please find a list of support services that you can access below, should you find that taking part has raised any emotional issues for you that you would like to discuss further. Alternatively, you may wish to contact the researcher who can also provide you with these support details.

Sources of Support:

There are a number of support services available for you. These include:

- Staffordshire University Student Support Counselling Service:
 counselling@staffs.ac.uk ,
- The Samaritans helpline http://www.samaritans.org,
- The 'MIND' helpline http://www.mind.org.uk,
- You might also find it helpful to talk to family or friends, or you can contact your GP for advice.

Giving your Consent:

It is your choice whether you would like to take part in the study but submitting your consent form is seen as giving of consent. If you are unclear about any aspect of the study, or if you have any further questions, please contact the researcher, Helen Niccolls at n025078g@student.staffs.ac.uk

What happens after I have taken part?

All data collected will be kept on a confidential data encrypted USB stick, which is kept in a locked filing cabinet and is only accessible to those working on the project, who will be the research and their research

supervisor. Once all data is collected it will be analysed and a research paper will be written based on the findings. It is planned that preliminary results for the study will be ready for dissemination and available late 2019 once reviewed by Staffordshire University Doctorate Programme. Following completion of this research, all data will be stored securely at Staffordshire University for a period of 10 years in accordance with their data management policy, and destroyed thereafter.

Who has reviewed and approved the study?

This project has been reviewed and passed by Staffordshire University, Health Sciences Faculty Research Ethics Committee, which conforms to the ethical principles laid down by the British Psychological Society.

The researcher has followed guidelines issued by the British Psychological Society, NHS Research Governance Framework, the Universities Ethics Committee and consulted with their supervisor Dr Helen Scott concerning conducting this research.

If you have any further questions you wish answered prior to participation, please contact the researcher using the contact information provided above.

Thank you for your help in this project.

Appendix E: Email response

Hi,

Thanks for your email, the link to my survey is:

http://staffordshire.eu.qualtrics.com/jfe/form/SV_37CzHWq77wJxJsN

I have also attached an information sheet about the research, but this will also be presented at the start of the survey online.

If you have any problems with the link, please let me know!

Thanks again

Helen

Appendix F: Consent page

<u>Title of Project:</u> Does adult attachment style predict how a person expresses anger, reacts to negative events and attributes cause and accountability for such events in close relationships?

<u>Nam</u>	e of Researcher: Helen Niccolls
Pleas	se tick the boxes to give consent.
1.	I confirm that I have read the information sheet for the above study
	and have had the opportunity to consider the information, contact
	the researcher to ask questions if needed and I have had these answered
	satisfactorily.
•	Lundoustond that you now is in ation is well untour and that Lave from to
2.	I understand that my participation is voluntary and that I am free to
	withdraw at any time up until I submit my responses online without
	giving an explanation, after which withdrawal will not be possible as there is
	no way to identify individual participants from this point.
3.	I understand that the information collected as part of this study may
Э.	
	be used to support other research in the future, and may be shared
	anonymously with other researchers.
4.	I understand that the questionnaires are not designed to cause any
	distress; however should I suffer any emotional distress through
	taking part in this study I confirm that I have been provided with information
	about appropriate support services.
_	
5.	I agree to take part in the above study.

Appendix G: Measures

Experiences in Close Relationship Scale-Short Form (ECR-S)

Please mark the next questions using the following rating scale:

1	2	3	4	5	6	7
Strongly	Disagree	Slightly	Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

- 1. It helps to turn to my romantic partner in times of need.
- 2. I need a lot of reassurance that I am loved by my partner.
- **3.** I want to get close to my partner, but I keep pulling back.
- **4.** I find that my partner(s) don't want to get as close as I would like.
- **5.** I turn to my partner for many things, including comfort and reassurance.
- 6. My desire to be very close sometimes scares people away.
- **7.** I try to avoid getting too close to my partner.
- 8. I do not often worry about being abandoned.
- **9.** I usually discuss my problems and concerns with my partner.
- **10.** I get frustrated if romantic partners are not available when I need them.
- **11.**I am nervous when partners get too close to me.
- **12.** I worry that romantic partners won't care about me as much as I care about them.

Rotter's Locus of Control Scale

For each of the following questions, select the statement that you agree with the most:

- **13.a.** Children get into trouble because their patents punish them too much.
 - **b.** The trouble with most children nowadays is that their parents are too easy with them.
- **14.a.** Many of the unhappy things in people's lives are partly due to bad luck.
 - **b**. People's misfortunes result from the mistakes they make.
- **15.a**. One of the major reasons why we have wars is because people don't take enough interest in politics.
 - **b**. There will always be wars, no matter how hard people try to prevent them.
- **16.a**. In the long run people get the respect they deserve in this world
 - **b**. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries
- **17.a.** The idea that teachers are unfair to students is nonsense.
 - **b**. Most students don't realize the extent to which their grades are influenced by accidental happenings.
- **18.a**. Without the right breaks one cannot be an effective leader.
 - **b**. Capable people who fail to become leaders have not taken advantage of their opportunities.
- **19.a**. No matter how hard you try some people just don't like you.
 - **b**. People who can't get others to like them don't understand how to get along with others.
- **20.a**. Heredity plays the major role in determining one's personality.
 - **b**. It is one's experiences in life which determine what they're like.
- **21.a**. I have often found that what is going to happen will happen.
 - **b**. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
- **22.a**. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

- **b**. Many times exam questions tend to be so unrelated to course work that studying in really useless.
- **23.a**. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
 - **b**. Getting a good job depends mainly on being in the right place at the right time.
- **24.a**. The average citizen can have an influence in government decisions.
 - **b**. This world is run by the few people in power, and there is not much the little guy can do about it.
- **25.a**. When I make plans, I am almost certain that I can make them work.
 - **b**. It is not always wise to plan too far ahead because many things turn out to- be a matter of good or bad fortune anyhow.
- **26.a**. There are certain people who are just no good.
 - **b**. There is some good in everybody.
- **27.a**. In my case getting what I want has little or nothing to do with luck.
 - **b**. Many times we might just as well decide what to do by flipping a coin.
- **28.a**. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
 - **b**. Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it.
- **29.a**. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
 - **b**. By taking an active part in political and social affairs the people can control world events.
- **30.a**. Most people don't realize the extent to which their lives are controlled by accidental happenings.
 - **b**. There really is no such thing as "luck."
- **31.a**. One should always be willing to admit mistakes.
 - **b**. It is usually best to cover up one's mistakes.
- **32.a**. It is hard to know whether or not a person really likes you.
 - **b**. How many friends you have depends upon how nice a person you are.

- **33.a**. In the long run the bad things that happen to us are balanced by the good ones.
 - **b**. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
- **34.a**. With enough effort we can wipe out political corruption.
 - **b**. It is difficult for people to have much control over the things politicians do in office.
- **35.a**. Sometimes I can't understand how teachers arrive at the grades they give.
 - **b**. There is a direct connection between how hard 1 study and the grades I get.
- **36.a**. A good leader expects people to decide for themselves what they should do.
 - **b**. A good leader makes it clear to everybody what their jobs are.
- **37.a**. Many times I feel that I have little influence over the things that happen to me.
 - **b**. It is impossible for me to believe that chance or luck plays an important role in my life.
- **38.a**. People are lonely because they don't try to be friendly.
 - **b**. There's not much use in trying too hard to please people, if they like you, they like you.
- **39.a**. There is too much emphasis on athletics in high school.
 - **b**. Team sports are an excellent way to build character.
- **40.a**. What happens to me is my own doing.
 - **b**. Sometimes I feel that I don't have enough control over the direction my life is taking.
- **41.a**. Most of the time I can't understand why politicians behave the way they do.
- **42.b**. In the long run the people are responsible for bad government on a national as well as on a local level.

Aggression Questionnaire (Buss & Perry, 1992)

Using the 5 point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

- 1. = extremely uncharacteristic of me
- 2. = somewhat uncharacteristic of me
- 3. = neither uncharacteristic nor characteristic of me
- **4.** = somewhat characteristic of me
- **5.** = extremely characteristic of me
 - 43. Some of my friends think I am a hothead
 - **44.** If I have to resort to violence to protect my rights, I will.
 - **45.** When people are especially nice to me, I wonder what they want.
 - **46.** I tell my friends openly when I disagree with them.
 - 47. I have become so mad that I have broken things.
 - **48.**I can't help getting into arguments when people disagree with me.
 - **49.** I wonder why sometimes I feel so bitter about things.
 - **50.** Once in a while, I can't control the urge to strike another person.
 - **51.**I am an even-tempered person.
 - **52.** I am suspicious of overly friendly strangers.
 - **53.** I have threatened people I know.
 - **54.** I flare up quickly but get over it quickly.
 - **55.** Given enough provocation, I may hit another person.
 - **56.** When people annoy me, I may tell them what I think of them.
 - **57.**I am sometimes eaten up with jealousy.
 - **58.**I can think of no good reason for ever hitting a person.
 - **59.** At times I feel I have gotten a raw deal out of life.
 - **60.** I have trouble controlling my temper.
 - **61.** When frustrated, I let my irritation show.
 - **62.**I sometimes feel that people are laughing at me behind my back.
 - **63.**I often find myself disagreeing with people.
 - **64.** If somebody hits me, I hit back.
 - **65.**I sometimes feel like a powder keg ready to explode.

- **66.** Other people always seem to get the breaks.
- **67.** There are people who pushed me so far that we came to blows.
- **68.**I know that "friends" talk about me behind my back.
- **69.** My friends say that I'm somewhat argumentative.
- **70.** Sometimes I fly off the handle for no good reason.
- **71.**I get into fights a little more than the average person.

Accommodation Instrument

Please read each of the following statements concerning the manner in which you respond to problems in your relationship. Use the following scale to record a response for each item.

Response Scale:

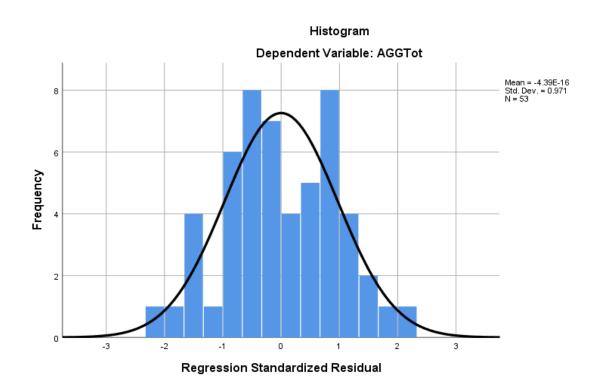
0	1	2	3	4	5	6	7	8
Never		Seldom		Sometimes		Frequently	Constar	ıtly
Do This		Do This		Do This		Do This	Do T	his

- **72.** When my partner says something really mean, I threaten to leave him/her.
- **73.** When my partner is rude to me, I try to resolve the situation and improve conditions.
- **74.** When my partner behaves in an unpleasant manner, I forgive my partner and forget about it.
- **75.** When my partner does something thoughtless, I avoid dealing with the situation.
- **76.** When my partner is rude to me, I feel so angry I want to walk right out the door.
- **77.** When my partner behaves in an unpleasant manner, I calmly discuss things with him/her.
- **78.** When my partner does something thoughtless, I patiently wait for things to improve.
- **79.** When my partner says something really mean, I sulk and don't confront the issue.
- **80.** When my partner behaves in an unpleasant manner, I do something equally unpleasant in return.
- **81.** When my partner does something thoughtless, I try to patch things up and solve the problem.

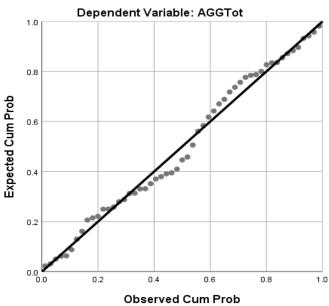
- **82.** When my partner says something really mean, I hang in there and wait for his/her mood to change these times pass.
- **83.** When my partner is rude to me, I ignore the whole thing.
- **84.** When my partner does something thoughtless, I do things to drive my partner away.
- **85.** When my partner behaves in an unpleasant manner, I spend less time with him/her.
- **86.** When my partner says something really mean, I talk to my partner about what's going on, trying to work out a solution.
- **87.** When my partner is rude to me, I give him/her the benefit of the doubt and forget about it.

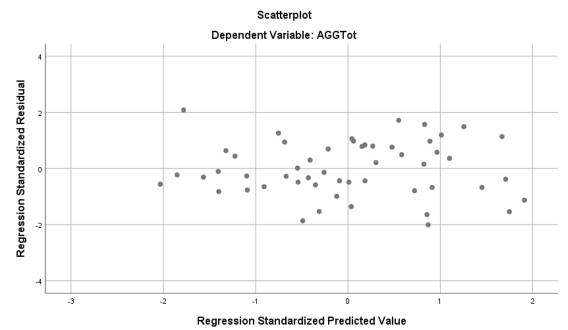
Appendix H: Preliminary analysis of normality

Aggression:

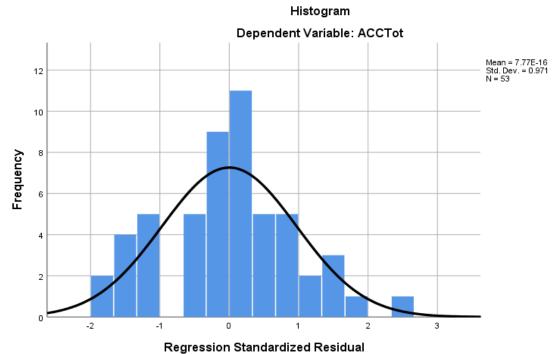




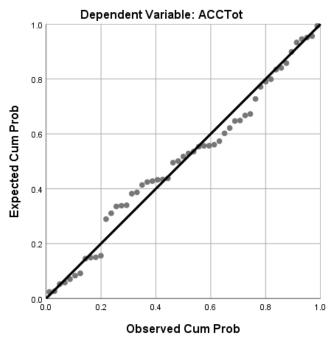




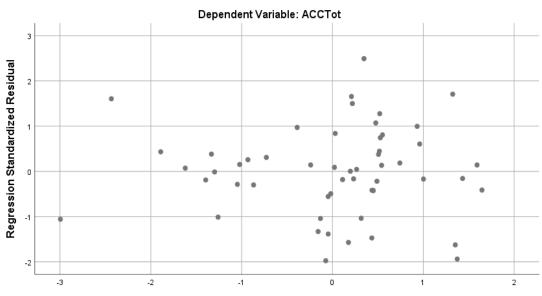
Accommodation:



Normal P-P Plot of Regression Standardized Residual







Appendix I: Multiple regression with bootstrapping comparisons.

Multiple regression model for predictors of accommodation with bootstrapping comparisons.

Standard Multiple Regression								Bootstrapping			
	В	SE B	β	Sig.	95 Lower	% CI Upper	Bias	SE B	Sig.	959 Lower	% CI Upper
Constant	95.311	8.932		.000*	77.362	113.260	.246	8.866	.001*	78.750	113.474
ECRAn	202	.254	102	.431	711	.308	053	.260	.436	765	.238
ECRAv	981	.291	432	.001*	-1.565	397	.030	.323	.002*	-1.510	226
RLOCTot	036	.439	011	.935	918	.846	.057	.386	.915	730	.834

Dependent Variable: ACCTot *P<0.05

Bootstrap results are based on 1000 bootstrap samples

Executive Summary

Adult Attachment Style, Locus of Control, Aggression, and Other Responses to Perceived Negative Acts in Intimate Relationships.

Total word Count: 2,256 (excluding reference list)

ITS ALL ABOUT RELATIONSHIPS

Adult Attachment Style, Locus of
Control, Aggression, and
Accommodation of Perceived Negative
Acts in Intimate Relationships.

Executive Summary

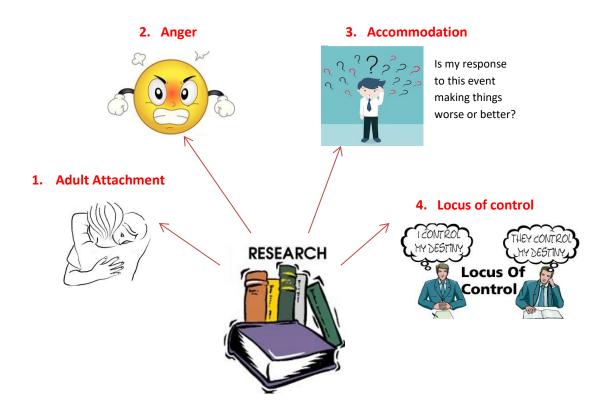
This report is intended as an accessible summary of a research project focusing on the impact of adult attachment style and locus of control orientation on various aspects of intimate relationships. The research method, findings, clinical implications and limitations are summarised below.

Background

Intimate relationships can be described as relationships which involve physical and/or emotional intimacy of a romantic kind. According to the Office for National Statistics (2015), maintaining good relationships and connections with other people, for example, in intimate relationships, is extremely important to one's overall well-being, which is considered to be a combination of mental, physical, emotional and social health factors. There are a number of factors which can be associated with maintaining good relationships and overall well-being, such as experiencing a close bond with a parent or other care-giver during childhood (Mikulincer, 1998), how a person reacts to perceived negative acts, for example shouting and criticism

(Rusbult, Verette, Whitney, Slovik & Lipkus, 1991), and expression of anger (DiGiuseppe & Tafrate, 2007).

There were four main topics discussed in the research paper:



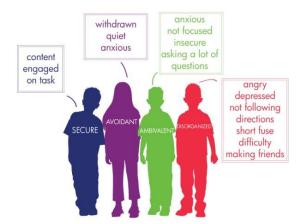
1. Attachment

The theory of attachment was first developed by John Bowlby from his work with children who experienced difficulties managing their emotions (Bowlby, 1973). His work illustrated that children experience anguish and distress when separated, for example, through bereavement, from a parent or other primary care-giver. It was suggested that this was because a fundamental bond, in other words attachment, between the child and their care-giver had been broken. It is said that an attachment between a child and their care-giver is developed through the availability of the care-giver in meeting the child's needs. However, if unpredictability with the care and support provided

by a care-giver is experienced, according to attachment theory, a person is likely to experience intense distress (Bowlby, 1988).

It is theorised that the impact of such experiences then becomes internalised and an internal working model (IWM) of attachment is developed (Bowlby, 1980). Internal working models can be described as representations, in a person's mind, of their experiences with parents, others and the world around them. It provides a template for a person to refer to when interacting with others and the world around them, which allows them to try and predict and control their environment.

As a child grows to adolescence and adulthood their internal working models help them to develop attachment an orientation (Bowlby, 1980; & 1998; Simpson Rholes, Holmes, 2014; 2012).



Adult attachment orientations are usually defined as follows (Ainsworth, Blehar, Waters & Wall, 1978; Main & Soloman, 1986):

Attachment orientation	Example of possible behaviour in intimate relationships
Secure	Generally trusting of others, meets the needs of partner and others and believes their needs will also be met. May show a sensitive and consistent approach to relationships.
Dismissive / avoidant	Can appear distant, disengaged emotionally and may subconsciously believe their needs will not be met by others.
Anxious / ambivalent	May not always believe their needs will be met by their partner. May show an inconsistent with approach to relationships; sometimes sensitive, sometimes neglectful, may feel anxious,

	insecure and sometimes angry.
Disorganised / disorientated	May be confused and have no strategy to have their needs met; they may feel depressed, passive, angry or non-responsive in relationships and feel frightened or be frightening at times.

2. Aggression

Research has explored various aspects of anger and aggression, for instance, dysfunctional anger, which can be problematic in relationships, and more functional expressions of anger, which can be considered as a normal response to certain life events, for example, the loss of a loved one. According to DiGiuseppe and Tafrate (2007), when considering the impact of expressed emotion in relationships, it is likely that certain expressed emotion, such as dysfunctional anger, will have a negative impact in intimate relationships.

Research has explored two main categories off anger/aggression; physical aggression and psychological aggression. Psychological aggression can be understood as verbal and behavioural acts that are intended to humiliate, blame, criticise, dominate, intimidate, isolate, and threaten (Follingstad, Coyne, & Gambone, 2005).

3. Accommodation

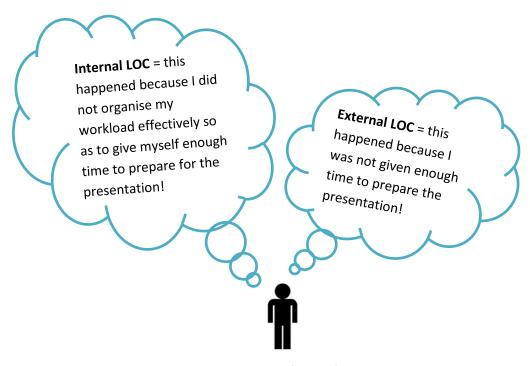
A person's response to difficult events in intimate relationships can affect relationship quality and satisfaction. Accommodation is a term used to describe certain responses to events, which are considered as negative in nature and possibly involving conflict. Such as, when a partner is acting aggressively, criticising or yelling, for example. The type of responses which would be considered as accommodating are those which are constructive in

nature and aim to reduce distress, to calm and not exacerbate a situation (Rusbult, Verette, Whitney, Slovik & Lipkus, 1991).

There is research which has demonstrated links between certain adult attachment orientations and the use of accommodating responses to negatively-perceived conflict events. For example, a piece of research demonstrated that when a person, who was considered to have developed a secure attachment orientation, was faced with expressions of anger from their partner, they were observed to display more accommodating and constructive responses to try and maintain the relationship, rather than reacting in a way which might have exacerbated the situation and increased distress (Mikulincer 1998).

4. Locus of Control

Locus of control (LOC) concerns a person's beliefs about their perceived ability to control events and their outcomes (Rotter, 1954). Perceived control over events and their outcome tend to fall in one of two locus of control orientations: internal or external (Levenson, 1981). An internal locus of control is when a person thinks they have the ability to control events and problems in their life. The outcomes of which are therefore interpreted as being due to something internal to them, for example, being due to their temperament or emotional state. An external locus of control orientation is when a person views events and problems in their life as external to them and out of their control, such as being due to the actions of others, chance or 'fate'. To illustrate;



Situation: a person is feeling frustrated as they have not delivered a presentation very well in work.

The impact of locus of control orientation has been explored in relation to various factors, for example, expression of emotion, such as anger. When considering the impact of locus of control and anger expression, there is research which has demonstrated that people with an internal LOC orientation exhibit lower levels of physical aggression compared to those with an external LOC (Schmidt, Lisco, Parrott, & Tharp, 2016; Whitaker, 2013).

Aims

- Add to existing research in the areas of adult attachment, locus of control, anger and accommodation by;
 - Exploring further, the relationships between adult attachment and anger, and adult attachment and accommodation.
 - Exploring further, the relationship between locus of control orientation and anger.

 Exploring the potential relationship between locus of control orientation and accommodation. This does not appear to have been researched previously.

It was hoped that gender would be included in the data analysis as a possible predictor of aggression or accommodation, however due to the participants who took part in this study being predominantly female, gender was not included.

Participants who took part in the study

Participants were 18 years or older and were recruited from Staffordshire University. An advertisement for the research in the form of a poster was put up in various locations around the University, such as notice boards and in public bathrooms. Email invites containing a link to the study online were also circulated to departments within the University. The research was approved by Staffordshire University ethics committee.

There were 53 participants included in this study, all of whom were either a staff member or student at the University. There were 50 female participants and 3 male participants. Age ranges are noted in Figure 1.

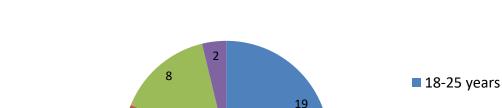


Figure 1: Participant Age Range Categories

26-35 years

■ 36-45 years

46-55 years

Participants were provided with a consent page and information sheet before taking part in the study. The information sheet outlined the background to the study and who could be contacted for more information or support. The data collection period ran from November 2018 through to the beginning of March 2019. On the information sheet participants were made aware that it was not possible to identify them from the information they gave, therefore their participation was completely anonymous. Participants completed the online survey at a time which was convenient for them and it took on average between 20-30 minutes to complete.

The following four questionnaires were completed by participants:

 Adult Attachment Style - The Experiences in Close Relationship Scale-Short Form (ECR-S; Wei, Russell & Mallinckrodt, 2007).

This is a 12-item self-report measure which asks questions related to romantic adult attachment, for example, 'I need a lot of reassurance that I am loved by my partner'. Two insecure category scores are obtained; one for anxious attachment and one for avoidant attachment. Low scores in both categories indicate a more secure attachment style.

- Locus of Control Rotter's Locus of Control Scale (Rotter, 1966).
 This is a 23-item self-report measure, which asks questions related to a person's locus of control orientation, for example, 'In my case getting what I want has little or nothing to do with luck'. Higher scores indicate an external locus of control.
- Aggression The Aggression Questionnaire (Buss & Perry, 1992).

This is a 29-item self-report measure, which asks questions related to expression of aggression, for example, 'If I have to resort to violence to protect my rights, I will'. The higher the score, the more likely the person is to express anger.

 Accommodation - The Rusbult Accommodation Scale (Rusbult, Verette, Whitney, Slovik & Lipkus, 1991).

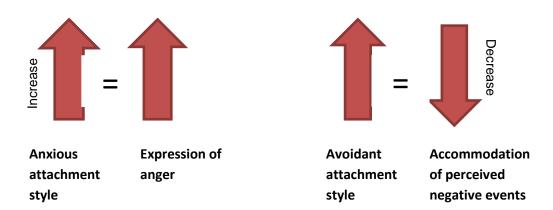
This is a 16-item self-report measure examining the way a person responds to certain conflict situations in intimate relationships. It asks questions such as, 'when my partner behaves in an unpleasant manner, I calmly discuss things with him/her'. The higher the score the more likely a person is to accommodate perceived negative events.

Key Findings

After analysing the information obtained from the questionnaires the key findings were:

- Anxious attachment and aggression were closely linked. This suggested that as the score on the anxiety part of the ECR-S increased, so did participant scores on the measure of aggression.
- Avoidant attachment and accommodation were also closely linked.
 This suggested that as the score on the avoidance part of the ECR-S increased, scores on the accommodation measure decreased.
- Overall the results demonstrated that having an insecure attachment style was a predictor of expression of anger and accommodation.
- Although significant, the results indicated that other factors aside from adult attachment and locus of control may have also been involved in predicting expression of anger and accommodation in this study.

Figure 3: Diagrams summarising results



Conclusion

This study provided further evidence in support of a relationship between adult attachment style and expression of anger and accommodation of perceived negative events in intimate relationships. The findings indicate that adult attachment style was a significant predictor of anger and accommodation in intimate relationships. However, locus of control orientation was not a significant predictor. Although underpowered, this study appears to have demonstrated results which warrant further investigation.

Recommendations for Clinical Practice

- The findings suggest that it may be beneficial for therapeutic interventions to target the management of conflict and other perceived negative events, to help maintain the quality of relationships and reduce distress.
- If a person discusses difficulties within a personal relationship, then it
 may be beneficial to explore their experience of and expression of
 anger. This may improve their overall well-being and the quality of
 their relationships with others.
- Providing education to people and exploring with a person, their attachment style may also play an important role in helping them

increase their understanding of their difficulties and what might be maintaining them.

Research Recommendations

- Future studies exploring a similar topic should aim for a higher number of participants to strengthen their results.
- Future research may benefit from incorporating other methods of data collection, such as through conducting interviews and using other types of questionnaires, for example. This may have meant additional information could be collected which may have been relevant to the research aims.
- Future research should attempt to include more gender-balanced samples in order to explore the impact of gender on aggression and accommodation.

Dissemination of findings

The research will be submitted to a peer-reviewed journal for publication.

Participants were able to contact the researcher (contact details were provided on the study information sheet given to each participant) to obtain a copy of this summary should they wish.

Limitations

- The study was underpowered, which means there may not have been enough participants who took part in the study, therefore the results should be interpreted with caution.
- All measures used in this study were self-report measures, which mean the reliability of results can be questioned. For instance, using self-report measures has been linked with socially desirable

responding, which is when a person gives answers that they think may be viewed favourably by others.

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