

PARENTING STYLE EXPERIENCED, CURRENT ATTACHMENT STYLE, AND
THE RELATIONSHIP TO EMOTION REGULATION IN YOUNG ADULTS

by

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A Thesis presented to

The Faculty of Humboldt State University

In partial Fulfillment of the Requirements for the Degree

Master of Arts in Psychology: Counseling

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May 2015

Abstract

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This study used ($N = 308$) participants to examine the relationship between parenting styles perceived, current attachment style, and emotion dysregulation in young adults (18-25 yrs old). This study used dimensions of attachment (anxious/avoidant) and dimensions of mother and father parenting styles (overprotection/care) in relation to the overall score of emotion dysregulation according to the Difficulties in Emotion Regulation Scale (DERS). To measure attachment, the Experience in Close Relationships Scale-Revised (ECR-R) was used and for parenting styles, the Parental Bonding Instrument (PBI) was utilized. These measures were each chosen for their accessibility to researchers and clinicians.

The measures were compiled into one survey using SurveyMonkey® and distributed online using social networking sites and college webpages for psychological research. Parenting styles were more significantly related to scores of anxious attachment than avoidant attachment scores and hypotheses that low scores of parental care would be related to high scores on anxious/avoidant attachment was supported even though the relationship was rather weak. Attachment scores on anxiety and avoidance were strongly related to emotion dysregulation with anxiety being more strongly related than avoidant.

Parenting styles were more highly related to emotion dysregulation than they were to attachment dimensions. However, when examining the β weights after a multiple regression analysis, attachment was shown to be more strongly predictive of emotion dysregulation than parenting styles.

In conclusion, most hypotheses were supported and show a significant relationship between parenting styles and attachment styles as well as emotion dysregulation in young adult populations. Attachment was strongly related to emotion dysregulation and was more predictive than parenting styles. The measures used in this study are accessible for use by clinicians and the research supports a significant relationship between these variables. As these variables are already a part of many theoretical frameworks for therapy modalities, these measures could be used to track treatment progress and assist with case conceptualizations. This study also supports further research into the relationship between parenting styles, attachment, and emotion dysregulation in a population at high risk for mental illness.

Acknowledgements

To Emily, who believed in me before I believed in myself. I'm grateful for this chance to let you know how much your support and guidance has meant to me over the last five years. Reflecting on the time I've been in Humboldt, you shine as someone whose compassionate heart and unfailing belief in her students has been invaluable to me as a student and a person. As for being my thesis supervisor, thank you for all the time you dedicated and being a constant source of support and guidance. Mischief managed!

Gregg Gold, thank you for spending your time to provide feedback, it has been so helpful to have your support and input throughout. Sheri Whit, I am so grateful for your role in this program and for being an example of valuing our clients and ourselves. You shine with strength and compassion both personally and professionally and I am so glad to have had your example to carry throughout my career. Thank you for dedicating time to be a support and provide helpful responses in completing my thesis.

To my cohort, I couldn't have imagined a more genuine and beautiful group of people to complete this program with. You have each inspired me in different ways and I am so glad to have had your support and encouragement throughout this program and thesis process. I love you each.

To my family, I wouldn't have made it through school without my grandparent's unfailing support. Thank you for never wavering in your faith. Thank you to my parents who have always told me I could do anything I set my mind to and meant it. To my sister,

you are my favorite person to spend a study break talking to and I am so grateful for your existence in my life.

Most importantly to me, Ian. You have been my partner and best friend for the best times in my life, and now you have remained my partner and best friend through some of the most stressful. I will always appreciate you for being a constant source of encouragement, genuine support, and love. I am also so grateful for the time you spent helping me in spite of the little time you have. You inspire me with your determination and passion and I couldn't have asked for a better partner in life. I can't wait to see what's next for us. Hopefully what's next is an expensive vacation, but any vacation at all will do, really.

*Even further acknowledgment goes to Ian Guerrero who helped conduct the data analysis by using Mathematica® software.

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Introduction

Parenting styles, attachment, and emotion dysregulation are each constructs of interest both in research and clinical practice. Developmental psychopathology research explores the role that attachment and parenting styles play in the manifestation of pathology in the clinical setting (Wilmschurst, 2014). Parenting is also of interest in research and to the general public. Research is disseminated in an effort to better equip parents for the task of scaffolding healthy development. Children are born to connect both biologically and emotionally with their caregivers and this developmental process is dependent on interactions with caregivers. Disruption can lead to an inability to self-regulate emotions (Cook et al., 2005; Lundberg & Wuermli, 2012). This process has become an important component of many psychological theories as well as possessing clinical utility when treating clients in the mental health setting.

Experiences in interpersonal relationships and the innate proximity seeking behavior of infants act as an emotion regulation process of relieving distress and anxiety (Ainsworth, Blehar, Water, & Walls, 1978; Bowlby, 1969; Lundberg & Wuermli, 2012; Mikulincer, Shaver, & Pereg, 2003). This continues through adulthood and informs styles of attachment as well as view of self. Proximity seeking is key in early development where a person's ability to access support and cope when faced with a perceived threat (psychological or physical) is a means to regulating affect. As Bowlby conceptualized it, if the person experiences easy access to a "secure base" in their caregiver, they develop

the ability to seek support or regulate their own emotions as they continue developing healthily. If the child does not have access to a secure base in early development, they may experience anxiety or withdrawal and have difficulty with emotion regulation (Mikulincer, Shaver, & Pereg, 2003). These observations in a clinical setting can benefit case conceptualization (Shorey & Snyder, 2006).

Attachment has been shown to be related to disruptions in many domains including social, cognitive, behavioral, and emotional processes (Cook et al, 2005). Attachment theory is also the foundation for many therapeutic modalities. Object relations uses the mother-child relationship to better understand interaction patterns happening in other interpersonal relationships (Bitter, 2013). Interpersonal Psychotherapy (IPT) is a treatment modality grounded in attachment theory that has been efficacious in treating many psychiatric issues including eating disorders (Markowitz & Weissman, 2004). Parent-child Interaction Therapy (PCIT) is grounded in three theories including Attachment and Baumrind's parenting styles by using a combination of individual, family, and in vivo therapy to assist parents in developing a better understanding of healthy parent interactions and providing skills that can be translated out of therapy (Thomas & Herschell, 2013). Each of these therapeutic modalities are grounded in Attachment theory and supported by research to be efficacious in dealing with a multitude of presenting problems. Attachment and emotion regulation have been shown to be highly related in prior research.

Emotion regulation processes are shaped by attachment and research shows that regulation and attachment may be malleable throughout the lifespan (Siegel & Hartzell,

2014). Secure attachment is mediated by the amygdala in response to stress (Lemche et al., 2006) and some researchers have posited that attachment has shifted to a regulatory theory itself (Schore & Schore, 2008). If attachment is a useful conceptual framework for understanding emotion regulation, then further understanding their relationship with each other and predictive factors like parenting styles will provide more insight into interpersonal experiences and their ability to inform emotion regulation processes (Mikulincer, Shaver, & Pereg, 2003). Behavior learned from parents is integrated into a dynamic development of self, emotion regulation, and attachment to others. While this has been studied significantly in childhood and slightly less in adolescence (Milevsky, Schlechter, Netter, & Keehn, 2007) there is very little research on outcome in young adulthood.

One study explores parenting styles being currently experienced by young adults (warmth, behavioral control, and psychological control) in relation to emotion regulation ability (Manzeske & Stright, 2009). During this time, both parental psychological and behavioral control should be decreasing as young adults engage the process of individuation and differentiation from their parents. Based on prior research, lower behavioral and psychological control from parents is related to secure attachment and successful emotion regulation whereas high behavioral and psychological control is positively related to insecure attachment and emotion dysregulation. As the young adult explores their new environment, authoritative parenting styles and secure attachment would likely foster healthy emotion regulation (Feeney & Vleet, 2010). Manzeske and Stright (2009) found that while behavioral control from parents decreased in young

adulthood, psychologically control increased. This shift in parenting styles and potential relationship to emotion regulation needs more research to establish the strength of the relationship. Attachment and emotion dysregulation has been shown to be predictive of psychological issues like Generalized Anxiety Disorder (GAD), panic disorder, deliberate self-harm, and posttraumatic stress symptoms (Marganska, Gallagher, Miranda, 2013). These are not uncommon in clinical practice and furthermore, young adult populations experience high rates of depression and anxiety (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Incorporating constructs predictive of these outcomes into case conceptualization could be very beneficial.

Shorey and Snyder (2006) found that attachment helped form a framework for conceptualization and determining interventions appropriate for clients. They also examined how attachment may reflect how clients communicate with the therapist and it would be useful to understand potential etiology (parenting style experienced) and emotion regulation functioning currently. Assessments of attachment are available with varying degrees of training necessary. The Adult Attachment Interview (AAI) is a semi-structured interview that requires training to code and helps a clinician to assess the clients' perception and coherence of their childhood experiences with attachment (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010). The Experiences in Close Relationships Scale-Revised (ECR-R) is a self-report measure of current attachment style and is readily available to clinicians without training necessary (Fraley, Waller, & Brennan, 2000). However, it is suggested that clinicians should be familiar with attachment theory and research if administering it with a client (Shorey & Snyder, 2006).

Originally, the Parental Bonding Instrument (PBI) was developed in research to assess parenting styles using just overprotection and care dimensions retrospectively (Parker, Tupling, & Brown, 1979). However, the factor validity was questioned by many researchers since its development and application (Perris & Anderson, 2000). Researchers have since found support for a three-factor model that includes the dimensions of care, overprotection, and authoritarianism (Cox, Enns, & Clara, 2000); Heider et al., 2005). The newest version of the PBI includes these 3 factors and is used to assess perception of parent style before age 16. The PBI is easily accessible to clinicians with no copyright and could be used to assess client perception of parenting style in the mental health setting.

Recently, researchers have continued examining emotion regulation from a dimensional viewpoint and have developed a multidimensional assessment of emotion dysregulation (Gratz & Roemer, 2004). This scale has six factors that can be examined independently to focus on specific issues or the overall score produced which may be indicative of the overall magnitude of dysregulation.

With assessments like the ECR, PBI, and DERS easily available, research examining the relationship between perception of parenting style, attachment and emotion dysregulation adds to the body of research that is lacking on young adults and provide clinicians with options to assess for attachment and parenting styles. With the amount of emotional distress experienced by young adults, understanding upbringing and current attachment can help conceptualize the presenting issues and assist in case formulation and tracking (Wilmhurst, 2014).

Literature Review

Parenting Style

The importance of parenting and outcome for children has long been of interest in psychology and is examined in research as well as clinical practice. Many frameworks approach the question whether it be learning theory, psychodynamic (Darling & Steinberg, 1993), or developmental psychopathology (Beauchaine & Hinshaw, 2013). A variety of constructs such as parenting style (Baumrind, 1966; Darling & Steinberg, 1993; Manzeske & Stright, 2009; Neal & Frick-Horbury, 2001; Schwartz, Thigpen, & Montgomery, 2006), family expressiveness and emotional expression (Morris, Silk, Steinberg, Myers, & Robinson, 2007), and parental bonding (Parker, Tuplin, & Brown, 1979) have all been examined as contextual factors that influence outcome for children. Baumrind was of the first to conceptualize parenting style within one domain.

Baumrind (1966) defines parenting style as different forms of control that are operationalized as authoritative, authoritarian, and permissive. Control is seen by Baumrind as a means of the parent to instill certain behavioral compliance and integration into both the family and society. Baumrind broke away from prior researchers by proposing one domain of control and a less linear view of parental control altogether. Baumrind found the socialization process to be dynamic and that children also influenced their parents which was not recognized by researchers prior (Darling & Steinberg, 1993). Initially, three styles of parenting were identified as most common; authoritative

parenting which is measured by “...warmth, non-punitive discipline, and consistency...”, authoritarian parenting which is identified by “...scoring below average on acceptance/involvement...and above average on strictness/supervision subscale[s]”, and permissive parenting which is those scoring “above average on acceptance/involvement...and below average on strictness/supervision...” (Maccoby & Martin, 1983). Since initial conceptualization, empirical use of parenting styles has included a fourth category in which permissive parenting includes two types: neglectful and indulgent (Milevsky, Schlechter, Netter, & Keehn, 2007). These four typologies are measured on two dimensions of demandingness and responsiveness which intersect to identify the parenting style. For many years now, these typologies are most commonly used in research (Robinson, Mandlco, Olsen, & Hart, 1995).

Parenting style has differed between studies and can be difficult to operationalize. Darling and Steinberg (1993) found that parenting style could be seen more as a process and integrative as did Baumrind. Three characteristics of parents had been popular up to this point and they were values and goals of the parents, employment of actual parenting practices, and attitudes that are expressed towards children. Darling and Steinberg (1993) suggest that this process be examined as the whole of its parts rather than creating typologies. They argue that there is an important distinction between parenting practices and parenting style because parenting style moderates the relationship between parenting practices and child behavioral outcome. Fan and Zhang (2014) find that the most commonly used conceptualization of parenting style is Maccoby and Martin (1983) where parenting style is measured using two dimensions of responsiveness and

demandingness which intersect to identify one of the four typologies as is consistent with Baumrind. In studies using this operationalization, children outcomes tend to be consistent. However, there are cultural differences highlighted in studies that show authoritarian parenting to be more effective in healthy development. In the African American population that is residing in high risk environments with violence, authoritarian parenting is shown to be a protective factor and is not predictive of negative outcome. The same is true with authoritarian parenting in Chinese populations which is hypothesized to be related to differences in collectivist cultures where compliance to authority is encouraged as opposed to individualist cultures (Fan & Zhang, 2014).

Given the many ways in which parenting styles have been defined, the outcomes are similar. Milevsky, Schlechter, Netter, and Keehn (2007) examined parenting style in relation to self-esteem, depression, and life-satisfaction in adolescence. Parenting style was predictive of self-esteem ($F = 14.43$), depression ($F = 8.20$), and life-satisfaction ($F = 12.18$). More specifically, authoritative maternal parenting scored significantly higher in predicting self-esteem and life satisfaction as well as scoring lower than the other styles in relation to depression. Paternally, authoritative parenting style is more highly related to self-esteem and life satisfaction than authoritarian and neglectful parenting. This suggests that the relationship between paternal permissive parenting and child outcomes remains less clear than maternal permissive parenting. Assessing multiple caregivers may be beneficial in building research clarifying differences.

The context in which parenting styles is being assessed is also a factor in research. To understand developmental continuity of parenting styles from early childhood to young

adulthood can be of significant benefit in the field.

Manzeske and Stright (2009) examine parenting styles being experienced during the child's young adult period. They define psychological control as using the psychological relationship itself to influence the child while behavioral control includes providing rewards and feedback. These two should ideally be balanced and should be adapted as the child grows and needs change (Schwartz, Thigpen, & Montgomery, 2006). Manzeske and Stright are of the first to examine the parenting style that is being experienced during young adulthood and not what was experienced during childhood. While there is a significant amount of research examining parenting styles in childhood and a moderate amount in adolescence, there is a need for research exploring both the trajectory of parenting styles as the children emerge in adulthood and the relationship this has with attachment and emotion regulation.

Attachment Style

Attachment has been established as relevant in many frameworks including developmental psychology, evolutionary psychology, social psychology, neuroscience, and clinical practice among others. Attachment theory posits that infants have an inherent tendency to bond with and seek out their caretaker for comfort and basic needs. Both genetic and environmental factors create differences in attachment between individuals and attachment describes patterns of interpersonal relationships (Ravitz et al., 2010). Bowlby (1969) and Ainsworth et al (1978) emphasize the role of caregivers in early development. Bowlby theorized the "secure base" with the idea that internal working

models (IWM) are wired to develop differences in interpersonal interactions as well as our understanding of the world around us. Ainsworth et al (1978) began experimenting with Bowlby's theories by observing child behavior using the "strange situation".

Children were observed upon their mother leaving the room and the outcome measures were the children's response to her departure, the reaction to a stranger interacting with the child, and the response from the child upon the mother's return. Ainsworth's research supported Bowlby's theories and continued building the foundation of attachment theory and research.

The attachment styles observed by Ainsworth were labelled secure, ambivalent, and avoidant/resistant. A secure child would be one who plays independently while the mother is present and shows distress when the mother leaves but relief upon her return. An ambivalent or anxious child would be anxious about playing while the mother was present and be distressed when she leaves. However, this child would be ambivalent when she comes back. Avoidant children would not engage with their mother and show no distress when she leaves or excitement upon her return. These early constructs of attachment made it possible to measure attachment and use it to predict outcomes based on a well-developed theory (Raviz, Maunder, Hunter, Sthankiya, & Lancee, 2010). Both Bowlby (1969) and Ainsworth (1978) conceptualize attachment as a life span theory and psychologists have since studied attachment by focusing on romantic relationships in adulthood (Shaver, Belsky, & Brennan, 2000) as well as general forms of attachment rather than just early childhood or infancy. The methods used by early developmental psychologists were most often observational but measurement has undergone significant

expansion.

Methods of assessing attachment and conceptualizations are different between measures and studies. Some self-report measures classify individuals into categories and some place individuals on dimensions which target underlying characteristics of avoidance and anxiety (Shaver, Belsky, & Brennan, 2000). Both have merits within attachment research as categories often make clinical work easier by having behaviors which are more easily recognizable whereas dimensions can find more statistical power (Ravitz et al., 2010). Griffin and Bartholomew (1994) conceptualize attachment with four categories and two underlying dimensions (anxious/avoidant) as do others (Fraley et al., 2000). Attachment styles are characterized as secure, preoccupied, dismissive, or fearful. Secure attachment is low on anxiety and avoidance with an individual who has a positive view of self and others as well as the comfort and availability of proximity to others. Preoccupied attachment is higher in anxiety and lower in avoidance with a positive view of others and a negative view of self. Dismissing attachment is defined by scoring high in avoidance and low in anxiety. Lastly, fearful attachment is high on insecurity in both avoidant and anxiety dimensions. This model differs from Ainsworth's strange situation model in having the "dismissive" and "fearful" categories. This model is also valuable in making up for some of the drawbacks of choosing either a dimensional or categorical model by using both.

There are discrepancies in attachment research as to the actual stability of attachment over time and how this relates individual differences. For this reason, there are different models to describe attachment stability (Fraley, Vicary, Brumbaugh, &

Roisman, 2011). Fraley et al (2011) used a longitudinal study to examine attachment representations over both a 30-day period and another sample once a week for a year. A prototype model is supported by data and is theorized as a set of working models that are learned in early childhood and remain present but latent throughout the lifetime, underlying any variance in attachment. Critics of this model believe that working models are more fluid than the prototype model contends and therefore cannot predict attachment behavior farther down the lifespan (Lewis, 1997 as cited in Fraley et al., 2011). This argument is not claiming a lack of stability but rather a trend of being more resistant than static. This is still an unresolved gap of knowledge in attachment research (Fraley et al., 2011).

Another factor to consider in attachment research is the focus of different measures and factors like the context of the participant or the client in a mental health setting. Depending on the research or the context of the client, the foci may be romantic, general, or parental (Ravitz et al., 2010). Siegel and Hartzell (2004) discuss how the Adult Attachment Interview (AAI) specifically seeks to understand how a person processes events and not what actually happened that matters the most. A person's current attachment and relationships may reflect how they made sense of experiences they had while growing up. Measures such as the AAI also measure the "state of mind" of the client or participant. Attachment as a phenomenon is sometimes described as consisting of "state-dependent traits" meaning that attachment behaviors are not always present but can be activated by various stimuli like isolation. Patterns of behavior develop and are triggered by these stimuli. During the AAI administration, attachment patterns are

activated in order to determine the participant or client's ability to convey a sense of coherence in their responses. The focus of this interview would be on coherence in story telling of childhood experiences (parental attachment, general) and would predict current attachment style (romantic, parental, general) (Ravitz et al., 2010). The experience of the participant is frequently what shifts the focus of the measure but also the role of the researcher. A self-report will differ in that it is assessing the person's current view of their attachment as they perceive it rather than the observations of the interviewer. With self-report measures, there will be different levels of activation (more or less) and some may detect state-dependent variations more so than other self-report measures. (Ravitz et al., 2010)

Attachment theory has become more relevant in clinical settings particularly where it concerns the process of interpersonal relations. Attachment theory is key in object relations theory wherein internal working models from early interactions with caregivers become the template by which the individual understands future interactions. The object relations framework finds the mother and child relationship to be key in regulatory processes and uses this relationship to generalize behaviors and treat psychopathology and current attachment difficulties (Bitter, 2013; Farmer, 2009). PCIT utilizes attachment theory and Baumrind's parenting styles as the framework for treatment of families with children who have been abused and IPT is a treatment that uses an attachment theory framework for adults. IPT has been shown to be efficacious in treating many presenting problems including mood disorders (Markowitz & Weissman, 2004).

Ravitz et al (2010) examined the utility of assessing attachment styles in psychosomatic treatment and there are a variety of instruments available to conduct assessments of attachment style. Both interviews and self-reports may be appropriate for mental health settings. High scores on secure attachment (low on both avoidant and anxious) correlate with reports of positive relationships (Roisman, Padron, Sroufe, Egeland, 2002). A person with secure attachment is more socially and emotionally prepared to explore their environment in adulthood (Feeney & Van Vleet, 2010). A person with secure attachment benefits on a biopsychosocial level in social functioning, coping, stress management and morbidity (Ravitz et al., 2010). A young adult with secure attachment would likely feel more confident in exploring the world if they felt they had a secure base to return when needed (Feeney & Van Vleet, 2010).

Emotion Regulation

Emotion regulation is like attachment style in that it has many applications in both research and clinical psychology. Research is lending to the idea that emotion regulation can act as a unifying factor for presenting client behaviors or issues. Gratz and Roemer (2004) explain that emotion dysregulation has been shown to be relevant in many clinical situations such as substance abuse, intimate partner violence, anxiety, depression (Orgeta, 2009), and complex posttraumatic stress disorder. In a factor analysis of a multidimensional assessment of emotion regulation, they discuss the arguments surrounding the focus of emotion regulation measures and factors that accurately represent the construct. Some researchers have focused on control of emotions whereas

others have found that regulation itself is different. Control accounts for a non-experience of emotions rather than an awareness and processing while still functioning in other desired realms. Research has shown that trying to control emotions and avoid them leads to increased physiological arousal rather than diminished and that emotional expressivity can lead to emotional arousal which can be more difficult to regulate. Therefore, Gratz and Roemer (2004) created a measure for emotional regulation that is multidimensional and includes subscales that will measure one's ability to carry forth important behaviors in spite of negative emotional experiences. This factor is possibly more relevant in clinical work where behaviors may be a symptom of concern to the client. Information on emotion regulation scales that may have clinical utility is limited.

Cox and McAdams (2014) suggest that the way a participant remembers a significant life event will predict their emotion regulation abilities at least two years later. They define emotion regulation as the ability to adaptively respond to negative experiences with skills such as reframing and refocusing. Emotion dysregulation is defined as maladaptive responses to negative experiences and dysfunctions like rumination and catastrophizing. The meaning that one places on life experiences can influence the way to cope with future negative experiences. Viktor Frankl conceptualized our ability to survive by giving meaning to circumstances beyond our control as he endured the trials of living in a Nazi internment camp. He later founded Logotherapy which is based in this concept of finding meaning even when facing intense stressors (Frankl, 1992). For this reason, it would be valuable to examine participant's current perceptions of past experiences and current attachment style as well as emotion

regulation. This will help determine if there is clinical value in assessing parenting style experienced in addition to emotion regulation abilities.

Lei, Zhang, Cai, Wang, Bai, and Zhu (2014) found that emotion regulation assessment can be valuable in determining target areas for treatment in patients with Major Depressive Disorder (MDD). If emotion regulation is multidimensional as research supports (Gratz & Roemer, 2004), then assessment in therapy can help identify the specific areas the client struggles with. Lei et al (2014) compared a clinical sample with a general population to determine emotion dysregulation and found the MDD population to significantly higher in maladaptive regulation strategies. This is important for clinical assessment and testing as measures can be administered in therapy and better identify risk factors (Gratz and Roemer, 2014; Berking, Wirtz, Svaldi, & Hofmann, 2014). Berking et al (2014) found that emotion regulation contributes to the development of depression and posit that interventions should incorporate and address emotion regulation preventatively and as part of treatment. Research shows that symptom severity is often associated with difficulties identifying emotional reactions. Successful emotion regulation skills were negatively predictive of depressive symptom severity over five years in a cross-lagged regressions design (Berking et al., 2014). Research also shows that chronic issues with emotion regulation will contribute to major forms of psychopathology (Kring & Werner, 2004).

Koole (2009) reviews emotion regulation in current psychology research. Emotion regulation can look different among people. Stress eating, alcohol consumption, and smoking reduce emotional distress with release of opioids and physical sensations

that detract attention from stresses. There is no decided nomenclature for emotion regulation but there is general consensus that emotion regulation has multiple factors. Koole (2009) distinguishes between emotional sensitivity and emotion regulation. Emotion sensitivity is the primary response to stimuli and regulation would be the secondary response. Some people regulate emotions preemptively to avoid a primary emotional response. However, they will frequently experience the physiologically anticipated primary response to some extent. There are varying ways in which the general population strategizes emotion regulation. Emotion regulation leads to better physical health, relationship satisfaction, and even work performance.

Parenting Style and attachment

Neal and Frick-Horbury (2001) examine the relationship between parenting styles and childhood attachment and intimate relationships. They hypothesized that Baumrind's parenting styles and attachment are paralleled constructs and that if this is true, parenting styles would predict relationship outcomes. They examine whether those scoring high on authoritative parenting experiences would also score high on self-intimacy and "perceptions of other's intimacy" versus those who score high on permissive and authoritarian. Seventy percent of undergraduate students who experienced authoritative parenting were securely attached while only 12% of those who experienced authoritarian parenting and 0% permissive parenting developed secure attachment.

Milevsky, Schlechter, Netter, and Keehn (2007) examine both maternal and paternal parenting styles in adolescents and the relationship to self-esteem, depression,

and life satisfaction. Using Baumrind's categories of parenting styles, they found a significant main effect for maternal and paternal parenting styles and self-esteem, depression, and life-satisfaction. They also report that there is a significant advantage over authoritative maternal parenting rather than permissive but this relationship is less clear when it comes to paternal permissive parenting. Specific to attachment, fearful-avoidant attachment in adolescence is related to negligent parenting and negatively correlated with warm parental involvement and fostering of psychological autonomy (Karavasilis, Doyle, & Markiewicz, 2003). Parenting styles and attachment as well as self-esteem, depression, and life-satisfaction are interrelated to one another during adolescence. Adolescents are a target population commonly used to assess for Baumrind's typologies (Robinson, Mandleco, Frost Olsen, & Hart, 1995). Parenting style and attachment are more process-oriented and research suggests that examining different developmental stages is beneficial (Milevsky, Schlechter, Netter, & Keehn, 2007).

Perris and Anderson (2000) examined parenting styles and attachment in an adult population using a sample mostly made of married participants. They utilized an instrument to measure memories of experiences with parental rearing that has been shown to be consistent across cultures and measure similar dimensions and parenting styles to those of Baumrind's typologies and instruments like the PBI. This instrument measures rejection, emotional warmth, and overprotection. Using three separate attachment measures, there was positive correlation between parental emotional warmth and secure adult attachment and a negative correlation between warmth and insecure attachment. This study also found a difference between gender where overprotection

experienced by men had a stronger correlation with attachment measures and rejection had a stronger relationship with attachment in women. Cheng and Furnham (2004) also utilized the PBI when measuring parenting styles and happiness finding that maternal care and warmth was more beneficial than paternal in the development of healthy self-esteem.

There are reported gender differences (global self-worth: women, $r = .27$, men, $r = -.07$) in perception of parenting styles and self-perception (Klein, O'Bryant, & Hopkins, 1996). Overall, women showed more positive correlates with the facets under self-perception. This study also found that men, as compared to women, tended to view their fathers as permissive and authoritative and mothers more permissive. This indicates there may be gender differences in attachment as it relates to parenting style as well as differences in the child's perception of parenting styles between each parent. While attachment has a certain amount of underlying stability, variations still occur and different attachment relationships form between different people and may be more or less similar between relationships (Fraley, Vicary, Brumbaugh, & Roisman, 2011). The same is likely true with parenting styles but the research exploring this is lacking (Milevsky, Schlechter, Netter, & Keehn, 2007). While there is an increase in research examining maternal and paternal parenting styles, it is equally important to consider families of different dynamics such as parents in same sex relationships, adoptive, or extended relatives like grandparents.

Attachment and Emotion Regulation

The concept of attachment theory highlights proximity seeking as a means to cope with feelings of anxiety or intense emotion. The ability to alleviate anxiety by seeking out attachment figures illustrates the role that attachment plays in emotion regulation (Mikulincer, Shaver, & Pereg, 2003). Attachment functions as a behavioral system and plays out in how someone deals with distress throughout the lifespan. Bowlby (1969) emphasized how attachment-figures form a secure base for children. This plays a role in determining whether someone will have a negative or positive view of others (Roisman, Padron, Sroufe, Egeland, 2002) and emotion regulation strategies then become organized around this set of beliefs (Mikulincer, Shaver, & Pereg, 2003).. These beliefs can be measured using scales that assess attachment on a dimensional level of avoidance and anxiety (Griffin & Bartholomew, 1994; Shaver, Belsky, & Brennan, 2000). Aside from self-reports assessing attachment, discoveries such as neural plasticity and function of the HPA-axis support development of emotion regulation skills in concordance with attachment to caregiver (Laurent & Ablow, 2012).

Laurent and Powers (2007) find that temperament and attachment are predictive of stress response in couples. This study reveals that anxious attachment is predictive of increased HPA-axis activity as was expected. Avoidant attachment has previously been thought to act as a deactivating response style with stress and emotion regulation however, this study found that avoidant style was predictive of HPA activity. The processes in the prefrontal cortex include emotion regulation and are largely shaped by

interpersonal relations or, attachment. While this is crucial in infancy, this process of integration occurs throughout the lifespan, adapting and changing. (Siegel & Hartzell, 2004)

Once a secure base is established, it becomes internalized and a person is able to adapt when they encounter stressful events. As theorized by Bowlby (1969) and described by Mikulincer, Shaver, and Pereg (2003) a child with attachment security have a “safe haven” which is a place the child can turn to in stressful situations and find emotional comfort and support, or protection. A “secure base” functions as a place the child trusts to be there when they venture out and explore the environment. In abusive situations, this process is altered and is related to more negative outcomes that range in severity. These include depression, anxiety, ADHD, Conduct Disorder, Oppositional Defiant Disorder, and PTSD (Cook et al., 2005). Each of these tends to include difficulties in emotion regulation.

Parenting Style and Emotion Regulation

Emotional climate of the family includes parenting style/attachment, marital relations, and expressiveness (Morris et al., 2007). Many characteristics are included in a tripartite model of the impact family can have on children’s emotion regulation showing multiple interactions between child characteristics and parenting practices as well as emotion regulation and adjustment. These researchers suggest that children’s psychosocial development is impacted by relationships and family is through emotion regulation. To take it a step further, they support a family systems framework in which

there is a bidirectional relationship between children and families through the entirety of development. With significant research supporting this theory in childhood and adolescence, the trajectory into young adulthood is less well understood. Schwartz, Thigpen, & Montgomery (2006) discuss parenting style and differentiation of self as well as processing emotions in adulthood. Children of disapproving or dismissing parents will likely feel that experiencing negative emotions is inappropriate and might lack the ability to regulate their own emotions. High rates of regulatory disorders such as depression and anxiety in young adult populations suggest that understanding the predictive factors and interactions would be beneficial to researchers, clinicians, and clients.

Typically, regulatory strategies are directed by the parent in early development through the emotional climate, which includes attachment and parenting styles. However, it is more self-regulated over time (Morris et al., 2007). Manzeske and Stright (2009) are the first to examine parenting styles being experienced during the young adult period in relation to emotion regulation. This study operationalized parenting style by psychological and behavioral control and suggest that young adulthood is a developmental period in which people will be facing emotionally charged situations and having to navigate them without the guidance of a parent. This process of individuation is also incorporated in the theories and treatment of John Gottman discussed by Schwartz, Thigpen, and Montgomery (2006). As a young adult goes through the process of differentiating, they are exploring the skills developed to self-regulate emotions during the period of being fused to caregivers. If a parent is exhibiting high psychological control, an increase in difficulties regulating emotions may follow ($r = -.22$) (Manzeske

& Stright, 2009) but this relationship is relatively weak. Perhaps perception of parenting styles experienced has a stronger relationship to emotion regulation during individuation.

Statement of the Problem

Young adulthood is marked with many changes and among them include the differentiation from parents to self (Manzeske & Stright, 2009; Schwartz, Thigpin, & Montgomery, 2006). Young adults are faced with a new way of living and facing socialization in different contexts without a parent. Young adults are exploring the world of employment, making a living, and establishing relationships. This time inevitably involves changes in the parent child relationship.

The emotional climate of a family includes variables such as parenting styles and attachment and is predictive of emotion regulation (Morris et al., 2007). Neal and Frick-Horbury (2001) suggest that Baumrind's parenting styles may align with the attachment styles of secure, avoidant, and ambivalent attachment (Ainsworth, Blehar, Water, & Walls, 1978; Bowlby, 1969). Family is complex and understanding both parent characteristics' (parenting style) and child characteristics' (attachment style) relationship with emotion regulation or dysregulation in young adulthood will elucidate the experience of emotional development and experience in young adults. Researchers are finding that our personal experiences form the foundation of our sense of self throughout life which highlights the importance of parenting style (Siegel & Hartzell, 2004).

Manzeske and Stright (2009) define parenting style in terms of psychological and behavioral control. A fluid combination of these two parenting styles encourage healthy development. Behavioral and psychological control should be adapted as the child grows and needs change (Schwartz, Thigpen, & Montgomery, 2006). However, not all parents

are able to fulfill the changing needs and remain fairly constant in their parenting style. When children no longer live at home, Manzeske and Stright (2009) posit that psychological control will be more present than behavioral control. Manzeske and Stright (2009) find that as psychological control increases emotion regulation decreases ($r = -.22$). This study is one of a few that look at the relationship between parental control and emotion regulation once the children are young adults and no longer living with parents. Parents may still exert control as the individuation process occurs and this may leave young adults with emotional dysregulation. Morris et al. (2007) review the role that parent style and attachment play in emotion regulation abilities. Emotion regulation is defined as "...internal and external processes involved in initiating, maintaining, and modulating the occurrence, intensity, and expression of emotions". They examined it less globally and more narrowly. After review, they found that parenting style and attachment are predictive of different levels of emotion regulation. Underrepresented in literature is how parenting styles and attachment may correlate with emotion regulation in young adults.

How attachment relationships carry into adulthood is a conflicting issue within research (Pietromonaco & Barrett, 2000). It is beneficial to examine development from a multidimensional perspective and better understand the multitude of interactions occurring in parent-child relationships and development. Children learn emotional expression from their environment during early years and this can scaffold healthy brain development (Thompson, 2001;). Thompson (2000) addresses the variability of attachment and its ability to change over time. Neural plasticity supports this as does our

understanding of the influence of maladaptive environments on the developing brain (De Bellis, 2005; Nelson, 1999). Farmer (2009) discusses the role that the orbitofrontal cortex plays in the formation of emotion regulation at an early age based on the feedback between mother and child. Given the physiological understanding of attachment, Schore and Schore (2008) suggest that attachment may be a regulatory process itself.

Attachment in the clinical setting is still expanding. Attachment functions in awareness, stress response, and emotion regulation. Self-report measures of attachment can predict levels of psychological functioning (Shaver, Belsky, & Brennan, 2000). In clinical populations, there is a high rate of insecure attachment (Ravitz et al., 2010). Self-report measures that can be used in both research and clinical practice will expand the options for clinicians to include an assessment of attachment relationships in practice.

With the rates of clinical disorders like anxiety, depression, and suicidality being so high in young adult populations (Eisenberg, Gollust, & Hefner, 2007), this group will be examined specifically. Two million young adults (18-25) have a co-occurring mental illness and Substance Use Disorder (SUD) (Substance Abuse and Mental Health Services Administration [SAMHSA], 2013). Research also shows that three-fourths of mental disorders have an onset by the mid-20s with most occurring between the teen and early 20 years (Kessler et al., 2007). Since the implementation of the Affordable Care Act (ACA), many young adults will remain on their parent's insurance for mental health coverage and cost of mental health services will be affordable for many young adults. Having more measures for assessment or another lens to conceptualize cases by examining the correlates of emotion regulation in young adults would be beneficial in the

clinical setting as well as expand the current literature. Keith and McAdams (2014) find that meaning given to past events that are high and low points in time, such as the process of becoming an adult, predicts emotion regulation abilities two years later. By examining the participants' current view of parenting styles experienced, current attachment, and emotion regulation, the present study aims to better understand the relationship of these variables.

There is a need for more research examining the mediating and moderating mechanisms of parenting style, attachment, and emotion regulation (Cheng & Furnham, 2004; Morris et al., 2007). Parenting style is a moderating variable in Darling and Steinberg's (1993) research and it is important to examine whether parenting style or attachment style acts as a moderating/mediating variable in relationship to emotion regulation.

Research has examined the relationship between attachment style and emotion regulation but less frequently considered is the role that parenting styles might play in this interaction. Attachment process and parenting styles are supported by research to improve childhood outcome. If this indeed applies across developmental periods, then understanding its relevance in the young adult population may be valuable in assisting clinicians who may need further assessment of the familial and interpersonal context of a particular client. This can help with case formulation and treatment planning in which a clinician can examine what might be maintaining symptoms (Wilmhurst, 2014).

Hypothesis 1

Parenting Style and Attachment

1a: Low scores on the care dimension of the PBI will be positively correlated to high scores on the dimensions of anxious and/or avoidant attachment on the ECR.

1b: High scores on overprotection of the PBI will be positively related to high scores on the dimensions of anxious and/or avoidant attachment on the ECR.

Rationale

The PBI measures fundamental parenting styles dimensionally (care, overprotection, and authoritarianism) which intersect to identify type (affectionate constraint, optimal parenting, affectionless control, and neglectful parenting) (Parker, Tupling, & Brown, 1979) in line with Baumrind's theory on parenting styles (authoritative, authoritarian, and dismissive). Neal and Frick-Horbury (2001) examined parenting styles and attachment in an undergraduate population using Baumrind's conceptualization. They found that 92% of participants raised with authoritative parenting were also securely attached. It is important to note this study had a relatively small sample size ($n = 53$) and utilized causal language when conducting correlational research. However, 92% is a significant result and suggests further research with a larger sample size and careful interpretation when examining the relationship between parenting style and attachment style in young adults is warranted.

Hypothesis 2

Attachment and Emotion Regulation

2a: High scores on anxious and/or avoidant attachment dimensions on the ECR-R will be positively correlated with emotion dysregulation on the DERS.

2b: Low scores on anxious and/or avoidant attachment on the ECR will be negatively correlated with emotion dysregulation on the DERS.

Rationale

Mikulincer, Shaver, and Pereg (2003) utilized Bowlby's attachment system to demonstrate that activation of this system is part of affect regulation. This co-regulatory process between attachment and emotion regulation impacts the cognition over time by developing patterns in thoughts and reactions. Attachment has been identified as a moderating link between negative affect and cognition. Marganska, Gallagher, and Miranda (2013) found that feeling as though one has access to emotion regulation strategies mediated the relationship between fearful avoidant attachment and depression. Fearful avoidant and preoccupied are the most highly correlated with emotion dysregulation (Marganska, Gallagher, & Miranda, 2013; Mikulincer, Shaver, & Pereg, 2003). It is also reported that the dismissive avoidant style of attachment has the lowest correlation with emotion dysregulation and this may be due to the use of deactivation when faced with psychological distress. Deactivating strategies do not facilitate the

connection between negative stimuli and cognition (Mikulincer, Shaver, & Pereg, 2003). However, in establishing construct validity, Gratz and Roemer (2004) aimed to distinguish adaptive emotion regulation from the strategies of emotional control and emotional avoidance. Establishing an overall DERS score that has positive correlations ($r = .60$) with experiential avoidance on the measure *Acceptance and Action Questionnaire* (AAQ) and negative correlation ($r = -.23$) with emotional expressivity on the *Emotional Expressivity Scale* (EES), accounts for those who might have a tendency to perceive deactivation as emotion regulation. More specifically, Gratz and Roemer (2004) established that the factors “awareness” ($r = -.46$) and “strategies” ($r = -.42$) were negatively correlated with emotional expressivity showing a moderate relationship that further supports use of the scale in accurately assessing adaptive or maladaptive emotion regulation.

Hypothesis 3

Parenting Style and Emotion Regulation

3a: Low scores on the dimension of care on the PBI will be positively correlated with emotion dysregulation on the DERS.

3b: High scores of overprotection on the PBI will be positively correlated with emotion dysregulation on the DERS.

Rationale

Parenting style and emotion regulation has been studied extensively with children. However, not many studies have examined the relationship between parenting style and emotion regulation with young adults. Plasticity suggests that the brain is still adaptive in young adults (Farmer, 2009; Nelson, 1999) and understanding parenting style in relation to emotion regulation may help explain emotional dysregulation in young adults. Schwartz, Thigpen, and Montgomery (2006) examined the relationship between Gottman's theory of emotion coaching and differentiation or fusion of college students. They found that emotion coaching, which is equivalent to authoritative parenting style, is positively correlated with emotion processing and differentiation of self among women ($r = .90$). Manzeske and Stright (2009) conceptualized parenting styles with behavioral and psychological control and found that higher amounts of psychological and behavioral control in young adulthood was negatively correlated with emotion regulation ($-.22$).

While this study was examining current parent child interactions, this would still have implications with a history of parenting style as the current study proposes.

Hypothesis 4: Study Question

The last question for this study which will add to the literature is whether parenting style scores or attachment scores are more predictive of emotion dysregulation.

Method

Participants

This study obtained ($N = 308$) participants between the ages of 18-25. Participants were required to have experienced a mother and father guardian before the age of sixteen or were excluded from the data.

Procedures

Data was collected through Hanover College of Psychology department's Psychological Research on the Net and social networking sites including Facebook, Reddit, and Craigslist. Participants were given a link to SurveyMonkey®, a website wherein they could access informed consent and questionnaires. Informed consent was posted in the beginning of the survey and participants could not proceed until confirming they had read the informed consent and agreed to participate. They also had to confirm they were 18-25 before being allowed to continue. Participants were informed that they can quit at any time. They then proceeded to demographic information followed by the PBI, ECR-R, and DERS.

Instrumentation

Demographics questionnaire

Each participant filled out a demographic questionnaire which can be found in Appendix B.

Parental Bonding Instrument (PBI)

This instrument can be found in Appendix E and was used to measure the construct of parenting style. PBI has 25 items that are designed to test the style of both a mother and father and has different scoring for each. However, it could also be used to assess two caregivers of the same gender by using the gender appropriate cut-off scores for mother and father scoring. This instrument is specifically designed to measure parenting styles retrospectively and more specifically, what was experienced before the age of 16. An example of a care item would be “Spoke to me in a warm and friendly voice”, an example of overprotection would be “Invaded my privacy”, and an example of authoritarianism would be “How much did she/he stop you from doing things that other kids your age were allowed to do?”.

The PBI has strong psychometric properties (Cox, Enns, & Clara, 2000) yielding six scores (three from each parent) and utilizing a 4-point Likert scale. With a sample of 123 college students, Safford, Alloy, and Pieracci (2007) found the *internal consistency* of the PBI to be ($\alpha = .87-.94$). Comparing the overprotection and care items correlated ($r = -.24$ to $-.40$). The PBI “care” scale was measured against the Children’s Report of Parental Behavior Inventory (CRPBI) scale of “involvement” with the mother

relationship equating to ($r = .83$) and father ($r = .86$). The PBI “overprotection” scale was moderately correlated with the CRPBI “negative control” scale for both mother ($r = .56$) and father ($r = .57$) showing decent *convergent validity*.

Wilhelmniven, Niven, Parker, and Hadzi-pavlovic (2004) measured participants over a 20 year period and controlled for life experiences and characteristics like depression and gender finding that the PBI is stable over time in a nonclinical sample. The questionnaire was originally designed to measure two underlying dimensions of care and overprotection (Parker, Tupling, & Brown, 1979) but more recent research has validated a three-factor model including authoritarianism as a separate dimension (Cox, Enns, & Clara, 2000; Heider et al, 2005). This study will also use a three factor model during the scoring process.

Difficulties in Emotion Regulation Scale (DERS)

The DERS can be found in Appendix D and will be used to assess emotion dysregulation in young adults. This scale consists of these dimensions of emotion regulation: “(a) awareness and understanding of emotions; (b) acceptance of emotions; (c) the ability to engage in goal-directed behavior, when experiencing negative emotions (d) and access to emotion regulation strategies perceived as effective.” It is a 41-item self-report measure to assess clinically significant difficulties in regulation of emotions on a 5-point Likert scale. Gratz and Roemer (2004) conducted analyses to determine reliability and validity. After factor analysis, six factors were found for the multidimensional construct of emotion regulation captured by the DERS: Nonacceptance

(ex: “when I’m upset, I feel guilty for feeling that way”, strategies (ex: “when I’m upset, I believe I will feel that way for a long time”), awareness (ex: “I am attentive to my feelings”), clarity (ex: “I have difficulty making sense of my feelings”), impulse (ex: “when I’m upset, I lose control over my behaviors”), and goals (ex: “when I’m upset, I have difficulty focusing on other things”).

Internal consistency was calculated with cronbach’s alpha and was reported to be high with ($\alpha = .93$) and the subscales were decent with an alpha of ($\alpha > .80$). Item-total correlations ranged from ($r = .16$ to $r = .69$). *Test-retest reliability* is reported as ($\rho_I = .88$). The subscales were calculated to be ($\rho_I = .69$) for nonacceptance, .69 for goals, .57 for impulse, .68 for awareness, .89 for strategies, and .80 for clarity.

Construct Validity was assessed by measuring the DERS and the *Generalized Expectancy for Negative Mood Regulation Scale (NMR)*. The DERS was also measured against experiential avoidance and emotional expressivity. Because the DERS is based on difficulty accessing emotion, it should be positively correlated with emotional avoidance and negatively correlated with emotional expressivity. This was true when correlation were conducted. Internal consistency was reported as such: Nonacceptance ($\alpha = .85$), goals ($\alpha = .89$), impulse ($\alpha = .86$), awareness ($\alpha = .80$), strategies ($\alpha = .88$), and clarity ($\alpha = .84$).

The Experiences of Close Relationships Scale (ECR)

Can be found in Appendix C and was used to assess attachment styles as it measures the two dimensions of avoidance and anxiety that can be used in research and

clinical settings to understand the dimensional and categorical properties that can be determined from measuring these two. For example, someone low in anxiety and avoidance dimensions would be in the category of secure attachment. This is a 36-item self-report measure of adult attachment style. These attachment styles will be reflective of how someone might seek out support and their comfort with intimacy. An anxious item example reads “I’m afraid that I will lose my partner’s love” and an avoidant example is “I prefer not to show a partner how I feel deep down”.

Wei, Russell, Mallinckrodt, and Vogel (2007) examine the reliability, validity and factor structure of the ECR-short form with a college student sample. The short form is equivalent to the full ECR. The *test-retest reliability* is reported as ($r = .82$) and ($r = .89$) over a 3-week interval. *Internal Consistencies* were reported with coefficient alphas being .78 for anxiety and .84 on the short form and .92 for anxiety and .93 for avoidance on the full 36-item ECR-R that will be used in this study. The relationship with avoidance and anxiety was ($r = .17$) which demonstrates that these are two different dimensions of attachment. In relation to the *Excessive Reassurance Seeking Scale (ERSS)*, the ECR-R was reported to have a coefficient alpha of .89 which was similar to prior research reporting .88. *Construct validity* is shown in comparing the scale with the *Fear of Intimacy Scale (FIS)* with a coefficient alpha of .92. A copy of the questionnaire can be found in Appendix D.

Omitted Questions

While compiling the measures on SurveyMonkey®, researcher neglected to include one item from the father care scale labeled “...appeared to understand my problems and worries”. To rebalance the items on scales, researcher removed the same item from mother care and also removed this item “...felt I could not look after myself unless she/he was around” from both mother and father overprotection scales. This question was removed to balance the overprotection and care items as overprotection already had more items to begin with.

Results

Participants ($N = 308$) completed the online survey which consisted of demographic information, the Parental Bonding Instrument (PBI), Experiences in Close Relationships Questionnaire-Revised (ECR-R), and the Difficulties with Emotion Regulation Scale (DERS). Of the 537 participants who began to fill out the survey, 229 either stopped at the demographic information, only had one caregiver growing up, or did not complete an entire scale(s) within the survey. No more than one or two items were missed by one individual on each scale and missing values were replaced with mean values on that individual's scale. Mathematica® was the program used for all data analyses and tables are displayed throughout. Because scales were not even between measures, the data was normalized and scaled to 0-1. Lastly, distribution of the data was skewed in both directions. Therefore, measurement of median or mode may be more accurate for examining average scores (displayed in Table 1).

Table 1. *Descriptive Statistics*

Measure	Mean	Median	Mode	SD
Emotion Dysregulation	0.389	0.368	0.421	0.213
Mother Care	0.687	0.773	0.909	0.262
Mother Overprotection	0.414	0.406	0.313	0.211
Father Care	0.571	0.576	0.879	0.279
Father Overprotection	0.338	0.306	0.278	0.229
Attachment (anxious)	0.434	0.437	0.282	0.205
Attachment (avoidant)	0.420	0.394	0.383	0.186

$N = 308$

To test hypothesis 1, dimensions of care and overprotection for both mother and father on the PBI were correlated using *Pearson's r* with ECR-R scores of anxiety and avoidance. It was predicted that care and anxious and/or avoidant attachment would be negatively correlated and this was supported with the data. Correlations can be found in Table 2. The ECR-R dimension of anxiety was shown to be more significantly correlated with mother overprotection ($r = 0.200, p < .001$) and father care ($r = -0.210, p < .001$). Avoidant attachment scales were shown to be less significant than anxious showing father scores of overprotection as ($r = 0.014, p < .05$). Mother care was less significant ($r = -0.113, p < .05$) than mother overprotection ($r = 0.156, p < .001$). While items were correlated in the predicted direction, relationships were relatively weak. Amongst these

correlations, Table 2 also supports the validity of each scale by examining the relationship between dimensions.

Table 2. *Correlations between parenting styles and attachment*

Measure	Anxious	Avoidant	Mother Care	Mother Overprotection	Father Care	Father Overprotection
Anxious		0.264**	-0.195**	0.200**	-0.210**	0.158**
Avoidant	0.264**		-0.113*	0.156**	-0.199**	0.014*
Mother Care	-0.195**	-0.113*		-0.395**	0.219**	-0.233**
Mother Overprotection	0.200**	0.156**	-0.395**		-0.362**	0.233**
Father Care	-0.210**	-.199**	0.219**	-0.362**		-0.389**
Father Overprotection	0.158**	0.014*	-0.233**	0.233	-0.389**	

$N = 308$

* = $p < .05$, ** = $p < .001$

To test hypothesis 2, the two scales of attachment were measured in relation to emotion dysregulation. Both avoidant ($r = .356, p < .001$) and anxious ($r = .530, p < .001$) attachment were positively correlated with emotion dysregulation and anxious attachment had a significantly stronger relationship than avoidant. See Table 3.

Table 3. *Correlations between Attachment and Emotion Dysregulation*

Measure	Anxious	Avoidant
Emotion Dysregulation	0.530**	0.356**

$N = 308$

* = $p < .05$, ** = $p < .001$

Hypothesis 3 was also supported following the *Pearson's r* calculations (see Table 4). Mother care ($r = -.233, p < .001$) and father care ($r = -.324, p < .001$) were positively and significantly related to emotion dysregulation. Compared to parenting styles and attachment styles, this relationship is stronger.

Table 4. *Correlations between Parenting Styles and Emotion Dysregulation*

Measure	Mother Care	Mother Overprotection	Father Care	Father Overprotection
Emotion Dysregulation	-0.233**	0.243**	-0.324**	0.201**

$N = 308$

* = $p < .05$, ** = $p < .001$

To test the question following hypotheses 1-3, a multiple linear regression analysis was conducted and measured whether parenting styles or attachment was more predictive of emotion dysregulation. Attachment was significantly more predictive of emotion dysregulation than parenting styles (Table 5) and most significant was anxious attachment ($\beta = 0.490$). However, it's worth noting that while parenting dimensions of mother care, father care, and father overprotection became non-significant, the mother overprotection scale displayed predictive value at ($\beta = .152, p <.034$).

Table 5. *Multiple Linear Regression Analysis of Parenting Styles and Attachment Styles to Emotion Dysregulation*

Measure	β	Standard Error	t-statistic	P-Value
Anxious	0.490	0.048	10.353	1.07×10^{-21}
Avoidant	0.292	0.052	5.572	5.5710^{-8}
Mother Care	0.026	0.033	0.800	0.424
Mother Overprotection	0.152	0.072	2.131	0.034
Father Care	-0.05	0.034	-1.759	0.070
Father Overprotection	0.009	0.060	-0.130	.0896

$N = 308$

Discussion

This study had more than one goal. First, was to better understand the relationship between parenting styles, attachment styles, and emotion dysregulation. Second, was to determine whether perception of parenting style experienced or current attachment style was more predictive of emotion dysregulation. This study sought to do so with the young adult (18-25 yrs.) population because this group reports high rates of mental illness onset and high rates of anxiety, depression, and suicide. Also, doing a retrospective longitudinal design allowed for adding to the literature on the significance of these variables over lifespan development. It also aims to support the value of these variables in theoretical frameworks for clinical intervention.

It was hypothesized (1a & 1b) that high scores on mother and father care dimensions would be negatively correlated with anxious/avoidant attachment which was supported in spite of a relatively small relationship as is consistent with past research (Neal and Frick-Horbury, 2001). Also, father care was less significantly related to avoidant attachment than was anticipated. Anxious and avoidant attachment was strongly related to emotion dysregulation as was hypothesized in 2a and 2b. Avoidant attachment had a weaker relationship with emotion dysregulation which is consistent with past research. Mikulincer, Shaver, and Pereg (2003) theorize this may be due to deactivating strategies of avoidance when experiencing difficult emotions. Hypotheses 3a and 3b were also supported showing a moderate relationship between parenting styles and emotion

dysregulation, again, consistent with past research (Manzeske & Stright, 2009).

However, mother protection showed a significantly stronger relationship than other parenting dimensions. Additionally, examining β weights following a multiple regression analysis indicates that attachment may be more predictive of emotion dysregulation than parenting styles in spite of the relationship that parenting styles has with emotion dysregulation when measured independently. Aside from these findings, secondary data analysis using a regression between parenting style scores and emotion dysregulation shows that mother parenting style scores, particularly mother overprotection, is a stronger indicator of later emotion dysregulation and anxious attachment over father parenting scores.

Prior to conducting the study, it was not anticipated that the distribution would be skewed. However, accounting for outliers with a *Gaussian* transformation resulted in a skewed distribution as well so it seemed appropriate to continue hypotheses testing using the original skewed distribution. Also, the skews indicate that a majority of the sample perceived high levels of parental care and low levels of attachment anxiety/avoidance scores and emotion dysregulation scores. The positive and negative skews support the hypotheses and prior research.

Limitations

Limitations of this research would be excluding participants that did not have a mother I0 father during the first sixteen years of life. Any participants from a single

parent household or same gendered couple were not able to be included. This limits generalizability given the multitude of family dynamics amongst the general population. According to the 2012 U.S. Census Report, from 1970-2012, the amount of families with a married couple and two kids under 18 years of age went from 40-20 percent (U.S. Department of Commerce, 2013). The present study also did not ask participants to indicate whether their parents were divorced or separated which might be a significant covariant to account for. It would also be beneficial to conduct a predictive longitudinal design rather than retrospective to test for differences in strength of prediction.

Because of the skewed distribution, another statistical test may be more appropriate or revealed more about the relationships among variables. The multiple linear regression analysis provided a good measure of fit and addressed the last question of the study successfully. However, future research may apply different methods of analysis or analyze data using categories from the measures of attachment and parenting styles rather than dimensions. Additionally, *Cronbach's alpha* was not used to test the internal consistency of the measures. Correlations between dimensions on each scale partially supported reliability but *internal consistency* analysis would have been ideal.

Lastly, it would have been beneficial to randomize the items that assess anxious and avoidant attachment scales but this was not done when compiling the survey. It is unclear whether this had an impact on the data and would be beneficial in future studies.

Directions for Future Research

Future research could examine a wider variety of family dynamics and assess for differences between groups such as divorced families and single families. Secondary analysis also showed differences in mother and father scores which indicates there may be valuable information in the outcomes of parenting styles experienced by either a mother or father.

The DERS measure could also be analyzed using the six dimensions included in the total score. These six dimensions may have different relationships with the predictive variables used in this study and that information would be valuable in understanding the specific emotion regulation difficulties developed given childhood experiences and current attachment.

In line with researching for the benefit of clinical interventions, many different attachment measures have been developed that include interviews like the AAI. More research using established interviews like this would help expand the research and provide other resources for clinicians.

Strengths and Clinical Implications

Benefits include adding to the research examining the relationships between parenting styles, attachment, and emotion dysregulation and supporting the relationship that has been established between each. Parenting is of interest in the public and academic community. Information regarding best styles for healthy development and

successful individuation will be beneficial to community and individuals. These variables are also frequently used as theoretical orientations of a therapeutic intervention. Many different theoretical frameworks historically and currently have an emphasis on attachment theory and early experiences such as psychodynamic and object relations. Understanding of parental characteristics (parenting style) as well as client characteristics (attachment styles) will provide a clinician with more information to create an individualized case conceptualization and better understand emotion regulation difficulties being experienced. The ECR-R is available openly and can be scored and administered by any counselor without required training. Attachment is thought to be fluid and secure attachment can be “earned” (Roisman, Padrón, Sroufe, & Egeland, 2002). If secure attachment is beneficial in emotion regulation then perhaps attachment could be used to measure progress in therapy and provide a framework for case conceptualization. The DERS scale is accessible to clinicians and clients alike. Given that this scale is composed of six dimensions of emotion dysregulation, it would be valuable in assessing which aspects of emotion regulation a client is struggling with more specifically. For example, the difference between having awareness of emotions during times of distress but not having access to skills to regulate those emotions. Both the ECR-R and DERS could be used for assessment and tracking treatment progress with clients in the mental health setting. This study supports their being used in conjunction.

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Appendix A

Informed Consent

You are invited to participate in a study about experiences with caregivers and your personal style. I am a psychology graduate student at Humboldt State University in Arcata, CA and we are looking for participants that are 18-25 years of age.

After agreeing to participate, you will be directed to a set of questions about childhood experiences, personal style, and your emotions. Answering all of these questions will take about 20 to 30 minutes. The results will help researchers and mental health practitioners in the field. Any information that is obtained in connection with this study will be used for research purposes. All information you, as the participant, provide will remain confidential and anonymous. Only the researcher and faculty supervisor for this study will access your responses. Your responses will not be made accessible to university administration or personnel.

If you have any questions, please feel free to contact me at the information below or contact the supervising Assistant Professor, Emily Sommerman, at es47@humboldt.edu or (707) 8263270.

If you have any issues or concerns about the research or your experience with with the survey, you may contact the Dean for Research & Sponsored programs, Dr. Rhea Williamson at rhea.williamson@humboldt.edu or (707) 826-5169 or Institutional Review Board Chair, Dr. Ethan Gahtan at eg51@humboldt.edu or (707) 826-4545 confidentially.

Investigator: Kelsi A. Guerrero

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* You are making a decision whether or not to participate. Your completing the online survey indicates that you have read the information provided above and decided to participate. You may withdraw at any time after signing this form, should you choose to discontinue participation in this study.

Appendix B***Demographics Questionnaire***

1. What is your gender identity?
2. Are you 18-25 yrs. old?
3. How old are you? 18, 19, 20, 21, 22, 23, 24, 25
4. Ethnicity:
 - a. American Indian or Alaska Native
 - b. Hawaiian or Other Pacific Islander
 - c. Asian or Asian American
 - d. Black or African American
 - e. Hispanic or Latino
 - f. Caucasian
5. What is the highest level of education you have completed? (Some high school, High School graduate, Some college, Trade/technical/vocational training, College graduate, Some postgraduate work, Post graduate degree)
6. Did you experience parenting from a mother and father during the first sixteen years of life?

Appendix C

Experiences in Close Relationships-Revised (ECR-R) Questionnaire

Generic Instructions: The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by [web: clicking a circle] [paper: circling a number] to indicate how much you agree or disagree with the statement

Special notes: You may wish to randomize the order of the items when presenting them to research participants. The ordering below is simply a convenient one for illustrating which items belong to which scale. Also, some people have modified the items to refer to “others” rather than “romantic partners.” This seems sensible to us, and in our own research we commonly alter the wording to refer to different individuals. For example, sometimes we reword the items to refer to “others” or “this person” and alter the instructions to say something like “The statements below concern how you generally feel in your relationship with your mother” or “The statements below concern how you generally feel in your relationship with your romantic partner (i.e., a girlfriend, boyfriend, or spouse).”

1. I'm afraid that I will lose other's love.
2. I often worry that other's will not want to stay with me.
3. I often worry that other's don't really love me.

4. I worry that others won't care about me as much as I care about them.
5. I often wish that others feelings for me were as strong as my feelings for them.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for others, I'm afraid they will not feel the same about me.
9. I rarely worry about others leaving me.
10. Other people close to me make me doubt myself.
11. I do not often worry about being abandoned.
12. I find that other people don't want to get as close as I would like.
13. Sometimes other people change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a person gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from other people.
17. I worry that I won't measure up to other people.
18. Other people only seems to notice me when I'm angry.
19. I prefer not to show people close to me how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with people close to me.
21. I find it difficult to allow myself to depend on others.
22. I am very comfortable being close to others.
23. I don't feel comfortable opening up to others.
24. I prefer not to be too close to other people.

25. I get uncomfortable when another person wants to be very close.
26. I find it relatively easy to get close to other people.
27. It's not difficult for me to get close to others.
28. I usually discuss my problems and concerns with people close to me.
29. It helps to turn to others in times of need.
30. I tell someone close to me just about everything.
31. I talk things over with others.
32. I am nervous when others get too close to me.
33. I feel comfortable depending on other people.
34. I find it easy to depend on others.
35. It's easy for me to be affectionate with others.
36. Those close to me really understands me and my needs.

Appendix D

Difficulties in Emotion Regulation Scale (DERS)

A self-assessment tool designed to obtain an overall measure of how much difficult emotions are impacting your daily life. The DERS not only provides an overall score of difficulties with emotion regulation, but also allows you to assess six specific factors related to emotion dysregulation:

Non Acceptance: Non Acceptance of emotional responses

Goals: Difficulty engaging in goal-oriented behaviors

Impulse: Difficulty controlling impulses

Aware: Lack of emotional awareness

Strategies: Lack of access to emotion regulation strategies

Clarity: Lack of emotional clarity

1	2	3	4	5
Almost Never (0 – 10%)	Sometimes (11 – 35%)	About Half the Time (36 – 65%)	Most of the Time (66 – 90%)	Almost Always (91 – 100%)

1. I am clear about my feelings.
2. I pay attention to how I feel.
3. I experience my emotions as overwhelming and out of control.
4. I have no idea how I am feeling.

5. I have difficulty making sense out of my feelings.
6. I am attentive to my feelings.
7. I know exactly how I am feeling.
8. I care about what I am feeling.
9. I am confused about how I feel.
10. When I'm upset, I acknowledge my emotions.
11. When I'm upset, I become angry with myself for feeling that way.
12. When I'm upset, I become embarrassed for feeling that way.
13. When I'm upset, I have difficulty getting work done.
14. When I'm upset, I become out of control.
15. When I'm upset, I believe that I will remain that way for a long time.
16. When I'm upset, I believe that I will end up feeling very depressed.
17. When I'm upset, I believe that my feelings are valid and important.
18. When I'm upset, I have difficulty focusing on other things.
19. When I'm upset, I feel out of control.
20. When I'm upset, I can still get things done.
21. When I'm upset, I feel ashamed at myself for feeling that way.
22. When I'm upset, I know that I can find a way to eventually feel better.
23. When I'm upset, I feel like I am weak.
24. When I'm upset, I feel like I can remain in control of my behaviors.
25. When I'm upset, I feel guilty for feeling that way.
26. When I'm upset, I have difficulty concentrating.

27. When I'm upset, I have difficulty controlling my behaviors.
28. When I'm upset, I believe there is nothing I can do to make myself feel better.
29. When I'm upset, I become irritated at myself for feeling that way.
30. When I'm upset, I start to feel very bad about myself.
31. When I'm upset, I believe that wallowing in it is all I can do.
32. When I'm upset, I lose control over my behavior.
33. When I'm upset, I have difficulty thinking about anything else.
34. When I'm upset, I take time to figure out what I'm really feeling.
35. When I'm upset, it takes me a long time to feel better.
36. When I'm upset, my emotions feel overwhelming.

Appendix E

Parental Bonding Instrument

Mother Form

This questionnaire lists various attitudes and behaviors of parents. As you remember your MOTHER in your first 16 years would you place a tick in the most appropriate box next to each question.

Very like Moderately like Moderately unlike Very unlike

1. Spoke to me in a warm and friendly voice
2. Did not help me as much as I needed
3. Let me do those things I liked doing
4. Seemed emotionally cold to me
- ~~5. Appeared to understand my problems and worries~~
6. Was affectionate to me
7. Liked me to make my own decisions
8. Did not want me to grow up
9. Tried to control everything I did
10. Invaded my privacy
11. Enjoyed talking things over with me
12. Frequently smiled at me
13. Tended to baby me
14. Did not seem to understand what I needed or wanted
15. Let me decide things for myself

16. Made me feel I wasn't wanted
17. Could make me feel better when I was upset
18. Did not talk with me very much
19. Tried to make me feel dependent on her/him
- ~~20. Felt I could not look after myself unless she/he was around~~
21. Gave me as much freedom as I wanted
22. Let me go out as often as I wanted
23. Was overprotective of me
24. Did not praise me
25. Let me dress in any way I pleased

Father Form

This questionnaire lists various attitudes and behaviors of parents. As you remember your FATHER in your first 16 years would you place a tick in the most appropriate box next to each question.

Very like Moderately like Moderately unlike Very unlike

1. Spoke to me in a warm and friendly voice
2. Did not help me as much as I needed
3. Let me do those things I liked doing
4. Seemed emotionally cold to me
- ~~5. Appeared to understand my problems and worries~~
6. Was affectionate to me

7. Liked me to make my own decisions
8. Did not want me to grow up
9. Tried to control everything I did
10. Invaded my privacy
11. Enjoyed talking things over with me
12. Frequently smiled at me
13. Tended to baby me
14. Did not seem to understand what I needed or wanted
15. Let me decide things for myself
16. Made me feel I wasn't wanted
17. Could make me feel better when I was upset
18. Did not talk with me very much
19. Tried to make me feel dependent of her/him
- ~~20. Felt I could not look after myself unless she/he was around~~
21. Gave me as much freedom as I wanted
22. Let me go out as often as I wanted
23. Was overprotective of me
24. Did not praise me
25. Let me dress in any way I pleased