

INFLUENCE OF CHILDHOOD SOCIAL MEDIA USE ON PARENTAL ATTACHMENT
AND INDIVIDUAL SELF-REGULATION AS AN ADULT

by

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Liberty University

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Abstract

The utilization of social media continues to rise as technology becomes more refined. Social media has become a topic for extensive research due to this continuing upward trend of use among its diverse set of users. Evidence indicates that there are positive and negative outcomes that originate from the use of social media, including the inability to self-regulate. Several research articles also indicate that the lack of parental attachment, results in the inability to self-regulate. Research shows that social media has a negative effect on self-regulation, but there is limited data on how this association affects all ages, including adults. This paper will serve as a review of research on parental attachment, social media, and self-regulation and provides a discussion of future possible research that involves emerging adults.

Keywords: *social media, emotional regulation, parental attachment, self-regulation*

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List of Abbreviations

Fear of Missing Out (FoMO)

Social Networking Sites (SNS)

Parental Bonding Instrument (PBI)

Difficulty in Emotion Regulation Scale (DERS-18)

Chapter One: Introduction

Overview

Social media, attachment, and emotional regulation are three basic concepts, in the realm of research, that have gained momentum in the past few years. Over the past several decades, technology has made communication easier than it has ever been between those who desire to connect with each other; social media tends to be the preferred way of communication amongst individuals, specifically those who are younger in age. Attachment is a phenomenon that begins at birth and is critically important to achieve; it occurs at different milestones in ones' life and if not developed properly, it possesses the ability to create negative outcomes. Several studies show how distinct levels of attachment affect the ability to self-regulate personal emotions. This chapter will provide a brief summary looking into the background of social media, attachment, and emotional regulation, with a summary of the historical aspect of how these concepts are associated with one another. With the gathered research in this chapter, there will also be identification of certain problem statements that arise, and these will also be discussed. A purpose statement will be included along with the significance of this study. Research questions are discussed and the definition of certain terms, within the study, will be defined.

Background to the Problem

The development of emotional regulation can be perceived as a biological concept which also occurs during developmental milestones through the interactions of one's parents/guardians, not to exempt an individual's social experience within a cultural dynamic (Saarni, 2011). Socialization requires communication and healthy communication is a key factor in all relationships (Clinton & Hawkins, 2011). It is perceived as the ability to verbalize one's thoughts and feelings in an assertive and positively expressed manner to maintain life satisfaction and

emotional stability (Clinton & Hawkins, 2011); therefore, it can be determined that the lack of maintaining one's emotional stability could undoubtedly affect their ability to sustain necessary satisfaction in his/her life. Communication patterns change during milestones of a child's life. Farley and Kim-Spoon (2014) found a bidirectional association between self-regulation and peer relationships, within the adolescent population; self-regulation is influenced by peer relationships. Socialization is explained as a process in which an individual learns certain skills, behavioral patterns, motivation, and values to function appropriately and acclimate into their own society. This naturally occurring process repeatedly occurs throughout one's lifetime and it begins as early as infancy by (Maccoby, 2007; Grusec, 2011). The need to socialize is considered a concept that is ongoing in an individual's life. Bowlby and Ainsworth identified different attachment styles through exploring the behaviors of an infant and the infant's and parental attachment style. They found that different responses were associated with different styles of parenting within the home environment (Bretherton, 1992). While distinct stages of relationship and attachment can be seen during a child and adolescent's growth development period: parental attachment first, followed by peer attachment (Nickerson & Nagel, 2005), healthy parental attachment influences healthy peer attachment (Sasikala & Cecil, 2016). One example of the need to socialize can be found in the research study conducted by Waselewski, Waselewski & Chang, (2020) during the COVID-19 lock down; the most reported coping strategy was verbalized from participants between the ages of 14–24, as the need to maintain a connection to his/her social crowd/group.

The timing and quality of attachment in childhood are pivotal to the life-long quality of children's behaviors (Rees, 2016). Healthy attachment that is developed early in childhood promotes the infant's innately preconceived perception of certain qualities within future

relationships. The quality of socialization affects how the attachment between the infant and the parent develops. Bowlby and Ainsworth's Attachment Theory suggest attachments are formed out of an infant's perception of survival and threats (Crittenden, 2017). Inadequate attachment styles are a result of dysfunctional parenting, and these types of insecure attachments have a plethora of adverse outcomes, which include lowered self-esteem, emotional dysregulation, poor relationships amongst his/her peers, difficulties at school and at home, impulsive behavior, etc. (Rees, 2016).

When an individual self-regulates his/her emotions, they can de-escalate themselves when distressed. Emotional self-regulation is a skill that is vital for a healthy mindset (Stosny, 2011). Research indicates that there is an array of reasons that can cause individuals to lack emotional self-regulation. As previously mentioned in the section above, self-regulation origin begins at birth and when the attachment process between an infant/child and their guardian/parent is not healthy, a young child can develop issues with self-regulating. Kullik and Petermann (2013) conducted research on relationship attachment between parents and children and found an association between externalized and internalized dysfunctional emotion regulation and their attachments to their parents and their peers. There are limited studies on how parental attachment during childhood affects the levels of self-regulation within the population of emerging adults; however, this study will focus on adults. Cabral and his colleagues (2012) found an association between the two variables. Those who shared an emotional bond and felt supported by their parents or caretakers in childhood, were more likely to struggle less with emotional regulation (Cabral et al., 2012).

One of the challenges of emotional regulation is recognizing when to ask for help for emotional instability and when the levels of emotional dysfunction are established as a mental

health diagnosis (Brauner & Stephens, 2006). According to Mental Health America (MHA, 2021), American youth struggle the most with moderate to severe depressive and anxiety symptoms; The mental health of America's youth is worsening compared to past years. MHA (2021) also reports a significant increase in suicidal ideations in adults compared to past findings. Twenty-four percent of adults who suffer from a mental health disorder are reporting that their mental health needs have not been met; this percentage of adults has slowly inclined over the past decade (MHA, 2021).

When emotional dysfunction goes untreated, a child's emotional instability could become quite troublesome, following them into their young adulthood. Socialization is a basic need. When children experience an unhealthy attachment with their parent or their peers, social media could become the mechanism that the child turns to fulfill that basic desire.

Social media is defined as the act of electronic communication within a social environment with the purpose to interact with others (Reid Chassiakos et al., 2016) through the distribution of audio and visual messages, facts and opinions, thoughts, and ideas. Social media has gained a significant amount of research in the past decades due to the significant role that it plays in everyday lives. Individuals utilize social media for an array of distinct reasons. Some utilize social media due to the fear of missing out (FoMO) (Przybylski et al., 2013) for social support, to simply exchange information (Nilsen et al., 2018), to gain acceptance from others (Lowe-Calverley & Grieve, 2018), as well as to improve self-perception (Boursier et al., 2020). Boredom and the attempt to escape feeling any negative emotions are additional reasons found for utilizing social media. However, caution should be exercised due to the additional finding that those who use social media to stop their negative emotions, as well as those who desire their peer's acceptance are at a higher risk for addictive tendencies (Hong & Chiu, 2016; Brailovskaia

et al., 2020). This may lead to problematic social media use, or an addictive tendency may result in an increase of social media use.

Social media use has been on the rise since its origin and as more people rely on social network sites for interaction and communication, more detrimental effects may occur. For instance, research conducted by Lee (2014) shows that communicating within social networking sites creates a societal community. Negative outcomes are associated with upward social comparison, an element found within communities. If lack of parental and peer attachment results in the inability to self-regulate, individuals are motivated to utilize social media to stop their negative emotions and to find acceptance. Because social networking sites promote negative outcomes, the relationship between social media use, parental attachment, and self-regulation should be examined for associative purposes.

Problem Statement

Despite the prevalence of research studies that indicate how attachment is associated with self-regulation, there is limited understanding on how parental attachment during childhood, affects an adult's ability to self-regulate. Lack of self-regulation is only one negative outcome from a weak parental attachment. Self-regulation is necessary to maintain a positive and healthy lifestyle; therefore, it is a crucial element to living an overall happy life.

Ballarotto et al., (2018) conducted research on a community sample of 1105 adolescents with a goal to examine stages of internet use/abuse, parental and peer attachment, and the adolescent's psychological profiles. The adolescent population was divided amongst age groups: early adolescence (12-14); middle adolescence (15-17); and late adolescence (17-20). The findings indicate that early adolescence utilizes the internet more than late adolescence. The research also provided validation of an association between parental attachment and internet

use/abuse (Ballarotto et al., 2018). The researchers report the limitations of the study to include no examination of impulsivity levels or traumatic experiences that the adolescent could have endured, further stating that additional studies are necessary to investigate other variables that could cause similar negative results. An adolescent who experiences a dysfunctional or weak parental attachment may be more likely to use the internet as a vice for relationship purposes. The increased use of the internet to suffice for relationship connection could continue to increase throughout their late adolescent years, into early adulthood, and extend to middle and late adulthood. The effect of increased social media use could continue to affect an adult's ability to self-regulate.

Richards et al., (2010) find that adolescents who are experiencing negative emotions and feelings are at a higher risk to utilize the internet to escape or reduce their current feelings of distress. Other studies indicate a relationship between low quality parental attachment and addiction in the adolescent population (Soh et al., 2014; Echenberg et al., 2017). Additional studies have found that when the need to belong is a motivating factor in social media use (Nadkarni & Hofman, 2012), it might entice behavior necessary to feel accepted (Leary et al., 2013), therefore increasing social media use. Negative feelings are a major factor for the increase of internet use in the adolescent population, and one study found that social media even influenced depression (Holmgren & Coyne, 2017). Literature lacks solid evidence of how self-regulation changes throughout the individual's lifetime or what variables may influence how attachment affects self-regulation. According to Wirtz et al. (2021), interacting or communicating with others face to face rather than on social media, boosts positive affect while lowering negative affect. However, adolescents might struggle to adopt this information and

utilize it. Therefore, this adds to the problem that evidence is lacking how much influence media has on how attachment affects self-regulation, in the adult population.

Purpose Statement

The purpose of this study is to examine the association between parental attachment and self-regulation in the adult population while further investigating the construct of social media use as a moderating factor between the two. Although society identifies adults as persons 21 and over, USLegal (n.d.) identifies adults in most states when individuals attain the age of maturity; therefore, for the purpose of this study, adults begin at the age of 18 years old.

Significance of the Study

The findings from the study will add valuable knowledge about each of the following elements: parental attachment, social media use, and self-regulation. Attachment research has examined the origins of the phenomenon (Bowlby, 1969; Saarni, 2011), the importance of a secure attachment (Bowlby, 1969; Clinton & Hawkins, 2011; Kullik & Petermann, 2013; Rees, 2016), and how parental attachment affects the younger population more than the emerging adult population (Kullik & Petermann, 2013; Rees, 2016). To this researcher's knowledge, only one study was found on how parental attachment affects self-regulation as an emerging adult; additional studies are necessary to add validity to this specific area of research. An association between self-regulation and parental attachment was found among a young adult population (Cabral et al., 2018). Therefore, additional research is necessary to aid in the satisfaction of everyday life, to include the adult population. Identifying additional risk factors for emotional dysregulation can also be a valuable resource for those who wish to gain a higher satisfaction in their overall daily lives. It is also of equal importance for future research to focus on social media as a moderating factor for attachment and self-regulation. Social media has been negatively

linked to many variables (Spies Shapiro & Margolin, 2014; Şengönül, 2017; Limtrakul et al., 2018; Scott & Wood, 2018; Nesi et al., 2019; Shah et al., 2019; Hou et al., 2019). Although there are pros to utilizing social media, the cons can play a crucial factor in an individual's life, as previous sections state, and therefore should be examined as a moderating variable. The younger population is more inclined to suffer from mental health problems than any other population (Keyes & Westerhof, 2012; Masumoto et al., 2016; Best et al., 2021; Mental Health America, 2021). When the inability to self-regulate goes untreated, the youth carry a higher risk of being subjected to more challenges and issues as they merge into adulthood (Cabral et al., 2018). This study is important within the adult population due to the lack of research in all three areas: social media use, self-regulation, and attachment style. The association between childhood social media use, self-regulation in the adult population, and parental attachment in adults will be examined and the findings could result in protective factors that can be utilized for an individual's future gain, no matter the age. This study will also provide additional knowledge for future researchers to examine the association between the adult population and all three crucial concepts.

Research Questions

RQ1

Is there statistical significance between attachment style and self-regulation as an adult?

RQ2

Is childhood social media use, a moderating factor between the relationship of an insecure parental bond and self-regulation as an adult?

RQ3

Is childhood social media use, a moderating factor between the relationship of a secure parental bond and self-regulation as an adult?

Definition of Terms

Adult –: Adult is defined as any individual the age of 18 and over (USLegal, n.d.).

Attachment –: Attachment is defined as the measurement of the parental bond between child and their parent, from the perspective of the emerging adult (Corcoran & Fischer, 2013).

Parental Attachment –: Parental attachment is defined as a style of attachment identified by Bowlby and Ainsworth (Bretherton, 1992).

Self-regulation –: Self-regulation is a phenomenon that is measured by an instrument of subscales that assess the reaction of emotions (Hallion et al., 2018).

Social-media –: Social-media is defined as a space where communication exists to share expression of thoughts, emotions, and feelings (Escobar-Viera et al., 2018).

SNS Social Networking Sites –: Social networking sites are defined as internet-based services that allow for individuals to develop a profile in an environment for the purpose of forming a connection with others (Boyd & Ellison, 2007).

Chapter Summary

This chapter has provided detailed insight into an ongoing concern by way of presenting an overview of the combined concepts in relation to the study. Parental attachment, self-regulation, and social media use are all constructs that are related to each other and are deemed necessary for continued research into the correlation of how each affect the other. Obtaining and maintaining satisfaction in life should be a top priority, especially within the adult population; to live life to a level of satisfactory, one must be able to self-regulate. There is a lack of research on how problematic social media use moderates the relationship between parental attachment and self-regulation, regardless of quality of attachment experience. This will be one of the first

studies to assess both phenomena, within the adult population, while social media acts as a moderator between the two.

Chapter Two: Literature review

Overview

This chapter will focus on the concepts of attachment, self-regulation, and social media, how each is associated, and how social media use is utilized in society for communicative and socialization purposes. Similar constructs can be observed amongst the concepts when researched as single phenomena, then compared. For example, attachment begins at birth (Bowlby, 1969/1982; Bowlby, 1973); self-regulation begins at birth (Moraska et al., 2019) and the need to socialize and/or communicate begins at birth, and is crucial to achieve (Dishion & Patterson, 2006).

Theoretical and Conceptual Framework

Relationships are an important aspect of the human life. Research shows that the outcomes to obtaining and maintaining close personal relationships is not only beneficial to humankind, but it is also necessary (Baron et al., 2020; Cacioppo & Cacioppo, 2014), as it aids in an interpersonal support system as well as serving as a protective factor against executive functioning impairment, sleep disturbances and the mental and physical well-being of others, respectively. Scientific studies have linked parental relationship to attachment styles (Mattingly & Clark, 2012; Galinha et al., 2014). Overall, attachment styles contour how individuals understand social interactions, resulting in circumstantial behavioral, emotional, and affective responses within the context of the relationship (Bodner et al., 2014).

Dysfunctional attachment styles affect an individual's ability to foster personal relationships, which leads to decreased levels of relationship well-being, poor social connections, an increase in physical and mental health risks (Pietromonaco & Collins, 2017) and negative social media use (D'Arienzo et al., 2019). Research indicates the importance of self-regulation as

it should be deemed as a critical skill to possess and maintain to successfully survive in today's society and in the home environment (Hofer et al., 2011; McClelland & Wanless, 2012; Yakın et al., 2019). Healthy self-regulation is necessary for everyday life as it allows for development and learning amongst all the population (Koole et al., 2011). The task of self-regulating provides the individual with the ability to decrease negatively intense emotions (Tamir, 2016) which are necessary skill to obtain to survive in the many areas of life that people engage in (work environment, social settings, relationship dynamics, etc.).

Attachment

Ainsworth's Uganda research on the development of attachment of infants and their mothers was the first Attachment theory; originated in the 1960s. Ainsworth found that interaction differences between the infants and their mothers resulted in different qualities of attachment. Three different attachment patterns emerged. Overall, infants were classified as having a secure attachment to mothers who exhibited more infant sensitivity while other infants were classified as having an insecure attachment to mothers who exhibited less sensitivity. Bowlby's early studies consisted of motivation and behavioral regulation theories.

Although he believed that attachment originated from its own motivation, he applied these theories to Ainsworth's study on infant-mother attachment. Bowlby found that if the attachment figure acknowledges the infant's need for protection and comfort, while providing the necessary amount of independent exploration, the infant will be more likely to maintain self-reliance. In contrast, if the infant's need for protection and comfort has been rejected by the attachment figure, the infant is more likely to experience less self-reliance (Bretherton, 1992). Attachment theory also implies that an individual's history of interactions with previous

relational experiences mold their future ability to self-regulate behaviors and emotions as well as provide the ability to learn from the experience (Feeney & Collins, 2015).

According to van Rosmalen et al. (2016), attachment was a prominent phenomenon in the early twentieth century regarding the development of psychology and psychopathology, founded by Bowlby and Ainsworth. Bowlby believed that individuals were born with the predisposition to search for support and protection when necessary (Bowlby, 1969/1982). Bowlby (1973) suggested that differences in a child's attachment as they aged resulted from the child's interactive quality with their parent. Since attachment theory's birth it has gained additional crucial aspects that has aided in the development what is now known, as attachment theory. Attachment theory's main tenet is that for infants to develop into an overall healthy individual, they must be engaged in a nurturing relationship with their guardian/parent (van Rosmalen et al., 2016). A secure attachment is necessary for the healthy development of a child. According to Blatz (cited by van Rosmalen et al., 2016), security develops in stages, and it begins with parental dependence until the child feels stable, comfortable, and secure to begin to learn on their own. A continuous cycle of need satisfaction evolves into a more mature sense of security and over time the individual reaches an independent state of security (van Rosmalen et al., 2016). If the child is unable to reach this level of security in attachment, they are more likely to struggle to emotionally self-regulate.

Waters et al., (2013) suggests that although Mary Ainsworth and Bowlby's research draws on simple security measures within the infant and mother relationship, both researchers understood the concept of attachment as a complex phenomenon. Their research indicated the importance of availability and responsiveness within the parental dynamics (Waters et al., 2013). Waters et al., (2013) goes on to explain that additional research in these specific constructs is

important to pay attention to, due to the possibility of attachment learning and expectations. Although Bowlby understood that attachment is a developmental concept, his attachment theory ends at the age of three, with limited caregiver options (Waters et al., 2013). This provides a doorway to different attachment constructs. One example provided by Granqvist (2021), describes social learning as a phenomenon associated with attachment that is considered pivotal for an infant's adaption to society. The relationship between the caretaker and the child is crucial for a healthy socioemotional growth according to Villing, (2020), whose research highlights and adds to Bowlby and Ainsworth's attachment theory. The findings include that the caretaker does not have to identify as a mother or female parent, as Bowlby and Ainsworth's research suggests. It is necessary for the child to feel safe and secure in the relationship, in which other adults can provide (Villing, 2020).

Therefore, parental care, specifically care and protection, is a basic tenet for attachment. Comfort, protection, and nurturing care are necessary constructs for attachment to occur. Parental bonding is a phenomenon where the infant experiences comfort and a sense of protection between themselves and their parent (Bretherton, 1992). Due to the strength of the association between parental care and attachment, a parenting bond measure will be utilized for attachment styles; the parental bonding instrument (PBI). As noted in chapter three, the PBI measures for care and protection has been utilized in many studies. The PBI is a valid instrument that measures parenting styles (Xu et al., 2018).

The development of one's sense of life's satisfaction is considered one of the ultimate goals for an individual to reach in life. All throughout attachment research, transitions are observed from infancy, to adolescence, and into emerging adulthood. It is likely that the earliest attachment lays the foundation for future attachments, which in turn, aids in feelings of security

in relationships. Main and Solomon (as cited in Reisz et al., 2018), were the first researchers to term dysfunctional attachment into its' own category. According to Elin-Dor (2015), attachment anxiety and attachment avoidant are two types of dysfunctional attachments that can occur when attachment is insecure; however, the researcher promotes pros along with the cons, within both types. Adults who experience attachment anxiety and attachment avoidance, experience lower life satisfaction and are more likely to become dissatisfied in a relationship, according to Waring et al. (2019). Those who experience the same level of attachment anxiety are more likely to warn others (Ein-Dor & Tal, 2012), a sincere and genuine universal trait.

Attachment Anxiety and Attachment Avoidance

Both types of attachments decline with age, as committing to a relationship is protective factors for anxiety and avoidance (Chopik et al., 2019). A securely attached individual carries the expectation of a stable relationship, while others identify fluctuations (Girme et al., 2018), to include elements such as self-control, self-identity, and relationship dynamics (Cohen et al., 2017). For example, individuals who present with higher levels of attachment anxiety, in the beginning of a relationship, experience negative outcomes (McClure & Lydon, 2014). Research has also found an association between avoidance attachment and the reluctance to trust others, damages their self-concept (Emery et al., 2018). Compassion is necessary for self-concept and according to Brophy et al. (2020), individuals with higher levels of attachment anxiety and avoidance experience a lower quality of life satisfaction due to lack of self-compassion.

Severe mentally ill individuals with insecure attachment roles have been associated with feelings of less empowerment; although findings indicate that these levels increase when the individuals are socially integrated (Tjaden et al., 2021). Although anxious and avoidant attachments styles are less likely to engage in relationships (Byrne et al., 2017) one study reports

attachment anxiety and avoidance predicts an increased sense of desired closeness within their relationships (Ketay & Beck, 2017). Support found within a relationship is detrimental for a couple to achieve as it nurtures healthy relationship and life satisfaction (Mikulincer & Shaver, 2016). However, not all individuals in a dyadic relationship are able to provide their partner with or achieve this important relationship staple, such as those with anxiety or avoidant attachment styles (Schiffrin, 2013). Relationships between parents and children also suffer when parents experience attachment anxiety and/or attachment avoidance styles.

Parental anxiety and avoidance attachment styles have been found to be a predictor of a child's poor mental health, while attachment avoidant style predicts poorer physical health in children (Klemfuss et al., 2018). Some research shows that a parental attachment style is stable during the few years of a child's birth (Stern et al., 2018). This is good news if the attachment style perceived is a secure attachment; however, what if the attachment is dysfunctional? The rationale for continuous insecure attachment could be for an array of reasons, as we previously learned that sensitivity is the necessary component to install secure attachments. Despite the author's attempts, no specific research was found concerning continuous dysfunction within the infant population; however, what was found is alarming.

According to Priddis and Howieson (2012), children who have experience an insecure attachment at a pre-school age are more likely adhere to the insecure attachment as they reach the adolescent age. These adolescents are more likely to exhibit higher levels of depression than their peers (Priddis & Howieson, 2012). Mothers who present with unresolved trauma are more likely to have infants who experience an insecure attachment. Although with education, some skills can be learned that can counteract the sensitivity given to the infants (Iyengar et al., 2014). Along with other complex interactions, insecure attachment could be one rationale for the

beginning of personality disorders (Fonagy & Bateman, 2015). The authors argue that by cognitive metallization, or presenting with a higher order of functioning, one can begin to balance their emotions and their cognitions (Fonagay & Bateman, 2015). One study found that an insecurely attached child in the adolescent years predicts distress in social functioning as they age, specifically as a young adult (Fransson et al., 2016).

Parental Risk Factors

Parental risk factors are those factors considered to put a parent/guardian at risk for forming dysfunctional attachments between themselves and their child. Research shows a plethora of risk factors for dysfunctional attachment, especially those factors that revolve around mental health. One study examined anxiety and depression in the second trimester of the pregnancy and found that the mothers who experienced more mental health concerns were more likely to provide less sensitivity and caregiving expectations following the birth (Warnock et al., 2016). PTSD symptoms were researched amongst refugees and were found to be another risk factor for parental dysfunctional attachment (Ee et al., 2017). Additional mental health illness that are associated with risks for dysfunctional attachment are obsessive-compulsive symptoms, related to obsessive compulsive disorder (OCD) (Trak & Inozu, 2019), intellectual disabilities (Granqvist et al., 2018), schizophrenia and bipolar disorder (Abbaspour et al., 2021). Even chaos in the home environment can affect parental insensitivity (Zvara et al., 2020). Overall, there is an array of factors that influence parental sensitivity at birth, which increases the risk for dysfunctional attachment between mother and child (DePasquale & Gunnar, 2020). Although greater amounts of parental media use are a predictor of dysfunctional attachment, co-viewing, also perceived as active mediation, is a predictive factor (Linder et al., 2021). Protective factors are pivotal to achieve an overall healthy lifestyle.

Parental Protective Factors

Parental empathy is one crucial element when protecting against an insecure attachment bond (Stern et al., 2015). One study shows how secure attachment at one and a half years of age is associated with positive peer play at the age of four and less maladaptive behaviors at the age of six. (Shim & Lim, 2021. Gaumonnet al., (2016) reports that an insecure attachment between the mother and child, along with reduced anxiety occurs when there is an active relationship with a father figure. In fact, family support is also considered to be an important protective factor. Support characteristics consist of positive parenting, closeness amongst members, and many additional aspects within the family dynamic (Zhang & Flynn, 2020).

Adverse Effects of Dysfunctional Attachment/Insecure Attachment

Though some argue that attachment begins before birth (Handelzalts et al., 2018), some argue that it begins at birth (Reisz et al., 2019). None-the-less, research shows different adverse effects for different populations. Although science shows adolescence and young adults with an insecure attachment style during childhood can alter their attachment styles through support services (Virat & Dubreil, 2020), extensive research continues to show adverse effects amongst all the population. One empirical article shows that increased levels of maternal PTSD is correlated with an insecure attachment; a dysfunctional attachment can be seen at 13-months while increased levels of PTSD can be seen amongst early to late adolescent ages (Bosquet Enlow et al., 2014)

Adults

One example of dysfunctional attachment is a study from Langhinrichsen-Rohling et al., (2017) who showed that an inadequate parental attachment is associated with higher levels of suicidality, within the emerging adult population. Another consequence amongst the adult

population associated with an insecure attachment is, obtaining a lower quality of intimate relationships than those who experienced a secure attachment (Schmoeger et al., 2018).

According to Schmoeger et al. (2018), some defining characteristics necessary to build a quality relationship or secure attachment, are emotional warmth, empathy, a sense of closeness, and low levels of intrusion and control. Another frightening outcome stemming from a dysfunctional attachment is the association with chronic pain and alexithymia (Romeo et al., 2020). One study found that problematic drinking increases among those who suffer from alexithymia due to an insecure attachment (Lyvers et al., 2019). Alexithymia is a state of disrupted emotions (Hogeveen & Grafman, 2021); in lay terms, the inability to self-regulate emotions. One recent study argues that young adults, who formed a dysfunctional parental attachment, also suffering from alexithymia, were exhibiting higher levels of peritraumatic stress during the COVID-19 pandemic than their peers who do not suffer from an insecure attachment (Tambelli et al., 2021). Tambelli and colleagues' (2021) study implicates that self-regulation skills are necessary to reduce additional emotional responses that can occur from ongoing adverse life events.

Adolescents

One study analyzed secure attachment continuity and maternal sensitive support from infancy into adolescence. Beijersbergen et al., (2012) examined these concepts at twelve months of age and then again at 14 years of age and found that adolescents whose mothers engaged in sensitive support at infancy, were more likely to adhere to a secure attachment during adolescent, when involved in a conflict of discussion with their mother. One additional finding showed that mothers who exhibited low levels of sensitive support in childhood, yet increased their levels in their child's adolescent years, were able to aid in strengthening the attachment between them and their adolescent (Beijersbergen et al., 2012). One study shows a positive association between

non-suicidal self-injury (NSSI) maternal and peer alienation and a negative association between NSSI and maternal trust and communication (Gandhi et al., 2015). Adolescents who exhibited a secure attachment earlier on, were found to be more effectively constructive when interacting in conflict resolution, in a romantic relationship, in later adolescence years (Tan et al., 2016).

Therefore, it is suggested that adolescent who lack a secure attachment would struggle more with conflict resolution in a future romantic relationship. Insecure attachment styles within the adolescent population can result in higher levels of suicidal cognitions (Zisk et al., 2017). Lower levels of parental trust and paternal communication can result in adolescent procrastination low levels of self-worth (Chen, 2017).

Adolescence is a time in an individual's life where social behaviors affect the adolescent as well as others in their environment and/or community. According to Vagos and Carvalhais (2020), higher quality levels of secure attachment amongst adolescent results in lower levels of aggression and higher levels of prosocial behavior. Liu and Wang (2021) argue that higher levels of parental emotional warmth and secure attachment promote adolescent peer attachment and positive characteristics.

Children/Infants

Mother and infant touch is a principal element when forming socio-emotional developmental and healthy attachment, an overall positive organizational state within an infant. It is also important for the overall health of the mother, as it decreases stress levels and overall sensitive interactions between the two (Norholt, 2020). As previously noted, sensitivity includes swaddling, being attentive, and nurturing characteristics. Although, Bilgin and Wolke (2020) found no adverse effects amongst infants' ages of 3, 6, and 18 months concerning the "cry it out"

technique; Davis and Kramer (2021) oppose their claims and scientific explanation due to rationale of opposing research.

Children who have adopted an internal negative representation of family relationships (insecure parental attachments) along with a lack of feelings are more likely to struggle with the adjustments that are necessary for transition from pre-school to kindergarten as well as experiencing familial instability (Coe et al., 2018). Lack of maternal sensitivity, at the infant's age of 18 months, increases adverse somatization behaviors at the age of five. The child could experience a conversion of a maladaptive mental state, such as depression and/or anxiety to a physical illness (Mauder et al., 2017).

Self-Regulation and Attachment

As previously mentioned, the ability to self-regulate carries positive gain in all individual's lives and it is necessary to obtain and maintain throughout one's lifespan to achieve a positive lifestyle. Numerous research studies have associated self-regulation with attachment and provide an array of information concerning several negative outcomes. The reasons vary for many parents who behave in manners that would create a weaker attachment with their children. For example, parents who have a mental health disorder are more prone to act in a way that enables the development of a maladaptive attachment between themselves and their child (Ridgeway, 2015). A mother who fails to provide a quality environment at home or exhibits less engagement with their child, within the first five years of life, places the child at a higher risk for self-regulation problems through the development of an insecure attachment (Birmingham, 2017). As previously noted, a mother with high levels of PTSD symptoms, could also increase the risk of creating a dysfunctional attachment (Bosquet Enlow et al., 2014).

As previously noted, timing and quality of attachment are pivotal (Rees, 2016); therefore, when a child develops an insecure attachment, many issues arise which deter not only the child from having a satisfactory life, but also other family members. A secure parental/guardian attachment promotes the child with the ability to learn the skills vital for a healthy development. Difficulties in the school and home setting, emotional dysregulation, and negative relationships with their peers (Rees et al., 2016) are only a few outcomes for those who have developed anything less than a secure parental bond; the studies are lengthy. Several studies focus on the association between self-regulation abilities and attachment. For example, Heylen et al. (2019) shows that the more insecure the attachment between the child and his/her mother, the less ability to self-regulate.

Children between the ages of three and five years were assessed on their attachment types and their ability to self-regulate between different emotions, such as sadness, fear, and anger. Those who experienced insecure attachment were less likely to comfort themselves when these negative emotions arose (Stefan et al., 2017). One meta-analysis focused on the magnitude of the relationship between security and insecure attachment and self-regulation abilities in children, from young to older (Pallini et al., 2018). Pinalli et al. (2018) found children who were more securely attached, were better equipped to comfort themselves and regulate their negative emotions as they experienced them. According to Valikhani et al. (2018), self-regulation strategies are limited, hence damaging the psychological state of one's cognitive abilities to function properly.

Self-Regulation

Self-regulation is a complex neurological aspect. According to Eisenberg and Spinrad (2004), being able to emotionally self-regulate is a process that involves initiating, maintaining,

and modulating one's internal states. According to Gross (1998), changing a present emotion into one that is more desired is the process of self-regulation. Emotional self-regulation aids in the learning experience as it allows individuals to process their state of mind and learn from the experience (Koole et al., 2011). When processed correctly, it can decrease an intense emotion (Tamir, 2016). Research indicates the importance of self-regulation as it should be deemed as a critical skill to possess and maintain to successfully survive today and in the home environment.

Behavioral Self-Regulation

Although self-regulation begins in infancy (The Psychophysiology of Self-Regulation... 2014), the ability to self-regulate ones' behaviors occurs between the ages of three and seven. Two to three of these four years are accounted for learning to master self-regulation skills in preparation for more complex tasks, such as when a child enters preschool (Montroy et al., 2016). Although children learn to self-regulate at different rates, all of the children in Montroy et al.'s (2016) study exhibited the basic ability to self-regulate. Perry et al. (2018) found four distinct patterns of behavioral self-regulation between the ages of 2 and 15. Most of the children were able to slowly stabilize their behaviors over time, consistently. However, one concerning pattern emerged. Although the smallest group fell into this pattern, the results indicated that age the age of 7, they experienced a significant increase of the inability to self-regulate their behavior, which lasted throughout adolescence (Perry et al., 2018). Thus, research should consider investigating the different factors that could have resulted in this pattern.

Self-regulation evolves throughout different stages of infancy and various milestones, and is influenced through present parenting techniques, although different parental strategies are necessary during various stages of self-regulation evolvement (Moraska et al., 2019). For example, in infancy, early didactic regulation (a parental bond) is necessary for internal

mechanisms to evolve into functioning capabilities (Costa, 2019). Öztürk Dönmez and Bayik Temel (2019) demonstrate didactic regulation as swaddling, utilizing “shushing white-noise”, swinging, and utilizing the stomach or at the side holding position. The infants (0-3 months of age) within the intervention group exhibited lower levels of crying, waking up throughout the night, as well as lower frequency of daily feedings (Öztürk Dönmez & Bayik Temel, 2019). This is an important concept for caregivers to comprehend as these are basic approaches to simple techniques during the first three months of life that promote individual self-regulation. Previous research warns about self-regulation involvement. Ineffective parenting is associated with the inability for an infant to self-regulate (Heatherington et al., 2020) while lower levels of maternal infant nurturing are associated with an increase in conduct problems when the child enters middle childhood (Ettekal et al., 2020).

Ability to Self-regulate

Having the ability to self-regulate while positive emotions are present provides the benefit of the charged mind returning to its originally previous state (Tice et al., 2004; Ludwi & Rauch, 2018). Self-regulation also provides benefits to an individual’s mental health (Yakın et al., 2019), academic learning (McClelland & Wanless, 2012), and their overall well-being (Hofer et al., 2011). While self-regulation is a protective factor amongst any youth suffering from victimization and abuse (Yu & Chan, 2019), positive parenting is a protective factor amongst those who struggle with self-regulation (Kim-Spoon et al., 2012). One study found a positive correlation between resilience and self-regulation amongst 15–21-year-olds (Artuch-Garde et al., 2017). Adolescents who utilized higher levels of self-regulation were more likely to experience coping mechanisms, exhibit confidence, adaptation, tenacity, and a higher tolerance level to

negative situations (Artuch-Garde et al., 2017). Higher tolerance levels not only aid the youth in their home environment, but also prepares them for the school setting.

This kind of school readiness helps with attention focus, following directives from teachers as well as allowing the youth to reduce and/or avoid any type of aggressive response when conflict arises with a peer (Blair & Diamond, 2008; Ursache et al., 2012). Research studies also show that parents who implement intervention-induced improvements during adolescence, helps the adolescent lower their young adulthood risks when transitioning to adulthood (Stormshak et al 2018). Possessing the ability to self-regulate is a healthy way to respond in society and adds benefits to life; however, many struggle with the ability to self-regulate which could be considered harmful.

Inability to Self-regulate

When people fail to self-regulate their emotions, there are many negative outcomes attached. Youth who carry a diagnosis of attention-deficit hyperactivity disorder (ADHD) tend to struggle at higher levels when fluctuating emotions are present, eventually causing functional impairment (Anastopoulos et al., 2011). When one struggles to emotionally self-regulate, there is a higher chance of being dissatisfied within a relationship (Klein et al., 2015) along with an increased chance of self-harm and attempts of suicide (Gratz et al., 2020). Toddler's temperaments were examined, and the findings indicate the toddlers who were hostile, presented with a negative affect and negative control, and lacked the ability to self-regulate (Song et al., 2018). Lack of self-regulation can also cause an unwanted effect on learning capabilities (Liu et al., 2018).

Self-regulation Strategies

Parents are in a particular position to influence their children's ability to self-regulate through interventions that teach skills and capabilities that target processing emotions (Prinz, 2019). Cognitive functioning and the ability to self-regulate can be strengthened by replacing sedentary time with a physical activity (Fanning et al., 2017). Mindfulness strategies are proven to affect self-regulation, positively, along with lowering anxiety and depression symptoms, reducing anger, increasing attention levels, and reducing fatigue and stress levels (Tang et al., 2007). Other strategies might include generating the tools necessary to recognize emotions within a preschool aged population; the youth's mother's support is also essential in this equation (Cole et al., 2009).

Self-Regulation and Social Media

It is common knowledge that social media is becoming a prominent staple in today's society and youth; however, the increase in variables that are continually identified, associated with social media, are factors that could be harmful if not controlled. Current research has found that high frequencies of social media utilization, is associated with an individual's ability to self-regulate (Merrell et al., 2011). Błachnio and Przepiorka (2016) found a correlation between social media addiction and lower levels of self-regulation. Holmgren and Coyne (2017) report that low levels of self-regulation are associated with compulsive use of social media amongst those who are emerging into adulthood. Egan and Moreno (2011) examined stress amongst 300 individuals who use the Facebook platform and found an association between the female population and higher quantity of negative reference posts. Self-regulation and social media frequency were examined in a population of two-year olds and then again at the age of four and then again at the age of six. The researchers found a slight association between the amount of social media intake and how a child self-regulates at an older age; higher frequency of social

media at the age of two resulted in lack of self-regulation at the age of four. Those who struggled to self-regulate at the age of four were more likely to increase their frequency of social media use at the age of six (Cliff et al., 2018). Lack of self-regulation is just one of the negative outcomes of continued social media use. Possessing the ability to self-regulate, aids in positive mental health outcomes.

Mental Health

One interesting fact is that individuals, who are diagnosed with a mental health illness, are more likely to die by at least a decade earlier than those who have not been diagnosed (Happel & Ewart, 2016). According to the National Institute of Mental Health (n.d.) 51.5 million individuals presented with a mental health diagnosis within the United States, which would make mental health illness a common phenomenon. Mental Illness (AMI) and Serious Mental Illness (SMI) are two classifications of mental health that exist, in which all recognized mental health illnesses fall under both. SMI however, also consists of a subset of its' opposite (National Institute of Mental Health, n.d.). In 2019, the percentage of young adults diagnosed with AMI was 29.4%, which was an increase from 18.5%, in 2008 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2020). During the COVID pandemic, the mental health illnesses had increased to 84.9% (Sümen & Adibelli, 2021) and those who held preexisting mental health concerns, were placed at a higher risk (Canady, 2021). Increases in mental health illnesses could pose a problem.

One noted concern is that infants of parents who present with complex mental illness are at a higher risk of developing a dysfunction in their mental health before they reach the age of one, than children within the general population (Harder et al., 2015). Adolescents are also at risk of exhibiting dysfunctional emotions with this parental characteristic (Loon et al., 2014).

Adult children were surveyed on effects in adulthood, from their parental mental health experience. Most of them have experienced issues in adulthood, with personality concerns or with social relationships (Metz & Jungbauer, 2021).

Although there are early mental health interventions that can be identified (Edwards et al., 2009), mental health illnesses continue to rise. Such an example is caregivers of individuals who have a mental health illness; this population is more likely to have poorer life quality and is more prone to mental health illnesses (Rady et al., 2021). One problematic concern with mental health illnesses is that the dysfunction goes unnoticed due to stigmatized reasons; the diagnoses' perception of being seen (DeFreitas et al., 2018; Marcussen et al., 2021).

As previously noted, parental sensitivity is a principal factor in fostering emotional self-regulation in infants, as it hinders cognitive development of the infant (Frick et al., 2018). Those who grow up in the type of environment of mentally ill parent/s, have an exponential increased risk for overall life impairment (Schlüter-Müller, 2020) as they get older. Therefore, it would be of interest to explore the risk factors of mental health illness, to include self-regulation and social media.

Self-Regulation Health Risks

As previously noted, self-regulation skills begin at birth (The Psychophysiology of Self-Regulation... 2014) and are guided by sensitive parental techniques (Moraska et al., 2019; Costa, 2019; Öztürk Dönmez & Bayik Temel, 2019). The parental role is of significance for the development of self-regulation in infants (Fay-Stammbach et al., 2014). If a parent fails to exhibit adequate parenting techniques, the infant could be in danger of underdevelopment of self-regulation strategies as they age. Positive parenting, to include guidance and encouragement, is

associated with higher executive functioning in infants (Valcan et al., 2018). The mental/physical health risks for individuals who experience an inadequate parenting style are many.

When a mother struggles to self-regulate and fails to provide her newborn or infant with adequate parenting cues, it is likely that the infant will also struggle to self-regulate (Bridgett et al., 2013). An infant who lacks the capabilities of self-regulating not only presents as a “needy” infant, but they also have a higher chance of being overweight by the age of 5 (Graziano et al., 2010). They are also less capable of controlling their impulses, their attention span, their cognitive processes (Rueda et al., 2011) and may lack positive social interactions (Skibbe et al., 2019). Research shows that a child who has not mastered the ability to self-regulate has a higher risk of exhibiting problem behaviors in the school environment (Rademacher et al., 2020).

Social Media Health Risks

Barry et al., (2017) conducted a study with adolescents and found a positive correlation between problematic social media use and depression, anxiety, and lack of self-control. Another study found that individuals who struggle with higher levels of anxiety are more likely to consume more time on social media platforms than those who are emotionally stable (Correa et al., 2010). Yıldız Durak, (2018) analyzed self-regulation and social media that has been problematic among adolescent participants and found an association between anxiety levels and the social media use. Vente et al., (2018) has found that individuals who exhibit non-suicidal self-injury and “sexting” behaviors have probable conditions to utilize social media more often than those who do not. One literature review spanning 18 years, claims a significantly positive relationship between maladaptive attachment styles and a dysfunctional and intense use of social media among those between the ages of 14 and 24 years-old; the utilization of social media

networking sites is seen to compensate for necessary attachments in an individual's life (D'Arienzo et al., 2019).

Social Media

Social networking sites (SNS), Facebook, Instagram, Twitter, Snapchat, and Tumblr, are the new landscape for the younger population (Hogan & Strasburger, 2018). Facebook is the most widely utilized SNS (Hogan & Strasburger, 2018; Sharma et al., 2020). SNS are on the rise between preteens and adolescents as they spend hours on cell phones, computers, tablets, and more (Strasburger, 2019). Around three-quarters of the teenage population own a cellular device (Guinta & John, 2018) and a total of 7 out of 10 individuals within the United States connect with others through social media (Duggan et al., 2015).

Out of 81% of the adults that utilize the internet more than half of this population utilizes more than one social media platform (Duggan et al., 2015) for social interaction, to escape negative emotion and boredom (Brailovskaia et al., 2020). One study shows that 20% of the 25,000 high school students surveyed reported spending five hours or more on social media, daily (Kenney & Gortmaker, 2017). Social media can be addicting (Askoy, 2018) and is on the rise. Out of 744 college participants, 42.3% presented with a moderate addiction to social media, experiencing frequent or occasional issues, while 4.7% presented with a severe addiction, significant problems (Mahamid & Berte, 2019). Recent statistics show a trending increase in overall monthly active Facebook users, beginning from 2008 through 2021; in the 2nd quarter of 2021, there were 2.89 billion active monthly users (Statista Research Department, 2021). Due to these alarming statistics, research should continue to focus on the negative effects of SNSs and examine such questions as: how exactly does social media exposure affect an adolescent's

neurological circuit, how do adolescents process social media, and how can adolescent's peers carry such a significant influence through social media?

Social Media and Brain Development

Adolescence is the developmental stage of transition when one goes from childhood to an adult and during this stage of life, peer influences begin to trump parental influences (Buchmann & Steinhoff, 2017). This transitional stage of life includes large-scale brain structure and brain function modifications for the adolescent (Blakemore & Mills, 2014) that affect behavioral control (Achterberg et al., 2016), communication, social understanding (Mills et al., 2014), and emotional processing (Bickart et al., 2011) among other things. This information provides an awareness that the format of social media has an effect on peer influence. It also provides validation that neural development is occurring during the transition of adolescence which could have the potential to affect adolescent's emotions. Dahl and Vanderschuren (2011) claim that adjusting behavior to feel better, is a fundamental characteristic for everyone. An example would be an adolescent experiencing loneliness, who attempts to socially interact and rely on others through social media (Nowland et al., 2018).

Another important factor to consider among adolescence and emotions is the area of the pre-frontal cortex. Specifically, the pre-frontal cortex does not fully mature until the adolescent reaches adulthood; this cortex is where emotion regulation is processed (Casey, 2015 & Tamnes et al., 2017). Because an adolescent's mind lacks maturity and is still developing, one could assume the influential nature of both positive and negative experiences. For instance, children and adolescents are beginning to learn to socialize and communicate through social media, almost replacing the face-to-face interaction that one would receive through basic communication. Myruski et al., (2017) found that infants exhibited higher levels of distress and

reduced levels of play exploration among mothers who utilized a device in front of them. This increases the infants' risk of experiencing emotional instability. If media-related communication became the normal way for youth to communicate, would it change the outcome on an individual's ability to self-regulate, regardless of the attachment style? These current studies are all good reasons why negative outcomes from social media exposure, as well as self-regulation, should continue to be researched.

Positive Effects of Social Media

According to Lin and Utz (2017), the more frequent disclosure is provided, the more familiar or connected the individual feels amongst their group or peers. Therefore, it is considered necessary that the disclosure remain appropriate. Providing inappropriate disclosure could have the opposite affect from what is desired. According to Richey et al. (2017), professionals who post on social media sites may not be aware that their inherent intentions to alert their place of employment of his/her positive characteristics can turn into a negative interaction that does more harm than good. This kind of damage can affect the individual's employment as well as character; therefore, those who are professional must be vigilant with their social media disclosure. One example of professional vigilance can be seen through the perception of teacher and student role through the Facebook platform. According to Forkosh-Baruch and HersHKovitz (2018), most school policies do not support additional relationships between teachers and students. Yet these researchers found that 70percent of 180 teacher participants agree that connecting with their students online, if in a professional relationship, is beneficial to the student and the teacher/instructor relationship. Eighty of the participants revealed that they could use the connection towards learning (Forkosh-Baruch & HersHKovitz, 2018). According to Ellison and Boyd (2013) social media can also offer positive outcomes for

those who are at risk of experiencing loneliness and exclusion, such as, acceptance, shared experience and trading resources and experiences among those at risk (Ellison & Boyd, 2013).

Support and acceptance are common elements associated with positive outcomes of social media; however, social media offers additional benefits to society. Social media can be of aid when assisting in emergencies and bringing public awareness to as many individuals as possible. This type of assistance could help improve individual's ability to prepare for crisis or disasters (Merchant et al., 2011). SNS also help provide social support for those who have experienced being a teen mother through the ability to join certain groups alongside those who share similar experiences (Nolan et al., 2017). This population is at higher risk for experiencing negative outcomes due to their circumstances. Another study reports the following positive experiences from adolescents who suffer from a mental health diagnosis, engaging in social media: receiving support from peers and it provides a distraction from any struggles and stressors that the youth may be facing (Nesi et al., 2019). Receiving peer support is important amongst adolescent due to the development in identity that is occurring within this specific group of youth. As research denotes, for those who increase the level of communication through a social media platform, benefits can exist. However, for others it could remain unbeneficial and should merit caution.

Negative Effects of Social Media

According to Larose (2010), one can form a habit if their conscious thoughts are about utilizing social media while at the same time, they are utilizing social media. Once the habit is formed, it determines what intentional behaviors and self-gratification techniques can be consumed through social media: such as (a) psychosocial developmental delays (Spies Shapiro & Margolin, 2014), (b) an increase in aggression (Şengönül, 2017), (c) a negative school report

(Limtrakul et al., 2018), (d) loss of sleep (Scott & Wood, 2018), (e) feelings of isolation (Nesi et al., 2019), (f) low self-esteem and body self-image (Shah et al., 2019), and (g) a decrease in academic performance and a mental health decline (Hou et al., 2019). One study shows that adolescents, whose Instagram followers increase, have a higher risk of developing a behavior addiction to the SNS as well as experiencing cyber bullying (Longobardi et al., 2020).

Some additional known outcomes of exposure to social media consist of misinformation, hostile and negative communications and interactions, and unhealthy influences and delays when seeking out traditional resources (Ellison & Boyd, 2013). Individuals who routinely integrate social media as their social routine experience, have more of a sense of well-being; however, being emotionally connected to social media reduces their chances of experiencing well-being in society (Bekalu et al., 2019). One study shows that social media can affect young adult females by reducing their perception of their body image (Hogue & Mills, 2019). Although the research studies that focus on the association of negative outcomes from social media are many, no studies have analyzed social media use as a moderating effect on self-regulation, regardless of the attachment style.

Social Media, Relationships and Communication

Social relationships are crucial factors for child development (Dishion & Patterson, 2006). However, social media could very well cultivate the youth identities and their culture (Andreassen, 2015). Youth have begun to compensate face-to-face communication with computer-mediated communication (Zsido et al., 2020) which could also lead to issues with SNS. Neubaum and Krämer (2015) warn that within the first ten minutes of interaction or commenting on a SNS, closeness begins to form within the social relationship. Although intimacy is important for relationships, adolescents who compensate on-line interactions for

face-to-face could be more likely to suffer from social anxiety and present with low self-esteem for fear of being negatively evaluated by their peers (Zsido et al., 2020).

One study (Pea et al., 2012) examined the relationship between media use and the social well-being of younger females and found something worth noting. A positive relationship was observed between negative social well-being and those who utilized higher levels of media through interpersonal interaction such as a cell phone or other forms of online communication. A strong positive relationship was also observed between face-to-face communication and positive social well-being (Pea et al., 2012). One study reports an association between connectedness and social media use while showing subjective well-being as positively associated to face-to-face communication. (Ahn & Shin, 2013). In lay terms, utilizing social media use to communicate has limited benefits in comparison to connecting to someone face to face for one's well-being.

One could say that the youth of this generation could be in danger of falling prey to the negative outcomes of social media as most children communicate with their peers, through social media (Isaacs, 2014; Zsido et al., 2020). A ten-year systematic review consisting of forty-three research articles finds both positive and negative outcomes of social media use (Best et al., 2014); however, the negative outcomes are deemed as harmful and can have a detrimental effect on today's youth and emerging adults. Ozimek and Förster (2021) constructed a theory termed, social online self-regulation theory (SOS-T). The theory implies that SNSs are utilized through motivating behavior such as the need to belong, self-presentation, and the need to compare, amongst others. However, among the goals that are met, SNSs are also producing undesirable effects in other areas. Due to this conclusion, the authors argue that future research is necessary to determine which individuals are benefiting and those who are not, from the goal attempting to be obtained (Ozimek & Förster, 2021). Research has repeatedly shown negative associations

between an insecure attachment style and limited emotional regulation skills; however, to this researcher's knowledge no research exists to determine how much of a factor social media contributes to the emotional regulation skills for those who have experienced both an insecure and a secure attachment style. To reduce harmful and negative effects within all populations, becoming aware of the risks that are associated with SNS would be valuable to individuals and society.

Psychosocial Autonomy and Wellbeing

Achieving autonomy is a crucial factor when attempting to reach a state of healthy wellbeing, in all of life's transitional stages. The psychosocial developmental stage theory was termed by Eric Erikson and is described in eight stages (Erikson, 1950; Rosenthal, 2020) denoting the importance of psychosocial development all throughout an individual's life. However, for the purpose of this study, only three stages within Erikson's theory will be briefly discussed. Autonomy versus shame (second stage) occurs during the ages of 18 months and 3 years. During this crucial time, if the child does not achieve autonomy successfully, they are at risk for feeling shame and doubt, lack a sense of assertiveness and may struggle with a sense of independence (Erikson, 1950; Rosenthal, 2020). Researchers argue the success of this important task for children can be perceived as a similar necessity throughout the adolescents' years (Steinberg, 2005, as cited in Valkenburg & Peter, 2011). Identity versus role confusion occurs during the ages of 12 and 18 (stage five) and intimacy versus isolation occurs between the ages of 18 and 35 (stage six) (Rosenthal, 2020).

Erikson (1965) argued that each of the stages of psychosocial development have qualities that can change, depending on the success of integration within the individual. Regardless of success, identity versus role confusion tends to re-emerge throughout the remaining stages

(Erikson, 1965). If an individual fails to achieve these psychosocial stages, they are at a higher risk for experiencing a lower sense of wellbeing (Van Petegem et al., 2012). Therefore, these implications promote reasonable cause for further exploration within the emerging adult age group when analyzing self-regulation.

Predictors of Social Media Exposure/Addiction

Research continues to find that social media addiction exists within the fabricated realm of the social media community. One major predictor for adolescent social media addiction is interparental conflict (Ko et al., 2015; Yang et al., 2016b; Wei et al., 2020). According to Chi and Xin (as cited in Wei et al., 2020), interparental conflict is a phenomenon where there is parental conflict within the marital relationship. Wei et al., (2020) found that adolescents, who presented with medium and lower levels of self-control, were more likely to experience an increase of interparental conflict. Wei et al., (2020) also found a negative association between adolescents who experienced interparental conflict and dysfunction in the adolescent-parent attachment. According to Dailey et al. (2020), age, the amount of stress one is under, and the intensity of how often the individual is on social media sites are key factors when predicting social media addiction. Understanding the risks for social media addiction can aid in the reduction of the addiction. Parents, educators, mentors, guardians, and others who care for a child, should take into consideration the dynamic power of social media exposure. The hours that are spent on social media continue to rise within all ages of the population, thus increasing their social media exposure (Strasburger, 2019; Guinta & John, 2018; Duggan et al., 2015).

Research denotes those vulnerable to the negative outcomes from social media, are adolescents who are more likely to yield to peer pressure and those who struggle to self-regulate (O'Keef and Clark-Pearson, 2011). The fear of missing out (FOMO) factor predicts social media

addiction (Blackwell et al., 2017). While neuroticism, early age, and fear of missing out (FOMO) are all predictors of social media exposure, FOMO is a predictor of social media use amongst the adolescent population, specifically more private platforms such as Facebook and Snapchat (Franchina et al., 2018). One study claims that personality, psychosocial variables, and comorbidity are also important predictors of social media addiction; openness to experience, depression, and loneliness are all principal factors when predicting such an addiction (Dalvi-Esfahani et al., 2019). All previous variables taken into consideration can have crippling affects amongst the emotions experienced within social media users; therefore, it would be wise that research examine the association between the frequency of childhood social media use and self-regulation as an emerging adult.

Risk and Protective Factors

According to Substance Abuse and Mental Health Service Administration (SAMHSA) (n.d.) risk factors are perceived as a set of characteristics that come before and are connected to negative outcomes; whereas protective factors are a set of characteristics that offset the impact of risk factors. Both sets of characteristics stem from biological and psychological factors, family and culture, and community. Some factors change over time while others stay the same (SAMHSA, n.d.). There are several variables associated with an increased risk of having negative outcomes or experiences from social media. The following risk and protective factors are broken down into individual, family, peer and social factors to provide a more organized and structured approach to the given information.

Individual Protective Factors

Self-esteem is an individual trait that has been found to serve as a protective factor against addiction to the internet (Ko et al., 2014). When discussing character traits, research also

indicates gender differences among the protective factors. One male-identified trait that serves as a protective factor is strength and courage. In females, it is their temperance or ability to self-regulate (Choi et al., 2015). Just as a youth who is more resilient than their peers presents as a protective factor (Robertson et al., 2018), adolescents who do not exhibit sensation seeking behaviors are more likely to identify with no social media issues, including addiction (Fumero et al., 2018).

Family Protective Factors

Research has found an array of protective factors that can guard against the negative impact of social media exposure, and these surround the family dynamic. The family dynamic can play a key role in serving as a barrier for social media issues that include excessive amount of exposure. An overall sense of cohesiveness in the family unit (Park et al., 2008) and maintaining a sense of satisfaction among how the family functions serve as barriers against the negative aspects of social media exposure (Ko et al., 2014). Parental attachment (Chang et al., 2015) and family affection go along with exhibiting parental caring and protective attributes (Chen et al., 2015). Park et al., (2015) argues that communication within the family dynamic is crucial when guarding against excessive amounts of social media exposure. One viable protective factor that was found when attempting to reduce adolescent's social media use was having a father present in the home (Mas-Tur et al., 2016). As one can see, the foundation of the family has a significant influence over adolescent social media use.

Peer and Social Protective Factors

Yu and Shek (2013) found a correlation between social skills and internet addiction. The ability that an adolescent has to exhibit positive social skills will decrease the desire to socialize in a media format type of manner; therefore, the risk for social media addiction or exposure is

decreased. Positive social interactions and popularity are correlated with positive social skills and a sense of gratification; therefore, one could also assume that those who present to be a positive peer and interact with more peers in society would have decreased levels of social media exposure. Taking these risk and protective factors into consideration is an important feat that guardians, parents, and educators alike should always nurture throughout a youth's exposure to social media. Doing so would provide an extra sense of protection against the negative effects, specifically, guarding against the element of reducing one's ability to self-regulate. Like protective factors, risk factors are also characterized as being linked to associated factors that help mitigate or eliminate the risk within negative aspects that an overexposed individual has to social media. The following protective factors are broken down into individual, family, and peer and social factors to provide a more organized and structured approach to the given information.

Individual Risk Factors

There are many elements considered to be individual risk factors for over exposure to social media. Just the exposure to media violence alone can provide a sense of desensitization to its viewers, giving more reason for parental supervision to increase. One study shows that restrictive parental supervision can increase adolescents' risky behaviors in the social media context (Sasson & Mesch, 2014). Research provides the following risk factors when guarding against high frequency social media use: sensation seeking behaviors, lower self-restraint (Koutamanis et al., 2015) and antisocial beliefs and attitudes (Yang et al., 2016a). Spending 30 or more hours a week on social media, being female, having low levels of self-esteem and suffering from depressive symptoms are risk factors for social media addiction (Bányai et al., 2017). Grossman (2017) describes deception as a motivator that enhances the individual's needs and desires; therefore, deceptive personalities, those who have interpersonal manipulative

strategies, and those who view the world as cynical are also considered risk factors characteristics associated with social media use (Magner, 2018). Family conflict and media violence exposure present with equal risks that are associated with aggression (Khurana et al., 2018). While restrictive parenting was previously noted as a risk, a lack of parental supervision would also be a cause for concern as many parents carry a pessimistic view of social media (Bartau-Rojas et al., 2018).

Family Risk Factors

Research shows that one risk factor occurs during pre-adolescent when a parent is not monitoring their child's control on time that is spent on social media (Fardouly et al., 2018). Other risk factors that were identified with parental supervision are lack of established rules and no time constraints (Bartau-Rojas et al., 2018). Harsh or lax disciplinary practices combined with lack of supervision could result in low parental involvement; due to the lack of research in this area, additional research would benefit. Youth with high levels of media exposure in a daily routine whose parents are characterized with depressive symptoms and low-income, are also considered to be a risk factor for increased use of social media (Munzer et al., 2018).

Peer and Social Risk Factors

The subculture of a peer's social group may play more of a factor than any other when reviewing peer and social risk factors for increased use of social media and its negative outcomes. As previously stated in this paper youth today are beginning to communicate through media content rather than face to face. Due to the desired need of being anti-social, adolescents who present with social relationship deficits are at higher risk for social media exposure (Kuss & Griffiths, 2014). One research study found that social media use can be an influencer on previously psychologically distressed adolescents (Radovik et al., 2017). The findings are broken

down into three distinct categories: oversharing, sharing updates that are negative due to stress relief, and commenting on posts that trigger the youth's input (Radovik et al., 2017). There is a lack of research facilitated on peer and social risk factors; however, it would seem logical for additional factors such as association with delinquent peers and social rejection from his/her peers to be identified for future research purposes.

Chapter Summary

Social media use is perceived as connecting with others through platforms, or intentionally interacting with other users, but several studies show how troublesome it can become under certain circumstances. Self-regulation is perceived as the ability to change one's state of mind to a desired state of mind through consciousness, yet it is a learned technique through a secure attachment. Attachment is a basic need for all humankind, and it repeats itself as one is developing. The lack of self-regulating is associated with a decline in mental health, learning capabilities, sleep, suicide, and self-harm behaviors. Social media has been linked to both reduction of self-regulation and the lack of parental attachment/bonding.

Chapter Three: Methods

Overview

The methodology of the study will be presented in this chapter and analyzed to determine how self-regulation as an adult, parental attachment and childhood social media use are associated. This chapter will include a review of the design, to include how participants were selected. In addition to the research procedure, the instrumentation that the researcher utilized to measure self-regulation, attachment, and social media use will be discussed. This chapter will conclude with a closing summary providing additional details to the importance of this research.

Design

A cross-sectional survey was utilized in this research study, in order to collect data that presents inferences about the adult population. The researcher selected participants based on the researcher's predetermined criteria. Causal inference is limited in this study due to the indication that X and Y are related, and the variables are measured during the same timeframe (Spector, 2019). The findings were analyzed, reported, and a discussion was held, in the next chapter.

Research Questions

RQ1

Is there statistical significance between attachment style and self-regulation as an adult?

RQ2

Is childhood social media use, a moderating factor between the relationship of an insecure parental bond and self-regulation as an adult?

RQ3

Is childhood social media use, a moderating factor between the relationship of a secure parental bond and self-regulation as an adult?

Hypotheses

H0₁: No statistical significance will be found between the quality of parental bonding and self-regulation amongst adults. Several research studies (Cabral et al., 2018; Ballarotto et al., 2018; & Heylen et al., 2019) validate the relationship between parental attachment and self-regulation while one existing study shows an association between parental attachment and self-regulation as an emerging adult. Identifying a relationship between parental bonding and self-regulation as an adult, will establish validity amongst the two variables and will provide to the existing research.

Ha1. Statistical significance will be found between the quality of parental bonding and self-regulation amongst adults.

H0₂: Social media use will not moderate the association between a secure parental bond and self-regulation as an adult. Several research studies have validated the relationship between parental attachment and self-regulation; however, there are no studies that have analyzed social media use as a moderating factor between the two variables. Establishing a relationship amongst parental bonding and self-regulation will provide additional validity amongst the existing research while determining social media use as a factor between the two.

Ha2. Childhood social media use will moderate the association between a secure parental bond and self-regulation as an adult.

H0₃: Social media use will not moderate the association between an insecure parental bond and self-regulation as an adult. Identifying social media use as a moderating factor resulting from the negative quality of parental bonding can provide additional validity for an identified risk factor.

Ha3. Childhood social media use will moderate the association between an insecure parental bond and self-regulation as an adult.

Participants and Setting

A sample of 142 college student participants, male and female, was recruited from a university located in the southeastern region of the United States. The participants are between the ages of 18 and 65. The participants were asked to volunteer for no compensation unless their professor allowed for extra credit. A recruitment letter (see APPENDIX H) was sent to the Liberty University Psychology Department Chair and approved. A brief script (see APPENDIX G) on the study and a link was sent to each department, along with the request to distribute to each of their professors, asking them to introduce the study to their classes, via email or by verbal announcement.

Two demographic surveys (See APPENDIX E and APPENDIX F), and all other instrumentation was completed through Google Forms, and the link was sent to professors to distribute to their classes. The completed surveys were viewed by the researcher; two participants were discarded, due to omitted answers.

Instrumentation

The Parental Bonding Instrument (PBI) (see APPENDIX C) was utilized to measure parental bonding/attachment. The PBI has been utilized in many studies (Tsaousis et al., 2012; Gomes et al., 2015; Amianto et al., 2016; Balottin et al., 2017; Ngai et al., 2018; Xu et al., 2018; Huang et al., 2020; Sato et al., 2021) and measured for the purpose of parental bonding. Its original construct is traced back to the founding variables of caring and overprotection, measured between a parent and their child (Parker et al., 1979).

The instrument is a 25-item questionnaire, which includes two subsets, designed to measure parental attitude and behaviors from the child's perception, whether child or adult. The measurements were divided into two subscales, as previously mentioned: care (12 items) and overprotection (13 items). The PBI is scored with a 4-point Likert scale that ranges from 3 "very unlike" to a 0 "very like". Caring and overprotection are the two identified subsets; items 2-4, 7, 14-16, 18, 21-25 were not reverse scored (Corcoran & Fischer, 2013, p. 412). Corcoran and Fischer (2013) report strong reliability within the PBI. The researchers also report good concurrent validity (Corcoran & Fischer, 2013). Permission was granted to utilize the PBI.

The Difficulties in Emotion Regulation Scale (DERS-18) (see APPENDIX D) is widely known to measure an individual's subjective emotional ability to self-regulate and was utilized in this study to measure an emerging adult's subjective ability to self-regulate (Gratz & Roemer, 2004). Although the DERS-18 originated from a longer version of the DERS measurement, the DERS-18 shows a strong internal consistency ($\alpha=.93$), good test-retest reliability ($\rho=.88$, $p < .01$), within adolescent and adult populations (Gratz & Roemer, 2004; Staples & Mohlman, 2012; Saritaş-Atalar et al., 2015; Hallion et al., 2018). The DERS-18 is comprised of an 18-item questionnaire that is measured on a 5-point Likert scale that ranges from an individual's response from, 1 "almost never" to 5 "almost always" (Kaufman et al., 2016). When scoring the DERS-18, items 1, 2, and 4 were reversed scored and the sum of all six categories were totaled together and separately (Victor & Klonsk, 2016). Permission was granted to utilize the DERS-18.

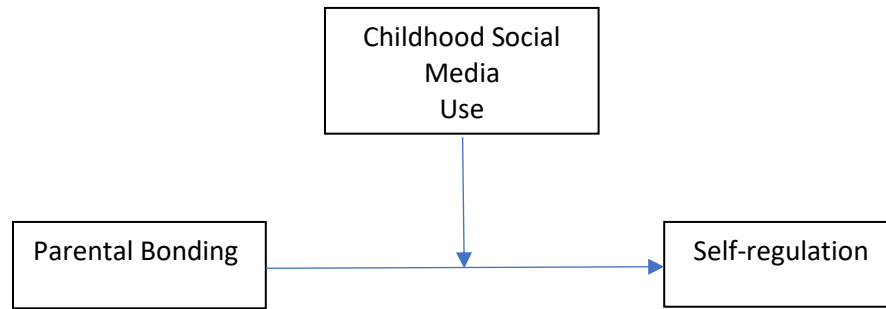
Social media use was measured by a self-report answer on a demographic survey due to no current measure (Social Media Use Questionnaire) existing. By answering yes or no, all individuals were asked if they thought their personal childhood use of social media was problematic. This limitation will be further discussed in Chapter five.

Research Procedures

The researcher completed the IRB application and submitted the request. Once the approval from the IRB was given, the researcher submitted the surveys to a Google form online link and requested permission to conduct the study from the School of Behavioral Sciences at Liberty University. Approval was given and the researcher provided the link to the university. Before each participant began the survey, they agreed to a consent form. No identifying markers were utilized such as names, addresses or social security numbers.

Data Processing and Analysis

The researcher collected all data once surveys were completed; two participants were not included due to omitted answers. The researcher manually scored the PBI and DERS and all of the data was manually entered into IBM SPSS Statistics version 29 with PROCESS macro version v4.2 by Andrew F. Hayes for analysis. The researcher has observed the preliminary data to ensure the data scores are normally distributed and checked for any violations of assumptions. Although the tests of normality showed attachment data scores as normally distributed, emotional regulation data scores were not normally distributed as they were positive skewed, which violates the assumption. Therefore, it was necessary to transform the emotional regulation data scores utilizing a log 10 transformation. Once this step was completed, the researcher once again observed the data to determine if self-regulation was normally distributed and it did not violate the assumptions. The researcher ran the assumption for linearity test and emotional regulation and attachment were not correlated; therefore, the first null hypothesis was supported. No outliers were found. Lastly, a moderation analysis was utilized to determine if social media use acts as a moderator between attachment and self-regulation as an adult. See Figure 3.1 for the moderation model utilized.

Figure 3.1 Hayes' Model 1

Chapter Summary

Chapter three consisted of the methodology, to include the procedures along with the participants and setting for this research study. It reviewed the hypotheses, research questions, instrumentation and design. Finally, the data processing and analysis were reviewed. Chapter Four will provide the results of the study: the data analysis.

Chapter Four: Findings

Overview

The purpose of this study is to examine the association between parental attachment and self-regulation within the adult population while further exploring the construct of childhood social media use as a moderating factor between the two. If attachment styles affect the ability to self-regulate emotions, examining childhood social media use could serve as an identifying factor to help with the ability to self-regulate emotions, thus improving the daily life of those who experience the lack of ability to self-regulate. Specifically, identifying factors that can aid as a protective or risk factor for future self-regulation abilities may help promote healthy mindsets and aid in a satisfactory lifestyle. This chapter will include the descriptive statistics of the research study, the results of the data analysis as they relate to the research questions, previously specified, and will conclude with a summary of both.

Descriptive Statistics

The data set was made up of 140 participants ($N = 140$) from the ages of 18-65 and demonstrated that 85.7% of participants were female, while 14.3% were male. The majority of the sample were included in the range of 23 years and older at 65%, while 12.1% were 20 years old, 7.1% were 19 years old, 21 and 22 years old shared a similar number of 6.4%, and 18 years olds were 2.9%. Caucasians represented 79.3%, while Hispanic/Latinos represented 7.9%, African Americans were at 7.1%, Asian were at .7%, and 5% of the participants identified as other. The majority of the participants was single at 45.7%, followed by married at 41.4%, and divorced at 7.9% and 5% considered themselves separated (see Table 4.1).

Table 4.1

Participants Demographics

	<i>N</i> or Range	% or <i>M</i>
<u>Gender</u>		
Male	20	14.3
Female	120	85.7
<u>Age</u>		
18	4	2.9
19	10	7.1
20	17	12.1
21	9	6.4
22	9	6.4
23-65	91	65.0
<u>Ethnicity</u>		
White	111	79.3
Hispanic/Latino	11	7.9
African American	10	7.1
Other	7	5.0
Asian	1	.7
<u>Relationship Status</u>		
Single	64	45.7
Married	58	41.4
Divorced	11	7.9
Separated	7	5.0

The Parental Bonding Instrument (PBI) was utilized to identify participants' perceptions on their parents' behaviors and attitudes throughout their childhood. The instrument included two subscales of care and overprotection (secure and insecure). The assessment requested the participants to identify the most accurate response on each item, on the following scale: 3 = very unlike, 2 = Moderately like, 1 = Moderately unlike, and 0 = Very unlike for care scores (12 items), while overprotection scores were scored reversed scored (13 items). Participants' ($N = 140$) overall mean response on the PBI scale was 35.78 and SD was 12.038 with a minimum of 5 and a maximum of 65. Participants' ($N = 140$) mean response for care subset consisted of 19.24

with a *SD* of 10.913 with a minimum of .00 and a maximum of 36 while the overprotection subset mean was 15.20 with a *SD* of 7.682 with a minimum of 0 and maximum of 33 (see Table 4.2).

Table 4.2

Parental Bonding Instrument (PBI) Demographics by scale

	Mean	SD
Overall PBI	35.78	12.038
Care subscale	19.24	10.913
Overprotection	15.20	7.682

The Difficulties in Emotion Regulation Scale (DERS-18) was utilized to measure participants' subjective emotional ability to self-regulate. The assessment requested participants' identification on how frequent they experienced each item listed on the assessment scale: 1 = Almost never, 2 = Sometimes, 3 = About half the time, 4 = Most of the time, and 5 = Almost always (4 of the items were reversed scored). Participants' ($N = 140$) overall mean score on the DERS-18 was 40.49 with a minimum of 19 and a maximum of 81 and a *SD* of 13.51 (see Table 4.3).

Table 4.3

Difficulties in Emotion Regulation Scale (DERS-18) Demographics by scale

	Mean	SD
Emotional Regulation	40.49	13.513

Finally, participants were asked to assess how problematic they thought their childhood social media use was to determine if their childhood social media use was problematic, by

answering yes or no due to current measure (Social Media Use Questionnaire) existing. Only 27 identified their childhood social media use as problematic. The participants' ($N = 140$) overall mean was 1.193 with a SD of .396 (see Table 4.4). This limitation will be further discussed in Chapter Five.

Table 4.4
Social Media Use Demographic scale

	Yes	No	Mean	SD
Problematic childhood social media use	27	113	1.193	.396

Results

Data were analyzed utilizing IBM SPSS Statistics version 29. A correlation analysis was conducted on emotional regulation, attachment, and social media use. The relationship between emotional regulation and attachment was not statistically significant ($r=.055$) and the relationship between emotional regulation and social media use was not statistically significantly ($r= .018$), shown in Table 4.5. Finally, the relationship between attachment and social media use was not statistically significant ($r= -.041$).

Table 4.5
Pearson's r

	1	2	3
PBI (1)	1		
DERS-18 (2)	.055	1	
Social Media Use (3)	-.041	.018	1

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

**Correlation is significant at the 0.01 level (1-tailed)

After analyzing the correlations and descriptive statistics, a moderation analysis was conducted to determine a relational interaction between the variables of interest: attachment,

emotional regulation, and social media use. There was no significance found between any of the three variables ($p = .433$). A moderation analysis was then conducted to determine a relational interaction between attachment (care), emotional regulation, and social media use. There was no significance found between any of the three variables ($p = .778$). Lastly, the researcher utilized a moderation analysis to determine a relational interaction between attachment (overprotection), emotional regulation, and social media use. There was no significance found between any of the three variables ($p = .339$).

Table 4.6

Correlation Process Analysis for Moderation Analysis Results

<i>Source</i>	<i>b</i>	<i>se</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>
---------------	----------	-----------	----------	----------	-------------	-------------

Emotion Regulation $R = .0895$, $R^2 = .0080$, $MSE = .0205$, $F(3, 136) = .3664$, $p > .001$

PBI	-.0016	.0031	-.5337	.5944	-.0077	.0045
SM	.0089	.0308	.2884	.7735	-.0520	.0697
Interaction	.0019	.0024	.7864	.4330	-.0029	.0066

Emotional Regulation $R = .0397$, $R^2 = .0016$, $MSE = .0207$, $F(3, 136) = .0714$, $p > .001$
 PBI * SM $R^2 = .0006$, $F(1, 136) = .0797$, $p > .001$

PBI Secure	-.0014	.0040	-.3542	.7237	-.0094	.0065
SM	.0078	.0322	.2422	.8090	-.0559	.0715
Interaction	.0010	.0035	.2823	.7781	-.0059	.0078

Emotional Regulation $R = .1355$, $R^2 = .0183$, $MSE = .0203$, $F(3, 136) = .8473$, $p > .001$
 PBI * SM $R^2 = .0066$, $F(1, 136) = .9176$, $p > .001$

PBI Insecure	-.0025	.0049	-.5052	.6142	-.0122	.0073
SM	-.0002	.0309	-.0066	.9947	-.0613	.0608
Interaction	.0037	.0038	.9579	.3398	-.0039	.0113

Research Hypotheses

The first research hypothesis aimed to determine a statistical relationship between emotional regulation and a parental attachment, as previous research indicates (van Rosmalen et al., 2016; Langhinrichsen-Rohling et al., 2017; Romeo et al., 2020). This hypothesis was not supported as there was no statistical significance found between emotional regulation and parental attachment ($r = .055$).

The second hypothesis aimed to determine that childhood social media use will moderate the association between a secure parental bond and self-regulation as an adult. This hypothesis was not supported ($p = .778$). Childhood social media use was not a moderating factor between the association of a secure parental bond and self-regulation an adult.

The third hypothesis aimed to determine that childhood social media use will moderate the association between an insecure parental bond/attachment and self-regulation as an adult. The third hypothesis was not supported ($p = .339$). Childhood social media use was not a moderating factor between the association of an insecure parental bond /attachment and self-regulation as an adult.

Summary

An adult sample of 140 participants was utilized to examine the association between attachment, self-regulation, and childhood social media use. First, a correlation analysis was administered to examine the relationship between attachment and self-regulation as found in previous research (van Rosmalen et al., 2016; Langhinrichsen-Rohling et al., 2017; Romeo et al., 2020). The outcome of the analysis did not support previous literature, as no relationship was found ($r = .055$). A moderation analysis was administered for the second hypothesis in order to examine childhood social media use as a moderator between a secure bond (caring attachment)

and self-regulation. The current data did not confirm this hypothesis. The third hypothesis examined if social media use was a moderator between an insecure bond (overprotective attachment) and self-regulation. A moderation analysis was utilized and no statistical significance was found. Chapter Five will provide a summary of information that includes a discussion of the results, implications and ethical considerations, limitations and assumptions, as well as recommendations for future research.

Chapter Five: Conclusions

Overview

The current study was postulated on existing research that supports an existing relationship between parental attachment and self-regulation. Attachment research began with Bowlby and Ainsworth attachment theory, in which different styles of attachment were identified: insecure and secure (Bowlby, 1969/1982; van Rosmalen et al., 2016) and over time evolved to include how all relationship experiences affect the individual's future ability to self-regulate (Priddis and Howieson, 2012; Feeney & Collins, 2015; Fransson et al., 2016). Past research validates that dysfunctional attachment styles (insecure attachment) present with a higher risk to produce the inability to self-regulate (Bretherton, 1992; van Rosmalen et al., 2016; Langhinrichsen-Rohling et al., 2017; Coe et al., 2018; Romeo et al., 2020) along with the adverse effects of the inability to self-regulate (Schmoeger et al., 2018; Lyvers et al., 2019; Virat & Dubreil, 2020; Romeo et al., 2020). Finally, past research also provided additional insight into the importance of communication and how socializing is a key factor in all relationships (Clinton & Hawkins, 2011). Social media use was an identifying factor for negative outcomes concerning those who presented with a dysfunctional attachment style for satisfying feelings to belong (Richards et al., 2010; Nadkarni & Hofman, 2012; Soh et al., 2014; Echenberg et al., 2017). Considering the past research, this study focused on identifying if childhood social media use moderates the ability to self-regulate, depending on attachment style. The remainder of this chapter will focus on implications and ethical considerations, assumptions and limitation to this study, and will conclude with future recommendations.

Discussion

Implications and Ethical Considerations

One factor that emerged from the study's demographics was that 85.7% of the participants were female. This could explain the lack of statistical significance between attachment and self-regulation. For example, existing research shows that college students are prone to higher levels of stress due to a number of combining factors (Seedom et al., 2019; Aslan, 2020); however, some research shows that females have been known to adapt quicker to coping strategies and have higher levels of resilience when faced with adversity, compared to males (López-Madrigal et al., 2021) due to the fact that females are more prone to reach out during stressful situations than males (Eisenbarth, 2019). By identifying this implication, one might be able to explain that some of the female participants would consider answering the DERS-18 differently if they felt that they were able to self-regulate during the time of controlling their stress levels. Another implication between the two factors was that 65% of the participants were between the ages of 23 and 65 years old and were grouped into one category. Breaking these age groups into smaller groups could have been beneficial due to many factors. One research study suggests that older adults maintain a higher sense of neuroplasticity (Bürk et al., 2014); which could translate to the individuals having the ability to continue practicing self-regulation techniques, if they have previously learned to do so. It may have also been beneficial if the participant's ages were divided into different categories such as those who were born before social media existed and those who were born after social media existed.

One additional implication that emerged is that the identified population is master level counseling students, who likely engage in self-reflection at a higher rate than the traditional population. According to Pompeo and Heller Levitt (2014), counselors are obligated for many reasons to practice techniques that enhance their self-reflection skills; which begin in graduate school. Studies show that counseling students presented with higher levels of ability to self-

reflect through an increase of self-awareness (Woodbridge & Rust O'Beirne, 2017), and even more so, throughout the end of a semester that included self-reflection practice (Felton, Coates, & Christopher, 2015).

Many ethical guidelines were considered throughout the scientific study. Supervision and consultation have been present throughout the entire study. IRB approval was obtained before participation was requested and data collected and analyzed. Consent forms were a part of the process, once IRB approval was obtained; each participant consented to the decision to opt out at any time they choose. The consent form also provided information about the study, in which each participant needed to agree to gain access to the assessments. The participant's confidentiality was protected by the researcher, as no personal identifying markers were requested. Lastly, there was no experimental component added to the study; therefore, each participant's welfare has increased protection against any form of placebo or withheld treatment.

Assumptions and Limitations

This research study attempted to validate the assumption that the inability to self-regulate may have a direct effect resulting from a childhood attachment, as each bonding period is a critical time in the development period of a child's life. A child who struggles to bond with his or her caretaker is at higher risk for experiencing a negative social media outcome, as they seek the basic need of attachment throughout the different milestones they attempt to achieve. However, there was no statistical significance found between attachment and self-regulation. In addition, there are limited studies on self-regulation in context to different ages throughout important development periods, before reaching the developmental period of reaching adulthood. Thoroughly understanding the stages of adolescent development and how an individual's identity and relationship dynamics are associated with the inability or ability to self-regulate could

provide additional knowledge into the association of three aspects. The study also attempted to validate the assumption that childhood social media use was a positive moderating factor between a secure and an insecure attachment and the ability to self-regulate as an adult; however, no statistical significance found for either hypothesis. Overall, this study provided internal examination on how adults perceive their social media use in their childhood; therefore, the study assumed the self-report responses of problematic social media use versus non-problematic. However, due to the number of participants in the study, there was a limited response to those who identified as their childhood social media use being problematic; only 27 participants identified their childhood social media use as problematic. Childhood social media use did not have a moderating effect on how parental bonding (secure or insecure) affects self-regulation as an emerging adult.

The limitations presented in this study are many. First the size of the sample may have accounted for a few limitations within the study. The study sample size was small ($N = 140$) in comparison to past research in this specific area of interest. The researcher gathered 142 responses but omitted two of the participants due to omitting survey responses. One consideration may be due to the recruitment of the participants; all participants were recruited from an identified department of one University located in the Northeastern part of the country. Gathering additional participants outside of the selected demographic population would have aided this limitation. Secondly, time spent taking the survey was approximated at 30 minutes. College students could present with lack of time due to other pressing timelines. Lastly, the survey was first introduced to students during the end of their semesters, possible exhaustion from the completing the semester could have interfered with the willingness to take the survey.

Additional limitations to be considered involve the assessment of childhood social media use. First, due to no known social media use questionnaire, the participants were asked to respond to one self-report question concerning whether or not their childhood social use was thought to be problematic. This alone provides no specificity around the types of social media used and frequency of use. The participants were not given a definition of what was thought to be problematic; therefore, lack of knowledge into adverse of social media affects could have also been a factor. The participants' lack of memory of personal childhood social media use could be identified as a limitation in the responses on the self-report, as 65% identified as 23 years and older. Although childhood social media use was thought to be a moderating factor in the association between parental bonding and self-regulation, the study does not examine the personal motivational desires for any social media use perceived among those who have experienced a dysfunctional childhood attachment. Understanding this concept provides a rich source of knowledge for the healthy development of children to include periodic milestones that one endures throughout their lives.

Extraneous variables are the third limitation. The following factors are not controlled and should be analyzed for associations between parental bonding and childhood social media use: (a) child and parent's personality type, (b) a single parent dwelling versus intact family dwelling, (c) annual income status, (d) and family structure. Fourth, social media content should be examined in how it affects the emotional status of the youth. For example, an adolescent who engages in Facebook might perceive the platform in a positive manner than if they were to interact on Snap Chat; different social media platforms may elicit different emotional responses within adolescents who are already easily persuaded.

Although the existing literature supports the association between attachment styles and self-regulation and limitations were identified and there was no significance found for social media use as a moderating factor between the two components, additional limitations should be considered for potential future research.

Recommendations for Future Research

There has been a plethora of social media outcomes that have been researched; however, there is still more to research within this specific topic as the variables continue to mount. Recent research has focused on the different variables of social networking sites (SNS) such as the mental health risks (Spies Shapiro & Margolin, 2014; Nesi et al., 2019; Hou et al., 2019), positive (Ellison & Boyd, 2013; Forkosh-Baruch & HersHKovitz, 2018) and negative outcomes (Limtrakul et al., 2018), risk (Myruski et al., 2017; Askoy, 2018; Mahamid & Berte, 2019) and protective factors (Merchant et al., 2011; Nolan et al., 2017), predictors (Lin and Utz, 2017), and even how social media relates to communication (Nowland et al., 2018) and identity (Hogan & Strasburger, 2018). According to Cliff et al. (2018), future research should include the social media's content quality, social context, mobile phone usage when exposed to social media, and self-regulation.

SNS content quality can be defined as what the SNS population is expecting to receive from the SNS which might include values, solving problems, and storytelling. Gratification received from SNS population is one expectation that has been researched; Gao and Feng (2016) have found five different themes associated with gratification of SNS use: 1) information seeking, 2) social interaction, 3) entertainment, 4) impression management, and 5) self-expression.

Additional SNS expectations found amongst adolescents that are perceived as going beyond social media users gratification rationale is the concept of the desire to control and the desire to self-regulate: the need to control relationships, social media content, how different elements are presented and self-impressions (Throuvala et al., 2019). The ability to control is a concept associated with self-regulation. Future research that focuses on any one of these themes would provide awareness into the realm of SNS content quality. Several research studies have explored social media exposure on cell phone usage (Duggan et al., 2015; Guinta & John, 2018; Strasburger, 2019); however, examining cell phones usage and how it is correlated with any one of the gratification themes identified would serve to add information to the research of social media content quality. Media formats are readily available at the fingertips of most users and these SNS formats are merged into all areas of an individual's life. Social context within the SNS dynamic is related to the social environment and surroundings on how an individual will respond or act due to the influences perceived through their surroundings. Research that focuses on this specific element and how self-regulation is affected is limited and is important to developing minds of adolescents. According to the Center of Disease Control and Prevention (2021), adolescent childhood experiences (ACEs) are defined as traumatic experiences that occurred during childhood which have the ability to change brain development. Identifying the number of ACEs experienced within the adult population should also be examined as this could have an effect on how social media influences the ability for adults to self-regulate.

The study of neuroscience claims that social media influences adolescents through self-perception, social rejection and acceptance, and emotional processing; however, there is lack of research regarding the difference of the developmental ages amongst the adolescent population, specifically among the ages of early adolescents (Crone & Konijn, 2018). Future research could

include this specific age group as this age group is when identity begins to develop (Meeus, 2011). Several influencers combined with social media exposure could cause alterations in a youth's development. Konijn (2017) argues that social media does not affect the individual directly; it affects those who use on an indirect basis. The author explains that those who are susceptible to specific social media content determine if the adolescent user's behavior is affected positively or negatively; therefore, research should focus on user experiences concerning the emotional aspect that is produced through social media exposure. With this insight, it would be interesting to determine if emotions are produced from specific social media content or if underlying emotions determine which media content is chosen. Regardless of the scientists' research direction, self-regulation is a critical element where researchers have just begun to examine how it relates to social media and SNS. Attachment is another critical element that is strongly associated with self-regulation and although the role between the two is clear, the nature of how social media use can be a moderator between parental attachment and self-regulation, is unclear. Focusing on protective factors for secure attachment, should also be a focus on future research. One article provides insight into how reflective parenting intervention programs are helpful in forming a healthy attachment between a mother and her infant (Slade et al., 2020). Overall, the sensitive mannerisms and nurturing touch are important protective factors and are necessary for a secure attachment (DePasquale & Gunnar, 2020). Thus, by examining social media use and self-regulation, this study will build on the recommended research concerning the quality of social media content. This study will also build on the future research of an individual's social environment, parental attachment, and the moderating effect of social media on self-regulation as an adult. This study will aid to promote secure attachment as a

protective factor for the overall population, as society fall to being a victim of those who suffer from the ability to self-regulate.

Summary

There were several limitations to the study, to include this being the first study to assess how childhood social media use moderates the relationship between attachment and self-regulation as an adult. Overall, the literature of the study provides a relationship association across all three components of attachment, self-regulation, and social media use. Many studies validate the association between attachment and self-regulation and this study attempted to add validation to the existing research while examining childhood social media use as a moderator between the associations. Data analysis failed to support any of the hypotheses within the study; although existing literature demonstrated strong associations between social media use and lack of self-regulation. Therefore, it is recommended that future research focus on the association of all three phenomenon, to include additional social media variables that place a focus on self-regulation as this component is pivotal for the satisfaction of everyday life. This chapter presented a brief review of the ethical and implications, assumptions and limitations of the current study. All three hypotheses were not supported as being statistically significant.

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References

- Abbaspour, A., Bahreini, M., Akaberian, S., & Mirzaei, K. (2021). Parental bonding styles in schizophrenia, depressive and bipolar patients: A comparative study. *BMC Psychiatry*, 21(1), 169-169. <https://doi.org/10.1186/s12888-021-03177-3>
- Achterberg, M., Pepper, J. S., Van Duijvenvoorde, A. C., Mandl, R. C. & Crone, E. A. (2016). Fronto-striatal white matter integrity predicts development in delay of gratification: A longitudinal study. *The Journal of Neuroscience*, 36, 1954–196. <http://doi:10.1523/JNEUROSCI.3459-15.2016>
- Ahn, D., & Shin, D. (2013). Is the social use of media for seeking connectedness or for avoiding social isolation? Mechanisms underlying media use and subjective well-being. *Computers in Human Behavior*, 29(6), 2453-2462. <https://doi.org/10.1016/j.chb.2012.12.022>
- Aksoy, M. E. (2018). A qualitative study on the reasons for social media addiction. *European Journal of Educational Research*, 7(4), 861-865. <http://doi.org/10.12973/eu-jer.7.4.861>
- Amianto, F., Ercole, R., Abbate Daga, G., & Fassino, S. (2016). Exploring parental bonding in BED and non-BED obesity compared with healthy controls: Clinical, personality and psychopathology correlates. *European Eating Disorders Review*, 24(3), 187-196. <https://doi.org/10.1002/erv.2419>
- Anastopoulos, A. D., Smith, T. F., Garrett, M. E., Morrissey-Kane, E., Schatz, N. K., Sommer, J. L., Kollins, S. H., & Ashley-Koch, A. (2011). Self-regulation of emotion, functional impairment, and comorbidity among children with AD/HD. *Journal of Attention Disorders*, 15(7), 583-592. <http://doi.org/10.1177/1087054710370567>

Andreassen, C. S. (2015). Online social network site addiction: A comprehensive review.

Current Addiction Reports, 2(2), 175-184.

Artuch-Garde, R., González-Torres, M. D. C., De la Fuente, J., Vera, M. M., Fernández-

Cabezas, M., & López-García, M. (2017). Relationship between resilience and self-regulation: A study of Spanish youth at risk of social exclusion. *Frontiers in*

Psychology, 8, 612-612. <http://doi.org/10.3389/fpsyg.2017.00612>

Aslan, I., Ochnik, D., & Çınar, O. (2020). Exploring perceived stress among students in turkey

during the COVID-19 pandemic. *International Journal of Environmental Research and*

Public Health, 17(23), 8961. <https://doi.org/10.3390/ijerph17238961>

Ballarotto, G., Volpi, B., Marzilli, E., & Tambelli, R. (2018). Adolescent internet abuse: A study

on the role of attachment to parents and peers in a large community sample. *BioMed*

Research International, 2018, 5769250-10. <https://doi.org/10.1155/2018/5769250>

Balottin, L., Mannarini, S., Rossi, M., Rossi, G., & Balottin, U. (2017). The parental bonding in

families of adolescents with anorexia: Attachment representations between parents and offspring. *Neuropsychiatric Disease and Treatment*, 13, 319-327.

<https://doi.org/10.2147/NDT.S128418>

Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C. S., &

Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PLoS One*, 12(1), e0169839.

<http://doi:10.1371/journal.pone.0169839>

Baron, C. E., Smith, T. W., Baucom, B. R., Uchino, B. N., Williams, P. G., Sundar, K. M., &

- Czajkowski, L. (2020). Relationship partner social behavior and continuous positive airway pressure adherence: The role of autonomy support. *Health Psychology, 39*(4), 325-334. <https://doi.org/10.1037/hea0000827>
- Barry, C. T., Sidoti, C. L., Briggs, S. M., Reiter, S. R., & Lindsey, R. A. (2017). Adolescent social media use and mental health from adolescent and parent perspectives. *Journal of Adolescence, 61*, 1-11
- Bartau-Rojas, I., Aierbe-Barandiaran, A., & Oregui-González, E. (2018). Parental mediation of the Internet use of Primary students: Beliefs, strategies, and difficulties. *Comunicar. Media Education Research Journal, 26*(1). <https://doi.org/10.3916/C54-2018-07>
- Beijersbergen, M. D., Juffer, F., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2012). Remaining or becoming secure: Parental sensitive support predicts attachment continuity from infancy to adolescence in a longitudinal adoption study. *Developmental Psychology, 48*(5), 1277-1282. <https://doi.org/10.1037/a0027442>
- Bekalu, M. A., McCloud, R. F., & Viswanath, K. (2019). Association of social media use with social well-being, positive mental health, and self-rated health: Disentangling routine use from emotional connection to use. *Health Education & Behavior, 46*(2), 69S-80S. <http://doi:10.1177/1090198119863768>
- Best, J. R., Gan, D. R. Y., Wister, A. V., & Cosco, T. D. (2021). Age and sex trends in depressive symptoms across middle and older adulthood: Comparison of the Canadian longitudinal study on aging to American and European cohorts. *Journal of Affective Disorders, 295*, 1169-1176. <https://doi.org/10.1016/j.jad.2021.08.109>

- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media, and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review, 41*, 27-36. <http://doi:10.1016/j.childyouth.2014.03.001>
- Bickart, K. C., Wright, C. I., Dautoff, R. J., Dickerson, B. C. & Barrett, L. F. (2011). Amygdala volume and social network size in humans. *Nature Neuroscience, 14*(9), 163–164. <http://doi:10.1038/nn0911-1217e>
- Bilgin, A., & Wolke, D. (2020). Parental use of ‘cry it out’ in infants: No adverse effects on attachment and behavioural development at 18 months. *Journal of Child Psychology and Psychiatry, 61*(11), 1184-1193. <https://doi.org/10.1111/jcpp.13223>
- Birmingham, R. S., Bub, K. L., & Vaughn, B. E. (2017). Parenting in infancy and self-regulation in preschool: An investigation of the role of attachment history. *Attachment & Human Development, 19*(2), 107-129. <https://doi.org/10.1080/14616734.2016.1259335>
- Błachnio, A., & Przepiorka, A. (2016). Dysfunction of self-regulation and self-control in facebook addiction. *Psychiatric Quarterly, 87*(3), 493-500. <http://doi.org/10.1007/s11126-015-9403-1>
- Blackwell, D., Leaman, C., Tramposch, R., Osborne, C., & Liss, M. (2017). Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences, 116*, 69-72. <http://doi:10.1016/j.paid.2017.04.039>
- Blair, C., & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology, 20*(3), 899-911. <http://doi.org/10.1017/S0954579408000436>
- Blakemore, S. J. & Mills, K. L. (2014). Is adolescence a sensitive period for

sociocultural processing? *Annual Review Psychology*, 65, 187–207.

<https://doi.org/10.1146/annurev-psych-010213-115202>

Bodner, E., Bergman, Y. S., & Cohen-Fridel, S. (2014). Do attachment styles affect the presence and search for meaning in life? *Journal of Happiness Studies*, 15(5), 1041-1059.

<https://doi.org/10.1007/s10902-013-9462-7>

Bosquet Enlow, M., Egeland, B., Carlson, E., Blood, E., & Wright, R. J. (2014). Mother–infant attachment and the intergenerational transmission of posttraumatic stress disorder. *Development and Psychopathology*, 26(1), 41-65.

<https://doi.org/10.1017/S0954579413000515>

Boursier, V., Gioia, F., & Griffiths, M. D. (2020). Do selfie-expectancies and social appearance anxiety predict adolescents' problematic social media use? *Computers in Human Behavior*, 110, 106395. <https://doi.org/10.1016/j.chb.2020.106395>

Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York, NY: Basic Books.

Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment* (2nd ed.). New York, NY: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York, NY: Basic Books.

Boyd, D. M. & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230, <https://doi.org/10.1111/j.1083-6101.2007.00393.x>

Brailovskaia, J., Schillack, H., & Margraf, J. (2020). Tell me why are you using social media

- (SM)! relationship between reasons for use of SM, SM flow, daily stress, depression, anxiety, and addictive SM use – an exploratory investigation of young adults in Germany. *Computers in Human Behavior*, 113, 106511.
<https://doi.org/10.1016/j.chb.2020.106511>
- Brauner, C. B., & Stephens, C. B. (2006). Estimating the prevalence of early childhood serious emotional/behavioral disorders: Challenges and recommendations. *Public health reports*, 121(3), 303-310. <https://doi.org/10.1177/003335490612100314>
- Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology*, 28(5), 759-775. <https://doi.org/10.1037/0012-1649.28.5.759>
- Bridgett, D. J., Burt, N. M., Laake, L. M., & Oddi, K. B. (2013). Maternal self-regulation, relationship adjustment, and home chaos: Contributions to infant negative emotionality. *Infant Behavior & Development*, 36(4), 534-547.
<https://doi.org/10.1016/j.infbeh.2013.04.004>
- Brophy, K., Brähler, E., Hinz, A., Schmidt, S., & Körner, A. (2020). The role of self-compassion in the relationship between attachment, depression, and quality of life. *Journal of Affective Disorders*, 260, 45-52. <https://doi.org/10.1016/j.jad.2019.08.066>
- Buchmann, M., & Steinhoff, A. (2017). Social inequality, life course transitions, and adolescent development: Introduction to the special issue. *Journal of Youth and Adolescence*, 46(10), 2083-2090. <https://doi.org/10.1007/s10964-017-0740-2>
- Bürki, C. N., Ludwig, C., Chicherio, C., & de Ribaupierre, A. (2014). Individual differences in cognitive plasticity: An investigation of training curves in younger and older adults. *Psychological Research*, 78(6), 821-835. <https://doi.org/10.1007/s00426-014-0559-3>
- Byrne, Z., Albert, L., Manning, S., & Desir, R. (2017). Relational models and engagement: An

- attachment theory perspective. *Journal of Managerial Psychology*, 32(1), 30-44.
<https://doi.org/10.1108/JMP-01-2016-0006>
- Cabral, J., Matos, P. M., Beyers, W., & Soenens, B. (2012). Attachment, emotion regulation and coping in Portuguese emerging adults: A test of a mediation hypothesis. *The Spanish Journal of Psychology*, 15(3), 1000-1012.
https://doi.org/10.5209/rev_SJOP.2012.v15.n3.39391
- Cacioppo, J. T., & Cacioppo, S. (2014). Social relationships and health: The toxic effects of perceived social isolation. *Social and Personality Psychology Compass*, 8(2), 58-72.
<https://doi.org/10.1111/spc3.12087>
- Canady, V. A. (2021). Study examines suicide ideation among vets during COVID-19. *Mental Health Weekly*, 31(34), 3-4. <https://doi.org/10.1002/mhw.32928>
- Casey, B. J. Beyond simple models of self-control to circuit-based accounts of adolescent behavior. *Annual Review of Psychology*, 66, 295–319 (2015).
<http://10.1146/annurev-psych-010814-015156>
- Center of Disease Control and Prevention (2021, August, 23). *Vital Signs*.
<https://www.cdc.gov/vitalsigns/aces/index.html>
- Chang, F. C., Chiu, C. H., Miao, N. F., Chen, P. H., Lee, C. M., Chiang, J. T., & Pana, Y. C. (2015). The relationship between parental mediation and internet addiction among adolescents, and the association with cyberbullying and depression. *Comprehensive Psychiatry*, 57, 21-28. <https://doi.org/10.1016/j.comppsy.2014.11.013>
- Chen, Y. L., Chen, S. H., & Gau, S. S. (2015). ADHD and autistic traits, family function, parenting style, and social adjustment for internet addiction among children and adolescents in Taiwan: A longitudinal study. *Research in Developmental Disabilities*, 39,

- 20-31. <https://doi.org/10.1016/j.ridd.2014.12.025>
- Chen, B. (2017). Parent-adolescent attachment and procrastination: The mediating role of self-worth. *The Journal of Genetic Psychology*, 178(4), 238-245.
<https://doi.org/10.1080/00221325.2017.1342593>
- Choi, S., Kim, D., Choi, J., Ahn, H., Choi, E., Song, W., Kim, S., & Youn, H. (2015). Comparison of risk and protective factors associated with smartphone addiction and internet addiction. *Journal of Behavioral Addictions*, 4(4), 308-314.
<https://doi.org/10.1556/2006.4.2015.043>
- Chopik, W. J., Edelstein, R. S., & Grimm, K. J. (2019). Longitudinal changes in attachment orientation over a 59-year period. *Journal of Personality and Social Psychology*, 116(4), 598-611. <https://doi.org/10.1037/pspp0000167>
- Cliff, D. P., Howard, S. J., Radesky, J. S., McNeill, J., & Vella, S. A. (2018). Early childhood media exposure and self-regulation: Bidirectional longitudinal associations. *Academic Pediatrics*, 18(7), 813-819. <http://doi.org/10.1016/j.acap.2018.04.012>
- Clinton T., & Hawkins, R. (2011). *The popular encyclopedia of Christian counseling*. Harvest House Publishers.
- Coe, J. L., Davies, P. T., & Sturge-Apple, M. L. (2018). Family instability and young children's school adjustment: Callousness and negative internal representations as mediators. *Child Development*, 89(4), 1193-1208. <https://doi.org/10.1111/cdev.12793>
- Cohen, L. J., Ardan, F., Tanis, T., Halmi, W., Galyner, I., Von Wyl, A., & Hengartner, M. P. (2017). Attachment anxiety and avoidance as mediators of the association between childhood maltreatment and adult personality dysfunction. *Attachment & Human Development*, 19(1), 58-75. <https://doi.org/10.1080/14616734.2016.1253639>

- Cole, P. M., Dennis, T. A., Smith-Simon, K. E., & Cohen, L. H. (2009). Preschoolers' emotion regulation strategy understanding: Relations with emotion socialization and child self-regulation. *Social Development, 18*(2), 324-352. <http://doi.org/10.1111/j.1467-9507.2008.00503.x>
- Corcoran, K. & Fischer, J. (2013). *Measures for clinical practice and research*. Oxford University Press.
- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior, 26*(2), 247-253
- Costa, G. (2019). 76.2 relationships, interpersonal neurobiology, and self-regulation: The formative and shifting responsibilities from infancy to adulthood. *Journal of the American Academy of Child and Adolescent Psychiatry, 58*(10), S109-S109. <https://doi.org/10.1016/j.jaac.2019.07.566>
- Crittenden, P. M. (2017). Gifts from Mary Ainsworth and John Bowlby. *Clinical Child Psychology and Psychiatry, 22*(3), 436-442. <https://doi.org/10.1177/1359104517716214>
- Crone, E. A., & Konijn, E. A. (2018). Media use and brain development during adolescence. *Nature Communications, 9*(1), 588-10. <http://doi:10.1038/s41467-018-03126-x>
- Dahl, R. E. & Vanderschuren, L. J. (2011). The feeling of motivation in the developing brain. *Developmental Cognitive Neuroscience, 1*, 361–363. <http://doi:10.1016/j.dcn.2011.08.003>
- Dailey, S. L., Howard, K., Roming, S. M. P., Ceballos, N., & Grimes, T. (2020). A biopsychosocial approach to understanding social media addiction. *Human Behavior and Emerging Technologies, 2*(2), 158-167. <http://doi:10.1002/hbe2.182>

- Dalvi-Esfahani, M., Niknafs, A., Kuss, D. J., Nilashi, M., & Afrough, S. (2019). Social media addiction: Applying the DEMATEL approach. *Telematics and Informatics*, 43, 101250. <http://doi:10.1016/j.tele.2019.101250>
- D'Arienzo, M. C., Boursier, V., & Griffiths, M. D. (2019). Addiction to social media and attachment styles: A systematic literature review. *International Journal of Mental Health and Addiction*, 17(4), 1094-1118. <https://doi.org/10.1007/s11469-019-00082-5>
- Davis, A. M. B., & Kramer, R. S. S. (2021). Commentary: Does 'cry it out' really have no adverse effects on attachment? reflections on bilgin and wolke (2020). *Journal of Child Psychology and Psychiatry*, <https://doi.org/10.1111/jcpp.13390>
- DeFreitas, S. C., Crone, T., DeLeon, M., & Ajayi, A. (2018). Perceived and personal mental health stigma in latino and african american college students. *Frontiers in Public Health*, 6, 49-49. <https://doi.org/10.3389/fpubh.2018.00049>
- DePasquale, C. E., & Gunnar, M. R. (2020). Parental sensitivity and nurturance. *The Future of Children*, 30(2), 53-70.
- Dishion, T. J., & Patterson, G. R. (2006). *The development and ecology of antisocial behavior in children and adolescents*. John Wiley & Sons, Inc.
- Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015). Social media update 2014. *Pew Research Center*, 19, 1-2.
- Edward, K., Welch, A., & Chater, K. (2009). The phenomenon of resilience as described by adults who have experienced mental illness. *Journal of Advanced Nursing*, 65(3), 587-595. <https://doi.org/10.1111/j.1365-2648.2008.04912.x>
- Ee, E. v., Jongmans, M. J., Aa, N. v. d., & Kleber, R. J. (2017). Attachment representation and sensitivity: The moderating role of posttraumatic stress disorder in a refugee sample.

- Family Process*, 56(3), 781-792. <https://doi.org/10.1111/famp.12228>
- Egan, K. G., & Moreno, M. A. (2011). Prevalence of stress references on college freshmen Facebook profiles. *Computers, informatics, nursing: CIN*, 29(10), 586.
- Eichenberg, C., Schott, M., Decker, O. & Sindelar, B. (2017). "Attachment style and internet addiction: an online survey," *Journal of Medical Internet Research*, 19(5).
- Eisenberg, N., & Spinrad, T. L. (2004). Emotion-related regulation: Sharpening the definition. *Child Development*, 75(2), 334-339.
- Eisenbarth, C. A. (2019). Coping with stress: Gender differences among college students. *College Student Journal*, 53(2), 151-162.
- Ein-Dor, T., & Tal, O. (2012). Scared saviors: Evidence that people high in attachment anxiety are more effective in alerting others to threat: Attachment-related anxiety and warning. *European Journal of Social Psychology*, 42(6), 667-671.
<https://doi.org/10.1002/ejsp.1895>
- Ein-Dor, T. (2015). Attachment dispositions and human defensive behavior. *Personality and Individual Differences*, 81, 112-116. <https://doi.org/10.1016/j.paid.2014.09.033>
- Ellison, N. B., & Boyd, D. M. (2013). Sociality through social network sites. In *The Oxford handbook of internet studies*.
- Emery, L. F., Gardner, W. L., Carswell, K. L., & Finkel, E. J. (2018). You Can't see the real me: Attachment avoidance, self-verification, and self-concept clarity. *Personality & Social Psychology Bulletin*, 44(8), 1133-1146. <https://doi.org/10.1177/0146167218760799>
- Erikson, E. H. (1950). *Childhood and society*. New York: Norton
- Erikson, E. H. (1965). *Youth: Fidelity and diversity. The challenge of youth*. Anchor Books.
- Escobar-Viera, C. G., Whitfield, D. L., Wessel, C. B., Shensa, A., Sidani, J. E., Brown, A. L.,

- Chandler, C. J., Hoffman, B. L., Marshal, M. P., & Primack, B. A. (2018). For better or for worse? A systematic review of the evidence on social media use and depression among lesbian, gay, and bisexual minorities. *JMIR Mental Health*, 5(3), e10496-e10496. <https://doi.org/10.2196/10496>
- Ettekal, I., Eiden, R. D., Nickerson, A. B., Molnar, D. S., & Schuetze, P. (2020). Developmental cascades to children's conduct problems: The role of prenatal substance use, socioeconomic adversity, maternal depression and sensitivity, and children's conscience. *Development and Psychopathology*, 32(1), 85-103. <https://doi.org/10.1017/S095457941800144X>
- Fonagy, P., & Bateman, A. W. (2015). Adversity, attachment, and mentalizing. *Comprehensive Psychiatry*, 64, 59-66. <https://doi.org/10.1016/j.comppsy.2015.11.006>
- Fanning, J., Porter, G., Awick, E. A., Ehlers, D. K., Roberts, S. A., Cooke, G., Burzynska, A. Z., Voss, M. W., Kramer, A. F., & McAuley, E. (2017). Replacing sedentary time with sleep, light, or moderate-to-vigorous physical activity: Effects on self-regulation and executive functioning. *Journal of Behavioral Medicine*, 40(2), 332-342. <http://doi.org/10.1007/s10865-016-9788-9>
- Fardouly, J., Magson, N. R., Johnco, C. J., Oar, E. L., & Rapee, R. M. (2018). Parental control of the time preadolescents spend on social media: Links with preadolescents' social media appearance comparisons and mental health. *Journal of Youth and Adolescence*, 47(7), 1456-1468. <http://doi:10.1007/s10964-018-0870-1>
- Farley, J. P., & Kim-Spoon, J. (2014). The development of adolescent self-regulation: Reviewing the role of parent, peer, friend, and romantic relationships. *Journal of Adolescence* (London, England.), 37(4), 433-440. <https://doi.org/10.1016/j.adolescence.2014.03.009>

- Fay-Stammbach, T., Hawes D. J., Meredith P. (2014). Parenting influences on executive function in early childhood: a review. *Child Development Perspectives*, 8, 258–264.
<http://doi:10.1111/cdep.12095>
- Feeney, B. C., & Collins, N. L. (2015). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review*, 19, 113–147. <http://dx.doi.org/10.1177/1088868314544222>
- Felton, T. M., Coates, L., & Christopher, J. C. (2015). Impact of mindfulness training on counseling students' perceptions of stress. *Mindfulness*, 6(2), 159-169.
<https://doi.org/10.1007/s12671-013-0240-8>
- Forkosh-Baruch, A., & HersHKovitz, A. (2018). Broadening communication yet holding back: Teachers' perceptions of their relationship with students in the SNS-era. *Education and Information Technologies*, 23(2), 725-740. <http://doi:10.1007/s10639-017-9632-z>
- Franchina, V., Vanden Abeele, M., Van Rooij, A. J., Lo Coco, G., & De Marez, L. (2018). Fear of missing out as a predictor of problematic social media use and phubbing behavior among Flemish adolescents. *International Journal of Environmental Research and Public Health*, 15(10), 2319.
- Fransson, M., Granqvist, P., Marciszko, C., Hagekull, B., & Bohlin, G. (2016). Is middle childhood attachment related to social functioning in young adulthood? *Scandinavian Journal of Psychology*, 57(2), 108-116. <https://doi.org/10.1111/sjop.12276>
- Frick, M. A., Forslund, T., Fransson, M., Johansson, M., Bohlin, G., & Brocki, K. C. (2018). The role of sustained attention, maternal sensitivity, and infant temperament in the development of early self-regulation. *The British Journal of Psychology*, 109(2), 277-298. <https://doi.org/10.1111/bjop.12266>

- Fumero, A., Marrero, R. J., Voltes, D., & Penate, W. (2018). Personal and social factors involved in internet addiction among adolescents: A meta-analysis. *Computers in Human Behavior*, 86, 387-400.
- Galinha, I. C., Oishi, S., Pereira, C. R., Wirtz, D., & Esteves, F. (2014). Adult attachment, love styles, relationship experiences and subjective well-being: Cross-cultural and gender comparison between Americans, Portuguese, and Mozambicans. *Social Indicators Research*, 119(2), 823-852. <https://doi.org/10.1007/s11205-013-0512-7>
- Gandhi, A., Claes, L., Bosmans, G., Baetens, I., Wilderjans, T. F., Maitra, S., Kiekens, G., & Luyckx, K. (2015). Non-suicidal self-injury and adolescents attachment with peers and mother: The mediating role of identity synthesis and confusion. *Journal of Child and Family Studies*, 25(6), 1735-1745. <https://doi.org/10.1007/s10826-015-0350-0>
- Gao, Q., & Feng, C. (2016). Branding with social media: User gratifications, usage patterns, and brand message content strategies. *Computers in Human Behavior*, 63, 868-890. <http://doi:10.1016/j.chb.2016.06.022>
- Gaumon, S., Paquette, D., Cyr, C., Émond-Nakamura, M., & St-André, M. (2016). anxiety and attachment to the mother in preschoolers receiving psychiatric care: The father-child activation relationship as a protective factor. *Infant Mental Health Journal*, 37(4), 372-387. <https://doi.org/10.1002/imhj.21571>
- Girme, Y. U., Agnew, C. R., VanderDrift, L. E., Harvey, S. M., Rholes, W. S., & Simpson, J. A. (2018). The ebbs and flows of attachment: Within-person variation in attachment undermine secure individuals' relationship wellbeing across time. *Journal of Personality and Social Psychology*, 114(3), 397-421. <https://doi.org/10.1037/pspi0000115>
- Gomes, F. G., Passos, I. C., Krolow, A. C., Reckziegel, R., Vasconcelos-Moreno, M. P.,

- Spanemberg, L., Belmonte-de-Abreu, P., Kapczinski, F., & Kauer-Sant'Anna, M. (2015). Differences in parental bonding between schizophrenia and bipolar disorder: Evidence of prodromal symptoms? *Schizophrenia Research*, 165(2), 134-137.
<https://doi.org/10.1016/j.schres.2015.03.032>
- Granqvist, P. (2021). Attachment, culture, and gene-culture co-evolution: Expanding the evolutionary toolbox of attachment theory. *Attachment & Human Development*, 23(1), 90-113. <https://doi.org/10.1080/14616734.2019.1709086>
- Granqvist, P., Forslund, T., Fransson, M., Springer, L., & Lindberg, L. (2014). Mothers with intellectual disability, their experiences of maltreatment, and their children's attachment representations: A small-group matched comparison study. *Attachment & Human Development*, 16(5), 417-436. <https://doi.org/10.1080/14616734.2014.926946>
- Gratz, K., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26, 41-54. doi:10.1023/B:JOBA.00000007455.08539.94
- Gratz, K. L., Spitznagel, T. L., & Tull, M. T. (2020). Expanding our understanding of the relationship between nonsuicidal self-injury and suicide attempts: The roles of emotion regulation self-efficacy and the acquired capability for suicide. *Journal of Clinical Psychology*, 76(9), 1653-1667. <http://doi.org/10.1002/jclp.22950>
- Graziano, P. A., Calkins, S. D., & Keane, S. P. (2010). Toddler self-regulation skills predict for pediatric obesity. *International Journal of Obesity*, 34(4), 633-641.
<https://doi.org/10.1038/ijo.2009.288>

- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271-299.
- Grossman, M. (2017). *Study of social media users: The relationship between online deception, Machiavellian personality, self-esteem, and social desirability*. (Publication No. 10617442) [Doctoral Dissertation, Alliant International University]. ProQuest Dissertations & Theses Global.
- Grusec, J. E. (2011). Socialization processes in the family: Social and emotional development. *Annual Review of Psychology*, 62(1), 243-269.
<https://doi.org/10.1146/annurev.psych.121208.131650>
- Guinta, M. R., & John, R. M. (2018). Social media and adolescent health. *Pediatric Nursing*, 44(4), 196-201.
- Hallion, L. S., Steinman, S. A., Tolin, D. F., & Diefenbach, G. J. (2018). Psychometric properties of the difficulties in emotion regulation scale (DERS) and its short form in adults with emotional disorders. *Frontiers in Psychology*, 9(539).
<http://doi:10.3389/fpsyg.2018.00539>
- Handelzalts, J. E., Preis, H., Rosenbaum, M., Gozlan, M., & Benyamini, Y. (2018). pregnant women's recollections of early maternal bonding: Associations with maternal–fetal attachment and birth choices. *Infant Mental Health Journal*, 39(5), 511-521.
<https://doi.org/10.1002/imhj.21731>
- Happell, B., & Ewart, S. B. (2016). 'Please believe me, my life depends on it': Physical health concerns of people diagnosed with mental illness. *Australian Nursing & Midwifery Journal*, 23(11), 47-47.
- Harder, S., Davidsen, K., MacBeth, A., Lange, T., Minnis, H., Andersen, M. S., Simonsen, E.,

- Lundy, J., Nyström-Hansen, M., Trier, C. H., Røhder, K., & Gumley, A. (2015). Wellbeing and resilience: Mechanisms of transmission of health and risk in parents with complex mental health problems and their offspring--the WARM study. *BMC Psychiatry*, 15(1), 310-310. <https://doi.org/10.1186/s12888-015-0692-6>
- Hayes, A. F. On the moderation of mechanisms: a conceptual overview of conditional process Analysis [Lecture notes]. SlideShare. <https://www.afhayes.com/public/mobc.pdf>
- Hayes, A. F. (Eds). (2018). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. The Guilford Press.
- Hetherington, E., McDonald, S., Racine, N., & Tough, S. (2020). Longitudinal predictors of self-regulation at school entry: Findings from the all our families cohort. *Children (Basel)*, 7(10), 1. <https://doi.org/10.3390/children7100186>
- Heylen, J., De Raedt, R., Verbruggen, F., & Bosmans, G. (2019). Attachment and self-regulation performance in preadolescence. *Journal of Social and Personal Relationships*, 36(2), 706-716. <https://doi.org/10.1177/0265407517742531>
- Hofer, J., Busch, H., & Kärtner, J. (2011). Self-regulation and well-being: The influence of identity and motives: Self-regulation, identity and well-being. *European Journal of Personality*, 25(3), 211-224. <http://doi.org/10.1002/per.789>
- Hogan, M., & Strasburger, V. C. (2018). Social media and new technology: A primer. *Clinical Pediatrics*, 57(10), 1204-1215. <http://doi:10.1177/0009922818769424>
- Hogeveen, J., & Grafman, J. (2021). alexithymia. (pp. 47-62). *Elsevier Health Sciences*. <https://doi.org/10.1016/B978-0-12-822290-4.00004-9>

- Hogue, J. V., & Mills, J. S. (2019). The effects of active social media engagement with peers on body image in young women. *Body Image*, 28, 1-5.
<http://doi:10.1016/j.bodyim.2018.11.002>
- Holmgren, H. G., & Coyne, S. M. (2017). Can't stop scrolling!: Pathological use of social networking sites in emerging adulthood. *Addiction Research & Theory*, 25(5), 375-382.
<http://doi.org/10.1080/16066359.2017.1294164>.
- Hong, F., & Chiu, S. (2016). Factors influencing facebook usage and facebook addictive tendency in university students: The role of online psychological privacy and facebook usage motivation. *Stress and Health*, 32(2), 117-127. <https://doi.org/10.1002/smi.2585>
- Hou, Y., Xiong, D., Jiang, T., Song, L., & Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13(1). <http://doi.org/10.5817/CP2019-1-4>
- Huang, V., DiMillo, J., & Koszycki, D. (2020). Psychometric properties of the parental bonding instrument in a sample of canadian children. *Child Psychiatry and Human Development*, 51(5), 754-768. <https://doi.org/10.1007/s10578-020-00999-2>
- Isaacs, D. (2014). Social media and communication. *Journal of Pediatrics and Child Health*, 50(6), 421-422. <http://doi:10.1111/jpc.12555>
- Iyengar, U., Kim, S., Martinez, S., Fonagy, P., & Strathearn, L. (2014). Unresolved trauma in mothers: Intergenerational effects and the role of reorganization. *Frontiers in Psychology*, 5, 966-966. <https://doi.org/10.3389/fpsyg.2014.00966>
- Kaufman, E. A., Xia, M., Fosco, G., Yaptangco1, M., Skidmore, C. R., & Crowell. S. E.

- (2016). The Difficulties in Emotion Regulation Scale Short Form (DERS-SF): validation and replication in adolescent and adult samples. *Journal of Psychopathology and Behavioral Assessment*, 38, 443-455. doi:10.1007/s10862-015-9529-3
- Kenney, E. L., & Gortmaker, S. L. (2017). United States adolescents' television, computer, videogame, smartphone, and tablet use: associations with sugary drinks, sleep, physical activity, and obesity. *The Journal of Pediatrics*, 182, 144-149.
- Ketay, S., & Beck, L. A. (2017). Attachment predicts cortisol response and closeness in dyadic social interaction. *Psychoneuroendocrinology*, 80, 114-121.
<https://doi.org/10.1016/j.psyneuen.2017.03.009>
- Keyes, C. L. M., & Westerhof, G. J. (2012). Chronological and subjective age differences in flourishing mental health and major depressive episode. *Aging & Mental Health*, 16(1), 67-74. <https://doi.org/10.1080/13607863.2011.596811>
- Khurana, A., Bleakley, A., Ellithorpe, M. E., Hennessy, M., Jamieson, P. E., & Weitz, I. (2018). Media violence exposure and aggression in adolescents: A risk and resilience perspective. *Aggressive Behavior*, 45(1), 70-81. <http://doi:10.1002/ab.21798>
- Kim-Spoon, J., Haskett, M., Longoa, G., & Nice, R. (2012). Longitudinal study of self-regulation, positive parenting, and adjustment problems among physically abused children. *Child Abuse and Neglect*, 36, 95-107.
<http://doi.org/10.1016/j.chiabu.2011.09.016>
- Klein, S. R., Renshaw, K. D., & Curby, T. W. (2015). Emotion regulation and perceptions of hostile and constructive criticism in romantic relationships. *Behavior Therapy*, 47(2), 143-154. <http://doi.org/10.1016/j.beth.2015.10.007>
- Klemfuss, J. Z., Wallin, A. R., & Quas, J. A. (2018). Attachment, household chaos, and

children's health. *Families Systems & Health*, 36(3), 303-314.

<https://doi.org/10.1037/fsh0000303>

Ko, C.H, Liu, T. L., Wang, P. W., Chen, C.S., Yen, C. F., &Yen, J. Y. (2014). The exacerbation of depression, hostility, and social anxiety in the course of internet addiction among adolescents: A prospective study. *Comprehensive Psychiatry*, 55, 1377-1384.

<http://dx.doi.org/10.1016/j.comppsy.2014.05.003>

Ko, C. H., Wang, P. W., Liu, T.L., Yen, C. F., Chen, C. S., & Yen, J. Y. (2015). Bidirectional associations between family factors and Internet addiction among adolescents in a prospective investigation. *Psychiatry and Clinical Neurosciences*, 69(4), 192-200.

<https://doi.org/10.1111/pcn.12204>

Konijn, E. A. (2017, December 8). Media use among adolescents.

<https://ellyakonijn.wordpress.com/media-use-among-adolescents/>

Konrath, S. H., Chopik, W. J., Hsing, C. K., & O'Brien, E. (2014). Changes in adult attachment styles in American college students over time: A meta-analysis. *Personality and Social Psychology Review*, 18(4), 326-348. <https://doi.org/10.1177/1088868314530516>

Koole, S. L., Van Dillen, L. F., & Sheppes, G. (2011). *The self-regulation of emotion. Handbook of self-regulation: Research, theory, and applications*, 2, 22-40.

Korja, R., Latva, R., & Lehtonen, L. (2012). The effects of preterm birth on mother-infant interaction and attachment during the infant's first two years. *Acta Obstetricia Et Gynecologica Scandinavica*, 91(2), 164-173. <https://doi.org/10.1111/j.1600-0412.2011.01304.x>

<https://doi.org/10.1111/j.1600-0412.2011.01304.x>

- Koutamanis, M., Vossen, H. G. M., & Valkenburg, P. M. (2015). Adolescents' comments in social media: Why do adolescents receive negative feedback and who is most at risk? *Computers in Human Behavior*, 53, 486-494. <http://doi.org/10.1016/j.chb.2015.07.016>
- Kullik, A., Kullik, A., Petermann, F., & Petermann, F. (2013). Attachment to parents and peers as a risk factor for adolescent depressive disorders: The mediating role of emotion regulation. *Child Psychiatry and Human Development*, 44(4), 537-548. <https://doi.org/10.1007/s10578-012-0347-5>
- Kuss, D. J., Griffiths, L. K., & Billieux, J. (2014). Internet addiction: A systematic review of epidemiological research for the last decade. *Current Pharmaceutical Design*, 20, 4026-4052.
- Langhinrichsen-Rohling, J., Thompson, K., Selwyn, C., Finnegan, H., & Misra, T. (2017). Maladaptive schemas mediate poor parental attachment and suicidality in college students. *Death Studies*, 41(6), 337-344. <https://doi.org/10.1080/07481187.2017.1280714>
- LaRose, R. (2010). The problem of media habits. *Communication Theory*, 20(2), 194-222. <http://doi.org/10.1111/j.1468-2885.2010.01360.x>
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the need to belong scale: mapping the nomological network. *Journal of Personal Assessment*, 95(6), pp. 610-624.
- Lee, S. Y. (2014). How do people compare themselves with others on social network sites?: The case of Facebook. *Computers and Human Behavior*, 32, 253-260. <https://doi.org/10.1016/j.chb.2013.12.009>
- Li, T., & Chan, D. K. (2012). How anxious and avoidant attachment affect romantic relationship

- quality differently: A meta-analytic review. *European Journal of Social Psychology*, 42(4), 406-419. <https://doi.org/10.1002/ejsp.1842>
- Limtrakul, N., Louthrenoo, O., Narkpongphun, A., Boonchooduang, N., & Chonchaiya, W. (2018). Media use and psychosocial adjustment in children and adolescents. *Journal of Pediatrics and Child Health*, 54(3), 296-301. <http://doi:10.1111/jpc.13725>
- Lin, R., & Utz, S. (2017). Self-disclosure on SNS: Do disclosure intimacy and narrativity influence interpersonal closeness and social attraction? *Computers in Human Behavior*, 70, 426-436. <http://doi:10.1016/j.chb.2017.01.012>
- Linder, L. K., McDaniel, B. T., Stockdale, L., & Coyne, S. M. (2021). The impact of parent and child media use on early parent–infant attachment. *Infancy*, 26(4), 551-569. <https://doi.org/10.1111/infa.12400>
- Liu, Q., & Wang, Z. (2021). Associations between parental emotional warmth, parental attachment, peer attachment, and adolescents' character strengths. *Children and Youth Services Review*, 120, 105765. <https://doi.org/10.1016/j.childyouth.2020.105765>
- Liu, J., Xiao, B., Hipson, W. E., Coplan, R. J., Yang, P., & Cheah, C. S. L. (2018). Self-regulation, learning problems, and maternal authoritarian parenting in chinese children: A developmental cascades model. *Journal of Child and Family Studies*, 27(12), 4060-4070. <http://doi.org/10.1007/s10826-018-1218-x>
- Longobardi, C., Settanni, M., Fabris, M. A., & Marengo, D. (2020). Follow or be followed: Exploring the links between Instagram popularity, social media addiction, cyber victimization, and subjective happiness in Italian adolescents. *Children and Youth Services Review*, 113, 104955. <http://doi:10.1016/j.childyouth.2020.104955>
- Loon, L. M. A. v., Ven, M. O. M. v. d., Doesum, K. T. M. v., Witteman, C. L. M., & Hosman, C.

- M. H. (2014). The relation between parental mental illness and adolescent mental health: The role of family factors. *Journal of Child and Family Studies*, 23(7), 1201-1214.
<https://doi.org/10.1007/s10826-013-9781-7>
- López-Madrigal, C., de la Fuente, J., García-Manglano, J., Martínez-Vicente, J. M., Peralta-Sánchez, F. J., & Amate-Romera, J. (2021). The role of gender and age in the emotional well-being outcomes of young adults. *International Journal of Environmental Research and Public Health*, 18(2), 522
- Lowe-Calverley, E., & Grieve, R. (2018). Self-ie love: Predictors of image editing intentions on facebook. *Telematics and Informatics*, 35(1), 186-194.
<https://doi.org/10.1016/j.tele.2017.10.011>
- Lyvers, M., Mayer, K., Needham, K., & Thorberg, F. A. (2019). Parental bonding, adult attachment, and theory of mind: A developmental model of alexithymia and alcohol-related risk. *Journal of Clinical Psychology*, 75(7), 1288-1304.
<https://doi.org/10.1002/jclp.22772>
- Ludwig, K., & Rauch, W. A. (2018). Associations between physical activity, positive affect, and self-regulation during preschoolers' everyday lives. *Mental Health and Physical Activity*, 15, 63-70. <https://doi.org/10.1016/j.mhpa.2018.07.002>
- Maccoby, E. E. (2007). Historical overview of socialization research and theory. *Handbook of socialization: Theory and research*, 1, 13-41.
- Magner, M. (2018). Social media effects on mental health: How America's youth are more vulnerable to its negative implications. *Advanced Writing: Pop Culture Intersections*, 20.

Mahamid, F. A., & Berte, D. Z. (2019). Social media addiction in geopolitically at-risk youth.

International Journal of Mental Health and Addiction, 17(1), 102-111.

<http://doi.org/10.1007/s11469-017-9870-8>

Marcussen, K., Gary, K. M., & Serpe, R. T. (2021). Meaning matters: Measuring the mental illness identity. *Social Science Research*, 100, 102617-102617.

<https://doi.org/10.1016/j.ssresearch.2021.102617>

Mas-Tur, A., Tur-Porcar, A., & Llorca, A. (2016). Social media marketing for adolescents.

Psychology & Marketing, 33(12), 1119-1125. <http://doi.org/10.1002/mar.20947>

Masumoto, K., Taishi, N., & Shiozaki, M. (2016). Age and gender differences in relationships among emotion regulation, mood, and mental health. *Gerontology and Geriatric Medicine*, 2, 2333721416637022-2333721416637022.

<https://doi.org/10.1177/2333721416637022>

Mattingly, B. A., & Clark, E. M. (2012). Weakening relationships we try to preserve: Motivated sacrifice, attachment, and relationship quality: Attachment style and sacrificial behavior.

Journal of Applied Social Psychology, 42(2), 373-386. <https://doi.org/10.1111/j.1559-1816.2011.00893.x>

Maunder, R. G., Hunter, J. J., Atkinson, L., Steiner, M., Wazana, A., Fleming, A. S., Moss, E., Gaudreau, H., Meaney, M. J., & Levitan, R. D. (2017). An attachment-based model of the relationship between childhood adversity and somatization in children and adults.

Psychosomatic Medicine, 79(5), 506-513.

<https://doi.org/10.1097/PSY.0000000000000437>

- McClelland, M. M., & Wanless, S. B. (2012). Growing up with assets and risks: the importance of self-regulation for academic achievement. *Research in Human Development*, 9(4), 278-297. <http://doi.org/10.1080/15427609.2012.729907>
- McClure, M. J., & Lydon, J. E. (2014). Anxiety doesn't become you: How attachment anxiety compromises relational opportunities. *Journal of Personality and Social Psychology*, 106(1), 89-111. <https://doi.org/10.1037/a0034532>
- McGuigan, F. J. (1997). *Experimental psychology methods of research*. (7th ed.). Prentice Hall.
- Meeus, W. (2011). The study of adolescent identity formation 2000-2010: A review of longitudinal research. *Journal of Research on Adolescence*, 21(1), 75-94. <http://doi:10.1111/j.1532-7795.2010.00716.x>
- Mental Health America. (2021). *The state of mental health in America*. <https://mhanational.org/issues/state-mental-health-america#Key>
- Merchant, R. M., Elmer, S., & Lurie, N. (2011). Integrating social media into emergency-preparedness efforts. *The New England Journal of Medicine*, 365(4), 289-291. <http://doi.org/10.1056/NEJMp1103591>
- Merlo, L. J., Stone, A. M., & Bibbey, A. (2013). Measuring problematic mobile phone use: Development and preliminary psychometric properties of the PUMP Scale. *Journal of Addiction*, 2013, 912807. <https://doi.org/10.1155/2013/912807>
- Merrell, K. W., Felver-gant, J., & Tom, K. M. (2011). Development and validation of a parent report measure for assessing social-emotional competencies of children and adolescents. *Journal of Child and Family Studies*, 20(4), 529-540. <http://doi.org/10.1007/s10826-010-9425-0>
- Metz, D., & Jungbauer, J. (2021). "My scars remain forever": A qualitative study on

- biographical developments in adult Children of parents with mental illness. *Clinical Social Work Journal*, 49(1), 64-76. <https://doi.org/10.1007/s10615-019-00722-2>
- Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood: Structure, dynamics, and change* (2nd ed.). Guilford Press.
- Mills, K. L., Lalonde, F., Clasen, L. S., Giedd, J. N. & Blakemore, S. J. (2014). Developmental changes in the structure of the social brain in late childhood and adolescence. *Social Cognitive and Affective Neuroscience*, 9, 123–131. <http://doi:10.1093/scan/nss113>
- Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology*, 52(11), 1744-1762. <https://doi.org/10.1037/dev0000159>.
- Morawska, A., Dittman, C. K., & Rusby, J. C. (2019). Promoting self-regulation in young children: The role of parenting interventions. *Clinical Child and Family Psychology Review*, 22(1), 43-51. <https://doi.org/10.1007/s10567-019-00281-5>
- Munzer, T. G., Miller, A. L., Peterson, K. E., Brophy-Herb, H. E., Horodyski, M. A., Contreras, D., Sturza, J., Lumeng, J. C., & Radesky, J. (2018). Media exposure in low-income preschool-aged children is associated with multiple measures of self-regulatory behavior. *Journal of Developmental and Behavioral Pediatrics*, 39(4), 303-309. <http://doi:10.1097/DBP.0000000000000560>
- Myruski, S., Gulyayeva, O., Birk, S., Pérez-Edgar, K., Buss, K. A., Dennis-TiwarY, T. A. (2017). Digital disruption? Maternal mobile device use is related to infant social-emotional functioning. *Developmental Science*. <https://doi.org/10.1111/desc.12610>
- Nadkarni, A., & Hofman, S. G. (2012). Why do people Facebook? *Personality Individual Differences*, 52(3), pp. 243-249. <https://doi.org/10.1016/j.paid.2011.11.007>

National Institute of Mental Health (n.d.). *Mental health information*.

<https://www.nimh.nih.gov/health/statistics/mental-illness>

Nelson, T. D., Nelson, J. M., James, T. D., Clark, C. A. C., Kidwell, K. M., & Espy, K. A.

(2017). Executive control goes to school: Implications of preschool executive performance for observed elementary classroom learning engagement. *Developmental Psychology*, 53, 836–844. <https://doi:10.1037/dev0000296>

Nesi, J., Wolff, J. C., & Hunt, J. (2019). Patterns of social media use among adolescents who are psychiatrically hospitalized. *Journal of the American Academy of Child & Adolescent Psychiatry*, 58(6), 635-639.e1. <http://doi.org/10.1016/j.jaac.2019.03.009>

Neubaum, G., & Krämer, N. C. (2015). My friends right next to me: A laboratory investigation on predictors and consequences of experiencing social closeness on social networking sites. *CyberPsychology, Behavior, and Social Networking*, 18(8), 443-449.

Ngai, S. S., Cheung, C., Xie, L., Ng, Y., Ngai, H., Liu, Y., & Ho, J. C. (2018). Psychometric properties of the parental bonding instrument: Data from a Chinese adolescent sample in Hong Kong. *Journal of Child and Family Studies*, 27(7), 2112-2124. <https://doi.org/10.1007/s10826-018-1058-8>

Nickerson, A. B., & Nagle, R. J. (2005). Parent and peer attachment in late childhood and adolescence. *Journal of Early Adolescence*, 25, pp. 223-249. <http://doi:10.1177/0272431604274174>

Nilsen, L. G., Hafstad, G. S., Staksrud, E., & Dyb, G. (2018). Five reasons for using social media among young terror survivors: Results from the utøya study. *Computers in Human Behavior*, 84, 285-294. <https://doi.org/10.1016/j.chb.2018.03.006>

- Nolan, S., Hendricks, J., Ferguson, S., & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? – A structured review of the literature. *Midwifery*, 48, 24-31.
<http://doi:10.1016/j.midw.2017.03.002>
- Norholt, H. (2020). Revisiting the roots of attachment: A review of the biological and psychological effects of maternal skin-to-skin contact and carrying of full-term infants. *Infant Behavior & Development*, 60, 101441.
<https://doi.org/10.1016/j.infbeh.2020.101441>
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and social internet use: pathways to reconnection in a digital world?. *Perspectives on Psychological Science*, 13(1), 70-87. <https://doi.org/10.1177/1745691617713052>
- O’Keeffe, G. S., & Clark-Pearson, K. (2011). Clinical report: The impact of social media on children, adolescents, and families. *Pediatrics*, 127(4), 800-804.
<http://doi.org/10.1542/peds.2011-0054>
- Ortiz-Ospina, E. (2019, September 18). *The rise of social media*. Our World in Data.
<https://ourworldindata.org/rise-of-social-media#licence>
- Ozimek, P., & Förster, J. (2021). The social online-self-regulation-theory: A review of self-regulation in social media. *Journal of Media Psychology*, 33(4), 181-190.
<https://doi.org/10.1027/1864-1105/a000304>
- Öztürk Dönmez, R., & Bayik Temel, A. (2019). Effect of soothing techniques on infants’ self-regulation behaviors (sleeping, crying, feeding): A randomized controlled study. *Japan Journal of Nursing Science : JJNS*, 16(4), 407-419. <https://doi.org/10.1111/jjns.12250>
- Pallini, S., Chirumbolo, A., Morelli, M., Baiocco, R., Laghi, F., & Eisenberg, N. (2018). The

- relation of attachment security status to effortful self-regulation: A meta-analysis. *Psychological Bulletin*, 144(5), 501-531. <https://doi.org/10.1037/bul0000134>
- Park, S. K., Kim, J. Y., & Cho, C. B. (2008). Prevalence of internet addiction and correlations with family factors among South Korean adolescents. *Adolescence*, 43, 895.
- Parker, G., Tupling, H. & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1-10.
- Pea, R., Nass, C., Meheula, L., Rance, M., Kumar, A., Bamford, H., Nass, M., Simha, A., Stillerman, B., Yang, S., & Zhou, M. (2012). Media use, face-to-face communication, media multitasking, and social well-being among 8- to 12-year-old girls. *Developmental Psychology*, 48(2), 327-336. <http://doi:10.1037/a0027030>
- Perry, N. B., Calkins, S. D., Dollar, J. M., Keane, S. P., & Shanahan, L. (2018). Self-regulation as a predictor of patterns of change in externalizing behaviors from infancy to adolescence. *Development and Psychopathology*, 30(2), 497-510. <https://doi.org/10.1017/S0954579417000992>
- Pietromonaco, P. R., & Collins, N. L. (2017). Interpersonal mechanisms linking close relationships to health. *The American Psychologist*, 72(6), 531-542. <https://doi.org/10.1037/amp0000129>
- Pompeo, A. M., & Levitt, D. H. (2014). A path of counselor self-awareness. *Counseling and Values*, 59(1), 80–94. <https://doi.org/10.1002/j.2161-007X.2014.00043.x>
- Priddis, L., & Howieson, N. D. (2012). Insecure attachment patterns at five years. what do they tell us? *Early Child Development and Care*, 182(1), 45-58. <https://doi.org/10.1080/03004430.2010.537334>

- Prinz, R. J. (2019). Self-regulation: A critical construct in research and application with children and families. *Clinical Child and Family Psychology Review*, 22(1), 1-1.
<http://doi:10.1007/s10567-019-00289-x>
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841-1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Radovic, A., Gmelin, T., Stein, B. D., & Miller, E. (2017). Depressed adolescents' positive and negative use of social media. *Journal of Adolescence (London, England.)*, 55, 5-15.
<https://doi.org/10.1016/j.adolescence.2016.12.002>
- Rady, A., Mouloukheya, T., & Gamal, E. (2021). Posttraumatic stress symptoms, quality of life, and stress burden in caregivers of patients with severe mental illness: An underestimated health concern. *Frontiers in Psychiatry*, 12, 623499-623499.
<https://doi.org/10.3389/fpsyt.2021.623499>
- Rademacher, A., Zumbach, J., & Koglin, U. (2020). Cross-lagged effects of self-regulation skills and behaviour problems in the transition from preschool to elementary school. *Early Child Development and Care*, 1-7. <https://doi.org/10.1080/03004430.2020.1784891>
- Rees, C. (2016). Children's attachments. *Pediatrics and Child Health*, 26(5), 185-193.
<https://doi.org/10.1016/j.paed.2015.12.007>
- Reid Chassiakos, Y., Radesky, J., Christakis, D., Moreno, M., & Cross, C. (2016). Children and adolescents and digital media. *Pediatrics* 138(5). <http://doi.org/10.1542/peds.2016.2593>
- Reisz, S., Brennan, J., Jacobvitz, D., & George, C. (2019). Adult attachment and birth experience: Importance of a secure base and safe haven during childbirth. *Journal of Reproductive and Infant Psychology*, 37(1), 26-43.

<https://doi.org/10.1080/02646838.2018.1509303>

Reisz, S., Duschinsky, R., & Siegel, D. J. (2018). Disorganized attachment and defense:

Exploring John Bowlby's unpublished reflections. *Attachment & Human Development*, 20(2), 107-134. <https://doi.org/10.1080/14616734.2017.1380055>

Richards, R., McGee, R., Williams, S. M., Welch, D. & Hancox, R. J. (2010). "Adolescent screen time and attachment to parents and peers," *Archives of Pediatrics & Adolescent Medicine*, 164(3), pp. 258-262.

Richey, M., Gonibeed, A., & Ravishankar, M. N. (2017). The perils and promises of self-disclosure on social media. *Information Systems Frontiers*, 20(3), 425-437.

<http://doi:10.1007/s10796-017-9806-7>

Ridgeway, B. (2015). Depression, alcohol abuse, and alcoholism in one versus two parents and the implications for child attachment and self-regulation in infancy through adolescence. *International Scholarly Research Notices*, 2015, 275649-17.

<https://doi.org/10.1155/2015/275649>

Robertson, T. W., Yan, Z., & Rapoza, K. A. (2018). Is resilience a protective factor of internet addiction?. *Computers in Human Behavior*, 78, 255-260.

<http://doi.org/10.1016/j.chb.2017.09.027>

Romeo, A., Di Tella, M., Ghiggia, A., Tesio, V., Fusaro, E., Geminiani, G. C., Castelli, L., & Luciano, J. V. (2020). Attachment style and parental bonding: Relationships with fibromyalgia and alexithymia. *PloS One*, 15(4), e0231674-e0231674.

<https://doi.org/10.1371/journal.pone.0231674>

Rosenthal, H. (2020). Human services dictionary (2nd ed.). Routledge.

Rueda, M. R., Posner, M. I., & Rothbart, M. K. (2011). Attentional control and self-regulation.

- In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation. Research, theory, and applications* (2nd ed., pp. 284–299). The Guilford Press.
- Saarni, C. (2011). Emotional development in childhood. In *Encyclopedia on early childhood development* [Online]. Retrieved from <http://www.child-encyclopedia.com/emotions/according-experts/emotionaldevelopment-childhood>
- Sarıtaş-Atalar, D., Gençöz, T., & Özen, A. (2015). Confirmatory factor analyses of the difficulties in emotion regulation scale (DERS) in a Turkish adolescent sample. *European Journal of Psychological Assessment, 31*, 12–19. doi:10.1027/1015-5759/a000199.
- Sasikala, S., & Cecil, N. (2016). Parental bonding, peer attachment and psychological well-being among adolescents: A mediation analysis. *Journal of Psychosocial Research, 11*(1), 21.
- Sasson, H., & Mesch, G. (2014). Parental mediation, peer norms and risky online behavior among adolescents. *Computers in Human Behavior, 33*, 32-38.
<https://doi.org/10.1016/j.chb.2013.12.025>
- Sato, M., Okada, T., Morikawa, M., Nakamura, Y., Yamauchi, A., Ando, M., & Ozaki, N. (2021). Validation and factor analysis of the parental bonding instrument in Japanese pregnant women. *Scientific Reports, 11*(1), 13759-13759.
<https://doi.org/10.1038/s41598-021-93146-3>
- Schiffrrin, H. H. (2013). Positive psychology and attachment: Positive affect as a mediator of developmental outcomes. *Journal of Child and Family Studies, 23*(6), 1062-1072.
<https://doi.org/10.1007/s10826-013-9763-9>
- Schlüter-Müller, S. (2020). Children of mentally ill parents—A high risk population. *Psychiatria Danubina, 32*(Suppl 3), 346–348.
- Schmoeger, M., Deckert, M., Wagner, P., Sirsch, U., & Willinger, U. (2018). Maternal bonding

- behavior, adult intimate relationship, and quality of life. *Neuropsychiatrie*, 32(1), 26-32.
<https://doi.org/10.1007/s40211-017-0258-6>
- Scott, H., & Woods, H. C. (2018). Fear of missing out and sleep: Cognitive behavioural factors in adolescents' nighttime social media use. *Journal of Adolescence*, 68, 61-65.
<http://doi.org/10.1016/j.adolescence.2018.07.009>
- Seedhom, A., Kamel, E., Mohammed, E., & Raouf, N. (2019). Predictors of perceived stress among medical and nonmedical college students, Minia, Egypt. *International Journal of Preventive Medicine*, 10(1), 107-107. https://doi.org/10.4103/ijpvm.IJPVM_6_18
- Şengönül, T. (2017). Negative effects of media on children and youth' socialization process: A study on violent and aggressive behaviors. *Çukurova University.Faculty of Education Journal*, 46(2), 368-398. <http://doi.org/10.14812/cuefd.346149>
- Shah, J., Das, P., Muthiah, N., & Milanaik, R. (2019). New age technology and social media: Adolescent psychosocial implications and the need for protective measures. *Current Opinion in Pediatrics*, 31(1), 148-156. <http://doi.org/10.1097/MOP.0000000000000714>
- Sharma, M. K., John, N., & Sahu, M. (2020). Influence of social media on mental health: A systematic review. *Current Opinion in Psychiatry*, 33(5), 467-475.
<http://doi:10.1097/YCO.0000000000000631>
- Shim, S. Y., & Lim, S. A. (2021). Korean infant-mother attachment security: Longitudinal predictions of peer play interactions and behavioral problems in early childhood. *Early Child Development and Care*, 191(1), 36-48.
<https://doi.org/10.1080/03004430.2019.1598400>
- Skibbe, L. E., Montroy, J. J., Bowles, R. P., & Morrison, F. J. (2019). Self-regulation and the development of literacy and language achievement from preschool through second grade.

Early Childhood Research Quarterly, 46, 240–251.

<https://doi:10.1016/j.ecresq.2018.02.005>

Slade, A., Holland, M. L., Ordway, M. R., Carlson, E. A., Jeon, S., Close, N., Mayes, L. C., & Sadler, L. S. (2020). Minding the baby ®: Enhancing parental reflective functioning and infant attachment in an attachment-based, interdisciplinary home visiting program.

Development and Psychopathology, 32(1), 123-137.

<https://doi.org/10.1017/S0954579418001463>

Soh, P. C.-H., Charlton, J. P. & Chew, K.-W. (2014). “The influence of parental and peer attachment on internet usage motives and addiction,” *First Monday*, 19(7).

Song, J., Miller, A. L., Leung, C. Y. Y., Lumeng, J. C., & Rosenblum, K. L. (2018). Positive parenting moderates the association between temperament and self-regulation in low-income toddlers. *Journal of Child and Family Studies*, 27(7), 2354-2364.

<http://doi.org/10.1007/s10826-018-1066-8>

Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of Business and Psychology*, 34(2), 125-137. <https://doi.org/10.1007/s10869-018-09613-8>

Spieker, S. J., Oxford, M. L., Fleming, C. B., & Lohr, M. J. (2018). Parental childhood adversity, depressive symptoms, and parenting quality: Effects on toddler self-regulation in child welfare services involved families. *Infant Mental Health Journal*, 39(1), 5-16.

<https://doi.org/10.1002/imhj.21685>

Spies Shapiro, L.A., & Margolin, G. (2014). Growing up wired: Social networking sites and adolescent psychosocial development. *Clinical Child and Family Psychology Review*, 17(1), 1-18. <http://doi.org/10.1007/s10567-013-0135-1>

Staples, A. M., & Mohlman, J. (2012). Psychometric properties of the GAD-Q-IV and DERS in

- older, community-dwelling GAD patients and controls. *Journal of Anxiety Disorders*, 26, 385–392. <http://doi:10.1016/j.janxdis.2012.01.005>
- Statista Research Department. (2021, February 25). *Number of monthly active Facebook users worldwide as of 2nd quarter 2021*. <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>
- Ştefan, C. A., Avram, J., & Miclea, M. (2017). Children's awareness concerning emotion regulation strategies: Effects of attachment status. *Social Development (Oxford, England)*, 26(4), 694–708. <https://doi.org/10.1111/sode.12234>
- Stern, J. A., Borelli, J. L., & Smiley, P. A. (2015). Assessing parental empathy: A role for empathy in child attachment. *Attachment & Human Development*, 17(1), 1–22. <https://doi.org/10.1080/14616734.2014.969749>
- Stern, J. A., Fraley, R. C., Jones, J. D., Gross, J. T., Shaver, P. R., & Cassidy, J. (2018). Developmental processes across the first two years of parenthood: Stability and change in adult attachment style. *Developmental Psychology*, 54(5), 975–988. <https://doi.org/10.1037/dev0000481>
- Stormshak, E., DeGarmo, D., Chronister, K., & Caruthers, A. (2018). The impact of family-centered prevention on self-regulation and subsequent long-term risk in emerging adults. *Prevention Science*, 19(4), 549–558. <https://doi.org/10.1007/s11121-017-0852-7>
- Stosny, S. (2011, October 28). Anger in the age of entitlement. *Psychology Today*. <https://www.psychologytoday.com/us/blog/anger-in-the-age-entitlement/201110/self-regulation>
- Strasburger, V. (2019). *The death of childhood: reinventing the joy of growing up*. Cambridge Scholars Publishing.

<http://dx.doi.org.ezproxy.liberty.edu/10.7748/mhp.22.1.7.s5>

Substance Abuse and Mental Health Service Administration (n.d.) *Risk and protective factors.*

<https://www.samhsa.gov/sites/default/files/20190718-samhsa-risk-protective-factors.pdf>

Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from

<https://www.samhsa.gov/data/sites/default/files/reports/rpt29393/2019NSDUHFFRPDFWHTML/2019NSDUHFFR1PDFW090120.pdf>.

Sümen, A., & Adibelli, D. (2021). The effect of coronavirus (COVID-19) outbreak on the mental well-being and mental health of individuals. *Perspectives in Psychiatric Care*, 57(3), 1041-1051. <https://doi.org/10.1111/ppc.12655>

Tambelli, R., Cimino, S., Marzilli, E., Ballarotto, G., & Cerniglia, L. (2021). Late adolescents' attachment to parents and peers and psychological distress resulting from COVID-19. A study on the mediation role of alexithymia. *International Journal of Environmental Research and Public Health*, 18(20), 10649. <https://doi.org/10.3390/ijerph182010649>

Tamir, M. (2016). Why do people regulate their emotions? A taxonomy of motives in emotion regulation. *Personality and Social Psychology Review*, 20(3), 199-222.

Tamnes, C. K., Herting, M. M., Goddings, A. L., Meuwese, R., Blakemore, S. J., Dahl, R. E., Güroglu, B., Raznahan, A., Sowell, E. R., Crone, E. A., & Mills, K. L. (2017).

Development of the cerebral cortex across adolescence: a multisample study of inter-

- related longitudinal changes in cortical volume, surface area, and thickness. *Journal of Neuroscience*, 37(12), 3402-3412.
- Tan, J. S., Hessel, E. T., Loeb, E. L., Schad, M. M., Allen, J. P., & Chango, J. M. (2016). Long-term predictions from early adolescent attachment state of mind to romantic relationship behaviors. *Journal of Research on Adolescence*, 26(4), 1022-1035.
<https://doi.org/10.1111/jora.12256>
- Tang, Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., Yu, Q., Sui, D., Rothbart, M. K., Fan, M., & Posner, M. I. (2007). Short-term meditation training improves attention and self-regulation. *Proceedings of the National Academy of Sciences of the United States of America*, 104(43), 17152-17156. <http://doi.org/doi:10.1073/pnas.0707678104>
- The psychophysiology of self-regulation from infancy to late childhood. (2014).
Psychophysiology, 51(S1), S12-S13. <https://doi.org/10.1111/psyp.12279>
- Throuvala, M. A., Griffiths, M. D., Rennoldson, M., & Kuss, D. J. (2019). Motivational processes and dysfunctional mechanisms of social media use among adolescents: A qualitative focus group study. *Computers in Human Behavior*, 93, 164-175.
<http://doi:10.1016/j.chb.2018.12.012>
- Tice, D. M., Baumeister, R. F., & Zhang, L. (2004). The role of emotion in self-regulation: Differing role of positive and negative emotions. *The Regulation of Emotion*, 213-226.
- Tjaden, C. D., Mulder, C. L., Delespaul, Philippe A. E. G, Arntz, A. R., & Kroon, H. (2021). Attachment as a framework to facilitate empowerment for people with severe mental illness. *Psychology and Psychotherapy*, 94(3), 407-425.
<https://doi.org/10.1111/papt.12316>

- Toh, S. H., Howell, E. K., Coenen, P., & Straker, L. M. (2019). "From the moment I wake up I will use it... every day, every hour": a qualitative study on the patterns of adolescents' mobile touch screen device use from adolescents and parent perspectives. *BMC Pediatrics*, 30. <https://doi.org/10.1186/s12887-019-1399-5>
- Trak, E., & Inozu, M. (2019). Developmental and self-related vulnerability factors in relationship-centered obsessive compulsive disorder symptoms: A moderated mediation model. *Journal of Obsessive-Compulsive and Related Disorders*, 21, 121-128. <https://doi.org/10.1016/j.jocrd.2019.03.004>
- Tsaousis, I., Mascha, K., & Giovazolias, T. (2012). Can parental bonding be assessed in children? Factor structure and factorial invariance of the parental bonding instrument between adults and children. *Child Psychiatry Human Development*, 43, 238-253. <http://doi.10.1007/s10578-011-0260-3>.
- Uhlig, S., Jansen, E., & Scherder, E. (2018). "Being a bully isn't very cool...": Rap & sing music therapy for enhanced emotional self-regulation in an adolescent school setting – a randomized controlled trial. *Psychology of Music*, 46(4), 568-587. <https://doi.org/10.1177/0305735617719154>
- Ursache, A., Blair, C., & Raver, C. C. (2012). The promotion of self-regulation as a means of enhancing school readiness and early achievement in children at risk for school failure. *Child Development Perspectives*, 6(2), 122-128. <https://doi.org/10.1111/j.1750-8606.2011.00209.x>
- USLegal (n.d.). Adult Law and Legal Definition. <https://definitions.uslegal.com/a/adult/>
- Vagos, P., & Carvalhais, L. (2020). The impact of adolescents' attachment to peers and parents on aggressive and prosocial behavior: A short-term longitudinal study. *Frontiers in*

- Psychology*, 11, 592144-592144. <https://doi.org/10.3389/fpsyg.2020.592144>
- Valcan, D. S., Davis, H., & Pino-Pasternak, D. (2018). Parental behaviors predicting early childhood executive functions: A meta-analysis. *Educational Psychology Review*, 30(3), 607-649. <https://doi.org/10.1007/s10648-017-9411-9>
- Valikhani, A., Abbasi, Z., Radman, E., Goodarzi, M. A., & Moustafa, A. A. (2018). Insecure attachment and subclinical depression, anxiety, and stress: A three-dimensional model of personality self-regulation as a mediator. *The Journal of Psychology*, 152(8), 548-572. <https://doi.org/10.1080/00223980.2018.1468727>
- Valkenburg, P. M. & Peter, J. (2011). Online communication among adolescents: An integrated model of its attraction, opportunities, and risks. *Journal of Adolescent Health*, 48(2), 121-127. <https://doi.org/10.1016/j.jadohealth.2010.08.020>
- Van Petegem, S., Beyers, W., Vansteenkiste, M., & Soenens, B. (2012). On the association between adolescent autonomy and psychosocial functioning: Examining decisional independence from a self-determination theory perspective. *Developmental Psychology*, 48(1), 76-88. <https://doi.org/10.1037/a0025307>
- Van Rosmalen, L., van der Horst, Frank C. P., & van der Veer, R. (2016). From secure dependency to attachment: Mary Ainsworth's integration of Blatz's security theory into Bowlby's attachment theory. *History of Psychology*, 19(1), 22-39. <https://doi.org/10.1037/hop0000015>
- Vente, T. M., Killmeyer, E., Daley, M., & Grubb, L. K. (2018). 96 - evaluating high-risk behaviors in adolescents on social media. *Journal of Adolescent Health*, 62(2), S51-S51. <http://doi.org/10.1016/j.jadohealth.2017.11.103>
- Victor, S. E., & Klonsky, E. D. (2016). Validation of a brief version of the Difficulties in

Emotion Regulation Scale (DERS-18) in five samples. *Journal of Psychopathology and Behavioral Assessment*, in press.

Virat, M., & Dubreil, C. (2020). Building secure attachment bonds with at-risk, insecure late adolescents and emerging adults: Young people's perceptions of their care workers' caregiving behaviors. *Children and Youth Services Review*, 109, 104749.

<https://doi.org/10.1016/j.childyouth.2020.104749>

Volling, B. L. (2020). Widening the lens on family processes and the development of parent-child attachment relationships. *Attachment & Human Development*, 22(1), 124-128.

<https://doi.org/10.1080/14616734.2019.1589068>

Waring, A., Kernes, J. L., & Bui, N. H. (2019). The role of attachment anxiety, attachment avoidance, and grit on life satisfaction and relationship satisfaction. *The Journal of Humanistic Psychology*. <https://doi.org/10.1177/0022167819844692>

Warnock, F. F., Craig, K. D., Bakeman, R., Castral, T., & Mirlashari, J. (2016). The relationship of prenatal maternal depression or anxiety to maternal caregiving behavior and infant behavior self-regulation during infant heel lance: An ethological time-based study of behavior. *BMC Pregnancy and Childbirth*, 16(1), 264-264.

<https://doi.org/10.1186/s12884-016-1050-5>

Waselewski, E. A., Waselewski, M. E., & Chang, T. (2020). Needs and coping behaviors of youth in the U.S. during COVID-19. *Journal of Adolescent Health*, 67(5), 649-652.

<https://doi.org/10.1016/j.jadohealth.2020.07.043>

Waters, E., Petters, D., & Facompre, C. (2013). Epilogue: Reflections on a special issue of attachment & human development in Mary Ainsworth's 100th year. *Attachment & Human Development*, 15(5-6), 673-681.

<https://doi.org/10.1080/14616734.2013.856211>

- Wei, C., Chen, P., Xin, M., Liu, H., Yu, C., & Zou, Q. (2020). Interparental conflict, parent–adolescent attachment, and adolescent internet addiction: The moderating role of adolescent self-control. *Social Behavior and Personality*, 48(9), 1-13.
<https://doi.org/10.2224/sbp.9150>
- Wirtz, D., Tucker, A., Briggs, C., & Schoemann, A. M. (2021). How and why social media affect subjective well-being: Multi-site use and social comparison as predictors of change across time. *Journal of Happiness Studies*, 22(4), 1673. <https://doi.org/10.1007/s10902-020-00291-z>
- Woodbridge, L., & Rust O'Beirne, B. (2017). Counseling students' perceptions of journaling as a tool for developing reflective thinking. *Journal of Counselor Preparation and Supervision*, 9(2), 12. doi.org/10.7729/92.1198
- Xu, M. K., Morin, A. J. S., Marsh, H. W., Richards, M., & Jones, P. B. (2018). Psychometric validation of the parental bonding instrument in a U.K. Population–Based sample: Role of gender and association with mental health in mid-late life. *Assessment (Odessa, Fla.)*, 25(6), 716-728. <https://doi.org/10.1177/1073191116660813>
- Yakın, D., Gençöz, T., Steenbergen, L., & Arntz, A. (2019). An integrative perspective on the interplay between early maladaptive schemas and mental health: The role of self-compassion and emotion regulation. *Journal of Clinical Psychology*, 75(6), 1098-1113.
<http://doi.org/10.1002/jclp.22755>
- Yang, S., Liu, Y. and Wei, J. (2016a), “Social capital on mobile SNS addiction: a perspective from online and offline channel integrations”. *Internet Research*, 26(4), 982-1000.
<https://doi.org/10.1108/IntR-01-2015-0010>
- Yang, X., Zhu, L., Chen, Q., Song, P., & Wang, Z. (2016b). Parent marital conflict and Internet

addiction among Chinese college students: The mediating role of father-child, mother-child, and peer attachment. *Computers in Human Behavior*, 59, 221-229.

<https://doi.org/10.1016/j.chb.2016.01.041>

Yıldız Durak, H. (2018). Modeling of variables related to problematic internet usage and problematic social media usage in adolescents. *Current Psychology*, 1-13.

<http://doi.org/10.1007/s12144-018-9840-8>

Yu, L., & Chan, K. L. (2019). Moderating effects of personal strengths in the relationship between juvenile victimization and delinquent behaviors. *Child Abuse & Neglect*, 93, 79-90. <http://doi.org/10.1016/j.chiabu.2019.04.019>

Yu, L., & Shek, D. T. (2013). Internet addiction in Hong Kong adolescents: A three-year longitudinal study. *Journal of Pediatric and Adolescent Gynecology*, 26, S10-S17.

<https://doi.org/10.1016/j.jpag.2013.0>

Zhang, J., & Flynn, C. (2020). University students/graduates who have experienced parental incarceration: A qualitative exploratory study of protective processes. *Qualitative Social Work: QSW: Research and Practice*, 19(5-6), 882-900.

<https://doi.org/10.1177/1473325019888007>

Zisk, A., Abbott, C. H., Ewing, S. K., Diamond, G. S., & Kobak, R. (2017). The suicide narrative interview: Adolescents' attachment expectancies and symptom severity in a clinical sample. *Attachment & Human Development*, 19(5), 447-462.

<https://doi.org/10.1080/14616734.2016.1269234>

Zsido, A. N., Arato, N., Lang, A., Labadi, B., Stecina, D., & Bandi, S. A. (2020). The connection and background mechanisms of social fears and problematic social networking site use:

A structural equation modeling analysis. *Psychiatry Research*, 292, 113323-113323.

doi:10.1016/j.psychres.2020.113323

Zvara, B. J., Lathren, C., & Mills-Koonce, R. (2020). Family life project key contributors, & the family life project key contributors. Maternal and paternal attachment style and chaos as risk factors for parenting behavior. *Family Relations*, 69(2), 233-246.

<https://doi.org/10.1111/fare.12423>

APPENDICES

APPENDIX A**IRB Approval Letter**

June 29, 2022

[REDACTED]

Re: IRB Exemption - IRB-FY21-22-896 Influence of Childhood Social Media Use on Parental Attachment and Individual Self-Regulation as an Adult

Dear [REDACTED],

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at [REDACTED]

Sincerely,



Administrative Chair of Institutional Research
Research Ethics Office

APPENDIX B

Consent

Title of the Project: Influence of Childhood Social Media Use on Parental Attachment and Individual Self-Regulation as an Adult

Principal Investigator: [REDACTED], Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18-65 years of age and currently a Liberty University student. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to examine the association between parental attachment and self-regulation in the adult population while further investigating the construct of social media use as a moderating factor between the two.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. First, you will be asked to click on the link provided to you from your professor, via email.
2. You will then be asked to complete a survey that includes five sections. You will be asked for your consent to participate in the study, and then to complete the PBI, the DERS-18, and two demographic sections (approximately 30 minutes).

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include potentially adding to the literature on the relationship between attachment, self-regulation, and social media use.

What risks might you experience from being in this study?

There are minimal risks involved in this study but they are no greater than risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will remain anonymous
- Data will be entered into a data-processing computer program; the information will be protected via password locked computer.
- After three years, all electronic records will be deleted.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Pamela Corbin. You may ask any questions you have now. If you have questions later, you are encouraged to contact me at [REDACTED]. You may also contact the researcher's faculty sponsor, [REDACTED].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher/s, you are encouraged to contact the Institutional Review Board [REDACTED] or email at [REDACTED]

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. Your survey submission through email, will serve as a copy of this document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. By my own submission to continue, I consent to participate in the study.

APPENDIX C**Parental Bonding Instrument (PBI)**

This questionnaire lists various attitudes and behaviors of parents. As you remember your mother/father in your first 16 years, would you choose the most appropriate response for each statement.

Spoke to me with a warm and friendly voice.

Very like
Moderately like
Moderately unlike
Very unlike

Did not help me as much as I needed.

Very like
Moderately like
Moderately unlike
Very unlike

Let me do things that I liked doing.

Very like
Moderately like
Moderately unlike
Very unlike

Seemed emotionally cold to me.

Very like
Moderately like
Moderately unlike
Very unlike

Appeared to understand my problems and worries.

Very like
Moderately like
Moderately unlike
Very unlike

Was affectionate to me.

Very like
Moderately like
Moderately unlike
Very unlike

Liked me to make my own decisions.

Very like

Moderately like
Moderately unlike
Very unlike

Did not want me to grow up.

Very like
Moderately like
Moderately unlike
Very unlike

Tried to control everything I did.

Very like
Moderately like
Moderately unlike
Very unlike

Invaded my privacy.

Very like
Moderately like
Moderately unlike
Very unlike

Enjoyed talking things over with me.

Very like
Moderately like
Moderately unlike
Very unlike

Frequently smiled at me.

Very like
Moderately like
Moderately unlike
Very unlike

Tended to baby me.

Very like
Moderately like
Moderately unlike
Very unlike

Did not seem to understand what I needed or wanted.

Very like
Moderately like
Moderately unlike
Very unlike

Let me decide things for myself.

Very like
Moderately like
Moderately unlike
Very unlike

Made me feel I wasn't wanted.

Very like
Moderately like
Moderately unlike
Very unlike

Could make me feel better when I was upset.

Very like
Moderately like
Moderately unlike
Very unlike

Did not talk with me much.

Very like
Moderately like
Moderately unlike
Very unlike

Tried to make me dependent on her/him.

Very like
Moderately like
Moderately unlike
Very unlike

Felt I could not look after myself unless she/he was around.

Very like
Moderately like
Moderately unlike
Very unlike

Gave me as much freedom as I wanted.

Very like
Moderately like
Moderately unlike
Very unlike

Let me go out as often as I wanted.

Very like

Moderately like
Moderately unlike
Very unlike

Was overprotective of me.

Very like
Moderately like
Moderately unlike
Very unlike

Did not praise me.

Very like
Moderately like
Moderately unlike
Very unlike

Let me dress in any way I pleased.

Very like
Moderately like
Moderately unlike
Very unlike

APPENDIX D

Name/ID: _____ Date: _____

DERS-18

Response categories:

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

1. _____ I pay attention to how I feel.
2. _____ I have no idea how I am feeling.
3. _____ I have difficulty making sense out of my feelings.
4. _____ I am attentive to my feelings.
5. _____ I am confused about how I feel.
6. _____ When I'm upset, I acknowledge my emotions.
7. _____ When I'm upset, I become embarrassed for feeling that way.
8. _____ When I'm upset, I have difficulty getting work done.
9. _____ When I'm upset, I become out of control.
10. _____ When I'm upset, I believe that I will remain that way for a long time.
11. _____ When I'm upset, I believe that I'll end up feeling very depressed.
12. _____ When I'm upset, I have difficulty focusing on other things.
13. _____ When I'm upset, I feel ashamed with myself for feeling that way.
14. _____ When I'm upset, I feel guilty for feeling that way.
15. _____ When I'm upset, I have difficulty concentrating.
16. _____ When I'm upset, I have difficulty controlling my behaviors.
17. _____ When I'm upset, I believe that wallowing in it is all I can do.

18. _____ When I'm upset, I lose control over my behaviors.

Original DERS (36 item) Citation: Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41-54.

DERS-18 (18 item) Reference: Victor, S. E., & Klonsky, E. D. (2016). Validation of a brief version of the Difficulties in Emotion Regulation Scale (DERS-18) in five samples. *Journal of Psychopathology and Behavioral Assessment*, in press.

APPENDIX E

Demographics

Please provide the most accurate response.

What is your age?

18
19
20
21
22
23-65

What is your gender?

Female
Male

What is your marital status?

Single
Married
Divorced
Separated

What is your ethnicity? *

White
African American
Native American/Alaskan Native
Pacific Islander
Asian
Hispanic/Latino
Other

APPENDIX F

Demographics

Answer the question best to your ability.

Do you feel that your personal childhood use of social media was thought to be problematic. *

Yes

No

APPENDIX G

Professor's Script

You are invited to participate in a research study. To participate, you must be 18-65 years of age and currently a Liberty University student. Taking part in this research project is voluntary.

The purpose of the study is to examine the association between parental attachment and self-regulation in the adult population while further investigating the construct of social media use as a moderating factor between the two.

If you agree to be in this study, I will ask you to do the following things:

1. First, you will be asked to click on the link provided to you from your professor, via email.
2. You will then be asked to complete a survey that includes five sections. You will be asked for your consent to participate in the study, and then to complete the PBI, the DERS-18, and two demographic sections (approximately 30 minutes).

Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include potentially adding to the literature on the relationship between attachment, self-regulation, and social media use.

APPENDIX H**Influence of Childhood Social Media Use on Parental Attachment and Individual Self-Regulation as an Adult**

[Company]

[Address 1]

[Address 2]

[Address 3]

Dear Student:

As a graduate student in the School of Behavioral Sciences at Liberty University, I am conducting research as part of the requirements for an EDD: Community Care & Counseling: Traumatology degree. The purpose of my research is to examine the association between parental attachment and self-regulation in the adult population while further investigating the construct of social media use as a moderating factor between the two, and I am writing to invite eligible participants to join my study.

Participants must be between 18 years of age and 65 years of age and currently enrolled as a college student. I will be conducting a cross sectional survey on the identified population. Participants, if willing, will be asked to take four different surveys online, through one link, sent from their professor. It should take approximately 30 minutes to complete the procedure listed. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here:

https://docs.google.com/forms/d/e/1FAIpQLSeHRD1ZlDadjdxorBv4n51jis0LrH1jeTXTn2hHK1TnZtGQzA/viewform?usp=sf_link

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. After you have read the consent form, please click the submit button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

[Redacted Signature]

Doctoral student in the Department of Counselor Education and Family Studies/School of Behavioral Sciences

[Redacted Address Line 1] [Redacted Address Line 2]