STARS

2022

Emotional Neglect in Childhood and Attachment Anxiety in Adult Relationships as Predictors of Social Networking Addiction

Latasha N. McDowell
University of Central Florida

Recommended Citation

University of Central Florida

STARS
Showcase of Text, Archives, Research & Scholarship

EMOTIONAL NEGLECT IN CHILDHOOD AND ATTACHMENT ANXIETY
IN ADULT RELATIONSHIPS AS PREDICTORS OF SOCIAL NETWORKING
ADDICTION

by

LATASHA NICOLE MCDOWELL

A thesis submitted in partial fulfillment of the requirements

for the Honors in the Major Program in Psychology

in the College of Sciences

at the University of Central Florida

Orlando, Florida

Summer Term, 2022

Thesis Chair: Jason Chesnut, Ph.D.

Abstract

This study investigated the relationship between childhood maltreatment and social networking addiction to determine if it was mediated by anxious-avoidant attachment. It was hypothesized that the presence of an anxious-avoidant attachment pattern developed as a result of childhood maltreatment would mediate the correlation between anxious-avoidant attachment and social networking addiction. This would mean that participants who developed an anxious-avoidant attachment style due to childhood maltreatment would use social media in unhealthy ways. To measure childhood maltreatment, the Adverse Childhood Experiences scale (ACE) was used. The Experiences in Close Relationships-Revised scale (ECR-R) was used to measure anxious-avoidant attachment. Finally, social networking addiction was measured by the Social Networking Addiction Scale (SNAS). The sample was relatively young ($M = 19.88$, $SD = 2.62$), ($n = 82$). Three bivariate correlations and multiple linear regression were conducted to determine if an anxious-avoidant attachment pattern mediated the connection between childhood maltreatment and social networking addiction. A significant correlation was found between childhood maltreatment and anxious-avoidant attachment, as well as between anxious-avoidant attachment and social networking addiction. However, no correlation was found between childhood maltreatment and social networking addiction. It was concluded that no mediation was present.

Dedications

I would like to express my deepest appreciation to Dr. Jason Chesnut. I could not have done this without your guidance, support, and expertise.

I would also like to thank Dr. James Brophy-Ellison. This endeavor would not have been possible without your collaboration, time, and support.

For Barrett, thank you for being my rock. I am so grateful to have you in my life.

For Madison, Brayden, and Paige. Thank you for inspiring me to never give up.
"I love you most. I win."

TABLE OF CONTENTS

Chapter 1: Introduction

Childhood maltreatment (CM) is a failure to meet a child's basic needs of security, safety, and support. CM is associated with many maladaptive emotional and physical health outcomes (Cohen & Thakur, 2020) and CM affects 47.9% of children in the United States every year (U.S. Department of Health & Human Services, 2019). Childhood maltreatment is positively associated with anxious attachment styles (i.e., anxious-ambivalent and anxious-avoidant) (Berzenski, 2019). Individual attachment patterns greatly influence interpersonal bonds, influencing everyone's relationships and daily life. This study investigated childhood maltreatment and attachment patterns as a predictor of social networking addiction (SNA). Recent research has used the six criteria of behavioral addiction (salience, mood modification, tolerance, conflict, withdrawal, and relapse) to address SNA and to ensure that SNA also meets the criteria for behavioral addiction (Shahnawaz & Rehman, 2020). According to these criteria, social networking addiction is a behavioral addiction (Shahnawaz & Rehman, 2020). Research continues to create a more precise definition for social networking addiction (Shahnawaz & Rehman, 2020).

This study investigated the association between childhood maltreatment and social networking addiction using an undergraduate student sample, $n = 82$. It was anticipated that anxious-avoidant attachment pattern would mediate the relationship between childhood maltreatment and social networking addiction. However, it is also expected that each type of attachment style (anxious-ambivalent and anxious-avoidant) may have different associations with SNA. For example, an anxious-avoidant attachment may be associated with SNA through

controlling behaviors. Anxious-ambivalent attachment may be associated due to a fear of

missing out. These two types of attachment styles can impact SNA either directly or indirectly.

Chapter 2: Literature Review

Child Maltreatment

Childhood is ideally a time of safety and warmth in which an individual can develop into a healthy adult. However, this is unfortunately not true for many children. Childhood maltreatment affects an estimated 47.9 percent of children in the United States (U.S. Department of Health & Human Services, 2019). This estimate means that approximately 34 million children experience a form of maltreatment during childhood (U.S. Department of Health & Human Services, 2019). These data include only those instances of abuse that are reported. A large amount of abuse is still never reported (U.S. Department of Health & Human Services, 2019). Childhood maltreatment (CM) can be viewed as an under-reported epidemic within the United States, as well as a global concern (Strouse, 2016). Childhood maltreatment definitions within the United States may vary from state to state; however, the examples remain consistent (Hamarman et al., 2002). Many individuals may think of CM as only physical violence. CM is not limited to one type of abuse, however. There are different subtypes of abuse that inflict various implications on the development of children.

Childhood maltreatment can be inflicted through different subtypes of abuse (i.e., neglect, physical violence, and sexual abuse). Physical and emotional neglect account for 74.9% of CM victims (U.S. Department of Health & Human Services, 2019). Neglect is the most frequently occurring subtype of abuse across the United States. Physical violence accounts for 17.5% of victims, and 9.3% are sexually abused (U.S. Department of Health & Human Services, 2019). However, 15.5% suffer from more than one type of abuse. (U.S. Department of Health & Human Services, 2019). Recent research continues to highlight how distinct types of CM (e.g.,

neglect versus physical abuse) may interact with different associated mental and physical health risks throughout the entire lifespan. CM can have consequential effects on its victims' developmental growth and maturation (Cohen & Thakur, 2020). Childhood maltreatment occurs at an alarming rate within the United States. Thus, it is crucial to understand how each type of abuse can interact with different mental and physical health risks.

Subtypes of Childhood Maltreatment

One subtype of childhood maltreatment is neglect. Neglect can manifest in two forms: either emotional neglect or physical neglect. In some cases, both can be present. According to Burgess and Conger (1978), neglect, whether emotional or physical, is defined as "the harming of a child either through lack of care or supervision" (p. 2). There are several ways that both types of neglect can harm a child. Emotional neglect occurs when a child's emotional needs are unmet (Depanfilis et al., 2006). A few examples of emotional neglect are isolation, humiliation, verbal insults, and a lack of affection (Depanfilis et al., 2006). Furthermore, emotional neglect can be defined as the intentional harming of a child's psychological well-being (Burgess & Conger, 1978). It is sometimes difficult to discern this type of neglect as it is contingent upon the relationship with the child and the specific vulnerabilities of the child (Burgess & Conger, 1978). Because of this, the harmful effects of emotional neglect can be almost imperceptible.

Alternately, physical neglect is much easier to recognize than emotional neglect. As suggested by its name, physical neglect can be evident through external observation. Physical neglect is viewed as a failure to meet a child's needs for personal care and safety (Depanfilis et al., 2006). A few examples are leaving a child alone or with someone else who may harm them, being incapacitated due to substances in the presence of a child, forcibly expelling a child from a

home without arrangements for care, poor clothing, poor hygiene, a lack of medical care, or more than 48 hours of improper shelter (Depanfilis et al., 2006). Both physical and emotional neglect can affect neurological, biological, and overall developmental growth (Cohen & Thakur, 2020). Physical and emotional neglect also contribute to emotional dysregulation (Berzenski, 2019). Individuals process emotions daily, almost as an automatic function. However, this regulation of emotion is not the same for every person. According to Berzenski (2019), emotional regulation is defined as "the extent to which emotions are adaptively experienced and modulated, and include the flexibility of processing, accepting, and responding to a range of emotions" (p.485). For healthy development, a child must consistently have their physical and emotional needs met. This is a protective factor in preventing developmental concerns, biological impacts, and emotional dysregulation.

Physical and emotional neglect account for only one subtype of childhood maltreatment (CM). Another subtype of CM is physical violence (Burgess & Conger, 1978). This type of abuse includes nonaccidental subjugation through aggressive physical contact. The U.S. Department of Health & Human Services (2019) defines physical violence toward children as "an abusive, violent, coercive, forceful, or threatening act or word inflicted by a caregiver" (p. 39). Some examples of physical violence are striking a child with a fist or object, burning a child, threatening to cause physical harm, or scalding a child (Burgess & Conger, 1978). Physical violence is not only limited to physical harm but also includes verbal threats of physical harm. Another form of CM is sexual abuse. The U.S. Department of Health & Human Service (2019) defines sexual abuse as "the involvement of the child in sexual activity to provide sexual gratification or financial benefit to the perpetrator, including contact for sexual purposes, molestation, statutory rape, prostitution, pornography, exposure, incest, or other sexually

exploitative activities" (p. 128). Females are more likely to be sexually abused than males (The U.S. Department of Health & Human Service, 2019). However, males are more likely to experience neglect (U.S. Department of Health & Human Service 2019). Any type of childhood maltreatment can leave long-term negative impacts on victims.

Impacts of Childhood Maltreatment

The negative impacts of childhood maltreatment (CM) have adverse effects on emotional and developmental processes. Childhood maltreatment hinders feelings of safety and security and predicts consequences in developmental processes (Cohen & Thakur, 2020). These effects on developmental growth can range from personality disorders (Neumann, 2017) and stress disorders (Gama et al., 2021) to social impairments (Berzenski, 2019) and reorganizations in the growth of the amygdala and hippocampus (McEwen & Stellar, 1993; Van der Watt et al., 2021). These reorganizations within the brain can lead to an increased risk of internalizing disorders (Cohen & Thakur, 2020). Internalizing disorders are depressive disorders, anxiety disorders, suicidal behaviors, and somatic disorders (Cohen & Thakur, 2020). Specific examples of these disorders are post-traumatic stress disorder, obsessive-compulsive disorder, and various forms of addiction (Cohen & Thakur, 2020; Hoeboer et al., 2021). Internalizing disorders are characterized by psychological distress. Some examples of psychological distress are difficulty managing anger, diminished sexual desire, mood swings, feelings of sadness, hopelessness, or fear (Cohen & Thakur, 2020). The impacts of CM are detrimental to the developing child. These impacts reach well into adulthood and overtly express themselves through psychological disorders and abnormal human functioning.

Research has shown that the most significant impacts of CM are caused by neglect. Among the subtypes of neglect, emotional neglect is the most suffered form of abuse. Emotional neglect can leave the most detrimental impacts on the victim (Spinhoven et al., 2016). These impacts are shown to be long-term, affecting victims throughout the entire lifespan (Spinhoven et al., 2016). Previous research has also highlighted the importance of further studies to understand the full impacts of emotional neglect (Gama et al., 2021). To address this gap, the present study will focus on forms of emotional neglect (i.e., psychological abuse, verbal abuse, and a failure to meet a child's emotional needs). As previously mentioned, these forms of abuse have repercussions that can manifest through emotional dysregulation. Emotional dysregulation is directly associated with impaired social interactions and psychopathologies (Berzenski, 2019; Norman et al., 2012). The aftereffects of emotional neglect cause disruptions for the victim in areas of developmental growth, social interactions, and emotional management.

To build healthy relationships, children must be able to trust others, feel safe, build a sense of self, and learn to regulate their emotions. According to Christ et al. (2019), emotional regulation refers to "the processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and adaptive features, to accomplish one's goals" (p.2). In other words, emotional regulation is composed of a set of coping skills that are intricate and multifaceted (Thompson, 1994). Emotional regulation skills slowly diminish as a child victim suffers continued exposure to neglect (Berzenski, 2019). When adaptive outcomes of neglect are guided by a victim's perceptions, interactions, and challenging situations, the ability to regulate emotions can vary to different degrees (Berzenski, 2019). This means that social interactions, more than anything else, are subject to protracted negative self-representations and correlated psychopathologies (Berzenski, 2019).

7

Psychological abuse, verbal abuse, and neglect are predictors of emotional dysregulation, impaired social interactions, and increased risk of developing psychopathologies. Furthermore, victims who have suffered from long-term emotional neglect are more likely to also struggle with managing interpersonal skills (Berzenski, 2019). Emotional dysregulation is also positively correlated with diminished interpersonal skills (Christ et al., 2019).

During childhood, exposure to traumatic events and interpersonal trauma can lead to a range of developmental, emotional, and social impairments. Research shows that of all types of childhood maltreatment (CM), only emotional neglect has been found to be independently associated with interpersonal problems (Christ et al., 2019). While interpersonal problems or conflicts can be part of everyday life, the interpersonal problems discussed herein are detrimentally more severe due to CM (Christ et al., 2019). Approximately one in five individuals report growing up in a deprived emotional environment without the presence of physical violence or sexual abuse (Cohen et al., 2017). This aligns with research that shows that emotional neglect is the most suffered type of abuse. Although physical violence and sexual abuse should not be discounted and have negative impacts, emotional neglect directly impacts a person's ability to manage emotions and create lifelong or meaningful relationships. This contributes to further victimization throughout the lifespan as these individuals may never develop close relationships.

Close relationships are generally a treasured and supportive experience for most people. These relationships help people to support one another during challenging times in life or praise one another during great successes. Without these close relationships, one can be left feeling alone. Emotional neglect also positively predicts depressive symptoms (Cohen et al., 2017).

Depressive symptoms can exacerbate a feeling of aloneness, contributing to sorrow (Fried & Nesse, 2015). Depressive symptoms are mediated by emotional regulation; therefore, depressive symptoms also negatively impact interpersonal skills and healthy emotional regulation (Berber et al., 2019; Christ et al., 2019; Pietromonaco et al., 2013). This means that both depressive symptoms and emotional dysregulation contribute to poor interpersonal skills.

Healthy interpersonal skills support strong emotional regulation within the individual. This means that when a person has strong emotional regulation, they are likely to have good interpersonal skills as well. Alternately, a person who lacks interpersonal skills will likely also experience emotional dysregulation, an impaired ability to manage one's emotions (Pietromonaco et al., 2013). A lack of interpersonal skills contributes to interpersonal problems (Berzenski, 2019). Interpersonal problems refer to the problems within a close relationship or a social relationship. Childhood emotional neglect positively predicts emotional dysregulation, indirectly predicting problems in social relationships (Berzenski, 2019). This means that victims of childhood neglect are more likely to suffer from emotional dysregulation, and, therefore, also have problems with interpersonal relationships.

Childhood is a critical period in which a person develops interpersonal skills to manage healthy relationships and emotions. Good interpersonal skills can benefit close relationships; however, poor interpersonal skills can inhibit close relationships and cause interpersonal problems. Eight subscales measure interpersonal problems. These subscales are "domineering and controlling, vindictive/self-centered, cold/distant, socially inhibited, nonassertive, overly accommodating, self-sacrificing, and intrusive/needy" (Horowitz et al., 1988, p. 887). The most common type of interpersonal problem associated with childhood maltreatment (CM) is found on

the subscale of domineering and controlling (Horowitz et al., 1988). According to Horowitz et al. (1988), the domains associated with depressive symptoms and mediated by emotional dysregulation and interpersonal problems are: "cold/distant and domineering and controlling" (p. 887). These domains help to explain how interpersonal problems interact in close relationships.

Individuals with interpersonal problems will overtly display characteristics of one of the eight subscales. The subscale of domineering and controlling interferes with normal emotional regulation and causes the individual to need domination or control in relationships. This is positively associated with emotional neglect from childhood maltreatment (Horowitz et al., 1988). People with problems related to the cold/distant subscale do not seek to control or dominate, but rather, distance themselves from close bonds. The subscale of cold/distant relates to a complete lack of feeling any warmth or love towards others (Christ et al., 2019). This means that an individual with a cold/distant interpersonal problem may seek to avoid close relationships altogether; they do not desire to be close, nor do they feel close or loving towards others (Christ et al., 2019). This is also referred to as alexithymia, a diagnostic term for an inability to know or describe one's emotions, which is also a moderator of psychopathologies (Krvavac & Jansson, 2021). Both measures on the scale contribute to unhealthy functioning and are provoked by childhood maltreatment.

The cold/distant type of interpersonal problem is also formed through child maltreatment. This formation disrupts emotional regulation and the formation of secure emotional attachments to caregivers or in other close relationships (Krvavac & Jansson, 2021). The cold/distant interpersonal style is also a predictor of depressive symptoms, due to a constant state of aloneness both mentally and physically (Christ et al., 2019). These further associate the impacts

of CM on interpersonal problems and how they affect close relationships and emotional regulation. Healthy relationships require stable, healthy bonds. These bonds are essential for feelings of happiness, contentment, security, and overall well-being.

It is evident that child maltreatment (CM), particularly emotional neglect, can have detrimental long-term effects. CM positively correlates to developmental impairments, depressive symptoms, internalizing disorders, alexithymia, psychopathologies, and addiction, but it also impairs a person's ability to have close, healthy, fulfilling relationships throughout the entire lifespan (Olssøn & Dahl, 2020). CM negatively impacts interpersonal relationships and the skills required to maneuver those relationships successfully. The circumfusing effects of emotional neglect can occupy many areas of human functioning. The effects are so significant that even the brain will reorganize its development for survival and coping (Van der Watt et al., 2021). Enduring emotional neglect and experiencing psychological distress due to such neglect have lifelong impacts on overall well-being and social relationships, as well as the ability to regulate emotions. Emotional neglect also predicts substance abuse and addiction. For these reasons, this study will focus on emotional neglect.

Interpersonal Relationships

From the moment of birth, humans depend on caregivers to provide for basic needs. This is when humans begin to form emotional bonds and attachments to their caregivers. The foundation of everyone's interpersonal relationships starts at birth (Ainsworth et el., 1989). This is a pivotal time for a child to develop an emotional bond and connect with a primary care provider in a maternal setting. This material or maternal-like bond is a crucial step in a child's successful development of interpersonal skills (Erozkan, 2016). Primary care providers are

responsible for meeting the needs of children that are in their care and maintaining a safe and secure environment for this to take place (Salter et al., 2015). The mother is usually the primary care provider for her child (U.S. Department of Health & Human Services, 2019). Regardless, most of the children who suffer from emotional neglect suffer at the hands of their primary care providers (U.S. Department of Health & Human Services, 2019). This means that most of the time even mothers are failing to meet the needs of their child(ren). Children look to these caregivers to be nurtured through love and support (Ainsworth et el., 1989). Interpersonal problems develop when a caregiver fails to meet a child's emotional and physical needs (Ainsworth et al., 1989). Continued emotional and physical neglect impair a child's ability to fully develop healthy interpersonal relationships.

Interpersonal relationships, also known as close relationships, are governed by interpersonal skills. These bonds are formed between individuals in parent-child or family relationships, friendships, or romantic relationships. Close relationships are the same relationships that children depend on to establish strong emotional regulation (Erozkan, 2016). These close relationships require the most effort to maintain as opposed to acquaintances (Pietromonaco et al., 2013). Interpersonal problems are evident through observable deficits in interpersonal skills (Salter et al., 2015). Therefore, the need for interpersonal skills is a primary element in human development. Healthy interpersonal relationships are generally found to provide joy, satisfaction, and support. If an individual has a deficit or is void of interpersonal skills, they will struggle to maintain close relationships. This puts them at an increased risk for experiencing psychological distress, developing health complications, or psychopathologies.

Interpersonal relationships change over time; they may naturally deteriorate or increase in satisfaction. Research continues to show with increasing consistency that neglect contributes to the dysregulation of emotions and the failure to develop interpersonal skills (Berzenski, 2019). Research also indicates that strong, healthy, and caring relationships promote healthy, happy lives (Christ et al., 2019). Early secure bonds in close relationships predict good mental and physical health (Erozkan, 2016). On the other hand, poor interpersonal skills and lacking relationships can contribute to poor psychological and physical health (Pietromonaco et al., 2013). Interpersonal distress, the distress experienced from interpersonal problems, is positively correlated with more significant difficulties in interpersonal relations and insecure attachment patterns. This means that not only are interpersonal skills contingent upon these close bonds with caregivers, but they are also associated with specific attachment patterns and health outcomes (Pietromonaco et al., 2013). This further supports the need for secure bonds in early childhood and developing healthy relationships with peers, parents, and romantic partners.

Patterns of Attachment

Nothing is more meaningful in life than close, healthy bonds with loved ones. These caring relationships contribute to our overall well-being. But these close bonds are not always present in relationships. Many suffer from a lack of these comforting bonds and attachments. According to Ainsworth (1989), there are two types of patterns in attachment theory: secure attachment and insecure attachment (p. 27). Attachments are formed through relationships between the primary caregiver and the child as they develop from infancy into adolescence (Erozkan, 2016). These attachment patterns start to form within the first year of a child's life (Walsh et al., 2019). Secure attachment should occur when a caregiver develops a consistent repertoire of meeting a child's needs (Walsh et al., 2019). If this positive interaction occurs as a

13

continuous pattern from birth to adolescence, it forms a secure attachment and teaches the child to govern their feelings, behaviors, and expectations within interpersonal relationships (Walsh et al., 2019). A secure attachment pattern contributes to close, healthy bonds and good emotional regulation.

Alternately, an insecure attachment can be formed when a caregiver is inconsistent or fails to meet the needs of a child (Ainsworth et al., 1989). If a caregiver is inconsistent or unavailable and fails to respond or responds inappropriately, the child will then form an insecure attachment. This happens once the child has determined that the relationships are not sustainable for their needs (Walsh et al., 2019). Attachment styles developed in childhood generally stay with an individual throughout their life span (Olssøn & Dahl, 2020) unless a protective factor is put in place (Pang & Thomas, 2020). Secure attachment is a protective factor against insecure attachment (Pang & Thomas, 2020). In other words, if a child suffers from emotional neglect but still has a close bond and secure attachment with another caregiver, this can reduce the risk of developing an insecure attachment (Pang & Thomas, 2020). Secure attachment is a benefit to an individual throughout childhood and into adulthood. However, insecure attachment can lead to a person withdrawing from interpersonal relationships.

Interpersonal relationships are built on mutual needs such as trust, respect, love, and support. The close relationship will suffer if an individual does not securely attach and develop the interpersonal skills required to meet these needs. Attachment patterns are reflected in an individual's behaviors, emotions, and choices within interpersonal relationships and daily life (Walsh et al., 2019). There are two possible attachment patterns: secure and insecure. A secure attachment pattern yields a secure attachment style. However, an insecure attachment pattern

yields one of three insecure attachment styles: anxious-ambivalent, anxious-avoidant, and/or disorganized attachment styles (Ainsworth et al., 1989). Secure attachment is the only attachment pattern in which a person can successfully bond with another person without experiencing the symptoms or feelings of insecure attachment styles (Ainsworth et al., 1989). This means that secure attachment yields healthy relationships as it coincides with good interpersonal skills, emotional regulations, and close bonds.

During childhood, a secure attachment style is shown through behaviors in which a child seeks out their needs through natural methods (e.g., calling for the caregiver, crying, or calmly asking for something) (Walsh et al., 2019). However, an insecure attachment style (i.e., anxious-ambivalent, anxious-avoidant, or disorganized) can be seen as an exaggerated or negative version of the previous (e.g., screaming, clinging to the caregiver, or demanding something) (Walsh et al., 2019). These insecure behavioral patterns are highly consistent with the anxious-ambivalent attachment style (Ainsworth et al., 1989). For example, the anxious-ambivalent attachment style is evident when a person lacks self-esteem and craves emotional intimacy, but they are consumed with fear that others will not want to be with them (Clark et al., 2020). They make demands yet fear that they are not worth the demands made. They instead choose the opposite of anxious-ambivalent; they do not try to form close interpersonal bonds with others (Ainsworth et al., 1989). Alternately, the anxious-avoidant attachment style is evident when a person is circumspect about closeness and tries to avoid interpersonal bonds (Clark et al., 2020). Insecure attachment styles also include a disorganized attachment style.

Unhealthy, insecure attachment styles do not lead to satisfying and fulfilling interpersonal relations. A disorganized attachment style is an unbalanced mix of the other three styles (i.e.,

secure, anxious-avoidant, and anxious-ambivalent) (Ainsworth et al., 1989). An individual with a disorganized attachment style will alternate through the symptomatic behaviors of the other three attachment styles. Deficits in attachment are related to all forms of childhood maltreatment (CM); the degree of these deficits is consistent with the degree of CM experienced (Berzenski, 2019). Furthermore, insecure attachment styles are positively correlated with neglect more than any other form of CM (Berzenski, 2019). Insecure attachments are also positively correlated to the development of personality disorders, emotional dysregulation (Kyranides & Neofytou, 2021), and a variety of symptoms related to anxiety disorders (e.g., worry, anxiety, intolerance of uncertainty, or a need for reassurance) (Clark et al., 2020). Insecure attachment can influence a person to feel associated anxiety or avoid close relationships altogether.

Insecure attachment styles cause a person to feel insecure in close relationships. Insecure attachments are also positively correlated to a variety of avoidance symptoms, for example, avoiding the expression of feelings, an inability to communicate feelings, or using non-social coping skills, such as alcohol and drugs to cope with attachment distress (Van der Watt et al., 2021). Insecure or maladaptive attachment styles vary based on the social and environmental influences, personality, and type of childhood maltreatment (Silver & Slater, 2019). Alternately, secure attachments are positively correlated with good well-being and health outcomes. To have fulfilling and happy interpersonal relationships, a person must possess the interpersonal skills developed through secure attachment and close bonds. If these close bonds fail to form during childhood, they will impair an individual's interpersonal skills and interactions.

Attachment, also known as a need to form close relationships with others, is a necessary process for healthy human development. Humans are social by nature and seek the comradery of

other individuals. We are designed to feel secure when in a place of trust and closeness, and insecure when in a place of unknowns (Walsh et al., 2019). However, insecure attachment patterns interfere with this natural function of caution that is inherently built into the human senses. In adulthood, insecure attachment patterns (i.e., anxious and avoidant) cause individuals to feel insecure in the presence of any individual, especially within their close relationships (Walsh et al., 2019). This means that insecure attachment patterns interfere in social settings and play a role in the way an individual may communicate, interpret, and perceive others, especially within interpersonal relationships (Toplu-Demirtaş et al., 2020). Insecure attachment can lead to misperceptions in social settings and a lack of close bonds and trust in interpersonal settings.

In adulthood, a secure attachment is necessary for romantic relationships and friendships to have an emotionally healthy structure. In these types of relationships, a healthy structure is described as an individual being free from anxiety or avoidance symptoms (Campbell et al., 2019). Individuals who have attachment anxiety are prone to alertness for abandonment or rejection (Van der Watt et al., 2021). This causes the individual to have a greater than average need for acceptance and approval from others, as well as an excessive need for closeness (Chen, 2019). Individuals with attachment avoidance tend to do the opposite: they shy away from closeness in relationships. There is a distinct fear associated with intimacy and distrust of others (Chen, 2019). Attachment patterns are responsible for regulating emotions within close relationships (Ainsworth et al., 1989). Without effective emotional regulation, insecure attachment patterns can become toxic for both the individual and their close family, friends, or intimate partner.

Social Networking Site Addiction

Attachment theory, which strives to explain how everyone organizes attachment and how they create systematic patterns of relational needs, also provides a comparative perspective on social networking sites (SNS) and how they relate to interpersonal relationships (Toplu-Demirtaş, et al., 2020). Social networking sites such as Facebook, Snapchat, Instagram, Twitter, and TikTok have become a part of daily life. Research shows that 72% of the general United States population uses at least one social networking site (Pew Research Center, 2021). Those between the ages of 18-29 account for 70% of social media use on Facebook and Instagram (Pew Research Center, 2021). Social networking sites (SNS) allow users to create and maintain new relationships, as well as manage current relationships (Shahnawaz & Rehman, 2020). SNSs do have a beneficial outcome for some individuals (Magsamen-Conrad et al., 2014). Some of those benefits are the ability to connect and strengthen ties over long distances and coping through interpersonal bonds on social media (Chen, 2019). However, SNSs can be addictive to some users, consuming their thoughts, emotions, and time (Stănculescu & Griffiths, 2021). So, although SNSs can yield benefits to some users, this must be balanced against the potential risk of harm.

Social networking sites are generally a place to interact and connect with others, but for some, this can become problematic. These concerns increase as SNSs are becoming more prevalent and as some users are becoming more consumed with interacting on these platforms. The concerns include face-to-face interpersonal skill deficits, social difficulties, mood disorders, performance deterioration, and various other adverse effects on daily life (Chen, 2019). This means that social media networking sites (SNSs) contribute to some individuals becoming

problematically consumed beyond a healthy measure and make it increasingly difficult for them to engage in face-to-face social interactions (Kuss & Griffiths, 2017). This also means that SNSs can have negative effects on mood and performance in daily life. Social networking platforms can further impact individuals who are already coping with insecure attachments from childhood maltreatment and struggle with interpersonal bonds.

The nature of SNSs is to connect people and to help them form interpersonal bonds through comments, photos, private messaging, and social interactions. Individuals who have suffered from childhood maltreatment and have formed insecure attachments are at a greater risk of SNS addiction due to comorbidities (Ebubekir et al., 2019). Research on anxious attachment styles (i.e., ambivalent and avoidant) has offered insight into the relationship between social networking sites (SNSs) and SNS addiction (Ceyhan et al., 2018). Psychological risk factors (e.g., internalizing disorders, alexithymia, and psychological distress) are formed through insecure attachment styles (i.e., ambivalent, avoidant, & disorganized) and have been found to mediate technology addiction (Remondi et al., 2020). As previously mentioned, childhood maltreatment (CM) is associated with addiction (Cohen & Thakur, 2020; Hoeboer et al., 2021). Addiction comes in various forms and can have negative impacts on social networking use.

Technology addiction is a broad term that includes social networking site addiction (SNA) (Shahnawaz & Rehman, 2020). One concern within the literature is that various terms are used by different researchers to define technology addiction. However, social networking site addiction remains associated with technology addiction, as it is one of its subsidiaries (Shahnawaz & Rehman, 2020). This study aims to investigate SNS addiction patterns and how they directly relate to attachment patterns from childhood maltreatment. For this purpose, this

study will use the term "social networking addiction" or SNA to reference the research and findings in this area. Today's world is full of life mediated by technology. There is concern that for some users' excessive use can result in pathologized consequences.

Childhood maltreatment and insecure attachment increase the risk associated with developing a social networking addiction (SNA). Social networking addiction is defined as the problematic use of social networking sites that interferes with the sense of time, adversely affects daily functioning, and is the most important part of the day (Kuss & Griffiths, 2017). Furthermore, it is proposed that SNA can be explored with the help of the six criteria of behavioral addiction (Shahnawaz & Rehman, 2020) The first of these criteria is salience, which is when social networking dominates one's life (e.g., thoughts, feelings, and behaviors). Even if the person is not actively engaged on SNSs, their thoughts would be. The second criterion is mood moderation. This is present when the usage of SNSs would modify and change one's mood (e.g., from bad to good). The third is tolerance, which is evident when increased use of SNSs is needed to get previous effects. The fourth is withdrawal symptoms. This happens when a person experiences unpleasant feelings when they are unable to use SNSs, regardless of the reason. The fifth criterion is conflict. This occurs when SNSs would cause conflict in real-life relationships, work, academics, or other activities. The final criterion is relapse. Relapse is evident when one reverts to SNSs after attempts to limit or not use SNSs anymore (Shahnawaz & Rehman, 2020). If these criteria are indeed consistent in all forms of addiction and within the behavioral addiction model, then SNA would meet the criteria as a valid form of addiction (Shahnawaz & Rehman, 2020; Turel et al., 2011). When used under the context of the six criteria listed, social networking site use can be identified as a behavioral addiction. If these criteria are present, then this would be cause for concern about the problematic use of social networking sites.

Each individual has a natural tendency to behave in a certain way. Individual personality traits shape an individual's behaviors and thoughts. The idea that personality traits play a role in SNA has been investigated. Most of the research has focused on conceptualizing personality as a contributor to SNA and has found that personality may play a role in SNA (Chen, 2019). This may provide a better understanding of how an individual's natural tendencies may contribute to SNA (Chen, 2019). Part of personality is shaped during the early years of life; attachment plays a significant role in shaping personality (Deniz, 2011). This means that personality may influence the way individuals interact on social networking platforms by the way that users send private messages and share opinions with others publicly by use of a "like" or a comment. Social networking sites also allow users to create an idealized self-image that is externally perceived. Those with insecure attachment styles favor these conditions and thrive on this attention, whether it is good or bad, creating an overreliance on social networking sites (SNSs) (Kuss & Griffiths, 2017). This overreliance can lead to greater impacts on the impoverishment of interpersonal skills (Kuss & Griffiths, 2017) when combined with insecure attachment styles (Remondi et al., 2020). This means that individuals over-relying on SNSs and who already have an insecure attachment style could experience further deterioration in interpersonal skills leading to deeper social networking dependency.

Dependence is a common term for addiction. When an individual is addicted to something, they have become dependent upon it. This means that social networking addiction (SNA) becomes a need for the individual and therefore meets the six criteria of behavioral addiction. According to Kuss and Griffiths (2017), the impoverishment of social skills or interpersonal skills means that "individuals are unable to engage in meaningful conversations because such skills are being sacrificed for constant connection, resulting in short-term attention

and a decreased ability to retain information" (p. 2). Individuals seem to always be connected, but not directly, and this constant connection is through technology. It is not a personal connection. This leaves people in a place of being alone yet still together (Turkle, 2013), which can drive the craving for SNS connections even deeper (Kuss & Griffiths, 2017). When you combine this state of being with insecure attachment styles formed during childhood, comorbidities can start to emerge (Huang et al., 2019). These comorbidities are associated with the psychological factors related to attachment patterns and childhood maltreatment (CM). For example, a person who has been diagnosed with a major depressive disorder from CM then forms an anxious-ambivalent attachment style which is associated with a fear of being left out or undesirable and may form an addiction to social networking to meet the need for attention, acceptance, and connection. This is just one example of how comorbidities from childhood maltreatment and insecure attachment patterns may predict a social networking addiction (SNA).

Social networking addiction can meet the needs of those suffering from adverse experiences during childhood and insecure attachment patterns. Not only can it meet their needs, but it also offers instant mood relief to those with insecure attachment patterns (i.e., anxious and avoidant). Research has repeatedly found positive correlations between several types of addiction, childhood maltreatment (Bou Khalil et al., 2020; Felsher et al., 2010; Murase et al., 2021; Puetz & McCrory, 2015), and insecure attachment patterns (Finzi et al., 2000; Murase et al., 2021; Padykula & Conklin, 2010). This means in more severe cases of childhood maltreatment and insecure attachment patterns, the consequences associated with addiction (i.e., behavioral criteria of addiction) are much more likely to be present (Kuss & Griffiths, 2017). The fear of missing out is associated with anxious attachments as well as SNA, and this may be part of what drives salience (Kuss & Griffiths, 2017). Insecure attachment styles can create

certain motives for the use of SNSs, mostly relating to interpersonal needs (Ceyhan et al., 2018; Chen, 2019). Individuals who have insecure attachment patterns generally experience interpersonal problems as well (Murase et al., 2021). This can be a contributing factor in both styles of insecure attachment and drive the way these individuals interact when using social networking sites.

Social networking sites offer the ability to either completely avoid interaction or obsess by scrolling feeds, viewing images, commenting, liking, or messaging. Research shows that individuals who have insecure attachment patterns and have suffered from one of the three types of childhood maltreatment (i.e., physical violence, sexual abuse, and neglect) display certain SNS behaviors (Murase et al., 2021). Victims of sexual abuse and neglect are more prone to behavioral addiction disorders associated with anxious-ambivalent attachment and a selfless interpersonal style (Murase et al., 2021). A selfless interpersonal style is characterized by a deficit in interpersonal skills due to poor emotional regulation, which influences the individual to be self-sacrificing, which then leads to interpersonal problems. This type of individual may use SNS as a coping mechanism to relieve stress or anxiety (Murase et al., 2021). This means that a person with an anxious-ambivalent attachment style is at higher risk of becoming addicted to SNSs because of the specific needs they have concerning their attachment style. It also means that when this form of addiction is active, it brings relief from associated anxiety and stress due to the maladaptive tendencies of the ambivalent-attachment style.

Individuals who have suffered childhood maltreatment in the form of physical violence are more prone to behavioral addiction disorders associated with anxious-avoidant attachment and selfish interpersonal styles (Cuartas et al., 2021; Murase et al., 2021). A selfish interpersonal

style is also characterized by a deficit in interpersonal skills, potentially due to a complete lack of emotional regulation (Murase et al., 2021). An avoidant attachment style is generally developed when a child has experienced physical violence and has learned to keep their feelings to themselves out of fear of retaliation from a caregiver (Murase et al., 2021; Padykula & Conklin, 2010). This potentially contributes to SNA as these individuals are distrustful of others and experience feelings of jealousy and control (Murase et al., 2021). Sexual maltreatment and neglect both directly predict addictive behaviors; however, physical violence indirectly predicts addictive behaviors (Murase et al., 2021). Recent research suggests that further studies should take place investigating anxious-avoidant attachment style and SNA (Murase et al., 2021). Research also suggests that social networking addiction (SNA) should be further analyzed and studied to create more specific criteria for this type of addiction (Chen, 2019; Murase et al., 2021). To address these gaps, this study will focus on the anxious-avoidant attachment style formed by childhood maltreatment, and its possible connection to social networking addiction (SNA).

The Current Study

The current study aims to investigate the relationship between childhood maltreatment and social networking addiction with anxious-avoidant attachment as a mediator. It is hypothesized that the presence of anxious-avoidant attachment from childhood maltreatment will mediate that variable's correlation with social networking addiction. This would mean that participants who developed an anxious-avoidant attachment style due to childhood maltreatment would use social media within the construct of the six behavioral addiction criteria.

Chapter 3: Method

Participants

The sample comprised of $n = 100$ undergraduate students. A total of 18 participants were removed due to missing data or failing one or more control questions, resulting in a final sample of $n = 82$ undergraduates. The research was conducted using a research platform known as SONA, which is a survey system where students can elect to take surveys as part of their academic experience. The inclusion criteria for the study were that participants were active university students and at least eighteen years of age. Participants also must provide the correct answer to control questions (e.g., "Select somewhat agree for this question."). Participants were guaranteed that their data would remain confidential and anonymous. Participants were informed that they could abandon the study at any point in time and that their participation was completely voluntary. The students who completed the study were offered an option of extra credit for their time. It was estimated that the surveys would take approximately 15 minutes to complete.

Measures

The Adverse Childhood Experiences questionnaire (Felita et al., 1998) is widely used to assess adverse experiences during childhood. This is a 10-item scale. Questions (e.g., "Did a parent or other adult in the household often?" "Did a parent or other adult swear at you, insult you, put you down, or humiliate you?") are rated using a 2-point system ($1 =$ yes and $0 =$ no). The scores for each item are then summed into a total score. The items on the scale assess different forms of childhood maltreatment (emotional neglect, physical violence, and sexual abuse). Childhood maltreatment was used as an independent variable from this measure.

The Experiences in Close Relationships Revised (ECR-R scale) (Fraley et al., 2000) is also a widely used scale. In this study, it was used to assess the mediating variable of anxious-avoidant attachment. The ECR-R is a 36-item questionnaire using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). This scale has two 18-item subtypes within it. One subtype addresses anxious-ambivalent attachment, and the other subtype addresses anxious-avoidant attachment. Only the anxious-avoidant attachment subscale was used in this study, although participants answered all questions. An example of an item representing anxious-avoidant attachment is "I find it difficult to allow myself to depend on romantic partners." Higher scores reflect higher levels of anxious-avoidant attachment. The items were presented in random order. This study used items 19-36 to assess for anxious-avoidant attachment.

The Social Networking Addiction Scale (SNAS) (Shahnawaz & Rehman, 2020) was used to assess social networking addiction. The SNAS is a 21-item scale reflecting the addiction criteria components salience, mood modification, tolerance, conflict, withdrawal, and relapse (Shahnawaz & Rehman, 2020). The questions are rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). Scores are obtained by the summed total of all 21 responses. The total score from each participant can range from 21-147, and any score that is higher than 84 signifies addiction (Shahnawaz & Rehman, 2020). This scale was used to measure the dependent variable of social networking addiction.

A demographics survey was created to collect participant data. This survey included items on gender, sexual orientation, ethnicity, age, employment status, and student status. This survey was used to assess distinct characteristics of the population. This information was used to

27

further analyze the results of the data and provide a better understanding of the participants who elected to participate in this study.

Statistical Analysis

The first type of analysis was to conduct a bivariate correlation in three steps between the variables and the mediator. Correlation coefficients for the three relationships were obtained to determine if a relationship exists between each pair of variables. As shown in Figure 1, the first step will analyze the independent variable, childhood maltreatment (CM), predicting the dependent variable social networking addiction (SNA). The next step will use the independent variable to predict the mediator, anxious-avoidant attachment. The last step of the correlation analysis will use the mediator as a predictor for the dependent variable. If a significant relationship is found between the variables in all three steps, then the next phase would be to conduct a mediation analysis.

Figure 1

Parallel mediation analysis with childhood maltreatment as the independent variable (IV), social networking addiction as the dependent variable (DV), and anxious-avoidant attachment as the mediator.
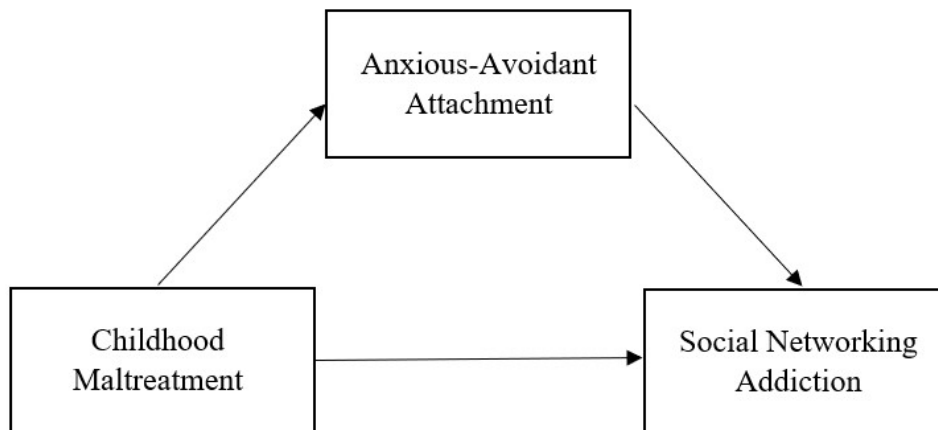
The second phase in the data analysis would be to conduct the mediation analysis, but only if significant correlations exist between all three pairs of variables. The mediation analysis examines whether childhood maltreatment (IV) affects social networking addiction (DV) by way of its effects on anxious-avoidant attachment (mediator). A multiple linear regression model was conducted between the main variables of interest. An SPSS Macro developed by Andrew Hayes (Hayes, A.F., 2022) Process version 4.1 was used to analyze for mediation. The Process macro can be downloaded from http://www.processmacro.org/download.html.

Chapter 4: Results

The Statistical Package for Social Sciences (SPSS) version 28 was used to analyze the data. Only the data from participants who fully completed all items in the survey were included in this study. Eighteen of the original 100 participants were excluded due to missing data or failing to provide the accurate response to control questions (e.g., "Select somewhat agree for this question."). The final sample size was comprised of ($n = 82$) undergraduate students. The sample as a whole was relatively young ($M = 19.88$, $SD = 2.62$). The participants identified as 48 females, 33 males, and one non-binary. The average time spent by participants in minutes to complete the entire 73-item survey was ($M = 8.18$), with a range of 2 – 21 minutes.

The first phase of analysis that was conducted was a bivariate correlation in three steps between the three variables. Correlation coefficients for the three relationships were obtained, as seen in Table 1, to determine if a relationship existed between each pair of variables. The first step analyzed the IV, childhood maltreatment (CM), predicting the DV, social networking addiction (SNA). These two variables were not significantly correlated, $r(80) = .06$, $p = .29$. The next step used the IV to predict the mediator, anxious-avoidant attachment. A weak yet statistically significant correlation was found, $r(80) = .19$, $p = .04$. The last step of the correlation analysis was to use the mediator as a predictor for the DV. This also revealed a weak yet statistically significant correlation $r(80) = .19$, $p = .04$.

Table 1

Correlations between Childhood Maltreatment, Anxious-Avoidant Attachment, and Social Networking Addiction

Variables	1	2	3
1. Childhood Maltreatment	-	0.19*	0.06
2. Anxious-Avoidant Attachment	-	-	0.19*
3. Social Networking Addiction	-	-	-

Note: $N = 82$, *$p < .05$.

Originally, the second phase was to perform a mediation analysis. The mediation analysis would examine whether childhood maltreatment (IV) affects problematic social media use (DV) by way of its effects on anxious-avoidant attachment (mediator). However, if three statistically significant relationships do not exist between the variables, then a mediation analysis is generally not necessary because no mediation is possible in such a scenario. However, out of an abundance of thoroughness, a test for mediation was conducted using an SPSS macro process developed by Andrew Hayes (Hayes, A.F., 2022) version 4.1. Multiple linear regression model four was used for mediation analysis. The mediation analysis summary is presented in Table 2. The mediating role between childhood maltreatment (IV) and social networking addiction (DV) was analyzed. The results revealed an insignificant indirect effect of the impact of childhood maltreatment on social networking addiction ($b = 0.387$, $t = 0.563$), resulting in a failure to reject H_0. Furthermore, the direct effect of childhood maltreatment on social networking addiction in the presence of the mediator was also found to be statistically insignificant ($b = 0.284$, $p = 0.813$). Therefore, mediation between childhood maltreatment and social networking addiction was not present.

Table 2

Mediation Anaylsis Summary

Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		t - statistics	Conclusion
				Lower Bound	Upper Bound		
Childhood Maltreatment -> Avoidant-Attachment -> Social Networking Addiction	0.670	0.284	0.387	-0.012	0.111	0.563	No Mediation

Chapter 5: Discussion

The present study found statistically significant correlations between the IV (childhood maltreatment) and the mediator (anxious-avoidant attachment) as well as the mediator and the DV (social networking addiction). However, no correlation was found between the IV and the DV. Out of an abundance of thoroughness, a test for mediation was still conducted. The mediation analysis revealed no statistically significant indirect or direct effects, resulting in a failure to reject H_0.

These results mean that childhood maltreatment (CM) does not correlate to social networking addiction (SNA) either directly or indirectly through a mediator. Therefore, it is concluded that anxious-avoidant attachment developed due to childhood maltreatment does not mediate or predict social networking addiction. However, this study explored an entirely new hypothesis that was developed on few previous observations. Therefore, it is still quite possible that the hypothesis may be true. The significant relationships found between the IV and the mediator, as well as the mediator and the DV, suggest that further research may help to understand these correlations.

Despite the results, much can still be learned from this study. Childhood maltreatment (CM) affected 59.8% of the sample. This percentage is higher than the current national average of 47.9% (The U.S. Department of Health & Human Service, 2019). The sample size was 59% female and 40%, male. Females are more likely to experience CM than males (The U.S. Department of Health & Human Service, 2019). Since the sample had more females than males, this could explain why the sample reported CM higher than the national average. Furthermore, childhood maltreatment tends to be underreported in surveys (The U.S. Department of Health &

Human Service, 2019). It is possible that not all participants who experienced childhood maltreatment reported a case during their childhood. Therefore, the results could also be affected by underreporting. Although the suspected relationship between the IV and the DV is not present, it is still clear that childhood maltreatment is present in the sample.

According to the literature, childhood maltreatment is correlated with insecure attachment patterns (Neumann, 2017). This is also evident in the current study. A total of 41.5% of the participants reported an anxious-avoidant attachment style. This fits to the 59.8% that reported CM. Previous research has highlighted anxious-ambivalent attachment to have a strong relationship with CM and social networking addiction (Pang & Thomas, 2020). However, anxious-avoidant attachment has not been thoroughly investigated to determine predictive factors or mediating roles with social networking addiction. Anxious-avoidant attachment includes feelings of discomfort with intimacy, seeking independence, a need for control, and fear of rejection or abandonment (Pang & Thomas, 2020). These types of feelings may be easier to manage through social media platforms which may function as a protective barrier for individuals with anxious-avoidant attachment. Therefore, the correlation between anxious-avoidant attachment (ADA) and social networking addiction (SNA) was anticipated.

Social networking addiction and anxious-avoidant attachment were found to be significantly correlated. Although only 24.4% of the sample reported social networking addiction, the correlation was solely between anxious-avoidant attachment and SNA. Therefore, this percentage seems logical since not all individuals who develop an anxious-avoidant attachment from CM will develop an anxious-avoidant style. Furthermore, anxious-attachment patterns predict emotional dysregulation, which indirectly predicts problems in interpersonal

relationships (Berzenski, 2019). Because victims of childhood maltreatment are more likely to suffer from emotional dysregulation and develop anxious attachment patterns, they are also prone to have problems with interpersonal relationships. This causes interpersonal distress for the individual with the deficit (Berzenski, 2019). Social networking use can potentially ease this distress by enabling an anxious-avoidant attachment style to be soothed with social interactions that do not require closeness, intimacy, or are associated with rejection, thus allowing the anxious-avoidant person a sense of social independence, control, and the ability to avoid the discomfort of closeness. This demonstrates that ADA can play a significant role in problematic social media use and may partially explain the correlation between ADA and SNA.

Although there were insights gained, the present study design has great potential for improvement. The present study was limited to a specific university undergraduate population. Some modifications, such as a larger range in age or a larger sample size, may be more representative of the general population. The previous literature on the topic does support the hypothesis that childhood maltreatment (IV) predicts social networking addiction (DV), and that this relationship is mediated by anxious-avoidant attachment (mediator). However, those studies used a much larger sample size and age range which were random samples from the general population. This could potentially explain some of the differences in the final results.

Furthermore, 58.5% of the participants took seven minutes or less to complete the 73-item survey. This would seem to be an insufficient amount of time to spend on a 73-item survey. Furthermore, a test run of the surveys was conducted prior to data collection. The researcher required 17 minutes to complete the survey. Furthermore, when a follow-up analysis was conducted that included only those participants within the top one-third of longest time to

complete (over 12 minutes, $n = 15$), the analysis revealed a statistically significant relationship between childhood maltreatment (IV) and social networking addiction (DV) that was previously missing. This suggests that a minimum requirement of time spent on each survey response may improve the study design and offer a better picture of the correlations found between the IV and the mediator as well as the mediator and the DV. It is possible, then, that if each participant had invested an appropriate amount of time, the data may have been significantly different.

Furthermore, an incentive to compensate students for their time was offered. This study offered extra credit to university students as compensation for their time. This type of incentive may have led a participant to simply select the first visible option to gain the reward easily rather than selecting the option that best suited their experiences, which may have required more time and thought to be invested. An attempt was made to control for this. Control questions (e.g., "Select somewhat agree for this question.") were created to ensure the participants were reading the questions and answering authentically. Eighteen participants were filtered out of the sample for failing to respond correctly to these control questions. However, this still does not seem sufficient in controlling for this behavioral response since 81.7% of participants still took less than twelve minutes to complete their survey.

Further time control requirements may assist future research in managing this behavior, such as limiting the ability to move to the next question without fulfilling the required amount of time for the current question. Another option might be informing the participant that they must spend the necessary amount of time to gain compensation for time. Another potential improvement may be to reduce the number of questions in the survey. This could help to prevent

respondent fatigue. A suggestion for future research investigating anxious-avoidant attachment is to only use questions 19 – 36 of the ECR-R questionnaire instead of the entire thirty-six items.

Conclusion

Childhood maltreatment did not directly correlate with social networking addiction and mediation was not present with anxious-avoidant attachment. However, there is still evidence that future research should investigate these correlations to a greater and more thorough extent. Alternately, the results did show correlations between childhood maltreatment and anxious-avoidant attachment, as well as anxious-avoidant attachment and social networking addiction. This reveals a relationship that has been supported in past research.

The results from this specific sample may have been affected by the higher percentage of females than males considering the higher prevalence of childhood maltreatment exposure for females. The main contributions of this study are the correlations found between the two pairs of variables. Childhood maltreatment and anxious-avoidant attachment are correlated. This relationship agrees with a vast amount of past research. Anxious-avoidant attachment style is directly correlated to social networking addiction. This specific correlation is currently under-investigated. Therefore, it provides additional support to the few observations that have been studied regarding this direct relationship.

There is room for improvement in the study design. It is important to note that a relationship did exist between the IV and the DV when the time taken to respond was above 12 minutes. Therefore, a sample representing the general population and requiring participants to take the appropriate amount of time to complete the surveys may provide more precise data. This may provide a better picture of how these variables correlate or interact. The present study has

important implications for future research investigating childhood maltreatment, anxious-avoidant attachment, and social networking addiction.

References

Ainsworth, M. S. (1989). Attachments beyond infancy. American Psychologist, *44*(4), 709–716.

    https://doi.org/10.1037/0003-066x.44.4.709

Berber Çelik, Ç., & Odacı, H. (2019). Does child abuse have an impact on self-esteem,

    depression, anxiety, and stress conditions of individuals? *International Journal of Social*

    Psychiatry, *66*(2), 171–178. https://doi.org/10.1177/0020764019894618

Berzenski, S. R. (2019). Distinct emotion regulation skills explain psychopathology and

    problems in social relationships following childhood emotional abuse and neglect.

    Development and Psychopathology, 31(02), 483–496.

    https://doi.org/10.1017/s0954579418000020

Bou Khalil, R., Sleilaty, G., Richa, S., Seneque, M., Iceta, S., Rodgers, R., Alarie-Crespo, A.,

    Maimoun, L., Lefebvre, P., Renard, E., Courtet, P., & Guillaume, S. (2020). The impact

    of retrospective childhood maltreatment on eating disorders as mediated by food

    addiction: A cross-sectional study. *Nutrients*, *12*(10), 2969.

    https://doi.org/10.3390/nu12102969

Burgess, R. L., & Conger, R.D. (1978). "Family Interaction in Abusive, Neglectful, and

    Normal Families." *Child Development*. *49*(4), 1163–1173.

    https://doi.org/10.2307/1128756.

Campbell, L., & Stanton, S. C. E. (2019). Adult attachment and trust in romantic relationships. *Current Opinion in Psychology*, *25*, 148–151. https://doi.org/10.1016/j.copsyc.2018.08.004

Ceyhan, E., Boysan, M., & Tayyip Kadak, M. (2018). Associations between online addiction, attachment style, emotion regulation, depression, and anxiety in general population: Testing the proposed diagnostic criteria for internet addiction. *Sleep and Hypnosis - International Journal*, *21*(2), 123–139. https://doi.org/10.5350/sleep.hypn.2019.21.0181

Chen, A. (2019). From attachment to addiction: The mediating role of need satisfaction on social networking sites. *Computers in Human Behavior,* 98, 80–92. https://doi.org/http://doi.org/10.1016/j.chb.2019.03.034

Christ, C., de Waal, M. M., Dekker, J. J., van Kuijk, I., van Schaik, D. J., Kikkert, M. J., Goudriaan, A. E., Beekman, A. T., & Messman-Moore, T. L. (2019). Linking childhood emotional abuse and depressive symptoms: The role of emotion dysregulation and interpersonal problems. *PLoS ONE*, *14*(2). https://doi.org/10.1371/journal.pone.0211882

Clark, G. I., Rock, A. J., Clark, L. H., & Murray-Lyon, K. (2020). Adult attachment, worry, and reassurance seeking: Investigating the role of intolerance of uncertainty. *Clinical Psychologist*, *24*(3), 294–305. https://doi.org/http://doi.org/10.1111/cp.12218

Cohen, J. R., Menon, S. V., Shorey, R. C., Le, V. D., & Temple, J. R. (2017). The distal consequences of physical and emotional neglect in emerging adults: A person-centered, multi-wave, longitudinal study. *Child Abuse & Neglect*, 63, 151–161. https://doi.org/10.1016/j.chiabu.2016.11.030

Cohen, J. R., & Thakur, H. (2020). Developmental consequences of emotional abuse and neglect

in vulnerable adolescents: A multi-informant, multi-wave study. *Child Abuse & Neglect*,

111, 1–11. https://doi.org/10.1016/j.chiabu.2020.104811

Cuartas, J., Weissman, D. G., Sheridan, M. A., Lengua, L., & McLaughlin, K. A. (2021).

Corporal punishment and elevated neural response to threat in children. *Child

Development*, *92*(3), 821–832. https://doi.org/10.1111/cdev.13565

Deniz, E. M. (2011). An Investigation of decision-making styles and the five-factor personality

traits with respect to attachment styles. *Educational Sciences: Theory & Practice*, *11*(1),

105–113.

Depanfilis, D., Newman, J., Taylor, L. R., Shuman, M., & Strohl, J. (2006). Chapter 2:

Definition and scope of neglect. In Child Neglect: *A Guide for Prevention, Assessment,

and Intervention*.

Dierdorff, E. C., Rubin, R. S., & Ellington, J. K. (2021). Interpersonal skills, role Cognitions,

and OCB: Exploring mediating mechanisms and contextual constraints on role

enactment. *Journal of Vocational Behavior*, *129*, 103604.

https://doi.org/10.1016/j.jvb.2021.103604

Ebubekir, C., Murat, B., & Muhammed, T.K. (2019). Associations between Online Addiction,

Attachment Style, Emotion Regulation, Depression and Anxiety in General Population:

Testing the Proposed Diagnostic Criteria for Internet Addiction. *Sleep and Hypnosis: A

Journal of Clinical Neuroscience and Psychopathology,21*(2), 123-139.

http://dx.doi.org/10.5350/Sleep.Hypn.2019.21.0181

Erozkan, A. (2016). The link between types of attachment and childhood trauma. *Universal Journal of Educational Research*, *4*(5), 1071–1079. https://doi.org/10.13189/ujer.2016.040517

Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., et al., (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *Am. J. Prev. Med*. *14*(4), 245–258.

Felsher, J.R., Derevensky, J.L. & Gupta, R. (2010). Young Adults with Gambling Problems: The Impact of Childhood Maltreatment. *Internal Journal Mental Health Addiction,* (8)*,* 545–556. https://doi.org/10.1007/s11469-009-9230-4

Finzi, R., Cohen, O., Sapir, Y., & Weizman, A. (2000). Attachment Styles in Maltreated Children: A Comparative Study. *Child Psychiatry Human Development,* (31), 113–128. https://doi.org/10.1023/A:1001944509409

Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships—Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment, 23*(3), 615–625. https://doi.org/10.1037/a0022898

Fried, E.I., Nesse, R.M. (2015). Depression sum-scores don't add up: why analyzing specific depression symptoms is essential. *BMC Med, 13*(72). https://doi.org/10.1186/s12916-015-0325-4

Gama, C. M., Portugal, L. C., Gonçalves, R. M., de Souz, S., Vilete, L. M., Mendlowicz, M. V., Figueira, I., Volchan, E., David, I. A., de Oliveira, L., & Pereira, M. G. (2021). The invisible scars of emotional abuse: A common and highly harmful form of childhood maltreatment. *BMC Psychiatry, 21*(156), 1–14. https://doi.org/10.1186/s12888-021-03134-0

Hamarman, S., Pope, K. H., & Czaja, S. J. (2002). Emotional abuse in children: Variations in legal definitions and rates across the United States. *Child Maltreatment, 7*(4), 303–311. https://doi.org/10.1177/107755902237261

Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: The Guilford Press, (3).

Hoeboer, C., Roos, C.D., Van Son, G.E., Spinhoven, P., Elzinga, B., (2021). The effect of parental emotional abuse on the severity and treatment of PTSD symptoms in children and adolescents. *Child abuse and neglect*. https://doi.org/10.1016/j.chiabu.2020.104775

Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureño, G., & Villaseñor, V. S. (1988). Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology, 56*(6), 885–892. https://doi.org/10.1037/0022-006x.56.6.885

Huang, Y., Lee, Y., Lin, P.Y., Hung, C., Lee. C., & Wang, L. (2019). Anxiety comorbidities in patients with major depressive disorder: the role of attachment, *International Journal of Psychiatry in Clinical Practice*, *23*(4), 286-292. http://doi.org/10.1080/13651501.2019.1638941

Krvavac, S., & Jansson, B., (2021). The role of emotion dysregulation and alexithymia in the

      link between types of child abuse, neglect, and psychopathology: A moderated mediation

      model. *European Journal of Trauma & Dissociation*, *5*(3).

      https://doi.org/10.1016/j.ejtd.2021.100213

Kuss, D., & Griffiths, M. (2017). Social Networking Sites and Addiction: Ten Lessons

      Learned. *International Journal of Environmental Research and Public Health*, *14*(3),

      311. http://doi.org/10.3390/ijerph14030311

Kyranides, M. N., & Neofytou, L. (2021). Primary and secondary psychopathic traits: The role

      of attachment and Cognitive Emotion Regulation Strategies. *Personality and Individual*

      Differences, *182*. https://doi.org/10.1016/j.paid.2021.111106

Magsamen-Conrad, K., Billotte-Verhoff, C., & Greene, K. (2014). Technology addiction's

      contribution to mental well-being: The positive effect of online social capital. *Computers*

      in Human Behavior, *40*, 23–30. https://doi.org/10.1016/j.chb.2014.07.014

McEwen B.S., & Stellar E., (1993). Stress and the individual: Mechanisms leading to

      disease. *Arch Intern Med.153*(18), 2093–2101.

      http://doi.org/10.1001/archinte.1993.00410180039004

Murase, H., Simons, R. M., & Simons, J. S. (2021). Distinct paths to alcohol problems: Impacts

      of childhood maltreatment, attachment insecurity, and interpersonal problems. *Addictive*

      Behaviors, *115*, 106780. https://doi.org/10.1016/j.addbeh.2020.106780

Neumann, E. (2017). Emotional abuse in childhood and attachment anxiety in adult romantic

relationships as predictors of personality disorders. *Journal of Aggression, Maltreatment*

& Trauma, 26(4), 430–443. https://doi.org/10.1080/10926771.2017.1299826

Norman, R.E., Byambaa, M., De, R., Butchart, A., Scott, J., (2012). The long-term health

consequences of child physical abuse, emotional abuse, and neglect: A systematic review

and meta-analysis. *PLoS Med 9*(11). http://doi.org/10.1371/journal.pmed.1001349

Olssøn, I., & Dahl, A. A. (2020). Long-term changes in attachment patterns after psychotherapy

in outpatients with axis I and personality disorders vs. axis I disorders only. *Personality*

and Mental Health, *15*(2), 136–146. https://doi.org/10.1002/pmh.1500

Padykula, N.L., & Conklin, P. (2010). The Self Regulation Model of Attachment Trauma and

Addiction. *Clinical Social Work Journal,* (38), 351–360. https://doi.org/10.1007/s10615-

009-0204-6

Pang, L. H., & Thomas, S. J. (2019). Exposure to domestic violence during adolescence: Coping

strategies and attachment styles as early moderators and their relationship to functioning

during adulthood. *Journal of Child & Adolescent Trauma*, *13*(2), 185–198.

https://doi.org/10.1007/s40653-019-00279-9

Pew Research Center. (2021). Demographics of social media users and adoption in the United

States. *Pew Research Center: Internet, Science & Tech*. Retrieved September 13, 2021,

https://www.pewresearch.org/internet/fact-sheet/social-media/.

Pietromonaco, P. R., Uchino, B., & Dunkel Schetter, C. (2013). Close relationship processes and
  health: Implications of attachment theory for health and disease. *Health Psychology*,
  32(5),499–513. https://doi.org/10.1037/a0029349

Puetz, V.B., McCrory, E. (2015). Exploring the Relationship Between Childhood Maltreatment
  and Addiction: A Review of the Neurocognitive Evidence. *Current Addiction
  Reports, 2,*318–325. https://doi.org/10.1007/s40429-015-0073-8

Remondi, C., Compare, A., Tasca, G. A., Greco, A., Pievani, L., Poletti, B., & Brugnera, A.
  (2020). Insecure attachment and technology addiction among young adults: The
  mediating role of impulsivity, alexithymia, and general psychological distress.
  Cyberpsychology, Behavior, and Social Networking, *23*(11), 761–767.
  https://doi.org/10.1089/cyber.2019.0747

Ross, D. A., Hinton, R., Melles-Brewer, M., Engel, D., Zeck, W., Fagan, L., Herat, J., Phaladi,
  G., Imbago-Jácome, D., Anyona, P., Sanchez, A., Damji, N., Terki, F., Baltag, V., Patton,
  G., Silverman, A., Fogstad, H., Banerjee, A., & Mohan, A. (2020). Adolescent well-
  being: A definition and Conceptual Framework. *Journal of Adolescent Health*, *67*(4),
  472–476. https://doi.org/10.1016/j.jadohealth.2020.06.042

Salter, A. M. D., Blehar, M. C., Walters, E., & Wall, S. N. (2015). Patterns of attachment: A
  psychological study of the strange situation (Classic). *Psychology Press*.

Shahnawaz, M. G., & Rehman, U. (2020). Social Networking Addiction Scale. *Cogent
  Psychology*, *7*(1), 1832032. https://doi.org/10.1080/23311908.2020.1832032

Silver, N., & Slater, M. D. (2019). A safe space for self-expansion: Attachment and motivation to engage and interact with the story world. *Journal of Social and Personal Relationships*, *36*(11–12), 3492–3514. https://doi.org/10.1177/0265407519826345

Spinhoven, P., Elzinga, B. M., Van Hemert, A. M., de Rooij, M., & Penninx, B. W. (2016). Childhood maltreatment, maladaptive personality types and level and course of psychological distress: A six-year longitudinal study. *Journal of Affective Disorders*, *191*, 100–108. https://doi.org/10.1016/j.jad.2015.11.036

Stănculescu, E., & Griffiths, M. D. (2021). Anxious attachment and Facebook addiction: The mediating role of need to belong, self-esteem, and Facebook use to meet romantic partners. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-021-00598-9

Strouse, P. J. (2016). Child abuse: We have problems. *Pediatric Radiology*, *46*(5), 587–590. https://doi.org/10.1007/s00247-016-3551-9

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development,* 59(2-3), 25–52. https://doi.org/10.1111/j.1540-5834.1994.tb01276.x

Toplu-Demirtaş, E., Akcabozan-Kayabol, N. B., Araci-Iyiaydin, A., & Fincham, F. D. (2020). Unraveling the roles of distrust, suspicion of infidelity, and jealousy in cyber dating abuse perpetration: An attachment theory perspective. *Journal of Interpersonal Violence*, 088626052092750. https://doi.org/10.1177/0886260520927505

Turel, Serenko, & Giles. (2011). Integrating technology addiction and use: An empirical

    investigation of online auction users. *MIS Quarterly*, *35*(4),1043–1061.

    https://doi.org/10.2307/41409972

Turkle, S. (2013). *Alone together: Why we expect more from technology and less from each*

    other. Perseus Books.

U.S. Department of Health & Human Services. (2019). Child Maltreatment 2019. *Administration*

    for Children and Families, Administration on Children, Youth and Families, Children's

    Bureau. https://www.acf.hhs.gov/cb/research-data-technology/ statistics-research/child-

    maltreatment.

Van der Watt, A. S. J., Roos, A., Du Plessis, S., Bui, E., Lesch, E., & Seedat, S. (2021). An

    attachment theory approach To Reframing romantic relationship breakups in University

    Students: a narrative review of attachment, neural circuitry, and post-traumatic stress

    symptoms. *Journal of Couple & Relationship Therapy*. *1*(22).

    https://doi.org/10.1080/15332691.2021.1908197

Walsh, E., Blake, Y., Donati, A., Stoop, R., & von Gunten, A. (2019). Early secure attachment as

    a protective factor against later cognitive decline and dementia. *Frontiers in Aging*

    Neuroscience. Retrieved September 13, 2021, from

    https://www.frontiersin.org/articles/10.3389/fnagi.2019.00161/full.