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LOYOLA UNIVERSITY CHICAGO

UNDERSTANDING THE IMPACT OF ADOLESCENT ATTACHMENT
ON ACADEMIC SUCCESS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN SOCIAL WORK

BY

CRISTINA CORTESI

CHICAGO, IL

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To my children: Even before you were born, the thought of you inspired me to aim high in order to set an example for you. Your smiles and hugs have gotten me through so many stressful moments and I love you more than you will ever know.

To my husband: We made it! It's finally over! Your pride in me has made all the difference. You keep me balanced and I could not have done this without your love and support.

To my family: Thank you for always being there to help no matter what. You have come so far from your very humble beginnings. You have all personally sacrificed in so many ways for me to reach this goal. This is OUR accomplishment and OUR degree.

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ABSTRACT

In recent years, studies are citing an increase in adolescent mental health diagnoses and symptomatology related to AD/HD, Bipolar Disorder, Depression, Anxiety, and Conduct Disorders. While the associated behaviors may be the result of several variables, recent neurobiological studies combined with Attachment Theory have pointed to a possible link to attachment issues. Because of the developmental stage of adolescents, these behaviors have been observed in both home and school environments. Schools, in general in the United States, have been experiencing significant struggles in terms of lack of adequate educational success which prompted the implementation of legislation commonly known as No Child Left Behind (NCLB). Schools and educators must locate the root causes of said issue in order to develop appropriate interventions and strategies which focus on student growth and success. The purpose of this research was to determine if a possible relationship exists between adolescent attachment style and academic performance within the designated population and to determine if certain demographic differences are mediating factors. The results showed correlation between attachment style and self-reported grades in school with some demographic factors having an influence.

CHAPTER I

INTRODUCTION

Purpose of the Study

In recent years, studies are citing an increase in adolescent mental health diagnoses and symptomatology related to AD/HD, Bipolar Disorder, Depression, and Anxiety (Harpaz-Rotem & Rosenheck, 2004). While the associated behaviors and symptoms may be the result of several variables, recent neurobiological studies combined with attachment theory have pointed to a possible link to attachment issues (Cozolino, 2002). Because the daily routines required of adolescents, the behaviors associated with mental illness can be observed in both home and school environments. Schools, in general in the United States, have been experiencing significant struggles in terms of lack of appropriate educational interventions and success (White House, 2011). The current educational system is constantly striving to determine and provide the necessary interventions to alleviate such symptoms in the school environment in order to provide students with access to an appropriate public education as required by law (White House, 2011). The purpose of this study was to examine the relationship between adolescent attachment style and academic performance, in order to develop more targeted interventions within the school system.

Study Rationale

A primary location for adolescent behavioral symptoms and current functioning to be observed other than in the home is at school. In the United States, the average student spends 180 school days per year each consisting of 6.64 hours at school (National Center for Education Statistics, 2008). School systems are charged with educating every child to the same general standards, regardless of social and personal issues the child and family may be facing. The federal government has reauthorized educational policy under the common name No Child Let Behind (NCLB) in an effort to address the problems of our educational system which plague our society (United States Department of Education, 2010). The goal of this policy is for all children to be proficient in reading and math by 2014 (U.S. Department of Education, 2010). Though behaviors and emotional issues are a major contributor to a child's ability to learn, NCLB had not previously infused any allocation for dealing with such issues until the recent proposed changes were made available in May 2010 (U.S. Department of Education, 2010). The current policy does not provide funding for the impact of social problems or the need for emotional supports in order to improve educational outcomes (U.S. Department of Education, 2010).

The number of students identified as emotionally disturbed and receiving special education services due to behaviors associated with mental health diagnoses continues to be a major concern. The National Center for Education Statistics (2009) reports that 442,000 students ages 3 to 21 were served in federally supported programs for emotional disturbances in the 2007-08 school-year. These numbers do not include students receiving services for Attention Deficit/Hyperactivity Disorder. Children with this

diagnosis are classified as having “Other Health Impairment.” There are 659,000 children identified within this category which includes several other diagnoses as well (U.S. Department of Education, 2010). The United States Department of Education does not provide statistical information regarding each of the diagnoses. The Centers for Disease Control and Prevention (2010) reported that 5.2 million children between ages three and seventeen have been diagnosed with ADHD. Current trends also show a continued increase in the use of psychotropic medications in children, some as young as preschool age (Spotts, 2003), for a variety of reasons or diagnoses. Some of these include Bipolar Disorder, Anxiety, ADHD, and Depressive Disorders (Harpaz-Rotem & Rosenheck, 2004).

Given that there is little data available to indicate the long-term effects of medications on adolescents combined with new data regarding the impact of relationships on the developing brain, longstanding theory concerning the importance of attachment, and the notion that talk therapy is a biological intervention (Cozolino, 2002), educators and school mental health professionals should consider how therapeutic interventions can more purposefully influence neurobiology towards improved mental health and relationships (Baylis, 2006).

Significance of the Study

Given the education goals mandated by the federal government, it is worth investigating ways of understanding and addressing these behaviors and symptoms within schools and communities. This study provided an opportunity to research an area not considered in current interventions. Previous research supports the need for further

research to explore the connection between attachment and educational success (Jacobsen et al., 1994). The research questions this study explored were as follows:

1. What are the relationships between the three attachment scores (secure, dismissing, and preoccupied) and measures of academic success?
2. If a relationship exists, does it vary in different populations (ie. race, socioeconomic status, age)?

For the purposes of this study, attachment style was determined using the Parent Subscale of the Behavioral Systems Questionnaire created and tested by Furman.

Previous studies as well as this current study showed internal consistencies of the three style scores for the parent version were all satisfactory (all Cronbach's $\alpha > .70$; $M=.85$). The scale has been moderately to highly related to Hazan and Shaver's (1978) attachment style measure (Furman, Simon, Schaffer, & Bouchev, 2002). Academic success was operationalized as self-reported average grades and whether or not adolescents are on track for graduation in terms of high school credits achieved. The hope is that the results of this study will prompt further research in the area of adolescent attachment and its effects on education from social workers, educators and other mental health professionals.

CHAPTER II

REVIEW OF THE LITERATURE

Significant Theoretical Contributors

Bowlby's theory of attachment (1969, 1988) emphasizes the importance of the early parent-child relationship in developing appropriate social, emotional, and cognitive development in children (Hughes & Akin-Little, 2007). Furthermore, the expectation for emotional connectedness in future relationships is based on the original relationship with the caretaker (Brazelton & Greenspan, 2000). "From its outset it has been eclectic, drawing on a number of scientific disciplines, including developmental, cognitive, social, and personality psychology, systems theory, and various branches of biological science including genetics" (Ainsworth & Bowlby, 1991, p. 340) and more recently neurobiology (Cozolino, 2006) .

Attachment is broadly defined as "access to a stable and continuous caregiving relationship" (Applegate & Shapiro, 2005, p. 60). It is a basic, in-born, biological system (Siegel, 2001). Being biologically rooted implies that attachment is one of many basic processes of functioning that are universal in human nature despite any differences in genetics, culture, and experience (Ainsworth, 1989). The basic principal of attachment is that children are naturally drawn to primary caregivers who, through effective interaction, allow the child to internalize the ability to self soothe. The caregiver provides a sense of security which can be remembered and recalled in times of distress in order to begin a

process of self soothing through the internalized memory (Siegel, 1999). This is achieved through verbal and non-verbal communication patterns between the infant and the caretaker (Cozolino, 2002). At a core foundational level, attachment serves to provide a child with one or a few caregivers who will remain in close proximity in order to yield a higher survival advantage through the process of responding to the outward manifestations of behavior which will cause the caregiver to respond accordingly (Ainsworth, 1989). Infants use the example of parental response or modeling in order to create an internal working model of how to navigate interactions and relationships (Bowlby, 1982). Individual development arises out of the relationship between the brain/mind/body of both infant and caregiver held within a culture and environment that supports or threatens it (Schoore & Schoore, 2008).

From the moment of birth, infants find comfort in the arms of a caregiver. Infants innately lack the ability to self-soothe. The importance of relationships at this stage of life is therefore obvious given the lack of independent abilities. Though a child naturally becomes more autonomous with age, the need for being connected in some way to another human being is experienced by all. “A major evolutionary advantage of attachment in humans is the opportunity it gives the infant to develop social intelligence” (Fonagy & Allison, 2012, p. 14). Social isolation has been repeatedly shown to have negative effects on many aspects of life and overall functioning (Wallin, 2007). Nature dictates this even prior to birth symbolically through the child’s attachment to the mother by umbilical cord. Every person is created through an attachment to another human being and this need does not disappear following infancy (Cozolino, 2002).

Relational thinking assumes that the nature of individuals is such that they have a need to be interconnected with other individuals. It is through such interconnectedness that mental health is achieved. “The overwhelming developmental evidence points to the conclusion that the child is preprogrammed not for a pleasure-seeking life oblivious to reality, but for interaction with a real person through a relationship mediated by affective states” (Summers, 2005, p. 161).

It is also assumed that there is no single cause for certain behavior. Personality patterns are considered to have been learned and therefore can be unlearned as more productive relational strategies are internalized (Ainsworth & Bowlby, 1991). This assumes that people have the capacity for change. Relational theories tend to be optimistic and empowering. Attachment theory was part of this movement. It fit well with the notion that personality is individual, early experiences are internalized, and a great deal of who one becomes is determined outside of consciousness. There are many who believe that individualized perceptions of attachment begin to form in utero based on the relationships that are occurring.

Bowlby: The Founding Father

As the initial contributor to attachment theory, John Bowlby focused on the concepts of proximity, protection and separation. His core contribution was that attachment is a “biologically based evolutionary necessity” (Wallin, 2007, p. 12). The human attachment system is just as significant a component of human genetic programming as feeding and mating (Bowlby, 1969). This is evidenced by a child’s natural responses of seeking, monitoring and attempting to maintain proximity to

attachment figures, using attachment figures as a secure base, and fleeing to attachment figures as a safe haven in situations of danger or moments of alarm (Wallin, 2007).

Bowlby recognized that while proximity is a key part of the attachment process, he also expanded upon this and stated that what is most crucial is the child's appraisal of the caregiver's availability and emotional responsiveness (Bowlby, 1973). Sroufe and Waters (1977) posited that such a perception of security (referred to as "felt security") is a "subjective state that hinges not on the behavior of the caregiver alone but on the child's internal experience as well, including his or her own mood, physical condition, imaginings, and so on" (Wallin, 2007, p. 13).

Bowlby (1988) identified four stages of attachment. In the first stage, normative development occurs through signaling, sucking, grasping and rooting which seek to minimize the distance between child and caregiver. The infant is equipped with these behaviors at birth. At first, these signals are not directed at anyone in particular, but gradually the child is able to direct the behaviors more concisely (Ainsworth, 1989). In the second phase, the child should direct the signaling behaviors at a preferred caregiver and use seeking behaviors to be close to them. In the third phase, the child should be able to predict the behaviors of the caregiver due to a pattern of consistency. In the fourth and final phase, the child should develop insight into the caregiver's motives, understand their independence, and develop an appropriate bond. At this point the child believes the caregiver exists independent of the child, and may experience distress due to separation (Ainsworth, 1989).

Between the third and fourth birthdays, the child becomes capable of a “goal directed partnership” (Bowlby, 1982). This is a time when the child learns to manipulate the parents’ plans in order to match more closely with their own desires. Further development of language facilitates the process of achieving mutually acceptable plans. This builds the child’s sense of confidence in the stability of the relationship and allows the caregiver to be absent for longer periods of time without significant distress. This combined with locomotion allows the child to more independently explore and expanded context (Ainsworth, 1989).

A well adjusted child is one whose mother was emotionally available while promoting autonomy. “The sense of relatedness is largely a function of the empathic connection between child and caregiver, but confidence and trust in one’s affects also require the opportunity to manage affective states without an attuned relationship. Self-esteem, then, is built from both attunement and the opportunity to exercise the capacity to overcome negative states and regulate tension” (Summers, 2005, p. 248). Stern (1985) also discussed the ability of infants in the first year of life to internalize and generalize interactions with the caretaker.

Ainsworth: Strange Situation

A developmental psychologist, Mary Ainsworth spent her career collaborating and testing the hypothesis of Bowlby. Ainsworth expanded on Bowlby’s theory in many pertinent ways. The collaborative processes between Bowlby and Ainsworth solidified the expansion of the theory beyond proximity. Ainsworth introduced the concept of a “secure base” which includes the child’s expectation of the caregiver, upon which

Bowlby created the idea of “internal working models” which is the idea that the expectations “gel in the mental maps or representations” (Wallin, 2007, p. 16). One of her most important contributions is that, though attachment is an inborn, biologically driven system, it is malleable (Wallin, 2007). Because of this, she was able to identify a classification system which included three types of attachment: insecure/avoidant, secure, insecure/resistant which defined the effects of abnormal attachment states (Ainsworth et al., 1978). Main later contributed an additional classification of disorganized or disoriented. Ainsworth and her team were also able to identify characteristics of attachment relationships which determine security or insecurity. These were grounded in the quality of the patterns of communication between the infant and caregiver (Ainsworth et al., 1978). In other words, the level of affective attunement is paramount to attachment style.

Though Ainsworth considered the concept of maternal warmth at one point, she soon realized it was a very different concept than that of maternal sensitivity. Mothers can show warmth to a child that others can perceive and possibly even quantify, but even if the degree of warmth is the same from different mothers, the effects on the children will differ. Secure attachment is formed more out of the attunement that mother has to the needs of the child. Maternal sensitivity and attunement is a response to an initiation made by a child rather than a spontaneous warm interaction. It is a strategy of the child, not the caregiver. This maternal sensitivity does not affect attachment in general, but rather the security of attachment (Ainsworth & Marvin, 1994). A bond is formed through proximity of the caregiver, but the quality of the attachment is dependent on the attunement of

caregiver and child (Ainsworth & Marvin, 1994). Attuned communication is both collaborative and contingent. The child signals a need to the caregiver and the caregiver responds in a way that indicates that he/she can sense what is being felt by the child and therefore responds accordingly to the need (Wallin, 2007). This occurs in secure relationships.

Ainsworth's most well-known research is referred to as the Strange Situation and took place with 26 mother child dyads in 1963. There were 18 four-hour visits in which data was collected. There was then a structured laboratory assessment conducted at the age of 12 months. The child was exposed to three minute scenarios that included opportunities for the child to explore the surroundings with the mother present, two separations, two reunions, and the introduction of a stranger. The majority of infants were able to explore freely and be consoled by connection. However, some avoided the mother upon her return or could not be consoled by her return. The classifications and the associated descriptions are discussed further below (see Attachment Classifications).

Main: One Step Further

In the 1970s, Main replicated the Ainsworth study and expanded it to include internalized object relations that addressed the individual's attachment history made up of memories, emotions, and beliefs that potentially shaped present and future attachment behavior (Wallin, 2007). Bowlby (1973) theorized that an individual's working model of attachment enables him or her to recognize patterns of interaction. Because the working model influences both behavior and expectations, it can shape as well as be shaped by interactions (Wallin, 2007). Bowlby believed that internal working models have the

potential to be updated by new relationships, altered relationships, or heightened awareness though these models often resist revision (Wallin, 2007). Such assertions led Main to question the stability of these models, if in fact they could be flexible. It became her goal to move beyond theory to an empirically validated finding.

Main (1991) proposed the idea of “representational artifacts.” She hypothesized that an individual’s working model of attachment would be revealed in characteristic patterns of narrative, discourse, and imagination, as well as behavior” (Wallin 2007). She embedded this notion into the development of a semi-clinical interview known as the Adult Attachment Interview (AAI) that assesses attachment in adulthood as the Strange Situation did in infancy (Main, 1995). However, because the classifications are independent of a specific relationship context, the AAI actually assesses the “state of mind with respect to attachment” (p. 437).

Wallin (2007) notes two important correlations produced by Main’s research of representational artifacts: “correlation between the child’s Strange Situation behavior with the primary parent at 12 months and the structure of the inner world of that child 5 years later” (p. 30) and “intergenerational correlation between the child’s Strange Situation behavior... and the parent’s state of mind with respect to attachment” (p. 30). Subsequent replicated research has demonstrated that the AAI classification of the parent (as secure or insecure) predicts the Strange Situation classification of the child (as secure or insecure) with 75% accuracy, even prior to the child’s birth (van Ijzendoorn, 1995). An individual’s classification from infancy to age 19 also has a consistency of well over 80% (Main et al., 2005).

Attachment Classifications

The combined efforts of the aforementioned theorists led to the creation of attachment classifications: secure, avoidant, ambivalent, and disorganized. The latter of three make up the combined category commonly referred to as “insecure.” A brief description of each of the classifications is noted below.

Securely attached children were distressed by separation, but almost immediately reassured by connecting with the mother and were able to resume play. The mother tended to be seen as sensitive and responsive to signals and communication. She was quick to pick up the child when he/she cried, soothed them appropriately, and allowed them to return to play as the child desired. Mothers of securely attached children did not impose their own agendas, but rather “meshed their own rhythms with those of their babies” (Wallin, 2007, p. 19). These mothers tended to reflect sensitivity rather than misattunement, acceptance rather than rejection, cooperation rather than control, and emotional availability rather than remoteness (Ainsworth et al., 1978).

In contrast, children classified as Avoidant were unmoved by mother’s departure or return and were often misperceived as calm. They appear to have learned that their signals for care and comfort would not be understood or responded to. Therefore, they do not send out such signals. The mothers tended to display inhibition of emotional expression and aversion to physical contact. These infants tended to go limp when being held rather than cuddling or clinging (Main & Weston, 1982).

In the Ambivalent category, Ainsworth’s research identified two types of ambivalent: angry and passive. Both were preoccupied with the mother’s whereabouts

and displayed overwhelming distress at her departure. Upon return, the angry infants vacillated between active connection and rejection. The passive infants appeared inconsolable. Mothers tend to be inconsistently available, do not display a sensitivity to the child's signals, and tended to discourage autonomy (Ainsworth et al., 1978).

Upon reunion, children classified as having a Disorganized attachment style, backed towards the mother, froze in place, collapsed to the floor or appeared dazed. This occurs when the attachment figure is seen simultaneously as a source of safety and danger. The child may experience the parent as frightening, frightened, or dissociated (Main & Solomon, 1990). Disorganized children are overrepresented in families with poverty, psychiatric illness, substance abuse, etc., though it can also be seen in children who were not maltreated (Wallin, 2007).

Attachment Across the Lifespan

There is strong evidence of the continuity of attachment patterns both across the lifespan and across generations (Ainsworth, 1989). Intimate attachments to other human beings are “the hub around which a person's life revolves” from infancy through old age (Bowlby, 1980, p. 442). Specifically, quality of attachment relationships has been associated with risk and resiliency across the lifespan. Many of the developmental outcomes associated with negative attachment patterns are related to affect dysregulation, and therefore issues in emotional self-regulation (Applegate & Shapiro, 2005). Insecure attachment is not a mental disorder, but it does create a risk for psychological and social dysfunction (Wallin, 2007). Some of these dysfunctions include attention issues, mood disorders, anxiety (Siegel, 1999), borderline personality disorder (Schorer, 2002),

obsessive, schizoid, narcissistic, and histrionic traits (Schore, 2002; Slade, 1999). If one is missing an appropriate initial attachment in his/her frame of reference, he/she will have issues within all relationships throughout life (Ainsworth et al., 1978). This will display itself in the gravitation towards dysfunctional relationship or the lack of relationships in general.

A parent's attachment style can be a marker of risk for the quality of the parent-child relationship and the child's adaption (Cowan, Cowan, Cohn, & Pearson, 1996). Several studies have found a strong relationship between the attachment style of the parent and the diagnostic status of their children (Cowan et al., 1996). There is a shift from infancy where meeting the child's needs is the sole goal of the relationship to adolescence and adulthood where a healthy relationship consists of meeting the needs of two parties simultaneously (Allen & Manning, 2007). Attachment is an "affectional bond." This term (Ainsworth, 1989) refers to "a relatively long-enduring tie in which the partner is as important as a unique individual and is interchangeable with none other" (p. 711). The desire to remain close is ever-present. While tolerable during brief absences, there is a desire to reestablish proximity. Longer term absence would cause distress and permanent loss would cause grief (Ainsworth, 1989). "The attachment functions of relationships are going to become inextricably interwoven with other functions" (Allen & Manning, 2007, p. 33).

According to Blatz (1966), there are three types of security worth noting for the purposes of this paper: immature dependent security, independent security, and mature dependent security. Immature dependent security refers to the idea that children rely on

parents to accept the consequences of their behavior. In order to learn, a child must feel curious enough to venture off to explore new things. When faced with fear of the new and unknown the child will feel secure again if they can return to a caregiver for comfort and reassurance. As children gain knowledge about the world and develop coping strategies, they rely more fully on themselves and have more independent security. Ultimately one finds mature dependent security with a mutually contributing partner of one's own generation (Ainsworth & Bowlby, 1991). Interestingly, marriage can also transform insecurely attached individuals into securely attached adults (Wallin, 2007).

“In traditional theory, dependence is considered inevitable in infancy, regressive and undesirable in later years, and having no biological value, [Bowlby] conceived of attachment behavior as a major component of human behavioral equipment... and as having protection as its biological function not only in childhood but throughout life” (Ainsworth & Bowlby, 1991, p. 336). Children with a history of secure attachment show substantially greater self-esteem, emotional health and ego resilience, positive affect, initiative, social competence, and concentration in play than do their insecure peers (Wallin, 2007). What begins as biologically driven interactions may register psychologically as mental representations that continue lifelong to shape behavior and subjective experience whether or not the original attachment figures are physically present (Wallin, 2007).

Attachment in Adolescence

Historically, attachment theory focused primarily on infancy and early childhood. This is due to the notion that “children form mental representations of relationships based

on their interactions with, and adaptation to, their care-giving environment” (Nakash et al., 2002, p. 1111). Few studies examine the attachment relationships that develop between child and parent figure during adolescence and their impact on this developmental phase and future development. This is where adolescents have the “opportunity to rework and consolidate the early childhood separation-individuation process” (Applegate & Shapiro, 2005, p. 187). Adolescents can begin to integrate multiple attachment experiences in order to construct a more generalized stance toward future attachments (Hesse, 1999). Blos (1967) termed adolescence “the second phase of separation and individuation” with the first phase at the end of the second year of life. This parallel is crucial to the understanding of the importance of attachment during adolescence as well. This research is derived from the hypothesis that the second phase of separation-individuation is as important to the development of personality and ego as the first, and that caregivers continue to play an important role in this process. “Contrary to popular opinion, adolescent boys and girls need not only autonomy but also a significant dose of attachment from their parents. ...Relationships with parents are essential not only for children, but also for teenagers, as they enable them to deal successfully with developmental tasks, amongst which are school tasks (Domagala-Zysk, 2006).

During adolescence, it is necessary for parents to provide a balance of supportive affection, discipline, and encouragement of independence in order to foster new attachment schemas (Cozolino, 2006). Communication quality between parents and adolescents is also important (Allen & Land, 1999). It is through the reassurance and support of parental attachment that adolescents are able to develop a positive sense of

self. “Attachment security contributes to development of a positive representational model of self that... guides the processing of information related to the self” (Dykas & Cassidy, 2007, p. 48). High quality parent-child communication during adolescence is associated with positive family functioning. It includes sharing feelings, addressing difficult issues, actively listening, and encouraging children to ask for questions and help when needed (Boone & Lefkowitz, 2007). From a young age and throughout their development, “conversations in which adults and children talk about the intentions implied by each other’s reasonable comments and link these to each other’s appropriately interpreted actions may be the ‘royal road’ to understanding minds” (Fonagy & Allison, 2012, p. 16).

Adolescents that are more securely attached are more likely to seek out positive information about themselves and accept it than insecurely attached adolescents (Dykas & Cassidy, 2007). Securely attached adolescents tend to remember interactions, even those that were negative, with their parents more positively over time due to their general positive feelings about their relationship with that parent. Insecure adolescents showed slower retrieval of emotionally significant childhood memories (Dykas & Cassidy, 2007). There is also an abundance of evidence of significant associations between relatively poor mental health and inadequate parental bonding, as reflected by both perceived low parental care and high parental control (Rigby, Slee, & Martin, 2007). “Adolescents who possess secure internal working models demonstrate more open and flexible processing of social information, and unlike their insecure counterparts, they do not tend to suppress attachment-relevant social information” (Dykas & Cassidy, 2007, pp. 50). Securely

attached adolescents are more likely to have positive perceptions of family, peers and others than insecurely attached adolescents. They are able to generalize the information from the primary attachment relationship to have a more positive outlook on relationships and interaction throughout life (Dykas & Cassidy, 2007)

That is not to say that adolescence is void of trials and tribulations. As they move through adolescence, adolescents increase their tendencies toward derogation of parents and lack of recall, and perceive their parents as more rejecting (Ammaniti, van IJzendoorn, Speranza, & Tambelli, 2000). In one study, at age 17, 75% of adolescents preferred peers to parents for proximity and separation protest, as well as favoring them as a secure base (Hazan, Hutt, Sturgeon, & Bricker, 1991). It is during this developmental phase that the search for a partnership with a peer begins. This is a relationship which involves the systems of attachment, reproduction and caregiving. “Minor” attachment relationships include teachers, relatives, close friends, romantic partners, and therapists. These individuals help adolescents manage emotional situations and may be long or short-term. These relationships have all of the qualities of an attachment relationship, but may be temporary and therefore seen as a “first foray” into recreating the attachment system using new figures (Allen & Manning, 2007). It is important to note that all new relationships continue to be impacted by the base relationships. “Adolescents’ internal working models of attachment are linked to their processing of attachment relevant social information” (Dykas & Cassidy, 2007, p. 41). In the absence of information about new individuals, adolescents will draw on previously obtained knowledge from prior attachment relationships in order to understand new potential relationships. They may

“process other environmental stimuli as a function of their attachment organization” (Dykas & Cassidy, 2007). It is also crucial to acknowledge that these changes in the nature of attachment may vary by hormones, neurophysiological and cognition, rather than socioemotional experience alone (Ainsworth, 1989). Adolescents may become reluctant to depend on a parent or primary attachment figure during times of emotional need because it implies a vulnerability which undermines the goal of obtaining power in the relationship. As the adolescent begins to forge new attachment relationships, he/she needs to demonstrate to the parent that they are in control, responding in an emotionally vulnerable way undermines this effort (Allen & Manning, 2007). Parents’ role as the primary attachment figure is likely to be evident only in situations that elicit high levels of attachment system activation. More common, are daily check-in patterns which serve to reinforce confidence in parental availability such as financial support or areas of expertise (Kobak et al., 2007). Distancing that occurs in adolescence is generally temporary and does not imply cessation of attachment to parents (Ainsworth, 1989). After adolescents succeed in decreasing emotional investment in parents, forming relationships outside the family of origin, and prove that they can function independently, they seem willing to rely on their parents once more (Scharf & Mayseless, 2007). Though parent-child relationships change as they develop more autonomy and self-regulation in adolescence, “most teens maintain attachment bonds to parents while testing peers as sources of safety and support” (Kobak, Rosenthal, Zajac & Madsen, 2007, p. 57).

Impact of Attachment on School Functioning

Research shows that responsive and engaged parenting is associated with children's cognitive development (Kerns, 2008). Specifically, secure attachment was related to better attention and participation, less insecurity about the self, and a higher grade point average (Jacobsen & Hofmann, 1997). Attachment was also shown to have significantly contributed to better verbal skills, curiosity, and emotional maturity (Aviezer, Resnick, Sagi, & Gini, 2002). Strong evidence exists for a link between secure attachment and school attitudes and overall classroom behaviors. This includes work habits and persistence (Kerns, 2008). Though these studies are current, Bowlby wrote about this connection several years ago:

Bowlby (1987) emphasized that children's attachment representations of their caregivers will be closely intertwined with representational models that they build up about the self. Children who are taken seriously and who are responded to in a sensitive manner are likely to feel more secure in themselves than children who have been ignored or rejected. The link to attention-participation is also consistent with attachment theory. Bowlby's concept of a secure base suggests that children who are confident that their caregivers are responsive and available will be both more attentive and more willing to engage with the environment. Worries about availability of an attachment figure, in contrast, may distract insecurely attached children from attending to the environment. Secure attachment representations can also be viewed as facilitating children's readiness to fully engage in academic tasks at school. (Jacobsen & Hofmann, 1997, p. 708)

This process begins prior to school enrollment and continues throughout the lifespan. For example, infants with a secure attachment are more curious and persistent in toddlerhood (Arend, Glove & Sroufe, 1979), show better self-esteem, and are more empathic with peers than children with insecure attachment (Kestenbaum, Farber & Sroufe, 1989).

Children who adapt well in early development continue to adapt well in adolescence and vice versa (Jacobsen & Hofmann, 1997). In preschool, Sroufe (1983)

found that attachment had an effect on cognitive and socioemotional development. Mothers' sensitivity was shown to predict reading and math achievement in third grade for both boys and girls (NICHD, 2008). An Israeli study demonstrated that secure children were perceived by their teachers to be better adjusted than insecure children in scholastic, social, behavioral and emotional areas. Their peers also perceived them as having higher social status (Granot & Mayseless, 2001). Aside from the perceptions of others, more securely attached children report greater perceived academic competence and mastery motivation (Kerns et al., 2001). This occurs because children with secure representations of attachment are more prone to approach new experiences with confidence and trust, versus children with insecure attachment representations who will lack the confidence that they will be responded to in a sensitive manner (Jacobsen & Hofmann, 1997). Secure children elicit warm and age appropriate treatment from teachers. Avoidant children are seen as oppositional, sullen, or arrogant and elicit angry, controlling responses. They are often referred to as bullies. Ambivalent children are perceived as clingy and immature and tend to be indulged or infantilized. They have a tendency to be victimized (Elicker, Englund, & Sroufe, 1992; Sroufe, 1983; Weinfeld, Sroufe, Egeland, & Carlson, 1999). Attachment was even linked to cognitive functioning from middle school to adolescence when prior cognitive function and IQ were controlled (Jacobsen & Hofmann, 1997). In middle school and adolescence, secure attachment has been linked to ego-resiliency, social competence (Urban, Carlson, Egeland & Sroufe, 1991) and better cognitive functioning (Jacobsen, Edelstein, & Hofmann, 1994).

“Teachers may be a source of healing in the sense of reversing the effects of adverse

childhood experiences” (Lewis, 2000, p. 1375). However, it would require the establishment of a strong bond, disruptions of the bond and repair. If the interactions are repeated they can assist in the internalization of a new context of relationships and promotes development of a secure self (Lewis, 2000). For this to occur more regularly, a context and structure different than that of the current educational system would be necessary.

Neurobiological Findings

Biological studies are now indicating that, contrary to previous belief, the brain is extremely plastic throughout the lifespan (Siegel, 2001). Research has begun to more thoroughly examine the impact of trauma or inadequate attachment on the development of the brain and neuropathways. Chronic exposure to stress, as in the case of poor coping skills, can affect neurological functioning and development, and plays an etiological role in the onset of mental health issues (Baylis, 2006) and therefore behavior. Negative neurological effects associated with stressful or unresponsive environments are reversible with exposure to attentive, caring environments (Baylis, 2006). As stated by Cozolino (2002), “The quality and nature of our relationships are translated into codes within neural networks that serve as the infrastructure for both brain and mind. Through this translation of experience into neurobiological structures, nature and nurture become one” (p. 16).

Due to requirements of managed care, adolescents and adults are diagnosed with psychological disorders listed in the Diagnostic and Statistical Manual of Mental Disorders and treated through the lens of these labels (Olfson et al., 2005). However,

more recently Shore and Schore (2008) reinforced a new way of understanding the usefulness of attachment theory in practice:

In line with Bowlby's fundamental goal of the integration of psychological and biological models of human development, the current interest in affective bodily-based processes, interactive regulation, early experience-dependent brain maturation, stress, and nonconscious relational transactions has shifted attachment theory to a regulation theory.... This shift of the theory into affect and affect regulation has had an important effect on translating the developmental theory into a pragmatic framework for models of both psychopathogenesis and the change process... It is only in the last decade that the clinical applications of attachment theory have been extensively articulated. (pp. 9-10)

Attachment theory provides a framework for understanding human needs in relation to interaction in general, as well as a providing an explanation for psychopathology in later life. According to Schore (2002), healthy neural and psychological development in early childhood hinges on the attuned responsiveness of attachment figures. Following birth, the development of the brain depends on how "the genetically programmed maturation of the nervous system" is shaped by interpersonal experience (Siegel, 1999, p. 2). "From a neurobiological as well as a psychological standpoint, the most vital and influential experience is that which occurs... in the context of attachment relationships" (Wallin, 2007). The research of Tronick and Gianino (1986) noted a second important emphasis in attachment on the repair of mismatches between mother and infant in later life. They suggested that, "psychopathology may be an outcome of repeated unsuccessful efforts to repair mismatches," (p. 5) which further emphasizes the importance of attachment-based interventions to promote psychological wellbeing. What the body and mind perceives is coded as a neural network or pattern that determines the nature of the brain's structure and functioning (Siegel, 1999). Relational connections become neural connections

(Wallin, 2007). Failure to achieve repair in a consistent manner leads to structural changes in the brain that form the biological substrate of psychiatric disorders in later life (Schore, 1997).

Poverty, unemployment, incest, homelessness, spiritual despair at the violence and heartlessness of abusive parenting, the almost limitless methods that people can find of inflicting human misery—all these ignominies influence people's expectations about others, the trust that they may be capable of feeling, their anger about their treatment, the complex ways we all find to learn to live in the social context that the fortunes or misfortunes of our birth have presented for us. (Fonagy et al., 2005, p. 9)

Mentalizing: An Attachment Based Intervention

While prevention is always best practice, evidence based intervention is also necessary. “Mentalizing can be defined as the ability to ‘read’ other people’s thoughts and feelings and to reflect upon one’s own thoughts and feelings” (Bak, 2012, p. 202). Mentalizing “relies on the child’s innate capacity to detect aspects of his world that react contingently to his own actions” (Fonagy & Allison, 2012, p. 19). It develops throughout childhood and depends greatly on the establishment of secure attachment relationships with parents. Mentalizing is an important factor in coping, mental health and behavior (Bak, 2012) which require (a) reasonable congruency of mirroring from the caregiver and (b) the ability of the caregiver to express an affective state while indicating that she is not expressing her own feelings (Gergely & Watson, 1999). Several studies have been able to “link parental mentalization of the infant with the development of affect regulation and secure attachment in the child” (Fonagy & Allison, 2012, p. 15). The child is thought to internalize his experience of well-regulated affect in the infant-parent couple to form the foundation of the secure attachment bond (Sroufe, 1996). “In this account affect

regulation is a prelude to mentalization; yet, once mentalization occurs, the nature of affect regulation is transformed. Not only does mentalization allow adjustment of affect states but, more fundamentally, it is used to regulate the self” (Fonagy & Allison, 2012, p. 20).

There is evidence for multiple types of mentalizing. They include: *Accurate mentalizing*, *no mentalizing*, *under-mentalizing*, *hyper-mentalizing*, *distorted mentalizing* and *pseudo-mentalizing* (Sharp & Venta, 2012). No mentalizing is when the mind completely lacks “the capacity to build theories on the content of others’ minds” (Sharp & Venta, 2012, p. 37). This is commonly observed on children diagnosed with autism spectrum disorders. Under-mentalizing is also common among individuals on the autistic spectrum. Just as the diagnosis itself has evolved to be viewed on as a spectrum of disorders, so too has the understanding of the ability to mentalize within this population.

Hyper-mentalizing can also be thought of as “over-interpretive mental state reasoning” (Sharp & Venta, 2012, p. 39). It is commonly observed in individuals diagnosed with Borderline Personality Disorder and individuals with positive symptoms of schizophrenia. Originally, the tendency of individuals with schizophrenia to “ascribe intentions of others where none exist” (Sharp & Venta, 2012) was thought to be a characteristic of under-mentalizing. Further research has led to the assertion that the mind is actually hyper-mentalizing by projecting paranoid suspicions and biases onto others as a result of initial under-mentalizing (Sharp & Ventra, 2012). Similarly, individuals with Borderline Personality Disorder or borderline traits tend to over interpret social signs. However, this is not due to initial under-mentalizing but rather “struggle with the

integration and differentiation of mental states, especially under conditions of high emotional arousal” (p. 40). “Hyper-mentalization may develop not only in the presence of abuse [or emotional stress or trauma], but in the absence of the protective factors that dampen the effects of stress – most notably secure attachment” (p. 40). Childhood maltreatment can cause one to struggle to accurately detect mental states which motivate actions. Therefore such children and adolescents tend to see actions as inevitable rather than intended (Fonagy & Allison, 2012).

One of the hallmark features of externalizing problems is interpersonal difficulties. The current prevalence of such disorders (including conduct disorder and oppositional defiance disorder) are currently estimated at 10% in the United States (Sharp & Venta, 2012). These children tend to attribute hostile intentions to others in ambiguous situations. This is an example of distorted mentalizing as they may respond aggressively to preempt falsely anticipated aggression from others (Sharp & Venta, 2012). While one may jump to assume that this indicates a deficiency in mentalizing capabilities, there is some evidence that individuals with severe externalizing behaviors (including adults with psychopathy) actually have advanced mentalizing skills (Sutton et al., 2000). Because this type of mentalizing lacks some of the essentials of genuine mentalizing, Allen et al. (2008) referred to this type of mentalizing as pseudo-mentalizing. “Pseudo-mentalizing involves the use of mentalizing to manipulate or control behavior, as opposed to genuine mentalizing, which reflects true curiosity and a general respect for the minds of others” (Sharp & Venta, 2012, p. 43). True mentalizing requires empathy as well as predictive functions.

CHAPTER III

METHODOLOGY

Participants

The sample was a convenience sample. It included male and female adolescents living in the identified catchment area and enrolled in selected courses at the time of the research. Selected courses were chosen based on their status as a graduation requirement in order to obtain the most representative sample of approximately 200-250 students. The identified high school reported a total population of approximately 3000 students with 41.0% listed as low income. Of the total enrollment, 43.1% identified themselves as White, 31.7% as Black, 0.1% as Native American, 3.7% as Asian, 16.6% as Hispanic, 0.1% as Native Hawaiian and 4.3% as Multi-racial.

Instrumentation

The survey consisted of a portion of the Behavioral Systems Questionnaire (BSQ), to measure behavioral style along with some additional questions regarding demographics. It took approximately 15-20 minutes to complete. The Behavioral Systems Questionnaire was selected because it was specifically designed for use with adolescents. The creator, Furman, from the Department of Psychology at the University of Denver in Colorado granted permission for use. The BSQ is a self-report measure that contains questions in subscales for friends, boyfriend/girlfriend, parent relationships, and physical intimacy. Because the focus of this study pertained to relationships between students and

their parents, only the parental relationship subscale was used (see Appendix B). All others were not relevant to this specific work. In an electronic communication from Dr. Wyndel Furman (2010), he noted that the use of certain scales or rating certain individuals is permissible as long as the scales “that are used are kept intact.” Each subscale of the BSQ has three sections containing questions that assess attachment styles, caregiving styles, and affiliation. The parent component is a 45 question, Likert-type survey which uses a 5-point scale that includes the following response options: strongly disagree, disagree, neither disagree or agree, agree, strongly agree (scored 1 through 5, respectively). The behavioral systems scores are calculated by obtaining the mean of the items identified for each of three categories: (1) Secure, (2) Dismissing, and (3) Preoccupied. There are 15 questions in each category. In this way, each respondent received three mean scores ranging from 1 to 5, one for each category; higher score means more secure. Internal consistencies of the three style scores for the parent version were all satisfactory (all Cronbach’s $\alpha > .70$; $M=.85$). The scale has been moderately to highly related to Hazan and Shaver’s (1978) attachment style measure (Furman et al., 2002).

Secure behavioral style refers to a relationship of positive self and positive other. Individuals with higher secure behavior style scores generally have a greater internalized sense of self-worth and trust that others will respond to their needs appropriately. They maintain a balance of autonomy and interconnectedness. Preoccupied behavioral style refers to a relationship of negative self and positive other. Respondents with higher preoccupied behavioral style scores tend to be more preoccupied with their own needs

and depend primarily on others for validation, acceptance, and approval. Dismissing behavioral style refers to a relationship of positive self and negative other. Individuals with higher dismissing behavioral style scores tend to distrust others and distance themselves from relationships in order to avoid vulnerability and a perceived certainty of rejection by others (Eells, 2001).

The questions added to the BSQ in order to obtain demographic information included the following:

1. What is your gender?
2. Which phrase below best describes your racial/ethnic background?
3. What year are you in high school?
4. Are you currently enrolled in the free/ reduced lunch program at school?
5. Which of the following best describes the average grades you get in school? (“N/C” refers to No Credit for a course due to excessive absences.)
6. Are you reclassified? (“Reclassified” is a term used by the site to indicate that a student has not earned enough credits to move to the next grade. A reclassified student is, therefore, not currently on track for graduation with their class.)

Design and Procedure

This cross sectional, relational study explored the link between adolescent attachment and academic performance.

The research questions for this component were as follows:

1. What are the relationships between the three attachment scores (secure, dismissing, and preoccupied) and measures of academic success?

2. If a relationship exists, does it vary in different populations (i.e., race, socioeconomic status, age)?

The hypotheses were as follows:

1. There is a significant positive correlation between the students in the secure category and self reported academic success. That is, students who are identified as secure by the BSQ will have a higher level of academic success (less likely to be reclassified and have higher grades) than those not secure on BSQ.
2. There is a significant negative correlation between the students in the dismissing category and self reported academic success. That is, students who are identified as dismissing by the BSQ will have a lower level of academic success (more likely to be reclassified and have lower grades) than those that are identified as secure on BSQ.
3. There is a significant negative correlation between the students in the preoccupied category and self reported academic success. That is, students who are identified as preoccupied by the BSQ will have a lower level of academic success (more likely to be reclassified and have lower grades) than those that are identified as secure on BSQ.
4. The relationship will exist regardless of identified population because attachment is the more prominent issue.

Theses hypotheses are discussed further in the attached table (see Appendix D). A copy of the complete survey is included in Appendix C.

Passive consent letters were mailed to the home address on file by the site via the United States Postal Service (see Appendix A). Letters were scheduled to arrive at least

two weeks prior to survey administration. Letters were written in accordance with the guidelines of Loyola University Chicago's IRB. Parents were instructed to contact the site in order to opt out. Though passive consent is not typical for minors, the requirement of written consent would have undermined the survey itself. The survey sought to determine attachment behavioral style. Therefore, requiring written consent in itself would have potentially excluded students with insecure attachment styles and changed the sample completely.

The surveys were administered to all students (who agreed to participate) registered for one of the selected courses in the spring of 2013. The survey took place in the class period that the course was regularly offered. The assigned teachers administered the survey. The teachers were given packets of surveys prior to the survey administration date. These packets included administration instructions, the appropriate number of surveys for the class, the appropriate number of separate scantron sheets, and a manila envelope to seal and return the surveys.

The surveys were confidential and students were explicitly instructed not to write their name or any other identifying information on the response sheet. Though no identifying information was requested, it should be noted that this survey was conducted in a group setting and therefore others were able to see who did and did not participate. Teachers collected surveys upon group completion, sealed them in a manila envelope, and returned them to this PI. All sealed surveys were collected and sent to an independent entity for scanning and processing.

CHAPTER IV

RESULTS

Each subscale of the Behavioral Systems Questionnaire (BSQ) was computed according the procedure outlined by Furman et al. (2002). Specifically, each BSQ style score was computed by obtaining the mean of the items identified for each of three categories: (1) Secure, (2) Dismissing, and (3) Preoccupied. Furman recommends at least two-thirds of the scale's items be completed for inclusion in the scale. No data were eliminated using this guideline. There were 15 questions in each category. Each respondent received three mean scores ranging from 1 to 5, one for each subscale, with higher scores indicating a greater propensity for that attachment style. Internal consistency (Cronbach's alpha) was 0.886, 0.833, and 0.819 for the Secure, Dismissing, and Preoccupied style scores, respectively. These scores indicate a high degree of internal consistency.

The first question this study sought to answer concerned the relationships between the three behavioral style scores and measures of academic success. The hypothesis is that a significant positive correlation exists between the students in the secure category and self reported academic success. That is, students who are identified as secure by the BSQ have a higher level of academic success (less likely to be reclassified and have higher grades) than those not secure on BSQ. In turn, there is an expectation that a significant negative correlation exists between the students in the dismissing and

preoccupied categories and self reported academic success. That is, students who are identified as dismissing or preoccupied by the BSQ have a lower level of academic success (more likely to be reclassified and have lower grades) than those that are identified as secure on BSQ. To evaluate the previously stated hypotheses, Pearson's Product-Moment Correlations were computed between the BSQ style scores and each students enrollment in a free or reduced lunch program (Yes or No), their self-reported grades in school (Mostly A's, Mostly A's and B's, Mostly B's, etc., and whether or not the student was "reclassified." These correlations are presented in Table 1. Upon analysis of the data, it was determined that there was a significant positive correlation between the Secure Item Mean and Grades in School ($r = 0.170$, $p < 0.05$). This indicates that students with higher Secure attachment styles tend to have greater academic success. There were significant negative correlations between the Dismissing and Preoccupied scores and Grades in School ($r = -0.142$, $p < 0.05$ and $r = -0.152$, $p < 0.05$, respectively). These correlations indicate that students with higher Dismissing and Preoccupied attachment styles tend to have less academic success. These correlations are consistent with the previously stated hypotheses.

Table 1. Correlations

	Secure Item Mean	Dismissing Item Mean	Preoccupied Item Mean	Free/ reduced lunch?	Grades in high school?	Currently reclassified?
Secure Item Mean	1.000	-0.303*	-0.082	-0.089	0.170*	-0.076
Dismissing Item Mean	-0.303*	1.000	0.481*	0.001	-0.142*	0.031
Preoccupied Item Mean	-0.082	0.481*	1.000	0.213*	-0.152*	0.003
Free/ reduced lunch?	-0.089	0.001	0.213*	1.000	-0.426*	0.068
Grades in high school?	0.170*	-0.142*	-0.152*	-0.426*	1.000	-0.242*
Currently reclassified?	-0.076	0.031	0.003	0.068	-0.242*	1.000

Note: An asterisk ("*") indicates significance at the $p < 0.05$ level.

The second question this study sought to answer was based on the first hypothesis. Because it was expected that a relationship exists between measures of academic success and attachment style, it also became interesting to determine whether that relationship varied in different populations (i.e., race, socioeconomic status, age). The hypothesis was that demographics would not change the likelihood of academic success because attachment style is a more prominent issue. That is, students identifying as male, female, freshman, sophomore, junior, senior, receiving free/reduced lunch or not, African American, White, Hispanic, Asian/Pacific Islander, American Indian, Multiracial or other who have a secure behavioral style have a higher level of academic success (less likely to be reclassified and have higher grades) than those identified as

dismissing or preoccupied on the BSQ. In turn, those with dismissing or preoccupied styles have a lower level of academic success (more likely to be reclassified and have higher grades) than those identified as secure on the BSQ regardless of demographics. The results were consistent with this hypothesis as well. The mean BSQ style scores by several demographic variables are presented in Table 2.

Table 2. Means by Demos

	Freq	Percent	Secure Item Mean	Dismissing Item Mean	Preoccupied Item Mean
Gender					
Male	122	55%	3.05	2.84	2.46
Female	101	45%	3.31	2.57	2.34
Year in School					
1st year	56	25%	3.21	2.78	2.48
2nd year	42	19%	3.19	2.53	2.25
3rd year	50	22%	3.18	2.68	2.42
4th year	72	32%	3.09	2.80	2.41
5th year	1	0%	2.79	2.90	2.58
6th year or more	3	1%	3.60	2.51	2.72
Free/Reduced Lunch					
No	141	64%	3.22	2.71	2.32
Yes	78	36%	3.10	2.71	2.55
ReClassified					
No	206	95%	3.19	2.70	2.40
Yes	10	5%	2.95	2.79	2.40
Total	224	100%	3.16	2.71	2.41

CHAPTER V

DISCUSSION

Research Questions

This purpose of this cross sectional, relational study has been to answer the following questions regarding the link between adolescent attachment and academic performance:

1. What are the relationships between the three attachment scores (secure, dismissing, and preoccupied) and measures of academic success?
2. If a relationship exists, does it vary in different populations (ie. race, socioeconomic status, age)?

The hypotheses were as follows:

1. There is a significant positive correlation between the students in the secure category and self reported academic success.
2. There is a significant negative correlation between the students in the dismissing category and self reported academic success.
3. There is a significant negative correlation between the students in the preoccupied category and self reported academic success.
4. The relationship will exist regardless of identified population because attachment is the more prominent issue.

The results of this study appear to indicate that the hypotheses were well founded.

Data showed the following:

1. Students who were identified as secure on the BSQ had higher levels of academic success (less likely to be reclassified and have higher grades) than those not secure on BSQ.
2. Students who were identified as dismissing or preoccupied by the BSQ had a lower level of academic success (more likely to be reclassified and have lower grades) than those that were identified as secure on BSQ.
3. The relationship between attachment scores and measures of academic success existed regardless of identified population and its varying characteristics.

Application of Findings to the Fields of Education and School Social Work

These results lend themselves to further thought on how to apply attachment theory to education through the services of a social worker in order to provide benefit to students and improve academic success. Given that “a secure attachment relationship with parents contributes to the development of adolescents’ positive perceptions of their capacities to learn, to make friends, and to develop positive relationships with teachers, which, in turn, [is] positively associated with academic performance” (Duchesne & Larose, 2007, p. 1515) it seems prudent to consider minor adjustments to the current educational system in the hopes of producing change in academics and potentially change in students internalized attachment schemas. The results of this study indicate that further research is warranted on the use and effectiveness of school interventions with teachers,

parents and students using the lens of attachment theory to improve service provision and academic performance.

Though on the surface it may seem counterintuitive for a school to intervene regarding an issue that stems from difficulties based in the home environment, the impact of such issues effects school performance and can be somewhat altered at school. Due to the nature of the role of the school and the length of the school day, there appear to be opportunities for attachment based intervention in terms of the student/parent relationship, the student/teacher relationship and the school/parent relationship. Provision of physical and emotional care, a consistent presence in one's life and an emotional investment in the individual (Howes, 1999) are the characteristics required to be considered at least a minor attachment figure in the life of a child. One could see how this could include the educators within the school setting. The following includes research-based interventions at universal, targeted and intensive levels. Universal will refer to system-level interventions, targeted to small group and intensive to individual students and families.

Teacher Selection

Ideally, teachers would demonstrate to students and families that they are "sensitive, accessible and responsive to their needs," but instead they bring "behavioral patterns that reflect feelings and expectations... associated with their own attachment styles" (Kennedy & Kennedy, 2004, p. 251). Teachers with a dismissing (avoidant) attachment style may demonstrate a lack of warmth, trust and sensitivity, have unrealistic expectations for student maturity and independence, and be unable to recognize such

behaviors within themselves. Teachers with a dismissing style may appear to lack warmth and understanding because they tend to distance themselves from students and families. Teachers with a preoccupied style may be only intermittently attuned to students' needs and may therefore address overt behaviors without understanding or addressing the underlying problem(s). The secure teacher may be better equipped to foster a supportive interaction, trust and relatedness in their relationships with students regardless of the students' attachment styles and characteristics (Kennedy & Kennedy, 2004). Schools can use this information in several ways. The first would be to assess for teacher attachment style in interviews and application questionnaires. This would allow schools to select teachers with the attributes and responses most consistent with that of a securely attached individual to increase the chances of having positive attachment based interactions between students and staff. It may also allow the administrators to better understand teachers' responses to students, families and colleagues and work with them to understand how to engage the community differently. Ongoing professional development which seeks to encourage teachers to examine their own attachment styles and understand how that specific style may impact their classrooms in the context of the variety of attachment styles of their students could allow them, expanded insight when considering appropriate interventions. Such a process could assist teacher in selecting modifications and interventions which will reduce stressful situations in both teacher/student interactions and student/student interactions.

Student Assessment

Interventions with teachers could be complimented if accompanied by student assessment. Students' attachment styles could be assessed either prior to enrollment as a prevention strategy, or upon experiencing difficulties as a means of informed intervention. Such an assessment, combined with observations at home and school as well as a comprehensive attachment based social history (Kennedy & Kennedy, 2004), could provide the basis for effective individualized interventions. Such assessments are not currently uncommon within school systems, though a shift to the utilization of an attachment based approach would be a change.

Psycho-education

Another possible intervention is social emotional learning for teachers, students and families related to the concept of mentalizing. According to Crittenden, Leiberan, and Pawl (as cited in Kennedy & Kennedy, 2004), attachment based skill building includes learning to: (1) accurately identify internal feelings so as to communicate them effectively; (2) make appropriate attributions as to the intent of the behaviors of others; (3) clearly communicate needs to others; (4) develop balanced emotional regulation; and (5) enhance capacity for cooperation and collaborative problem solving in goal directed partnerships. Students could receive such education and practice within the current curriculum being taught at every level in a variety of content areas. Parents and educators could be provided with the tools that will enable them to serve as a base that will allow children to learn ways in which to regulate their own emotions in professional development and parent programming. Additionally, adults should be taught (a) how to

recognize events that are likely to cause distress for their children and (b) ways in which to intervene which soothes the distress and models coping skills related to these events (Duchesne & Larose, 2007).

Clinical Interventions

Social worker, psychologists and counselors could become trained in Mentalization Based Treatment (MBT; Bateman & Fonagy, 2006) and related approaches such as Mentalization Based Therapy Group (MBTG; Malberg et al., 2008) for the appropriate age level. They could then provide additional direct clinical interventions to students and families utilizing the concept of mentalizing. In such interventions the school mental health professionals would serve as facilitators and models of mentalizing for students, teachers and families (Malberg, 2012).

Mentalization based therapy would be designed to: (1) Reactivate the attachment system; (2) develop/restore the capacity for thinking about feelings, distinguish between mentalizing and non-mentalizing narratives and support skillful mentalization; (3) develop the capacity to pause and reflect in the course of describing a non-mentalizing interaction or experience; (4) elicit and facilitate curiosity about the mental states of others; (5) clarify and label acknowledged and unacknowledged feeling states; (6) identify maladaptive defense strategies and provide new ego strengthening alternatives and skills; and (7) build a safe mentalizing community (Malberg et al., 2008; Slade, 2008). This is an empirically validated treatment approach. The therapy provided by the mental health professional would seek to guide efforts to relax rigid and maladaptive ways of knowing, feeling, and being in the student (Slade, 2008). This type of one on one

intervention with a mental health professional who has examined their own attachment style and anticipates the associated transference and counter transference can also “provide for exploration from a secure base and a safe haven under stress” (Kennedy & Kennedy, 2004, p. 251).

System Level Intervention

Twemlow et al. (2012) conducted the Peaceful Schools experiment in which they applied the concept of mentalizing to the topic of school violence. Many of their suggestions can be generalized to be considered best practice for implementation of a system wide mentalization-based approach to general student wellness. They include (1) using positive climate campaigns, (2) classroom management that encourages thought about the perspectives of others and is non-punitive, (3) peer and adult mentorship in which mentalization is modeled, (4) common curriculum that teaches confidence building, mentalizing, and promotes community, and (5) reflection time for both personal and classroom assessment of ability to mentalize and behave accordingly.

Association to Social Work Principles

In determining the application to social work practice, an examination of the values and ethical principles found in the National Association of Social Workers (NASW) Code of Ethics was examined. The primary values which apply to this topic are and dignity and worth of the person and importance of human relationships (NASW, 2008). Other concepts to be examined are empowerment, person-in-environment, bio-psycho-social wellbeing, work with marginalized populations, and diversity. Attachment theory and its applicability to the social problems impeding educational success appear to

be in line with social work values. This theoretical perspective allows practitioners to utilize all of the above mentioned values. It seeks to examine the person in relation to their environment through the lens of human relationships. It truly is a bio-psycho-social intervention in its purest form. It can be applied to many populations, at any point in time. Attachment theory interventions allow the client to feel empowered to obtain knowledge of their situation and make changes accordingly. This theoretical perspective has its foundation in the importance of human relationships and the ability to re-shape the personal repertoire of experiences. The goal is to strengthen perception and perspectives from a positive standpoint in order to bring about real change. Adolescents are at a crucial point in their developmental process. They are young enough to examine the situation and make changes before really embarking on their journey through life. Attachment based research and interventions work towards development of true coping skills rather than existence through primary defense mechanisms such as avoidance.

Ethics

“Children are a special population for a number of reasons. Their cognitive skills level and maturity vary according to developmental stage, and they lack social power and the legal right to consent” (Sales & Folkman, 2000, p. 67). Therefore, all aspects of this research were created or selected with the developmental stage in mind. The consent forms included: an invitation to participate, purpose statement, selection basis, procedures, description of risks and discomforts, description of benefit, alternatives, information about confidentiality and its limitations, and a non-coercive disclaimer (pp. 38-43). Had it been necessary, all questions about the protocol would have been

answered honestly. The age and autonomy of the child participant were taken into consideration.

Because the PI in this study was employed by the research site, there was an issue of dual role. The identity of this PI was indicated in the letter along with a statement which assured the parent and child that there would be no future, negative ramifications as a result of participation or non-participation. The PI did not have access to the names of the respondents at any time as the survey was anonymous. The PI did not administer the instrument or have any contact with the participants while being surveyed.

In terms of beneficence, the goal was to reduce the risk as much as possible and maximize the benefit for the community. The survey was friendly, appropriate, non-invasive, and brief. Participants were offered free referrals to outside agencies in the event that emotional issues arose from answering the questionnaires. None of the participants requested these services. Though the PI was employed by the site, there was no access to any information that links individual names to survey data. The intention was to provide the site with the results of this study in order to make an impact on school-wide programming efforts.

Limitations of the Study

The study was not intended to be complicated and therefore produced fairly simple results. Its quantitative nature and brief design lend itself to answer the proposed question, but not to provide further details. Though the study had an adequate sample from the site, it was from one site only. The results of this study may not necessarily be

generalizable to the larger population. Further research would need to be conducted in order to determine reliability of the results beyond the sample used for this specific study.

This study may have also yielded different results had it not been anonymous and actual school-reported grades could have been recorded rather than self-reported grades. This is a limitation of many research projects involving adolescents in a school setting. While self-reported grades may not be completely accurate, research shows it that it can be a reliable measure in certain circumstances. In a meta-analysis conducted by Kuncel et al. (2005), results suggested that self-reported grades are reasonably accurate representations of actual grades for students with high ability and good grade point averages. Conversely, self-reported grades are unlikely to accurately represent the scores of students with low GPAs and, to a lesser extent, low ability. Specifically they noted that “the relationship between self-reported and school-reported grades is strong but far from unity” (pp. 77-78). It was recommended that researchers use “self-reported grades with caution” (p. 78). In order to have obtained school-reported grades, two issues would have emerged. The first is that written consent from both the student and parent would have been required by the school. As noted in the methods section, this would have limited and skewed the sample. Because the study sought to categorize the relationship between caregiver and student in terms of its security, potential participants may have opted not to participate because they did not have the relationship necessary to ask the caregiver for permission to participate or for the caregiver’s signature. This would have dramatically changed the sample and, therefore, the results. The second is that the survey would have to have required the use of names or, at the very least, school identification numbers. This

would have removed the benefit of anonymity for study participants and therefore potentially compromised the accuracy of the responses to other questions which contained more emotionally sensitive information.

Other limitation may have been the use of the Behavioral Systems Questionnaire to assess attachment style. It is a brief, quantitative instrument. Though it is a standardized tool that has been used in several other research projects, it is by no means considered the most effective tool for assessing attachment style in any context. The Inventory of Parent and Peer Attachment (IPPA) or the Adult Attachment Interview (AAI) which assesses “state of mind with respect to attachment” (Main, 1995, p. 437) may have been more comprehensive, though not suited to this specific project. This research was intended to be brief; the use of the aforementioned instruments would have proven time consuming and impractical given the setting, timeframe, previously mentioned consent issues, and qualitative nature of those tools.

Potential Implications of Findings

In terms of positive possibilities on a smaller scale, the hope is that the results of this study will produce some benefit for the students and families at the site of the research and possibly other similarly populated schools in the United States. It may give social workers and other educators a different lens through which to view current and potential interventions. Hopefully it will provide further insight into the need for parental engagement programs at both the high school level and prior. It may also affect how social workers advise teachers in strategies for responding to students and parents. As targeted groups are identified under the system of Response to Intervention (RtI), this

research will hopefully assist in guiding schools in the types of interventions they believe will be most holistic to the students' learning.

On a slightly larger level, I hope that this research may spark interest in further research on the topic of adolescent attachment. The point of research is to contribute to theory development. I hope that my work can be a starting point for expansion. In grander terms, it would be wonderful if this research provided a foundation for further research to obtain funding for future research projects or changes in current policy.

Conversely, some concern exists about the potential for this research to be construed as a means of inappropriate blaming. The purpose of this study was not to gather evidence on what caregivers have done incorrectly, but rather to inform the school community about a need that exists within its population and to provide information regarding what can be done through the lens of attachment theory in terms of prevention and intervention.

CHAPTER VI

CONCLUSION

Because of changes in available research and policy, this seems to be an opportune time to explore the connections that exist between learning and familial relationships. Policy tends to be very concrete and often neglects the emotional elements that life presents. No Child Left Behind is calling for interventions that are based on research and evidence. Though it requires such interventions, there is limited research available. Social and emotional concerns are a major missing piece of the current federal mandate. However, research could be the link that brings it all together. “Evidence clearly suggests that early recognition of an individual’s attachment style and related behavioral disposition may facilitate prevention and/or intervention for maladaptive behavior patterns” (Kennedy & Kennedy, 2004, p. 256). Because research based interventions are supported, this research could open the door for funding opportunities currently unavailable. It may prompt a more holistic approach to working with students on their academic struggles. As we prepare our students for high school graduation, we are charged with more than making sure they meet basic, minimum requirements for math and reading. We, as a nation, are responsible for making them productive members of society. Using a more holistic framework of service, combining research, theory, and practice, is a reasonable place to start.

APPENDIX A
PASSIVE CONSENT

March 2013

Dear (School Name) Student and Parent/Guardian,

You are being asked to take part in a research study being conducted by Cristina Cortesi, LCSW CADC for a doctoral level dissertation under the supervision of Dr. Randolph Lucente in the School of Social Work at Loyola University of Chicago. The purpose of this study is to determine what connection, if any, adolescent attachment style has to academic performance. The survey will take approximately 15 minutes to complete and questions will pertain to the how a child feels about their relationship with their parent/guardian. Surveys will be scanned by an independent statistician and data will be given to Ms. Cortesi for analysis.

There will be no identifying information on any part of the survey. Due to the personal nature of the questions and varying individual life experiences, some participants may experience discomfort with the content of the survey. Please consider the topics noted above before agreeing to participate. There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life. However, if participants or members of their family feel the need for counseling services following the survey, they will be provided a list of free resources in the community.

There are no direct benefits to you from your participation, but such information could potentially lead to the creation of more targeted services in the (Name) Community. Participation in this study is voluntary. If you do not want to participate in this survey, you do not have to participate. Even if you decide to participate, you are free to refrain from answering any question or to withdraw from participation at any time without penalty. Though (Researcher) is also employed by (Site Name), the decision to participate or not will have no affect on your current or future standing/experiences at (Site Name).

(Site Name) has agreed to allow this research to be conducted during the school day. Therefore, if you do not want your child to participate in the survey described above, please call (Name), (Site Name) Senior Research Associate at (Phone Number) by April 10, 2013. If you have any specific questions about research being conducted, please contact Cristina Cortesi at (847) 424-7203. Additionally, if you have questions about your rights as a participant in this research, you may contact the Compliance Manager in Loyola's Office of Research Services at (773) 508-2689.

Sincerely

Cristina Cortesi
Social Work PhD Candidate

APPENDIX B

BEHAVIORAL SYSTEMS QUESTIONNAIRE INFORMATION

Behavioral Systems Questionnaire
UNIVERSITY OF DENVER
Department of Psychology
Frontier Hall
Denver, Colorado 80208-3500
303 871-3688

Enclosed you will find a copy of the Behavioral Systems Questionnaire with scoring instructions. You will find the original version and an abbreviated version and scales for each.

- 1) To date the published papers have used the full version, but we are currently using the abbreviated version. We only recommend using the abbreviated version if you are only interested in the overall secure, dismissing and preoccupied style scores. If you are interested in secure, preoccupied, and dismissing scores for specific behavioral systems (e.g. attachment, affiliation, etc), we recommend using the full version.
- 2) I would appreciate it if the scales that are used are kept intact (i.e., not reducing the number of items to one or two or rewriting specific items). These kinds of changes make it difficult to compare results.
- 3) When we administer the questionnaire to young adults, we use the term romantic partner instead of boy/girlfriend, as some may be married etc
- 4) I would appreciate receiving information about the results of your work.

I hope you find these scales useful. This letter gives you permission to use the inventory. Good luck with your research!

Sincerely,

Wyndol Furman, Ph.D.
Professor

Behavioral Systems Questionnaire: Scoring Instructions

Structure of the questionnaire

For each relationship type (romantic partners, parents, and friends), there is a separate BSQ. Most sections of the various BSQs are identical, except for the relationship being assessed. For each BSQ, the items are organized by behavioral system. Thus, there is a section of items assessing attachment styles, then a section about caregiving styles, and then a section on affiliation. For romantic partners there is also a final section assessing physical intimacy/ sexuality in the relationships.

Behavioral System Scores

Behavioral system scores are calculated for each relationship and each behavioral system. All behavioral system scores are the mean of the appropriate items. In order to allow for missing data, endorsement of two-thirds of a scale's items is suggested as a minimum for calculating the scale.

Attachment

Secure items = 2, 4, 8, 12, 13

Dismissing items = 5, 6, 10, 11, 14

Preoccupied items = 1, 3, 7, 9, 15

Caregiving

Secure items = 3, 6, 8, 11, 12

Dismissing items = 1, 2, 5, 9, 13

Preoccupied items = 4, 7, 10, 14, 15

Affiliation

Secure = 2, 6, 9, 10, 15

Dismissing = 4, 5, 8, 12, 14

Preoccupied = 1, 3, 7, 11, 13

Physical intimacy/sexuality

These scales are calculated only for relationships with romantic partners.

Secure = 3, 8, 10, 12, 14

Dismissing (avoidant) = 1, 4, 11, 15, 18

Experimentation = 2, 5, 6, 16, 19

Preoccupied = 7, 9, 13, 17, 20

Behavioral Style Scores

For each relationship, three Behavioral Style Scores are calculated. These scores are the average of the three corresponding system scores.

- i. Secure Behavioral Style = mean of secure attachment, care giving, affiliation and sexual scores. (Note sexual is only on romantic version)
- ii. Dismissing Behavioral Style = mean of dismissing attachment, caregiving, affiliation, sexual scores. (Note sexual is only on romantic version)
- iii. Preoccupied Behavioral Style = mean of preoccupied attachment, caregiving, and sexual scores. Note sexual is only on romantic version.)

Because secure and dismissing are strongly negatively related, we now calculate a secure-dismissing score by subtracting the dismissing score from the secure one.

In effect, we find the same two dimensional structures that adult romantic researchers have (see Griffen & Bartholomew, 1994)

Note that the sexual experimentation scale is looked at separately.

Future Directions

The BSQ has been tested in a number of samples already, and appropriate revisions have been made. There are, however, several issues to be aware of. A) We have not included the sexuality items in deriving the relational style scores when we are using views of different types of relationships (eg. Furman, Simon, Shaffer, & Bouchee, 2002). We did so as to make the scores for the different relationships comparable, but we do include it when only examining romantic relationships. B) We are exploring some alternative means for deriving typological scores. Ultimately, we will report validation and reliability information in a manual. In the meantime, we would encourage you to examine the papers we have written using this measure, as they often contain information on its validity (e.g., Furman & Wehner, 1994; Furman, Simon, Shaffer, & Bouchee, 2002).

You have our permission to use the measure for research purposes. We would appreciate knowing about any results you obtain that may help us address some of the remaining issues.

APPENDIX C
COMPLETE INSTRUMENT

The following survey asks personal but important questions regarding your perceptions of the relationship you have with your parents. The results from this survey will be used in a PhD dissertation in the hopes of improving service provision in the (Name) community.

All information will remain entirely anonymous. Please make no marks of any kind on the survey or answer sheet which could identify you individually. No one will know how you answer the items on this survey. Please answer the questions based on what you actually think. Completing the survey is voluntary. Thank you for your participation. Please make your responses on the separate answer sheet using a No. 2 or HB pencil starting with QUESTION NUMBER 1. Mark only one response per question.

1. What is your gender?
A=MALE
B=FEMALE
2. Which phrase below best describes your racial/ethnic background?
A= AFRICAN AMERICAN/BLACK (NON-HISPANIC)
B= WHITE (NON-HISPANIC)
C= MEXICAN/PUERTO RICAN/OTHER HISPANIC ORIGIN
D= ASIAN AMERICAN/PACIFIC ISLANDER
E= AMERICAN INDIAN
F= MULTIRACIAL
G=OTHER
3. What year are you in high school?
A=1st
B=2nd
C=3rd
D=4th
E=5th
F=6th or more
4. Are you currently enrolled in the free/ reduced lunch program at school?
A=YES
B=NO
5. Which of the following best describes the grades you get in high school?
A=MOSTLY As
B=MOSTLY As AND Bs
C= MOSTLY Bs
D= MOSTLY Bs AND Cs
E=MOSTLY Cs

F=MOSTLY Cs AND Ds
 H=MOSTLY Ds
 H=MOSTLY Fs
 I=MOSTLY N/Cs (No Credit)

6. Are you reclassified? (Do you currently have adequate credits to be on track for graduation in four years? For example, if you are in your second year of high school do you have 12 or more credits, in your third year do you have 24 or more credits and in your fourth year do you have 36 or more credits?)

A=YES

B=NO

For this portion of the questionnaire, we are interested in how you TYPICALLY feel and act in your relationships with your parents. By parents, we mean all the people you consider to be parental figures; these figures may include natural, adopted, or step-parents—whomever you consider to be parental figures. Of course, your answers may be more influenced by the parent or parents that is/are more important to you. Some of these questions may not apply to all of your parental figures, but consider how they TYPICALLY apply. Please use the following scale.

1 2 3 4 5
 Strongly Disagree Disagree Neither Disagree Nor Agree Agree Strongly Agree

1. MY PARENTS act as if I count on them too much.	1	2	3	4	5
2. I consistently turn to MY PARENTS when I am upset or worried.	1	2	3	4	5
3. I am afraid that I turn to MY PARENTS more often than they want me to.	1	2	3	4	5
4. I seek out MY PARENTS when something bad happens.	1	2	3	4	5
5. I am <u>not</u> the kind of person who quickly turns to MY PARENTS in times of need.	1	2	3	4	5
6. I do <u>not</u> often ask MY PARENTS to comfort me.	1	2	3	4	5
7. I feel that MY PARENTS believe that I depend on them too often.	1	2	3	4	5
8. I rely on MY PARENTS when I'm having troubles.	1	2	3	4	5
9. I worry that MY PARENTS think I need to be comforted too much.	1	2	3	4	5
10. I rarely feel like I need help from MY PARENTS.	1	2	3	4	5
11. I rarely turn to MY PARENTS when I am upset.	1	2	3	4	5
12. I seek out MY PARENTS for comfort and support.	1	2	3	4	5
13. It is easy for me to turn to MY PARENTS when I have a problem.	1	2	3	4	5
14. I do <u>not</u> like to turn to MY PARENTS when I'm bothered about something.	1	2	3	4	5
15. I am afraid that MY PARENTS think I am too dependent.	1	2	3	4	5

The following statements refer to caring for your parents. Again, we are interested in what is typical of you. Please circle only one response for each statement.

1 2 3 4 5
Strongly Disagree Disagree Neither Disagree Nor Agree Agree Strongly Agree

1. I would rather MY PARENTS work out their problems by themselves.	1	2	3	4	5
2. I am <u>not</u> comfortable dealing with MY PARENTS when they are worried or bothered about a problem.	1	2	3	4	5
3. I enjoy being able to take care of MY PARENTS.	1	2	3	4	5
4. I often help MY PARENTS more than they need or want.	1	2	3	4	5
5. I do <u>not</u> like having to comfort or reassure MY PARENTS.	1	2	3	4	5
6. I find it easy to be understanding of MY PARENTS and their needs.	1	2	3	4	5
7. I get too wrapped up in MY PARENTS' worries.	1	2	3	4	5
8. I feel comfortable with MY PARENTS coming to me for help.	1	2	3	4	5
9. I do <u>not</u> like MY PARENTS to depend on me for help.	1	2	3	4	5
10. I create difficulties by taking on MY PARENTS' problems as if they were mine.	1	2	3	4	5
11. I am comfortable with the responsibilities of caring for MY PARENTS.	1	2	3	4	5
12. It is relatively easy to respond to MY PARENTS' needs.	1	2	3	4	5
13. I want MY PARENTS to be independent and <u>not</u> need me.	1	2	3	4	5
14. I get over-involved in MY PARENTS' problems.	1	2	3	4	5
15. Sometimes I try to comfort MY PARENTS more than the situation calls for.	1	2	3	4	5

The following statements refer to other feelings in relationships with your parents. Again, we are interested in what is typical of you. Please circle only one response for each statement.

1 2 3 4 5
Strongly Disagree Disagree Neither Disagree Nor Agree Agree Strongly Agree

1. I contribute more to making our relationship work than MY PARENTS do.	1	2	3	4	5
2. Both MY PARENTS and I make frequent efforts to see or talk with each other.	1	2	3	4	5
3. Spending time together is more important to me than to MY PARENTS.	1	2	3	4	5
4. Truthfully, my relationships with MY PARENTS are just not very important to me.	1	2	3	4	5
5. I do <u>not</u> want to put much energy into my relationship with MY PARENTS.	1	2	3	4	5
6. MY PARENTS and I jointly make the important decisions in our relationship.	1	2	3	4	5

7. I want to do more things with MY PARENTS than they want to do.	1	2	3	4	5
8. I do <u>not</u> put much effort into trying to have good relationships with MY PARENTS.	1	2	3	4	5
9. MY PARENTS and I both contribute a lot to our relationship.	1	2	3	4	5
10. Our relationship is valued by both MY PARENTS and me.	1	2	3	4	5
11. I find that MY PARENTS are reluctant to get as close as I would like.	1	2	3	4	5
12. I am <u>not</u> very invested in my relationships with MY PARENTS.	1	2	3	4	5
13. I want to be closer to MY PARENTS than they want to be with me.	1	2	3	4	5
14. I am <u>not</u> very interested in making my relationships with MY PARENTS the best they could be.	1	2	3	4	5
15. MY PARENTS and I really try to understand each others' points of view.	1	2	3	4	5

APPENDIX D
RESEARCH EXPLANATION TABLE

Question	Hypotheses	Measurement	Statistical Approach
What are the relationships between the three behavioral style scores and measures of academic success?	<ol style="list-style-type: none"> 1. There is a significant positive correlation between the students in the secure category and self reported academic success. That is, students who are identified as secure by the BSQ will have a higher level of academic success (less likely to be reclassified and have higher grades) than those not secure on BSQ. 2. There is a significant negative correlation between the students in the dismissing category and self reported academic success. That is, students who are identified as dismissing by the BSQ will have a lower level of academic success (more likely to be reclassified and have lower grades) than those that are identified as secure on BSQ. 3. There is a significant negative correlation between the students in the preoccupied category and self reported academic success. That is, students who are identified as preoccupied by the BSQ will have a lower level of academic success (more likely to be reclassified and have lower grades) than those that are identified as secure on BSQ. 	<p>Behavioral style will be measured by using the parental component of the BSQ (45 item multiple choice questionnaire).</p> <p>Academic success will be measured using self reported grades most often received (multiple choice) and whether or not the student is on track for graduation (reclassified) in terms of credits (yes/no).</p>	Multiple Regression Analysis Bivariate correlation
If a relationship exists, does it vary in different populations (ie. race, socioeconomic status, age)?	<p>Demographics will not change the likelihood of academic success because attachment style is a more prominent issue.</p> <ol style="list-style-type: none"> 1. That is, students identifying as male, female, freshman, sophomore, junior, senior, receiving free/reduced lunch or not, African American, White, Hispanic, Asian/Pacific Islander, American Indian, Multiracial or other who have a secure behavioral style have a higher level of academic success (less likely to be reclassified and have higher grades) than those identified as dismissing or preoccupied on the BSQ. 2. That is, students identifying as male, female, freshman, sophomore, junior, senior, receiving free/reduced lunch or not, African American, White, Hispanic, Asian/Pacific Islander, American Indian, Multiracial or other who have a dismissing or preoccupied behavioral style have a lower level of academic success (more likely to be reclassified and have higher grades) than those identified as secure on the BSQ. 	<p>Behavioral style will be measured by using the parental component of the BSQ.</p> <p>Self-report of race (multiple choice), gender (male/female), socioeconomic status (yes/no), and age (multiple choice).</p>	

REFERENCES

- Ainsworth, M. (1989). Attachments beyond infancy. *American Psychologist*, 44(4), 709-716.
- Ainsworth, M., Blehar, M., Walters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. New Jersey: Erlbaum Hinsdale.
- Ainsworth, M., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist*, 46(4), 333-341.
- Allen, J., Fonagy, P., & Bateman, A.W. (2008). *Mentalizing in clinical practice*. Washington, DC: American Psychiatric Publishing.
- Allen, J., & Land, D. (1999). Attachment in adolescence. In J. Cassidy, & P. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical implications* (pp. 319-335). New York: Guilford Press.
- Ammaniti, M., van IJzendoorn, M., Speranza, A., & Tambelli, R. (2000). Internal working models of attachment during late childhood and early adolescence: An exploration of stability and change. *Attachment and Human Development*, 2, 328-346.
- American Academy of Pediatrics & The National Initiative for Children's Healthcare Quality. (2002). *Stimulant Medication Management Information*. Retrieved from http://www.uthsc.edu/pediatrics/general/clinical/behavior/aap_nichq_adhd_toolkit/stimulantmedmanage.pdf
- Applegate, J., & Shapiro, J. (2005). *Neurobiology for clinical social work: Theory and practice*. New York: W.W. Norton & Company.
- Arend, R., Glove, F., & Sroufe, L. (1979). Continuity of individual adaption from infancy to kindergarten: A predictive study of ego resiliency and curiosity in preschoolers. *Child Development*, 50, 950-959.
- Aviezer, O., Resnick, G., Sagi, A., & Gini, M. (2002). School competence in young adolescence: Links to early attachment relationships beyond concurrent self-perceived competence and representations of relationships. *International Journal of Behavioral Development*, 26, 397-409.

- Bak, P.L. (2012). Thoughts in mind: Promoting mentalizing communities for children. In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 202-217). New York: Routledge.
- Bateman, A., & Fonagy, P. (2006). *Mentalization-based treatment for borderline personality disorder: A practical guide*. Oxford: Oxford Press.
- Baylis, P.J. (2006). The neurobiology of affective interventions: A cross-theoretical model. *Clinical Social Work Journal*, 34(1), 61-81.
- Blatz, W. (1966). *Human security: Some reflections*. Toronto, Canada: University of Toronto Press.
- Blos, P. (1967). The second individuation process of adolescence. *The Psychoanalytic Study of the Child*, 22, 162-186.
- Boone, T., & Lefkowitz, E. (2007). Mother-adolescent health communication: Are all conversations created equally? *Journal of Youth and Adolescence*, 36, 1038-1047.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York: Basic Books.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Boyce Rodgers, K. & Rose, H. (2001). Personal, family, and school factors related to adolescent academic performance: A comparison by family structure. *Marriage and Family Review*, 33(4), 47-61.
- Brazelton, B., & Greenspan, S. (2000). *The irreducible needs of children: What every child must have to grow, learn and flourish*. Cambridge, MA: Perseus Publishing.
- Cohn, D. (1990). Child-mother attachment of six-year-olds and social competence at school. *Child Development*, 61, 152-161.
- Cozolino, L. (2002). *The neuroscience of psychotherapy: Building and rebuilding the human brain*. New York: W.W. Norton & Company.
- Cozolino, L. (2006). *The neuroscience of human relationships: Attachment and the developing social brain*. New York: W.W. Norton & Company.

- Curtis, L., Masselink, L., Ostbye, T., Hutchinson, S., Dans, P., Wright, A., Krishnan, R., & Schulman, K. (2005). Prevalence of atypical antipsychotic drug use among commercially insured youths in the United States. *Archives of Pediatric and Adolescent Medicine*, 159, 362-366.
- Domagala-Zysk, E. (2006, May). The significance of adolescents' relationships with significant others and school failure. *School Psychology International*, 27(2), 232-247.
- Doyle, A.B., & Markiewicz, D. (2005). Parenting, marital conflict, and adjustment from early adolescence: Mediated by adolescent attachment style? *Journal of Youth and Adolescence*, 34(2), 97-110.
- Duchesne, S., & Larose, S. (2007). Adolescent parental attachment and academic motivation and performance in early adolescence. *Journal of Applied Social Psychology*, 37(7), 1501-1521. doi:10.1111/j.1559-1816.2007.00224.x
- Eagle, M. (2003). Clinical implications of attachment theory. *Psychoanalytic Inquiry*, 23(1), 27-53.
- Eells, T. (2001). Attachment theory and psychotherapy research. *Journal of Psychotherapy Practice and Research*, 10, 132-135.
- Elicker, J., Englund, M., & Sroufe, L. (1992). Predicting peer competence and peer relationships in childhood from early parent-child relationship. In R. Parke, & G. Ladd (Eds.) *Family-peer relationships: Modes of linkage* (pp. 77-106). Hillsdale, NJ: Erlbaum Press.
- Fonagy, P., & Allison, E. (2012). What is mentalization? The concept and its foundations in developmental research. In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 11-34). New York: Routledge.
- Fonagy, P., Roth, A., & Higgitt, A. (2005). Psychodynamic therapies, evidence-based practice and clinical wisdom. *Bulletin of the Menninger Clinic*, 69(1), 1-58.
- Frey, A., Ruchkin, V., Martin, A., & Schwab-Stone, M. (2008). Adolescents in transition: School and family characteristics in the development of violent behaviors entering high school. *Child Psychiatry and Human Development*, 40, 1-13.
- Furman, W., Simon, V., Schaffer, L., & Bouchey, H. (2002). Adolescents' working models and styles for relationships with parents, friends, and romantic partners. *Child Development*, 73(1), 241-255.

- Gergely, G., & Watson, J. (1999). Early social-emotional development: Contingency perception and the social biofeedback model. In P. Rochat (Ed.), *Early social cognition: Understanding others in the first months of life* (pp. 101-137). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Granot, D., & Mayseless, O. (2001). Attachment security and adjustment to school in middle childhood. *International Journal of Behavioral Development*, 25, 530-541.
- Harpaz-Rotem, I., & Rosenheck, R. (2004). Changes in outpatient psychiatric diagnosis in privately insured children and adolescents from 1995 to 2000. *Child Psychiatry and Human Development*, 34(4), 329-340.
- Hazan, C., Hutt, M., Sturgeon, J., & Bricker, T. (1991). *The process of relinquishing parents as attachment figures*. Paper presented at the biennial meeting of the Society for Research in Child Development, Seattle, WA.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Hazan, C., & Zeifman, D. (1999). Pair bonds as attachments: Evaluating the evidence. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*. New York: The Guilford Press.
- Hesse, E. (1999). The adult attachment Interview: Historical and current perspectives. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 395-433). New York: The Guilford Press.
- Howes, C. (1999). Attachment relationships in the context of multiple caregivers. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 671-687). New York: The Guilford Press.
- Hunkeler, E., Fireman, B., Lee, J., Hamilton, J., He, C., Dea, R., Nowell, W., & Hargreaves, W. (2005). Trends in the use of antidepressants, lithium, and anticonvulsants in Kaiser Permanente-insured youths 1994-2003. *Journal of Child and Adolescent Psychopharmacology*, 15(1), 26-37.
- Jacobsen, T., Edelstein, W., & Hofmann, V. (1994). A longitudinal study of the relation between representations of attachment in childhood and cognitive functioning in childhood and adolescence. *Developmental Psychology*, 30(1), 112-124.
- Jacobsen, T., & Hofmann, V. (1997). Children's attachment representations: Longitudinal relations to school behavior and academic competency in middle childhood and adolescence. *Developmental Psychology*, 33(4), 703-710.

- Kanapaux, W. (2002). ADHD? Overcoming the specter of over diagnosis. *Psychiatric Times*, 19(8), 1 & 8-9.
- Kennedy, J. H., & Kennedy, C. E. (2004). Attachment theory: Implications for school psychology. *Psychology in the Schools*, 41(2), 247-259.
- Kerns, K., Aspelmeier, J., Gentzler, A., & Grabill, C. (2001). Parent-child attachment and monitoring in middle childhood. *Journal of Family Psychology*, 15, 69-81.
- Kerns, K. (2008). Attachment in middle childhood. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*. New York: The Guilford Press.
- Kestenbaum, R., Farber, E., & Sroufe, L. (1989). Individual differences in preschoolers: Relation to attachment history. In Eisenberg (Ed.), *New directions for child development, Volume 44. Empathy and related emotional responses*. San Francisco, CA: Jossey-Bass.
- Kuncel, N. R., Credé, M., & Thomas, L. L. (2005). The validity of self-reported grade point averages, class ranks, and test scores: A meta-analysis and review of the literature. *Review of Educational Research*, 75(1), 63-82.
- LeCroy, C., & Krysik, J. (2008, October). Predictors of academic achievement and school attachment among Hispanic adolescents. *Children and Schools*, 30(4), 197-209. Retrieved March 22, 2009, from Academic Search Premier database.
- Leichsenring, F., & Rabung, S. (2008). Effectiveness of long-term psychodynamic psychotherapy: A meta-analysis. *Journal of the American Medical Association*, 300(13), 1551-1565.
- Lewis, J. (2000). Repairing the bond in important relationships: A dynamic for personal maturation. *American Journal of Psychiatry*, 157, 1375-1378.
- Main, M., & Weston, D. (1982). Avoidance of the attachment figure in infancy. In C. Parkes, & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 31-59). New York: Basic Books.
- Main, M. (1991). Metacognitive knowledge, metacognitive monitoring, and cingular vs. multiple models of attachment: Findings and directions for future research. In C. Parkes, & J. Stevenson-Hinde (Eds.), *Attachment across the life cycle* (pp. 127-159). London: Tavistock/Routledge.

- Main, M. (1995). Attachment: Overview, with implications for clinical work. In S. Goldberg, R. Muir, & J. Kerr (Eds.), *Attachment theory: Social, developmental and clinical perspectives* (pp. 407-474). Hillsdale, NJ: Analytic Press.
- Main, M., Hesse, E., & Kaplan, N. (2005). Predictability of attachment behavior and representational processes. In K. Grossman, K. Grossman, & E. Waters (Eds.), *Attachment from infancy to adulthood: Lessons from longitudinal studies* (pp. 245-304). New York: Guilford Press.
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment during the preschool years: Theory, research and intervention* (pp. 121-160). Chicago, IL: University of Chicago Press.
- Malberg, N. (2012). Thinking and feeling in the context of chronic illness: A mentalization-based group intervention with adolescents. In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 147-162). New York: Routledge.
- Malberg, N. T., Fonagy, P., & Mayes, L. (2008). Contemporary psychoanalysis in a pediatric hemodialysis unit: Development of a mentalization-based group intervention for adolescent patients with end-stage renal disease. *The Annual of Psychoanalysis*, 36, 101-114.
- Mayo Foundation for Medical Education and Research. (2008). *Selective serotonin reuptake inhibitors*. Retrieved from <http://www.mayoclinic.com/health/ssris/mh00066>
- Melby, J. (1993, March). *Family context of adolescent academic competence*. Paper presented at the Biennial Meeting of the Society for Research in Child Development. New Orleans, LA.
- Moreno, C., Laje, G., Blanco, C., Jiang, H., Schmidt, A., & Olfson, M. (2007). National trends in the outpatient diagnosis and treatment of bipolar disorder in youth. *Archives of General Psychiatry*, 64(9), 1032-1039.
- Nakash-Eisikovits, O., & Dutra, L. (2002). Relationship between attachment patterns and personality pathology in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(9), 1111-23.
- National Association of Social Workers. (2008). *Code of Ethics of the National Association of Social Workers*. Retrieved from <http://www.naswdc.org/pubs/code/code.asp>

- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network. (2008). Mothers' and fathers' support for child autonomy and early school achievement. *Developmental Psychology*, 44(4), 895-907.
- National Center for Education Statistics. (2009). *Digest of education statistics*. Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=64>
- National Center for Education Statistics. (2008). *Schools and staffing survey*. Retrieved from http://nces.ed.gov/surveys/sass/tables/sass0708_035_s1s.asp
- Olfson, M., Blanco, C., Liu, L., Moreno, C., & Laje, G. (2006). National trends in the outpatient treatment of children and adolescents with antipsychotic drugs. *Archives of General Psychiatry*, 63, 679-685.
- Olfson, M., Marcus, S., Weissman, M., & Jensen, P. (2002). National trends in the use of psychotropic medications by children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(5), 514-520.
- Paulson, S. (1992, March). *Adolescents' and their parents' perceptions of parenting style: Relations with achievement*. Poster presented at Society for Research on Adolescence, Washington DC.
- Paulson, S. (1994). Relations of parenting style and parental involvement with ninth-grade students' achievement. *Journal of Early Adolescence*, 14(2), 250-267.
- Pittman, L., & Chase-Lansdale, L. (2001). African American adolescent girls in impoverished communities: Parenting style and adolescent outcomes. *Journal of Research on Adolescence*, 11(2), 199-224.
- Rice, B., Woolston, J., Stewart, E., Kerker, B., & Horwitz, S. (2002). Differences in younger, middle, and older children admitted to child psychiatric inpatient services. *Child Psychiatry and Human Development*, 32(4), 241-250.
- Rigby, K., Slee, P., & Martin, G. (2007). Implications of inadequate parental bonding and peer victimization for adolescent mental health. *Journal of Adolescence*, 30, 801-812.
- Rossouw, T. (2012). Self-harm in young people: Is MBT the answer? In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 131-144). New York: Routledge.
- Rude, S. (2002). The influence of parents on children's thoughts, feeling, and behaviors. *Building Strong Families: Insights from Research*, 3. Retrieved from <http://www.search-institute.org/system/files/InfluenceofParents.pdf>

- Sales, B., & Folkman, S. (2000). *Ethics in research with human participants*. Washington, DC: American Psychological Association.
- Scharf, M., & Mayseless, O. (2007). Putting eggs in more than one basket: A new look at the development process of attachment in adolescence. In M. Scharf, & O. Mayseless (Eds.), *Attachment in adolescence: Reflections and new angles* (pp. 1-22). San Francisco CA: Jossey-Bass.
- Schore, A. (1997). Early organization of the nonlinear right brain and development of a predisposition to psychiatric disorders. *Developmental Psychopathology*, 9, 595-631.
- Schore, A. (2002). Advances in neuropsychanalysis, attachment theory, and trauma research: Implications for self psychology. *Psychoanalytic Inquiry*, 22, 433-484.
- Schore, A. (2003). *Affect dysregulation and disorders of the self*. New York: W.W. Norton & Company.
- Schore, A. (2003). *Affect regulation and the repair of the self*. New York: W.W. Norton & Company.
- Schore, A., & Schore, J. (2008). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal*, 36, 9-20.
- Sharp, C., & Venta, A. (2012). Mentalizing problems in children and adolescents. In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 35-53). New York: Routledge.
- Siegel, D. (1999). *The developing mind*. New York: Guilford Press.
- Siegel, D. (2001). Toward an interpersonal neurobiology of the developing mind: Attachment relationships, "mindsight," and neural integration. *Infant Mental Health Journal*, 22(1-2), 67-94.
- Slade, A. (1999). Attachment theory and research: Implications for the theory and practice of individual psychotherapy with adults. In Cassidy and Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 68-88). New York: Guilford Press.
- Slade, A. (2008). The implications of attachment theory and research for adult psychotherapy: Research and clinical perspectives. In Cassidy and Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (2nd ed). (pp. 762-782). New York: Guilford Press.

- Spotts, P. (2003). Chemical kids. *Christian Science Monitor*, 95(69), 14-19.
- Sroufe, L. (1983). Infant-caregiver attachment and patterns of adaptation in preschool: The roots of maladaptation and competence. In M. Perlmutter (Ed.), *Minnesota Symposium on Child Psychology* (Vol. 16, pp. 41-91). Hillsdale NJ: Erlbaum.
- Sroufe, L. (1996). *Emotional development: The organization of emotional life in the early years*. New York: Cambridge University Press.
- Sroufe, L., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 48, 1184-1199.
- Summers, F. (2005). *Self creation: Psychoanalytic therapy and the art of the possible*. New Jersey: Atlantic Press.
- Sutton, J., Reeves, M., & Keogh, E. (2000). Disruptive behaviour, avoidance of responsibility and theory of mind. *British Journal of Developmental Psychology*, 18(Pt 1), 1-11.
- Tronick, E., & Gianino, A. (1986). Zero to three. *Bulletin of the National Center for Clinical Infant Programs*, 6(3), 1-6.
- Twemlow, S., Fonagy, P., & Sacco, F. (2012). A developmental approach to mentalizing communities through the Peaceful Schools experiment. In N. Midgley, & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 187-201). New York: Routledge.
- Urban, J., Carlson, E., Egeland, B., & Sroufe, L. (1991). Patterns of individual adaption across childhood. *Development and Psychopathology*, 67, 2493-2511.
- U.S. Department of Education. (2010). *Successful, safe and healthy students*. Retrieved from <http://www2.ed.gov/policy/elsec/leg/blueprint/successful-safe-healthy.pdf>
- Van Ijzendoorn, M. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117, 387-403.
- Wallin, D. (2007). *Attachment in psychotherapy*. New York: Guilford Press.
- Weinfeld, N., Sroufe, L., Egeland, B., & Carlson, E. (1999). The nature of individual differences in infant-caregiver attachment. In Cassidy and Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 68-88). New York: Guilford Press.

- White House. (2002). *No Child Left Behind*. Retrieved from <http://www.whitehouse.gov/news/releases/2002/01/20020108.html>
- White House. (2011). *President Obama calls on Congress to fix No Child Left Behind before the start of the next school year*. Retrieved from <http://www.whitehouse.gov/the-press-office/2011/03/14/president-obama-calls-congress-fix-no-child-left-behind-start-next-schoo>
- Zito, J., Safer, D., dosReis, S., Gardner, J., Magder, L., Soeken, K., Boles, M., Lynch, F., & Riddle, M. (2003). Psychotropic practice patterns for youth: A 10-year perspective. *Archives of Pediatric and Adolescent Medicine*, 157, 17-25.

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