

ABSTRACT

THE IMPACT OF ATTACHMENT AND SOCIAL SUPPORT ON PARENTS OF CHILDREN WITH AUTISM

By

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The present study examined the influence of attachment style, social support, and family resiliency on levels of stress, depression, and anxiety in parents who have children with autism. The study concentrated on investigating the impact of attachment anxiety, attachment avoidance, social support from family and friends, and family resiliency on stress, depression, and anxiety in parents who have children with autism. One hundred and eighty-nine participants, who were parents of children with autism and belonged to various local and national parent support organizations, filled out an online survey provided to them via email, newsletter, or group forum. Results showed that attachment avoidance, social support from friends, and family resiliency are significant predictors of stress. Furthermore, attachment anxiety, attachment avoidance, and family resiliency were indicated as being significant predictors of anxiety and depression. The current findings suggest that attachment style, family resiliency, and social support outside the family are important factors to consider in the psychological well-being of parents who have children with autism.

THE IMPACT OF ATTACHMENT AND SOCIAL SUPPORT ON PARENTS
OF CHILDREN WITH AUTISM

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CHAPTER 1

OVERVIEW OF THE STUDY

Introduction

Individuals with disabilities face numerous obstacles in their everyday lives. Often times, they may find themselves misunderstood and underrepresented. Individuals on the autism spectrum have similar experiences and consequently treatments have been developed to assist them. Sometimes, individuals with autism do not receive a diagnosis until adolescence or young adulthood and this delay in treatment affects them and their families. When an individual is diagnosed, it is a process that not only affects the individual with the disability but his or her family members as well. Having a disability can be an obstacle, but if an individual has the appropriate support from his or her family or a professional in the field of mental health, that person could have the tools necessary to achieve his or her personal goals. Unfortunately, this support is not always readily available and sometimes parents do not fully understand what is going on with their child and may feel overwhelmed with caring for a child on the autism spectrum.

In the United States, about 1 in 68 children have been recognized as having Autism Spectrum Disorder (ASD; Centers for Disease Control and Prevention [CDC], 2014a). According to the American Psychological Association (APA), ASD is a complex

neurological disorder that presents when an individual has continuous deficiencies in interacting and connecting socially with others in various contexts (2013). It is evident that an individual who is identified as having this disorder may struggle in his or her personal relationships and this will inevitably affect the people around that individual, such as family and friends. Stress in mothers of children with autism is particularly heightened when they experience decreased support (Tehee, Honan, & Hevey, 2009) and the intensity of a child's symptoms, such as increased severity, is associated with increased stress in parents (Brobst, Clopton, & Hendrick, 2009). Research indicates that perceived social support and the parents' experience of stress in caring for a child with autism are related. Parents whose children have ASD report decreased relationship satisfaction and social support (Brobst et al., 2009). In observing differences experienced by mothers and fathers, research indicates that decreased levels of support from family are connected to increased psychological distress in mothers (Bromley, Hare, Davison, & Emerson, 2004) and that fathers experience increased levels of stress and depression when parenting a child with autism (Davis & Carter, 2008).

Social support can originate from friends, family, support groups, and mental health professionals. Subsequently, the types of relationships individuals have are influenced by attachment. Collins and Feeney (2004) indicate attachment style as being composed of two dimensions, anxiety and avoidance. Attachment avoidance refers to an individual's behavior in which they try to restrain the level of vulnerability or intimacy they experience with others and attachment anxiety includes individuals' concern of being deserted or neglected by those who are close to them (Collins & Feeney, 2004). The degrees of these two dimensions are assessed in order to determine whether an

individual has secure, preoccupied, fearful-avoidant, or dismissing avoidant attachment (Collins & Feeney, 2004). Research attests to the fact that attachment style affects maternal sensitivity (Mills-Koonce et al., 2011) and that perceived social support is negatively correlated with adult attachment anxiety and avoidance (Ditzen et al., 2008). It seems that attachment has implications on perceived social support and therefore may have an effect on experienced stress. Research has yet to examine how the relationship between attachment and perceived social support and family resiliency influence the mental health of parents who have children with autism.

Statement of the Problem

Research indicates that parents who have children with autism experience significant stress and that having a child with severe autism is the biggest predictor of stress in comparison to other causes of stress (Lyons, Leon, Phelps, & Dunleavy, 2010). Specifically, mothers experience greater stress than fathers and it was found that they might need an expanded source of support (Tehee et al., 2009). In addition to differences in mothers' and fathers' experiences in parenting children with autism, Davis and Carter (2008) also found that for mothers and fathers, overall parenting stress and difficulties with parenting were related to their child's ability to connect socially. Davis and Carter found that additional differences existed among mothers and fathers; father's parenting stress is significantly affected by his child's externalizing behavior and mother's parenting stress is significantly affected by her child's problems with regulation. Although there are differences in the parenting stress experienced by parents raising a child with autism, this issue is still a factor that remains constant for both mothers and fathers (Brobst et al., 2009; Davis & Carter, 2008; Lyons et al., 2010). Mills-Koonce et

al. (2011) found that adult attachment styles and stress were factors that affect a mother's ability to parent a child. Specifically, Mills-Koonce et al. discovered that decreased sensitivity in parenting was related to a mother having an insecure attachment style. This evidence shows that there is a relationship between attachment style and the experience of a mother to stress and how this relationship may affect her parenting. Goodman and Glennwick (2012) have examined parent-child attachment of mothers and fathers in regards to how the parents of a child with autism perceive their ability to care for their child and how this affects their experienced stress. Goodman and Glennwick found that less stress was experienced when parents felt an increased attachment towards their child. Few studies have examined individual attachment in parents of children with autism and how it is correlated to the experienced stress level of having a child with autism and the types of support these parents perceive. Thus far, no studies have explored which attachment styles in parents will lead way to decreased levels of stress, anxiety, and depression and how this is related to the types of social support and family resiliency that these parents experience.

Purpose of the Study

The current study will focus on parents whose children have autism and will examine what aspects, intrapersonal and interpersonal, affect their psychological well-being. The research gained from this study will make available to those who study and work in the field of mental health a comprehensive knowledge of how parents are affected by their children's diagnoses and other intrinsic and extrinsic factors. Specifically, this study will investigate the impact of attachment style, family resiliency, and social support of parents who have a child with autism on their experienced levels of

stress, anxiety, and depression. Researching the types of attachments that these parents have will provide valuable information about how these parents are affected not only by the stressors of everyday life, but also how their own attachment styles may have an effect on their perceived social support and experience of family resiliency in caring for a child with autism. Studying these parents' attachment styles and relationships of support will help explore the notion that these parents can benefit enormously from attending to their own mental health just as much as they attend to their children's mental health. This study will examine the following research questions: (1) Do attachment style, family resiliency, and social support from family and friends impact levels of stress in parents, who have children with autism? (2) Do attachment style, family resiliency, and social support from family and friends impact levels of depression in parents who have children with autism? (3) Do attachment style, family resiliency, and social support from family and friends impact levels of anxiety in parents who have children with autism?

The Importance of the Study

There are several studies that examine the levels of stress and depression that parents experience when parenting children with autism. In addition, research has also investigated attachment style and child-rearing and has examined the effects of parent-child attachment and social support on maternal and paternal care-giving. There is not any particular research that has specifically investigated the effects of individual adult attachment on parenting a child with autism and how it is related to family resiliency, perceived social support, stress, depression, and anxiety. There is research to support the individual variables but this study will contribute to current research by specifically examining individual attachment style, family resiliency, and perceived social support

from family and friends and how they affect parents' experiences when raising a child with autism.

Operational Definitions

Adult Attachment Style

Adult attachment style as examined by previous research refers to the individual styles of attachment that people have towards others and how these perceptions of self and others influence an individual's experience of interpersonal relationships. Collins and Feeney (2004) describe attachment style as composed of an association of two dimensions—*anxiety and avoidance*. Attachment anxiety refers to an individual's concern of being deserted or ignored by those who are close to them and attachment avoidance refers to an individual's need to restrain the openness or intimacy that they experience with others (Collins & Feeney, 2004). Experience in Close Relationship Scale-Revised (ECR-R; Fraley, Waller, & Brennan, 2000) is used to measure degrees of attachment relative to the two continuous dimensions of attachment anxiety and attachment avoidance.

Anxiety

Anxiety refers to how an individual responds to an event or situation. Anxiety presents as an individual's experience of events and how they react internally to those events. Anxiety includes behavioral and emotional factors such as the expectation that something is going to occur and the feelings of fear that may surface while waiting for something to happen or not happen (APA, 2013). Anxiety can at times be distinguished by continuous and inordinate concerns and worries, as well as an inability to maintain or regulate those feelings of worry (APA, 2013). The State Trait Anxiety Inventory (STAI;

Spielberger, 1983) will be used to measure levels of state anxiety over time. State anxiety describes the anxiety that a people experience when confronted with a distressing situation and how they react to the stressor or stressors that they are faced with (Spielberger, 1983).

Autism Spectrum Disorder (ASD)

Autism Spectrum Disorder, often referred to as autism by the general population, affects an individual's ability to relate to others socially and emotionally. There are also impairments in nonverbal communication and this combined with the inability to relate to others on a social and emotional level can contribute to impairment in social functioning (Estes et al., 2009). ASD presents when an individual has ongoing paucities in interacting socially with other individuals in various situations (APA, 2013).

Depression

Depression manifests itself in an individual's experience with an extreme feeling of sadness or hopelessness. Individuals who experience symptoms of depression may find that they are unable to concentrate, have feelings of guilt, excessive sleeping, and loss of interest in pleasurable activities (APA, 2013). The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) measures levels of depression that individuals may typically experience by examining what behaviors or feelings may have occurred for them in the past week.

Parent of a Child with Autism

Parent, who is over the age of 18, of a child with autism will be defined as the biological parent of a child who has been diagnosed with autism.

Resiliency (Family Protective Factors)

Resiliency or family protective factors is a family's ability to deal with stressors that occur to the family. Specifically, resiliency and family protective factors refer to how parents are able to handle family stressors in the face of adversity and how they are affected by those stressors (Gardner, Huber, Steiner, Vazquez, & Savage, 2008). The Inventory of Family Protective Factors (Gardner, et al., 2008) measures the extent to which individuals perceive their family has exhibiting resiliency in the face of distressing situations.

Social Support

Social support can take shape in two forms, personal and professional, or as some research has defined it, formal and informal (Tehee et al., 2009). Specifically, social support is a multidimensional concept that draws from physical and emotional aspects of support such as assistance via information, close relationships such as family and interpersonal relationships such as friends, and professional services such as therapy, counseling, and or community resources (Dunst, Trivette, & Cross, 1986). For this study, social support will be defined by the two subscales' scores of the Multidimensional Survey of Perceived Social Support, specifically the family support subscale and the friend support subscale (G.D. Zimet, Dahlem, S.G. Zimet, & Farley, 1988).

Stress

Stress refers to an individuals' perception of how they can expect situations to occur or not occur in their lives and their judgment of how they interpret their lives to be controllable or overwhelming (Tehee et al., 2009). This will specifically be measured using the Perceived Stress Scale (S. Cohen, Kamarck, & Mermelstein, 1983).

CHAPTER 2

LITERATURE REVIEW

Autism

The *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (*DSM-5*) explains that autism presents as a consistent and continuous absence of the ability to communicate efficiently with others socially and in a variety of situations and settings (APA, 2013). This also includes insufficiencies in the ability to understand social-emotional reciprocity and nonverbal communication used in social exchanges, as well as an inability to sustain relationships (APA, 2013). Additionally, the *DSM-5* indicates that individuals with this disorder may also exhibit two or more of the following: significant and controlled interests, repetitive motor movements, either high or low levels of uncommon interest in sensory stimuli, a preference towards sameness, or an experience of discomfort when adjusting or adapting to changes (APA, 2013).

Past studies have shown that for those afflicted with autism, there is a distinct deficiency in the ability to interact socially (Mundy, Sigman, Ungerer, & Sherman, 1986). For children with autism, the types of interactions they have involve more instances of behavior that affect their interactions with other children such as being more unresponsive to invitations to play and less time taking turns while playing (Mundy et al., 1986). Research also suggests that children with autism do not always face extreme difficulties with non-verbal social interactions and that the struggle for these children

seems to most often occur when there is the need for the child to use behavior that involves initiating communication (Mundy et al., 1986). From an emotional aspect of social communication, children with autism between the ages of 5 and 7 have a decreased ability to identify the emotions that others convey and they struggle with the ability to recognize when an individual is angry or afraid (Rump, Giovannelli, Minshew, & Strauss, 2009). Between the ages of 8 to 12 and into adolescence, the ability for children with autism to recognize emotions increases but does not appear to develop significantly beyond this age (Rump et al., 2009). Heerey, Keltner, and Capps (2003) found that when examining theory of mind in reference to social norms and the social repercussions of behavior, children with autism between the ages of 8 and 15 exhibited difficulty in their ability to recognize self-conscious emotions and would confuse facial expressions with unassociated emotions.

Autism spectrum disorder (ASD) is usually exhibited through children's behaviors during their beginning stages of development and its pervasiveness has increased since about 40 years ago when it was initially being studied (Baio, 2014). Kanner (1943) first identified autism and described it as a preference toward sameness and an indifference towards the domain of socializing. It was not until 1980 that the *Diagnostic and Statistical Manual of Mental Disorders*, 3rd edition (*DSM-III*) legitimately acknowledged autism (Volkmar & Reichow, 2013). Although the *DSM-III* included autism, it concentrated its attention on its occurrence in children and it was not until the development of the *Diagnostic and Statistical Manual of Mental Disorders*, 3rd edition, revised (*DSM-III-R*) that acknowledgement and substantial consideration were given to the developmental aspects of autism (Volkmar & Reichow, 2013). Research provides

evidence that proposes that alterations in diagnostic practice as well as increased awareness are factors that have influenced the prevalence of ASD (Blumberg et al., 2013). Additionally, Baio (2014) found that autism was recognized within the Adult and Developmental Disabilities Monitoring (ADDM) Network for 1 in 189 girls, 1 in 42 boys, and that 1 in 68 children were recognized as having autism.

Little information is known about the explicit causes of autism, but research provides information that supports that environmental as well as genetic factors are involved in ASD (National Institute of Mental Health [NIMH], 2014). When examining the influence of genetic factors, researchers have found that there is typically no reported family history of autism in those who have it (NIMH, 2014). Factors such as the environment of the womb and other environmental risk factors such as exposure to medicine, food, air, and water may play a role in the development of autism but these factors have not been associated with the development of autism in a majority of individuals (NIMH, 2014). Although there are no specifically known causes of autism, certain factors are associated with the likelihood of developing autism. These factors include having particular genetic or chromosomal conditions like tuberous sclerosis, Down syndrome, and fragile X syndrome and the fact that parents are 2% to 18% more likely to have a second child with autism if their first child already has it (CDC, 2014b; D. Cohen et al., 2005; DiGuseppi et al., 2010; Hall, Lightbody, & Reiss, 2008; Ozonoff et al., 2011; Sumi, Taniai, Miyachi, & Tanemura, 2006; Zecavati & Spence, 2009).

Parent of a Child with Autism

Parents who have children with disabilities, including autism, are placed in a precarious situation in which they must not only attend to the needs of their child, but

also be aware of and pay attention to their own psychological stability. For parents who have a child with a disability that is learning related, intellectual, or physical, there is often an adverse biological and emotive response associated with the reaction to their child's diagnosis (Heiman, 2002). When parents have a child with a disability, there are denoted adjustments that occur in a family's experience with community and socializing (Heiman, 2002). In an examination of parents of children with developmental disabilities, Heaman (1995) found that the most pressing worry among parents is their child's future. Additionally, worries about having substantial finances are also a stressor reported by a considerable amount of parents (Heaman, 1995).

Previous studies have shown that while individuals with autism experience apparent difficulties in interacting socially, individuals on different parts of the spectrum may or may not have such significant or similar challenges (Ozonoff, South, & Miller, 2000). Specifically, Ozonoff et al. (2000) found that in language-based assessments individuals with Asperger syndrome, a previous diagnosis on the autism spectrum, performed well and that individuals with high- functioning autism or Asperger syndrome showed increased aptitude with ingenuity as well as imaginative play. While some individuals on the autism spectrum display increased cognitive abilities, Matson and Shoemaker (2009) have inferred from previous research that autism commonly co-occurs with intellectual disability. In a study of mothers and fathers who have a child with intellectual disability and/or autism, it was found that mothers of children with autism and mothers of children with intellectual disability experience increased symptoms of depression (Olsson & Hwang, 2001); increased distress is more often experienced by mothers who have a child with autism (Olsson & Hwang, 2001). Kent, Evans, Paul, and

Sharp (1999) found that autism also co-occurs with Down syndrome with 7% prevalence of comorbidity. Differences exist in the experiences among mothers and fathers of children who have Down syndrome or autism; specifically, for fathers who have a child with autism or Down syndrome there is increased difficulty with financial strains and the ability to prepare for the family (Rodrigue, Morgan, & Geffken, 1992). In comparison with parents who have children with Down syndrome, parents who have a child with autism report higher levels of stress and mothers of children with autism have increased levels of parental stress in comparison with their paternal counterparts (Dabrowska & Pisula, 2010). While research is inclusive of the experiences of both mothers and fathers in the experience of parenting children with autism, most studies tend to focus on significant findings in the mother's experience. This may have to do with the roles mothers and fathers have and how certain roles in child rearing may contribute to different experiences among mothers and fathers.

Stress

Stress pertains to an individual's understanding of how they can anticipate or assume events or situations are going to occur or not occur in their lives and their conclusion of how they deduce their lives to be manageable or overwhelming (Tehee et al., 2009). Lazarus (1993) states that there are typically four concepts that must be referred to when identifying the course of stress. When stress occurs in an individual there is usually something intrinsic or extrinsic that instigates feelings of stress (Lazarus, 1993). Lazarus states that during times of stress there is a process that occurs. This process includes an assessment or appraisal of the stressor by the individual to determine whether or not it is threatening, a psychological or physical system that is used by the

individual to deal with the stressor, and a reaction to the stress that explains the impact the stressor had on the individual mentally and physically (Lazarus, 1993). Although stress affects many individuals, it has different impacts on the experiences of each person. This indicates that individual perceptions play an integral role in experienced stress as well as the ability of the individual to deal with the presented stressor.

Considering the responsibilities of caring for a child, it would seem commonplace that parents will most likely experience stress at some point when raising a child. The process of child rearing requires some level of adaptation and adjustment for parents. Since changes occur in child rearing that parents must adjust to, it may be suggested that parents are required to then learn how to manage and cope with the stress that comes with those changes.

Quittner, Glueckauf, and Jackson (1990) point out that the stress an individual experiences can be defined as either an acute or a chronic stressor and that life events are usually acute stressors because they are not long lasting. Adjustments can be made to a stressor so that it does not last as long but when the stress persists the adjustment is prolonged and the stressor may then be considered chronic (Quittner et al., 1990). In the context of this theory, the life event of becoming a parent would initially bring with it a stress reaction to a new change and eventually over time adjustment would mitigate that initial stress. In the case of parents who have a child with a disability, there is an additional stressor to adjust to and this may affect their experience and ability to adjust in comparison to a parent who has a child without a disability. Quittner et al. found that in mothers who have a deaf child, persistent and continuous strain in parenting the child negatively affected the mother's perception of social support. The experience of

parenting a child is an invested process and the additional accountability of parenting a child with a disability adds increased stress.

Stress is one of the more prominently reported circumstances associated with parenting a child with autism. Bromley et al. (2004) found that increased intensity of challenging behavior with autism is associated with increased levels of psychological distress in parents. Specifically, the biggest and constant indicator of stress for parents is the severity of their child's autism (Lyons et al., 2010). In addition to increased levels of challenging behavior being a predictor of stress, other research also indicates that problem behavior, specifically, is connected to the stress that parents experience (Estes et al., 2009). This indicates that not only the severity of symptoms that a child exhibits is related to the stress parents experience when parenting a child with autism, but that individual behaviors that are specific to children with autism are also associated with the stress that parents experience. Rao and Beidel (2009) found that in families of children with autism, families experience significant diminished functioning as well as elevated levels of stress. Additionally, the problem behaviors related to autism spectrum disorder are not improved by the presence of high intellectual functioning in children (Rao & Beidel, 2009). This indicates that the behaviors of children with autism persist across the spectrum and contribute to parents' experiences whether or not their child is high functioning. Other factors involved with parenting a child with autism that influence experienced stress are different styles of coping (Cappe, Wolff, Bobet, & Adrien, 2011). In an examination of the Ways of Coping scale (Folkman & Lazarus, 1980), there are two identifiable ways of coping: emotion-focused which is related to dealing with emotional suffering and problem-focused coping, which is associated with

problem solving. In a comparison of emotion-focused coping strategies and problem-solving coping strategies, Cappe et al. (2011) found that parents who used emotion-focused coping strategies experienced disadvantageous living experience and increased parental stress. Cappe et al. resolved that this was in part related to the fact that parents who used emotion focused coping strategies often experienced less social support, felt less control over their child's situation, and increased feelings of guilt. Additionally, parents who have children with autism are also less likely to use social diversion coping (Dabrowska & Pisula, 2010). In addition to the influence of coping strategies on stress, research also shows that stress is generally an associated factor for both mothers and fathers; mothers experience more stress than fathers but fathers also experience relatively increased symptoms of depression and stress (Davis & Carter, 2008).

Anxiety and Depression

Anxiety is another facet similar to stress that is associated with the experience of parents who have children with autism (Sharpley, Bitska, & Efremidis, 1997); in parents who have children with autism, levels of anxiety are increased (Bitsika & Sharpley, 2004; Bromley et al., 2004; Sharpley et al., 1997). Individuals who experience symptoms of anxiety often feel tense, annoyed, tired, agitated, unable to focus, and have difficulty sleeping due to continuous worry (APA, 2013). Anxiety contributes to psychological distress and can interfere with an individual's ability to function if it reaches clinically severe levels. Depression and anxiety have been known to be present simultaneously in some individuals and, in some instances, individuals diagnosed with anxiety often exhibit increased symptoms of depression (Gorman, 1996). Additionally, individuals who experience both anxiety and depression often experience a diminished response to

treatment and increased inability to function socially (Gorman, 1996). Depression presents within an individual as a probing experience of feeling intense sadness or hopelessness. For those who experience signs of depression, they may experience the inability to concentrate, have feelings of guilt, excessive sleeping, and loss of interest in pleasurable activities (APA, 2013). Among the differences that parents experience in parenting a child with autism, fathers experience less anxiety than mothers and a child's behavior problems are related to a mother's stress (Hastings, 2003).

Additionally, research shows that mother experience more anxiety and are oftentimes more affected by the mental health of their child's father (Hastings, 2003). Like anxiety, depression can also impede upon an individual's ability to function in various aspects of life.

Parents are not impervious to the risks of anxiety and depression; research indicates that a potential precursor to stress in parents of children with autism is the presence of depressive symptoms in mothers and fathers belonging to a partnership (Hastings et al., 2005). This evidence shows that not only are depression, stress, and anxiety associated with one another, but that they play a role in the experiences of parents who have children with autism. Depression is reported considerably among parents of children with autism and research has shown that increased levels of anxiety and depression are related to increased parenting stress (Bitsika, Sharpley, & Bell, 2013); the severity of a child's symptoms is a predictor of depression in parents (Benson, 2006). This suggests that stress, depression, and anxiety are commonly associated with the mental health of parents who have children with autism. Although research indicates that the behavior of children with autism affects parents' mental stability so do other factors

such as social support, attachment style, and family resiliency (Boyd, 2002; Goodman & Glenwick, 2012; Luther, Canham, & Cureton, 2005).

Attachment

Attachment style influences the nature of the relationships that individuals have with one another, and more specifically how an individual interacts and develops relationships with others. Bowlby (1969) explains that attachment style develops in childhood and is molded by the relationship that is established between a child and his or her caregiver. There are also processes that affect the development of attachment in children such as reactions that are received to certain behaviors, an innate preference to seek out that which is known, learning to recognize what is known from what is unfamiliar, and an inclination to seek out patterns that are bias to other individuals (Bowlby, 1969). Ainsworth (1979) describes the facets of attachment and how the distress that individuals experience as children is evaluated partially by feelings and also influenced by the availability of the caregiver to the child. Attachment development proceeds throughout infancy up until about three years of age when the behaviors associated with attachment such as actively expressing a need for the caregiver subside (Bowlby, 1969). Once the need to actively express needs dissipates, attachment behavior is not as prominent and becomes a characteristic of the individual, which influences the relationships they begin to develop with other people besides their primary caregiver (Bowlby, 1969). As individuals age, the relationships they develop with others are influenced by their working models of attachment and they gauge their experience in new relationships upon the experience that they had previously with expectations from others (Hazan & Shaver, 1987).

In children, it has been proposed that there are three styles of attachment: secure, anxious resistant, and anxious avoidant (Ainsworth, 1979; Bowlby, 1969). In adults, research has indicated that there is an adult attachment process present in romantic love (Hazan & Shaver, 1987). Bartholomew (1990) proposed a prototypic model in which there are four different attachment styles into which individuals can fall based upon levels of avoidance and dependence. This model is used to facilitate the presentation of four types of anxiety for adolescents and adults: secure, avoidant, anxious ambivalent, and disoriented or disorganized (Bartholomew, 1990). Hazan and Shaver (1987) explain that attachment in adulthood is representative of a romantic bond between individuals. In the same ways that a parent-child attachment works so does a romantic attachment between adults, (Fraley and Shaver, 2000). Fraley and Shaver (2000) point out that this similar process occurs in the behaviors that take place such as shared experiences and making new discoveries together. Both types of attachment, parent-child and adult romantic, serve as a benefit to individuals during times of distress. Quality of attachment or even its mere presence is not determined by various individual characteristics of attachment, but rather individual characteristics of attachment influence the relationship between two individuals (Fraley & Shaver, 2000). Fraley and Shaver explain that the nature of the attachment relationship fulfills three main purposes, which are its use as a method with which to preserve closeness, a means to be able to explore, but still have stability and security, and a source of protection. The attachment relationship serves as a cornerstone with which people seek out support and security. In light of such qualities individuals will feel comfortable to go on their own and discover things for themselves, but know that they can always come back to that security should

they experience some kind of distress. Behavior associated with attachment repeats itself in adulthood similarly to the way in which it occurs in infancy; the attachment behaviors are initiated and ended based on the same motivations (Hazan & Shaver, 1994). When examining parent-child attachment among parents who have children with autism, Goodman and Glenwick (2012) discovered that an increased attachment towards their child was associated with experiencing less stress.

Perceived Social Support

Social support is comprised of support from various outlets such as friends and family, mental health professionals, and information resources; these forms of support are meant to provide assistance to individuals on a physical and emotional level (Dunst et al., 1986). Social support provides an avenue with which individuals can overcome the hardships and distressing situations that they experience. Some individuals find this support through the assistance of family and friends while others who may not have such resources may choose to seek out professional sources of social support. Although support may be readily available for various individuals, the extent to which such support is helpful is partially dependent upon how received support is perceived by the individual (Collins & Feeney, 2004).

Current research shows that different styles of attachment are associated with perceived social support and psychological distress (Mallinckrodt & Wei, 2005). Collins and Feeney (2004) found that support is perceived less preferably by individuals who have increased anxiety and avoidance attachment styles. For adults with secure attachment style, social support assists in stressful situations and eases anxiety whereas perceived stress is increased in individuals with elevated anxious and avoidant

attachment styles (Ditzen et al., 2008). While the perception of perceived social support is dependent upon the interpretation of the individual receiving support it seems that attachment is a significant factor associated with perceived social support. Given that there are four different adult attachments styles, it is imperative to take into consideration that decreased perceived social support and increased psychological distress are related to attachment anxiety and avoidance (Mallinckrodt & Wei, 2005). Attachment style, which develops typically during infancy and becomes intertwined internally within the individual, not only affects the interactions people have with others but also impacts the perceptions and reactions of individuals to distressful situations.

Family Resiliency

Resiliency in a psychosocial sense refers to the ability of individuals to manage and adapt in the face of situations that are distressing or pose a risk (Rutter, 1987). Essentially people are faced with various situations throughout their lives in which they must learn to overcome difficulties and adjust and resiliency can assist individuals in doing so. The presence of resiliency depends not only on the individual, but also upon the nature of the existing stressor as well as the resources available to the individual (Rutter, 1987).

When discussing resiliency as quality of a family unit, it is described as the capability of the family and the qualities they have that assist them in overcoming stressors that pose a risk to the family as a whole (Luthar, Cicchetti, & Becker, 2000). More specifically, the Family Adaptation Model explains that family resiliency consists of adjustment, demands, managing, or dealing with things, evaluations, and support (Drummond, Kysela, McDonald, & Query, 2002; McDonald et al., 1997). The Inventory

of Family Protective Factors (IFPF; Gardner et al., 2008) proclaims that the protective factors within family resiliency are assessed alongside stressors to evaluate the ways in which the family adapts to the present stressors. The ability of a family to protect itself and exude resiliency in the face of adversity is influenced by the stressor presented and the qualities of the family itself such as the way in which they assess the stressor, social support, coping, and the pressures and demands on the family.

For families who have children with autism, research shows that family resiliency has the ability to move some families out of adversity and give them a more affirmative experience (Bayat, 2007). This emphasizes that although parenting a child with autism can potentially cause distress, family resiliency can promote an experience of parenting that is geared more towards positivity and growth. Bayat (2007) also found that parents of children with autism were able to learn from their experiences in raising a child with autism. Some factors may be of specific consideration in contributing to the resiliency of a family with autism since their experiences are bound to be different from those of a family raising a child without a disability. Greeff and Van Der Walt (2010) found that additional children in the family, socioeconomic status, open communication, and family cohesion were all factors that affected family resiliency for families that had a child with autism.

Conclusion

Autism is a disability that affects individuals and their ability to connect with others socially. Autism serves as an interference towards the individual's ability to function socially and that includes interactions that they have with various people such as family, friends, teachers, and others they may come into contact with. As mentioned,

family plays a role in social interactions and family is typically the first immediate social interaction that an individual is exposed to. Parents specifically are the ones with whom children often have their first social interactions and parents are the ones who care for and raise the child. Raising a child with autism brings with it a different experience from parenting a child without a disability. It can be a learning experience but with it also comes adjustment, adaptation, and psychological distress.

Research provides evidence that stress, anxiety, and depression are interconnected themes that are associated with the experiences of parents who have children with autism. In particular, it seems that mothers more often than fathers are significantly affected by the stress of parenting a child with autism (Rao & Beidel, 2000; Tehee et al., 2009). This may have to do with certain parental roles that parents take on and this could be attributable to different cultural and societal factors. Although mothers and fathers take on different roles in their families, previous research shows that both parents are affected psychologically by the responsibilities of caring for a child with autism (Bromley et al., 2004; Estes et al., 2009; Lyons et al., 2010).

Different factors besides those associated with psychological distress also influence the experience that parents have when raising a child with autism. Specifically, social support and family resiliency have shown to be factors that are associated with a parent's experience in raising a child with autism (Brobst et al., 2009; Bromley et al., 2004). For these parents, experiences of stress and seclusion are stabilized and alleviated by social support (Dunn, Burnien, Bowers, & Tanleff-Dunn, 2001). Family resiliency provides parents with a more positive attitude towards their experience and provides them with the means to adjust and adapt from the stressors they may face (Bayat, 2007). Past

research provides information that social support and resiliency have the potential to act as factors that may help to ameliorate the stressors that are experienced in parenting a child with autism.

In addition to psychological distress, social support, and family resiliency, which all play integral roles in the experiences of parents who have a child with autism, attachment is another factor that still has yet to be explored with this population. Research has examined the effects of attachment on the experiences in parenting (Mills-Koonce et al., 2011) as well as the effects of parent-child attachment on the experiences of parents who have children with autism (Goodman & Glenwick, 2012). Limited information is available on adult attachment and the experience of parenting a child with autism and research has yet to investigate how individual adult attachment, social support, and family resiliency affect the experience of stress, depression, and anxiety in parents who have children with autism.

Conceptual Framework

Parents' experience in raising a child with autism is influenced by a variety of factors. In this study, it is hypothesized that there is a relationship among attachment, perceived social support, and family resiliency. In the following framework, it is proposed that a relationship exists between social support and family resiliency. This relationship is also evidenced in previous research found on the Family Adaptation Model (Drummond et al., 2002). This model asserts that family resilience is indicated by the presence of social support, an individual's ability to manage stressors, and an individual's personal judgments of stressors (Drummond et al., 2002). Evaluations of hostile situations are thought to be perceived less so when an individual sees support as

readily available (Lahey & S. Cohen, 2000). In another respect, the increased ability of an individual to deal with a distressing situation is thought to be influenced by supportive actions (Lahey & S. Cohen, 2000).

In the present study, anxiety and avoidance, which are the two dimensions with which attachment style is measured, are thought to affect perceived social support as well as perceptions of experienced family resiliency. Mikulincer and Florian (2001) indicate that reactions to distressing situations are impacted by the type of attachment style an individual has. Individuals with different attachment styles may use certain types of coping strategies depending on their attachment style, subsequently affecting their overall mental health (Mikulincer & Florian, 2001). When the association between attachment style, social support, and family resiliency is taken into consideration, the following framework proposes that these factors affect experiences of stress, depression, and anxiety in parents who have children with autism. Figures 1, 2, and 3 depict this conceptualization through the following frameworks.

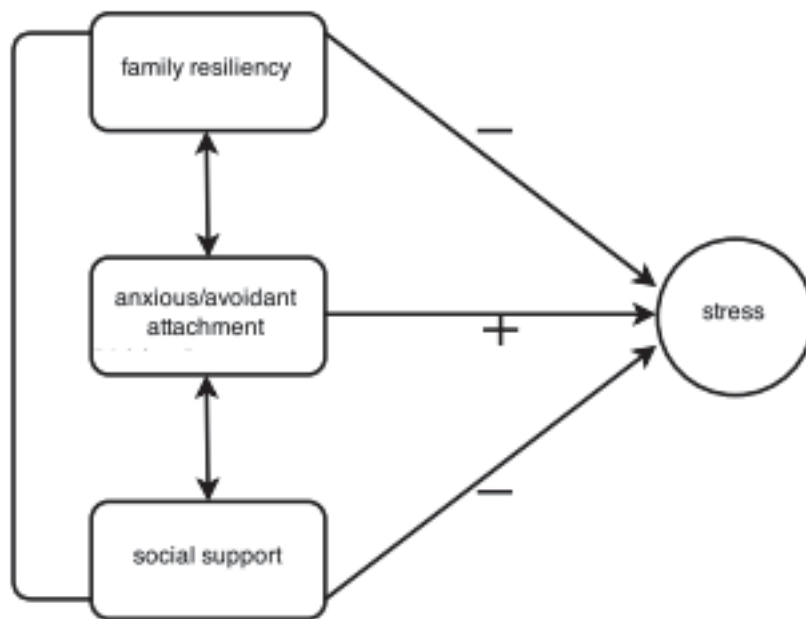


FIGURE 1. The relationship between attachment style, social support, family resilience and experienced stress.

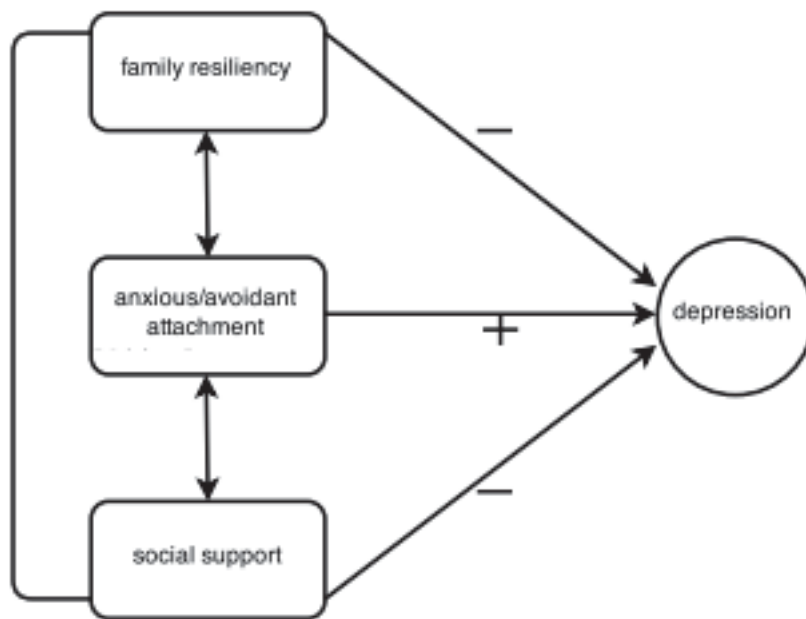


FIGURE 2. The relationship between attachment style, social support, family resilience and experienced depression.

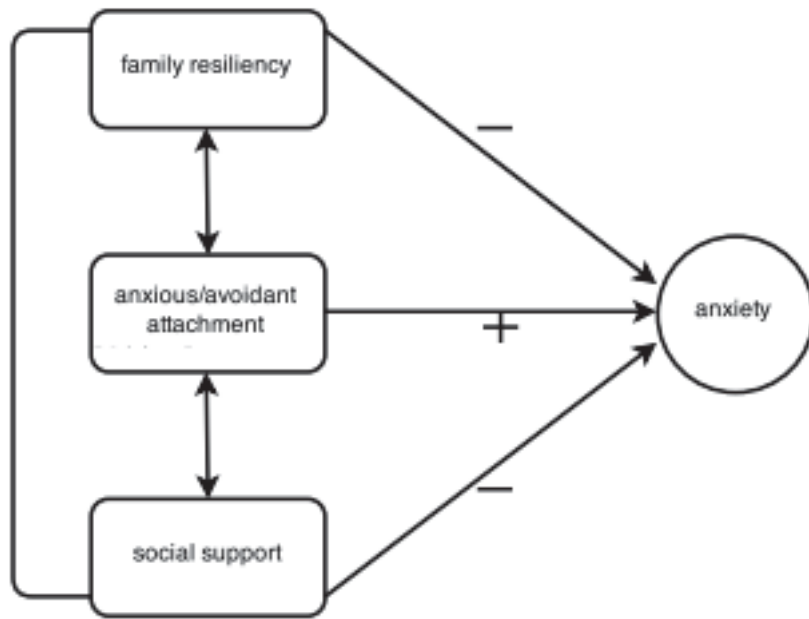


FIGURE 3. The relationship between attachment style, social support, family resilience and experienced anxiety.

CHAPTER 3
METHODOLOGY

Introduction

The present study sought to examine the impact of attachment, social support from family and friends, and family resiliency on the experience of depression, anxiety, and stress in parents who have a child with autism. Although there has been research on parents who have children with autism and the stress that they experience, few studies examine attachment and its effect on these parents. Some studies have examined parent-child attachment and found that parent perceptions of increased attachment toward their child are related to a decline in experienced stress, specifically in parents who have a child with autism (Goodman & Glenwick, 2012). Individual attachment styles are indicative of the interactions and relationships people have with one another (Collins & Feeney, 2004) and research indicates that the experience of distress is associated with decreased presence of social support (Brobst et al., 2009). In an examination of the attachment styles of parents who have children with autism, there is an absence of information on their individual attachment styles and what relationship it has with experienced anxiety, depression, stress, family resilience, and social support from family and friends specifically.

The following hypotheses will be tested: (1) Attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends impact

levels of stress in parents who have children with autism. (2) Attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends impact levels of depression in parents of children with autism. (3) Attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends impact levels of anxiety in parents who have children with autism.

Participants

Sample subjects that completed the survey were 230 individuals who were the biological parents of at least one child who has been diagnosed on the autism spectrum. This sample size of participants included males and females between 18 and 65 years of age. Individuals who were not biological parents and did not have a child diagnosed on the autism spectrum were removed from the sample used for this study. Individuals, who did not complete at least one of the apparatuses included in the online survey, were removed from the study as well. Following these exclusion criteria, the remaining number of eligible participants was 189, which was then utilized as data for the study and analyzed. All of the participants distinguished themselves as biological parents between the ages of 18 and 65 with at least one child who has been diagnosed on the autism spectrum. Participants were informed that their involvement in the study was optional and that at any time if they so choose they could disengage from the study. The survey was disseminated to various local and national parent support organizations, which are focused on the needs of children on the autism spectrum as well as parents, and families of children on the autism spectrum. The survey was distributed to these organizations' members via email, newsletter, or group forum. The survey was formatted using Qualtrics.com and each participant who completed the survey qualified to partake in a

drawing to win one of two \$50 VISA gift cards.

In addition to the scales included in the survey, demographics were also compiled on the participants. This demographic information included the participant's gender, age, ethnic identification, geographic location by region, annual income, highest level of education, number of children with autism, and whether they belonged to a one-parent or two-parent household.

TABLE 1. Descriptive Characteristics of Participants

Variable	<i>n</i>	%
Gender		
Male	21	11.2
Female	167	88.8
Age		
<i>M</i> = 44.43		
<i>SD</i> = 8.013		
Range = 25 - 64		
Ethnic Identification		
African American	9	4.8
Asian/ Pacific Islander	14	7.5
Black or Hispanic or Latino	24	12.9
Native American or American Indian	2	1.1
White Caucasian	137	73.7
Geographic Location by Region		
Western States	126	67
Midwestern States	11	5.8
Northeastern States	18	9.5
Southern States	33	16.7
Annual Income Range		
0-10,000	12	6.9
10,001-20,000	10	5.7
20,001-30,000	11	6.3
30,001-40,000	24	13.8

TABLE 1. Continued

Variable	<i>n</i>	%
40,001-50,000	17	9.8
50,001-60,000	8	4.6
60,001-70,000	10	5.7
70,001-80,000	12	6.9
80,001-90,000	12	6.9
90,001-100,000	8	4.6
100,001 or more	50	28.7
Highest Level of Education		
No schooling completed	1	.5
Nursery school to 8 th grade	0	0
Some high school, no diploma	2	1.1
High school graduate, diploma or the equivalent (for example: GED)	11	5.8
Some college credit, no degree	30	15.9
Trade/technical/vocational training	12	6.3
Associate degree	17	9.0
Bachelor's degree	58	30.7
Master's degree	41	21.7
Professional degree	6	3.2
Doctorate degree	11	5.8
Number of Children With Autism		
One	160	85.1
Two	24	12.8
More than two	4	2.1
One-Parent or Two-Parent Household		
One	38	20.1
Two	151	79.9

Instrumentation

Experience in Close Relationship Scale- Revised (ECR-R)

This survey is a revised version of the Experience in Close Relationship (Fraley et al., 2000) comprised of 36 questions composed of two sub-scales that measure aspects of adult attachment and categorize responses into categories of avoidance or anxiety.

Questions 1 through 18 assess attachment anxiety and 19 through 36 assess attachment avoidance. Every question is based on a 7-point Likert scale, which ranges from 1 (strongly disagree) to 7 (strongly agree). For questions 9, 11, 20, 22, 26, 27, 28, 29, 30, 31, 33, 34, 35, and 36 there is a reverse score. The instrument measures feelings an individual has in intimate relationships and this includes not just current relationships but also feelings towards relationships in general. This questionnaire assesses feelings about experience in romantic relationships in individuals who have had relationships and also accounts for individuals who have not had experience in romantic relationships (Fraley et al., 2000). Sibley, Fischer, and Liu (2005) found that as illustrations of a measure of attachment in a romantic jurisdiction the ECR-R had convergent validity. Both subscales of attachment anxiety and avoidance within the measure showed reliability for the measure (Sibley & Liu, 2004) and in past research Vicary and Fraley (2007) found that the avoidance subscale on the ECR- had a Cronbach's alpha of .94 and .92 for the anxiety subscale. The Cronbach's α of the ECR-R Attachment Anxiety for this study was .94.

The Cronbach's α of the ECR-R Attachment Avoidance for this study was .95.

The Perceived Stress Scale-10 item (PSS-10)

The Perceived Stress Scale (PSS-10; S. Cohen & Williamson, 1988) which was originally adapted from the PSS-14 (S. Cohen et al., 1983) is a scale that measures

perception of stress among individuals. The PSS-10 utilizes easy to understand and general questions to assess an individual's experience of stress. Specifically, 10 questions are used to assess an individual's thoughts and feelings and the prevalence of how often they experience those thoughts and feelings. For questions 4, 5, 7, and 8 there is a reverse score. The answer options include: never, almost never, sometimes, fairly often, and very often. These are in nominal order of 0 to 4, respectively. Once the questions are completed and the reverse scores are calculated, all of the scores of each answer are added to give a total score out of 40. Individuals who receive higher scores are those individuals who perceive their experienced stressors as out of their control and have a decreased ability to cope with such stressors. Roberti, Harrington, and Storch (2006) found that the PSS-10 had high .89 Cronbach's alpha reliability and showed convergent validity with the STAI. The Cronbach's α of the PSS for this study was .91.

Center for Epidemiologic Studies Depression Scale (CES-D)

This questionnaire is composed of 20 questions and assesses current symptoms of depression and subsequent levels. Specifically, this questionnaire utilizes 20 questions to assess symptoms of depressed mood and affect. Each question has an answer to choose from. The answer options include: rarely or none of the time (less than 1 day), some or a little of the time (1-2 days), occasionally or a moderate amount of time (3-4 days), most or all of the time (5-7 days). For questions 4, 8, 12, and 16 there is a reverse score. The scale is not significantly affected by other (normal) diagnoses and this scale examines relationships between depression and other factors present in the individual (Radloff, 1977). The CES-D has been found to have high reliability as well as substantial validity; both were found among a range of different population samples (Radloff, 1977).

Specifically, it has been found that there is a coefficient alpha above .80 across ages (Radloff, 1977). The Cronbach's α of the CES-D for this study was .94.

State Trait Anxiety Inventory (STAI); S-Anxiety Scale (Form Y-1)

This instrument measures anxiety in two aspects: state and trait anxiety. Measurements of state and trait anxiety are represented by the S-Anxiety Scale (Form Y-1) and T-Anxiety Scale (Form Y-2), respectively. State anxiety represents how an individual feels in the present moment or in a specific situation such as the recent past (Spielberger, 1983). Of the two anxiety subscales included on the STAI, the state anxiety subscale S-Anxiety Scale, which consists of 20 items, was used to assess anxiety in individuals in terms of how they currently experience anxiety. Each question has a selection of four answers to choose from. The selection of answers include: not at all, somewhat, moderately so, and very much so. These answers are provided in nominal order of 1 to 4, with 4 indicating an increased level of anxiety. For the state anxiety scale, the answers are reverse scored for questions 1, 2, 5, 8, 10, 11, 15, 16, 19, 20. Weighted scores are summed to produce a total score, which can be anywhere from a maximum of 80 to a minimum of 20. In a generalization of the reliability of the STAI among a number of studies dating from 1990 to 2000, Barnes, Harp, and Jung (2002) found that was an average of .92 reliability coefficient for S-Anxiety. The Cronbach's α of the STAI State Anxiety Scale for this study was .95.

Multidimensional Survey of Perceived Social Support (MSPSS)

This instrument is a 12-item questionnaire that evaluates individual's perceived social support. Specifically, perceived social support is assessed by examining support received from other individuals in a person's life (G.D. Zimet, Powell, Farley, Werkman,

& Berkoff, 1990). The measure consists of three subscales, which are divided into friends, significant other, and family. Response options to questions are presented in a 7-point Likert scale format, which ranges from 1 (very strongly disagree) to 7 (very strongly agree). Of the three subscales, the Friends and Family subscales were used; the Friends subscale includes questions 6, 7, 9, and 12, while the Family subscale includes questions 3, 4, 8, and 11. The questions for each subscale are added to give a total score for each subscale. To produce a score for the total scale, responses to all 12 questions can be added and then divided by 12. For a group of college students ages 17 to 22, reliability Cronbach's alpha was found to be a .88 for the entire scale and was .85 for the Friends subscale, .87 for the Family subscale, and .91 for the Significant Other subscale (G.D. Zimet et al., 1988). In an additional test of internal consistency for pregnant women, adolescents, and pediatric residents, G.D. Zimet et al. (1990) found that Cronbach's alpha for the entirety of the scale was between .84 and .92. The Cronbach's α of the MSPSS-Friends Sub-scale for this study was .94. The Cronbach's α of the MSPSS-Family Sub-scale for this study was .92.

Inventory of Family Protective Factors (IFPF)

This is a 16-item inventory that measures a family's resilience to stressors that occur to the family. Specifically, this scale assesses how parents are able to handle family stressors in the face of adversity and how they are affected by those stressors (Gardner et al., 2008). The inventory is composed of four subscales, which include questions 1 through 4 representing the Fewer Stressors subscale, questions 5 through 8 representing the Adaptive Appraisal subscale, 9 through 12 representing the Social Support subscale, and 13 through 16 representing the Compensating Experiences

subscale. In order to determine the scores for the IFPF subscales, individuals scores can be obtained for each subscale by adding the total scores for the 4 items included on each scale, which can provide a minimum of 4 and a maximum of 20. A reverse score is calculated for responses on item 3, which is on the Fewer Stressors subscale. In order to determine a score for the entire IFPF scores are added from each of the four subscales, which can provide a minimum of 16 and a maximum of 80. Gardner et al. (2008) found that with the inclusion of all scales on the IFPF, the measure has substantial reliability and construct validity. Additionally, Cronbach's alpha showed reliability of .88 for the IFPF (Gardner et al., 2008). The Cronbach's α of the IFPF for this study was .91.

Procedure

The research was conducted using an online survey, which was distributed through email, online newsletters, and online group forums to members belonging to various organizations that support the needs of parents and families who have a child with autism. One organization agreed to post a flyer including information about the research, a link to the survey on Qualtrics.com, and the investigator's contact information in the reception area of the physical location of their organization. After the Institutional Review Board (IRB) approval was obtained, individuals received one of three options: an email including information about the survey and a link to the survey on Qualtrics.com, a newsletter containing information about the survey and a link to the survey on Qualtrics.com, or a notification of a posting on a group forum including information about the survey and a link to the survey on Qualtrics.com. The survey was comprised of a cover page that included a review of informed consent, demographics questions, the MSPSS, the ECR-R, the STAI, the PSS, the CES-D, and the IFPF. This compilation of

scales and questions made for a total of 126 questions, which took about 20 to 30 minutes to complete. Individuals were also given information regarding incentive for taking the survey, which was a chance to enter a drawing to win one of two \$50 VISA gift card. At the end of the survey, individuals were directed to a final page in which they were given the opportunity to elect to participate to enter the drawing and were told to contact the researcher via email if they were interested in participating. To protect their privacy, they were informed that their e-mail text should only illustrate that they desire to be involved in the drawing and to provide no further contact information. After the data collection window closed, an individual was selected from the pool of emails received and was asked by the researcher to provide a name and mailing address to which the gift card was sent. Survey data collected was available only to the researcher who was required to log into www.qualtrics.com with a username and password in order to access the information.

Data Analysis

Hypothesis 1

It is hypothesized that attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends will impact levels of stress in parents who have children with autism. As scores increase on the attachment anxiety scale of the Experience in Close Relationships Revised, increase on the attachment avoidance scale of the Experience in Close Relationships Revised, decrease on the Inventory of Family Protective Factors, decrease on the Multidimensional Survey of Perceived Social Support Family sub-scale, and decrease on the Multidimensional Survey of Perceived Social Support Friends sub-scale, scores on the Perceived Stress Scale will

increase. Multiple regression will be used to test the hypothesis that the ECR-R (Anxiety and Avoidance), IFPF, and MSPSS (Family and Friends) will impact the PSS.

Hypothesis 2

It is hypothesized that attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends will impact levels of depression in parents who have children with autism. As scores increase on the attachment anxiety scale of the Experience in Close Relationships Revised, increase on the attachment avoidance scale of the Experience in Close Relationships Revised, decrease on the Inventory of Family Protective Factors, decrease on the Multidimensional Survey of Perceived Social Support Family sub-scale, and decrease on the Multidimensional Survey of Perceived Social Support Friends sub-scale, scores on the Center for Epidemiologic Studies Depression Scale will increase. Multiple regression will be used to test the hypothesis that the ECR-R (Anxiety and Avoidance), IFPF, and MSPSS (Family and Friends) will impact the CES-D.

Hypothesis 3

It is hypothesized that attachment anxiety, attachment avoidance, family resiliency, and social support from family and friends will impact levels of anxiety in parents who have children with autism. As scores increase on the attachment anxiety scale of the Experience in Close Relationships Revised, increase on the attachment avoidance scale of the Experience in Close Relationships Revised, decrease on the Inventory of Family Protective Factors, decrease on the Multidimensional Survey of Perceived Social Support Family sub-scale, and decrease on the Multidimensional Survey of Perceived Social Support Friends sub-scale, scores on the State Trait Anxiety

Inventory will increase. Multiple regression will be used to test the hypothesis that the ECR-R (Anxiety and Avoidance), IFPF, and MSPSS (Family and Friends) will impact the STAI.

TABLE 2. Outline of Hypotheses

H1	ECR-R (Anxiety) ↑, ECR-R (Avoidant) ↑, IFPF ↓, MSPSS (Family and Friends) ↓ → PSS↑
H2	ECR-R (Anxiety) ↑, ECR-R (Avoidant) ↑, IFPF ↓, MSPSS (Family and Friends) ↓ → CES-D↑
H3	ECR-R (Anxiety) ↑, ECR-R (Avoidant) ↑, IFPF ↓, MSPSS (Family and Friends) ↓ → STAI↑

CHAPTER 4

RESULTS

The present research was focused on examining and concluding if family resiliency, social support from family and friends, and attachment style affect the experience of stress, anxiety, and depression in parents who have children with autism. Please see Table 3 for an outline of the data from all scales that were included in this study. The hypotheses were tested using Multiple Linear Regression analysis. The null hypotheses were tested at 0.05 significance level ($p < 0.05$).

TABLE 3. Summary Data for All Scales

Name of Scale	Mean	Std. Dev.	Min	Max	Cronbach's Alpha	Items	Scale
Experience in Close Relationship Scale-Revised Avoidance Sub-scale	56.44	25.07	18	126	.95	18	1-7
Experience in Close Relationship Scale-Revised Anxiety Sub-scale	56.10	25.76	18	120	.94	18	1-7

TABLE 3. Continued

Name of Scale	Mean	Std. Dev.	Min	Max	Cronbach's Alpha	Items	Scale
The Perceived Stress Scale 10-Item	21.13	7.33	3	39	.91	10	0-4
Center for Epidemiologic Studies Depression Scale	19.48	13.62	0	57	.94	20	0-3
State Trait Anxiety Inventory; S-Anxiety Scale	47.69	13.35	20	79	.95	20	1-4
Multi-dimensional Survey of Perceived Social Support Family Sub-scale	17.78	6.60	4	28	.92	4	1-7
Multi-dimensional Survey of Perceived Social Support Friends Sub-scale	17.07	6.13	4	28	.94	4	1-7
Inventory of Family Protective Factors	60.02	12.25	24	80	.91	16	1-5

TABLE 4. Pearson's Correlations Between Variables

Variables	1	2	3	4	5	6	7	8
1. Anxiety								
2. Stress	.76**							
3. Depression	.74**	.79**						
4. Attachment (Anxiety)	.54**	.49**	.56**					
5. Attachment (Avoidance)	.54**	.50**	.54**	.59**				
6. Social Support (Family)	-.39**	-.32**	-.42**	-.46**	-.45**			
7. Social Support (Friends)	-.30**	-.17**	-.34**	-.29**	-.31**	.45**		
8. Family Resilience	-.60**	-.62**	-.67**	-.48**	-.45**	.52**	.39**	

Note: * = $p < .05$ ** = $p < .01$

Hypothesis 1

It was hypothesized that anxiety and avoidant attachment, social support from family and friends, and family resiliency would impact levels of stress in parents who have children with autism. Participants who score higher on the attachment anxiety scale of the ECR-R and attachment avoidance scale of the ECR-R, lower on the IFPF, lower on the MPSS Family sub-scale, and lower on the MSPSS Friends sub-scale, will have higher scores on the PSS-10. Multiple regression was used to test the hypothesis that anxious and avoidant attachment, social support from family and friends, and family resiliency

would impact levels of stress. Results, as displayed in Table 5, showed that when taking into account attachment anxiety, attachment avoidance, social support from family and friends, and family resiliency, only attachment avoidance, social support from friends, and family resiliency were significant predictors of stress. The Pearson's correlations in Table 4 shows that increased support from friends is a predictor of decreased stress but results from the multiple regression show that when all variables are combined social support from friends had an opposite effect.

TABLE 5. Multiple Regression Analysis for Variables Predicting Stress

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>Adj. R</i> ²	<i>R</i> ²	<i>F</i>	<i>df</i>
Model					.487	.507	26.077	(5, 127)
Attachment (Anxiety)	.046	.024	.161	1.920				
Attachment (Avoidance)	.084	.025	.284	3.417*				
Social Support (Family)	.073	.093	.065	.788				
Social Support (Friends)	.182	.089	.148	2.045*				
Family Resiliency	-.302	.048	-.501	-6.308***				

Note: * = $p < .05$, and *** = $p < .001$.

Hypothesis 2

It was hypothesized that anxious and avoidant attachment, social support from family and friends, and family resiliency would impact levels of depression in parents who have children with autism. Participants who score higher on the attachment anxiety scale of the ECR-R and attachment avoidance scale of the ECR-R, lower on the IFPF, lower on the MSPSS Family sub-scale, and lower on the MSPSS Friends sub-scale will have higher scores on the CES-D. Multiple regression was used to test the hypothesis that anxious and avoidant attachment, social support from family and friends, and family resiliency would impact levels of depression. Results, as displayed in Table 6, showed that when taking into account attachment anxiety, attachment avoidance, social support from family and friends, and family resiliency, only attachment avoidance, attachment anxiety, and family resiliency were significant predictors of depression.

TABLE 6. Multiple Regression Analysis for Variables Predicting Depression

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>Adj. R</i> ²	<i>R</i> ²	<i>F</i>	<i>df</i>
Model					.567	.583	35.302	(5, 126)
Attachment (Anxiety)	.134	.040	.258	3.338*				
Attachment (Avoidance)	.119	.041	.219	2.866*				
Social Support (Family)	.092	.157	.044	.582				
Social Support (Friends)	-.061	.150	-.027	-.407				

TABLE 6. Continued

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>Adj. R</i> ²	<i>R</i> ²	<i>F</i>	<i>df</i>
Family Resiliency	-.506	.081	-.460	-6.276***				

Note: * = $p < .05$, and *** = $p < .001$.

Hypothesis 3

It was hypothesized that anxious and avoidant attachment, social support from family and friends, and family resiliency would impact levels of anxiety in parents who have children with autism. Participants who score higher on the attachment anxiety scale of the ECR-R and attachment avoidance scale of the ECR-R, lower on the IFPF, lower on the MSPSS Family sub-scale, and lower on the MSPSS Friends sub-scale will have higher scores on the STAI (S-Anxiety). Multiple regression was used to test the hypothesis that anxious and avoidant attachment, social support from family and friends, and family resiliency would impact levels of anxiety. Results, as displayed in Table 7, showed that when taking into account attachment anxiety, attachment avoidance, social support from family and friends, and family resiliency, only attachment avoidance, attachment anxiety, and family resiliency were significant predictors of anxiety.

TABLE 7. Multiple Regression Analysis for Variables Predicting Anxiety

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>Adj. R</i> ²	<i>R</i> ²	<i>F</i>	<i>df</i>
Model					.478	.498	25.148	(5, 127)
Attachment (Anxiety)	.114	.045	.216	2.550*				

TABLE 7. Continued

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>Adj. R</i> ²	<i>R</i> ²	<i>F</i>	<i>df</i>
Attachment (Avoidance)	.148	.046	.271	3.222*				
Social Support (Family)	.066	.174	.032	.381				
Social Support (Friends)	-.038	.167	-.017	-.227				
Family Resiliency	-.423	.089	-.380	-4.736***				

Note: * = $p < .05$, and *** = $p < .001$.

CHAPTER 5

DISCUSSION

The present research was focused on examining the effects of attachment anxiety and avoidance, social support from family and friends, and family resiliency on stress, depression, and anxiety in parents who have children with autism. A discussion of the outcomes from the current investigation will be presented in the subsequent sections: attachment avoidance, social support from friends, family resiliency and stress; attachment avoidance, attachment anxiety, family resiliency, and depression; attachment avoidance, attachment anxiety, family resiliency, and anxiety. This chapter will also include information regarding implications, limitations, and future research.

Attachment Avoidance, Social Support from Friends, Family Resiliency, and Stress

The research presented significant findings that attachment avoidance, social support from friends, and family resiliency are significant predictors of stress in parents who have children with autism. Some of these findings may be explained by the idea that attachment is associated with perceived social support, more specifically past research has shown that support is not perceived as positively by those who are high in attachment avoidance (Collins & Feeney, 2004).

Perceived social support, specifically the emotive and active aspects, are influenced by the type of adult attachment an individual exhibits (Florian, Mikulincer, & Bucholtz, 1995). In the present study, it appears that parents, specifically those who have increased attachment avoidance, may not only be more affected by stress but such

experiences with stress may be influenced by the type of social support they receive as well as the resiliency present in their family dynamic. Stress reactions have been found to decrease in response to social support (Ditzen et al., 2008). Previous studies have shown that social support from close friends does play a significant role in the experience of parents who have children with autism (Luther et al., 2005) and that these parents often seek out support and the opportunity to discuss distresses with close friends (Troy, Connolly, & Novak, 2007). Results showed that decreased social support from friends and family is related to increased stress but when combined with other factors social support from friends predicted increased stress. A similarly perplexing result was that the most significant predictor was family resiliency, which appeared to be a theme present in all three hypotheses. It is possible that parents may seek support from individuals who are outside of their family, perhaps even other parents who have children with autism and who therefore may better understand their experience. On the other hand, family resiliency may play a stronger role and when combined with social support from friends may have a greater influence on decreased levels of stress.

Attachment Avoidance, Attachment Anxiety, Family Resiliency, and Depression

Significant findings were found in the current study that indicated attachment avoidance, attachment anxiety, and family resiliency are significant predictors of depression in parents who have children with autism. The present findings seem to indicate that parents who experience increased attachment anxiety and increased attachment avoidance experience increased levels of depression. Increased attachment anxiety and avoidance have both been shown to be associated with increased levels of depression (Marganska, Gallagher, & Miranda, 2013) while attachment anxiety is related

to not only increased symptoms of depression but social anxiety as well (Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001).

Additionally, it appears that family resilience also plays a significant factor in contributing to levels of depression in parents who have children with autism. Specifically, parents who experience decreased family resiliency displayed higher levels of depression. Parents who have children with autism often experience increased levels of depression (Bitsika et al., 2013). The present study showed significant findings that increased levels of depression in parents who have children with autism was impacted by decreased family resiliency and this may relate to similar findings in other studies that have indicated that psychological resilience in parents acts as a buffer towards depression (Bitsika et al., 2013). It seems that attachment avoidance and attachment anxiety of parents may significantly impact the resilience present in their families. Consequently, it may be possible that increased anxiety and avoidance attachment may lend way towards parents' perceptions of decreased family resilience and in turn such factors may impact their levels of depression.

Attachment Avoidance, Attachment Anxiety, Family Resiliency, and Anxiety

The current study showed results that attachment avoidance, attachment anxiety, and family resiliency are significant predictors of anxiety in parents who have children with autism. Significant results in the current study show that the more attachment anxiety and attachment avoidance that an individual experiences, the higher their levels of anxiety are. Mallinckrodt and Wei (2005) found that emotional instability is associated with attachment avoidance and anxiety and that such attachment styles contribute to increased psychological affliction. Depression and anxiety are associated

with anxious attachment style (Leveridge, Stoltenberg, & Beesley, 2005). The results of the present study are similar to other research in which individuals with attachment anxiety and or avoidance, attachment styles that are related to insecure attachment, have the propensity to be more prone to experiencing anxiety (Weems, Berman, Silverman, & Rodriguez, 2002).

Family resiliency appears to play a significant role in the interactions between attachment style and experienced anxiety. Family resiliency has been found to be a contributing factor in the experience of parents who have children with disabilities such as autism and the basis of such resilience is based upon feelings towards their ability to manage the situation, their communication and ties with family, and their child (Heiman, 2002). The current findings in this study suggest that increased attachment anxiety and avoidance as well as decreased family resilience have an impact on the increased anxiety that parents experience when raising a child with autism. It may be possible that attachment style influences the types of relationships parents have with other members in their family. Perhaps an insecure attachment style, or increased anxiety and avoidance attachment, may affect perceptions in relationships among family members and therefore decreased family resilience may possibly lead to increased levels of anxiety.

Limitations

The current research has a few limitations. Initially, the first limitation may have been the way in which the survey was distributed. The survey was given out online and online surveys have several restrictions within themselves, the first being the fact that in order to take an online survey an individual must have access to a computer. Additionally, online surveys include the aspect of having the ability to have an extended

period of time to answer the survey and this may impact the way in which the participant answers the questions. The online questionnaire for this study was sent out via email lists from various organizations that are involved in collaborating and providing support for parents who have children with autism. Sending out the survey to only the individuals on these lists provides a convenience sample population of people who are more likely to be involved in support groups. This in turn may affect the way in which individuals will respond to certain questions on this survey. Subsequently, a majority of participants taking the survey were female which provided a very small male sample to examine in regards to investigating male and female experiences in parenting a child with autism. The sample was also not very diverse, more than half of the participants were from Western States in the United States and approximately 73% of the participants identified as White or Caucasian. Such differences affect the external validity of the results to the general population.

Another limitation in this study could possibly have been the length of the survey. This study was fairly long and it is possible that as participants got further along throughout the study they may have started to experience fatigue and their answers towards the end of the study may not have been as forthright as they had been when answering questions at the beginning of the survey. Additionally, this survey only utilized quantitative feedback whereas qualitative feedback may have given parents an opportunity to give a detailed description of their experience. Future research could also consider examining the severity of autism that the child displays as well as the age of the child and how this impacts parents' experience. Culture, which is another important aspect of an individuals experience should be investigated in future research. Individuals

who identify with a specific ethnicity may have different perceptions or behaviors in regards to family resiliency, social support, and attachment. Subsequently, experiences across cultures would yield different results than those found in this study. In addition, future research should include sampling that will include individuals who are not in support groups in order to get information regarding experience of parents regardless of whether or not they belong to some type of support group. It would also be helpful to include in person sampling in addition to online survey sampling.

Implications

The findings from this study point to several implications for having a better understanding of not only the experience of parents who have children with autism but also how to assist them. Parents who have children with autism experience considerable psychological distress (Lyons et al., 2010). In this study, stress was significantly associated not only with attachment avoidance and family resilience, but unlike all the other dependent variables it was impacted specifically by social support from friends. This shows that there is a possible advantage to investigating in what context specific types of support outside of the family ameliorate the stress that parents experience in raising a child with autism. According to the present study, there appears to be a need to investigate the utilization of family resilience in parents' experience with stress, depression, and anxiety. Additionally, attachment style seems to be a fluid factor that impacts parents' experience with stress, depression, and anxiety. These findings imply that there are some potential benefits in addressing attachment style and family resilience in parents who have children autism.

Implications for Parents and Therapists

Autism continues to be a rising concern in the sphere of mental health and statistics show that since 2010 the number of children with autism has risen significantly over the years (Baio, 2014). Specifically, data has shown that autism displays a growing prevalence of diagnoses of one in 150 children in 2002, one in 110 children in 2006, one in 88 children in 2008, and one in 68 children in 2010 (Baio, 2014). This indicates that the number of diagnosed children has been increasing over time and such diagnoses will at some point require treatment. Treatment for children with autism not only affects the family emotionally but can affect the family financially as well. Costs of treatment for families of children with autism include increased expenses for school services, health care services, unrelated health care, as well as increased prescription drug use and office visits related to health care (Lavelle et al., 2014). Such costs could be perceived as stressors and could potentially impact parents overall well-being and functioning.

Previous research has found that parents not only experience psychological distress (Bromley et al., 2004; Davis & Carter, 2008) but have also reported that in parenting a child with autism they often experience feelings of isolation and that such isolation is the result of not feeling understood by society (Woodgate, Ateah, & Secco, 2008). Having therapeutic resources such as individual, family, and or group therapy could possibly help to provide a means of addressing such feelings of isolation. Additionally, the ability of mental healthcare providers to provide parents with not only parent education but also with support in the form of community resources could address parents' feelings of being alone in their experience. Tehee et al. (2009) also found that the stress these parents experience is highly impacted by recognizing and comprehending

their child's needs as well as the ability to receive support. In terms of perceived stress in parents who have children with autism, the results from the present study indicate that attachment avoidance and specifically support from friends' impact their stress levels. In terms of treatment for parents, it may be worth investigating what types of support systems these parents have and how the development of such support systems is impacted by their attachment style. Assessing parents' attachment styles could help therapists to have a better understanding of what types of relationships these parents seek out and how it affects their experience with stress. These findings also suggest that parents may benefit from strengthening their family resiliency as a means of helping them in alleviating the stress of managing their child's diagnosis. According to the results from the current study, family resiliency, attachment anxiety, and attachment avoidance appear to contribute significantly to depression and anxiety in parents who have autism. Therapists working with these parents may encourage them to learn different methods to increase family resilience and explore family functioning.

Conclusion

The results from this study suggest that attachment style, social support, and family resiliency are predictors of mental health in parents who have children with autism. Specifically, the finding that social support from friends is a predictor of stress infers that in times of adversity and high stress situations family resiliency may provide more relief from stress than support from outside sources such as friends. Decreased family resiliency was shown to be a common factor for increased stress, depression, and anxiety. The results also suggest that increased attachment avoidance is a predictor of stress, which may indicate that some parents might refrain from reaching out to others for

support and as a result experience increased levels of stress. Previous research has shown that for families who have a child with autism the family struggles to maintain optimal functioning and similar to results found in this study experiences high levels of stress (Rao & Beidel, 2009). In such cases, perhaps it is possible that parents who do not reach out for support outside their family circle to deal with stress may instead depend solely upon their family's ability to combat adverse and stressful situations.

Attachment style and family resiliency were found to be significant predictors of depression and anxiety in parents of children with autism. Anxiety is a common experience among parents who have children with autism (Sharpley et al., 1997). Increased anxiety has been found in parents of children with autism (Bitska & Sharpley, 2004; Bromley et al., 2004; Sharpley et al., 1997) and the current study indicates that increased anxiety and depression are impacted by increased attachment anxiety and attachment avoidance. It seems plausible that parents who have increased attachment anxiety would experience higher levels of anxiety and depression. If parents, who have increased attachment avoidance, refrain from establishing relationships outside of the family and in turn become isolated and parents who have increased attachment anxiety are consistently anxious or uncomfortable in the relationships, it makes sense that such behaviors would elicit increased levels of depression and anxiety.

The findings in this study indicate that the mental health of parents who have children with autism is affected not only by personal characteristics such as attachment style, but by outside factors such as family resiliency and social support. It is also possible that attachment style may impact perceived family resiliency and social support, and for that reason it is imperative that clinicians treating families affected by autism be

aware of such interactions of factors. Future research should examine not only the experience of parents but of the family as a whole. Such information would give a better understanding of the family experience and how each individual's relationship with one another impact the family's experience. This could contribute to research in the field of autism and could provide valuable information about how to help families establish a strong support system for one another in caring for a family member with autism.

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