

THESIS

THE ASSOCIATION BETWEEN AUTISM SYMPTOM SEVERITY AND
PARENTAL MARITAL SATISFACTION

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ABSTRACT

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Studies have suggested that parents of children with an Autism Spectrum Disorder (ASD) experience many stressors and a decrease in marital quality relative to parents of children without an ASD. Severity of the ASD symptoms have also been found to be associated with increased parenting stress and decreased social support, factors that predict decreases in marital quality. Associations between child autism symptom severity and parental marital quality were examined in the current study, and stress and social support were tested as potential mediators of that association. These associations were also compared for mothers and fathers. Parents with a child(ren) with an ASD (N = 18) were recruited through various different avenues and filled out surveys regarding marital quality, ASD symptom severity, levels of social support, and levels of parenting stress. Results suggested negative associations between child autism symptom severity and parental marital quality that did not appear to be mediated by stress or support. These findings suggest that parents who have a child with more severe symptoms are more likely to have poorer marital quality and there may be other mediators that help to explain the association. The marital quality of mothers also appeared to be more strongly and consistently associated with child symptom severity than fathers'. This study highlights the importance of further understanding how parents are affected in order to guide clinicians with how best to assist them.

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Chapter 1: Introduction

Raising a child with a disability is difficult for any family to cope with, but research suggests that raising a child with an ASD causes more stress and has a greater impact on parental mental health than raising a child with another developmental disability (Dunn, Burbine, Bowers, & Tantleff-Dunn, 2001; Sanders & Morgan, 1997). The stigma that surrounds the disorder contributes to the increased stress as well as the financial burden (Baker-Ericzen, Frazee, & Stahmer, 2005), behavioral issues and difficulties with communication (Baker-Ericzen et al., 2005; Hastings, Kovshoff, Ward, Espinosa, Brown, & Remington, 2005), lack of free time (Baker-Ericzen et al., 2005; Higgins, Bailey, & Pearce, 2005; Sanders & Morgan, 1997), and the permanency of the disorder (Higgins et al., 2005). These issues that contribute to increasing stress also contribute to an increased threat of mental health issues such as anxiety and depression (Dunn et al., 2001; Higgins et al., 2005; Sanders & Morgan, 1997).

The behavioral issues that are often associated with ASDs as well as the lack, or disruption, of communication also increase the levels of stress and threat of mental health issues for these parents. The disruptive behaviors not only make it difficult for parents to take their children out in public, but also increase the difficulty of having a “normal” home life (Higgins et al., 2005). These parents often have a difficult time coping with, and handling, the disruptive behaviors, which may lead to feelings of helplessness, failure, frustration, and resentment (Higgins et al., 2005; Rodrigue, Morgan, & Geffken, 1990). These feelings are likely exacerbated by the fact that these parents do not feel competent to care for their child because their parenting strategies do not appear to have an effect and because their child does not respond as a typically developing child (Rodrigue et al., 1990). The increased attention that must be

given to the child with autism may also lead to feelings of guilt associated with potentially providing less attention to their typically developing child, or children, in the family.

The research on the effects of having a child with an ASD on the quality of the marital relationship has yielded mixed results. It is important to keep in mind that there are numerous factors that contribute to marital satisfaction and the possibility of divorce (Ramisch, 2010) but having a child with an ASD may be one such contributing factor for some families. Through the lenses of family systems theory and family stress theory, one can come to understand how for parents who already have problems in their relationship, having a child with autism and the associated stressors can increase their possibility for divorce (Brobst, Clopton, & Hendrick, 2009).

Importance of Study

The limited research that has focused on the effects of having a child with an ASD on levels of marital satisfaction has yielded mixed results, but research has indicated that these parents have increased stress levels (Baker-Ericzen et al., 2005; Gray, 1994; Moh & Magiati, 2012; Ramisch, 2010; Sanders & Morgan, 1997) and that they have an increased likelihood of divorcing (Hartley et al., 2010; Myers, Mackintosh, & Goin-Kochel, 2009). The parents of these children face a multitude of stressors in raising their child that can affect various aspects of their lives, including their marital relationship. A positive couple relationship characterized by support is one of the most important factors for increased personal and marital adaptation and buffers against stress (Dunn et al., 2001).

This study examined the association between child autism severity and parental marital satisfaction, and tested parenting stress and social support as potential mediators. The study explored whether the severity of the child's symptomology decreases the parents' level of

marital satisfaction, and if the level of parenting stress and amount of social support may potentially contribute to this level. This study contributes to the existing literature because it explored parental marital satisfaction in association with symptom severity instead of comparing parents with a child with an ASD to parents that do not have a child with an ASD, as past research has done. The emphasis on the couple dyad, while also examining mothers versus fathers, will also contribute to the existing literature as past studies have often collected data on maternal marital satisfaction.

Family systems theory. In order to best understand the impact of raising a child with autism on the marital relationship, it is important to look through the lens of family systems theory. In its most basic framework, family systems theory assumes that all parts of the family system influence one another because they are interconnected (Smith, Hamon, Ingoldsby, & Miller, 2009; White & Klein, 2008). The theory argues that a problem in a family is not caused by one individual family member, but is a result of difficulties, and maladaptive interactions, in the family system as a whole, and therefore there is not an identified patient within the family (Smith et al., 2009; White & Klein, 2008). Problems within the family are viewed as affecting the interactions of the family, yet these problems are also thought to be affected by the family interactions.

In terms of having a child with ASD, parents may place all of their time and energy on their child in order to obtain a diagnosis and then to search for, and implement, treatments and interventions. By mainly focusing on one individual in the family, relational dynamics and patterns that contribute to negative symptomology within the family are often ignored. With all of the attention and resources being placed on one individual, other relationships, such as the marital relationship, may not receive the nurturance and strength they need to continue

developing positively. The investment of time and energy may be greater for families that have a child with more severe symptomology so that marital relationships within these families may be more dramatically affected.

Family stress theory. Family stress theory is a lens through which one can attempt to understand the outcome of a stressful situation based on several variables (Smith et al., 2009). McCubbin and Patterson's (1983) double ABCX model includes important variables through which researchers can better come to understand the impact of having a child with an ASD on the marital relationship. The variables in the model include the severity of the stressor (A); pileup demands and additional stressors (aA); the family's internal resources (B); the family's external resources (bB); the family's appraisal of the situation (C); the coping strategies used (cC); and the outcome (X). The outcome (X) is determined by the interaction between the stressor (A and aA) and the family's resources, appraisal, and coping strategies (B, bB, C, and cC). According to the theory, when the stressor (A) is more severe, the family does not have the resources (B and bB) to handle the situation, and the family appraises the situation poorly and utilizes poor coping strategies (C and cC), the outcome (X) will be poorer.

Due to the fact that autism is a spectrum, the degree of severity of the disorder will vary. It was hypothesized that more severe symptoms and behavioral problems (A) increase the level of stress (aA). More severe symptoms may place additional demands on the family and introduce additional stressors that those with a child with less severe symptoms may not face. Especially in these cases, if the parents are not utilizing their external resources, specifically their social support network, it is believed that they will be less adequately equipped to positively cope with the situation (cC), leading to more negative outcomes like poorer marital functioning (X).

Autism Spectrum Disorders

Autism spectrum disorders, more commonly referred to as autism, Asperger's Disorder, and Pervasive Developmental Disorder Not Otherwise Specified, are developmental disorders that fall under the larger umbrella of Pervasive Developmental Disorders (American Psychiatric Association, 2000). These disorders largely affect the social and communication skills of those who have the disorders, and are also accompanied by repetitive, stereotyped behaviors. The symptoms and behaviors of individuals diagnosed with these disorders vary from mild to severe and are often difficult to modify (American Psychiatric Association, 2000).

Autistic Disorder. Individuals with Autistic Disorder are impaired in the areas of social interaction and communication, and they exhibit restricted stereotyped and repetitive behaviors, interests, and activities. Impairment in social interaction can include an inability to develop developmentally appropriate peer relationships, a lack of emotional or social reciprocity, and impairment in nonverbal behaviors that regulate social interactions such as eye-to-eye gaze. Impairment in communication can include a lack of, or delay in, development of language, difficulty initiating or maintaining conversation if language is present, and a lack of spontaneous make-believe play. Restricted stereotyped and repetitive patterns can include difficulty with slight changes in routine, abnormally intense and specific interests, and repetitive and stereotyped motor mannerisms such as rocking (American Psychiatric Association, 2000).

Asperger's Disorder. Individuals with Asperger's Disorder also exhibit impairments in social interaction and restricted stereotyped and repetitive behaviors, interests, and activities as those with Autistic Disorder. However, these individuals do not exhibit impairments in communication or clinically significant delays in language or cognitive development (American Psychiatric Association, 2000).

Pervasive Developmental Disorder Not Otherwise Specified. Individuals with this diagnosis may exhibit some of the same symptoms as those with Autistic Disorder or Asperger's Disorder, but do not meet all the criteria of these diagnoses (American Psychiatric Association, 2000). These individuals may not have started exhibiting symptoms until later in childhood; however, they still have marked impairment in the development of reciprocal social interactions and communications (American Psychiatric Association, 2000).

Prevalence. The Center for Disease Control (CDC) recently reported that 1 in 88 children have autism (Center for Disease Control, 2012), which means that roughly 1 in 88 families are affected by the disorder. This statistic is a substantial increase from previous estimates of 1 in 110 in the number of children with ASD and the reasons behind this increase are not entirely known (CDC, 2012). The CDC (2012) hypothesizes that the increase may be due to more children being identified and diagnosed in communities, as well as by the increased awareness of the disorder and its symptoms.

Autism Severity and Parents' Marital Satisfaction

As noted, it was hypothesized that more severe symptoms will predict lower levels of marital satisfaction, an association that was hypothesized to be mediated by increased feelings of parenting stress and reduced levels of perceived social support. Reviewed next will be research supporting the hypothesis that ASD symptom severity produces feelings of parenting stress and lack of support and thereby decreased marital satisfaction.

Diagnosis. Due to the fact that the symptoms and characteristics of ASDs, as well as the age of onset, can vary, it can be extremely difficult and frustrating for parents to obtain a diagnosis of an ASD for their child (Moh & Magiati, 2012; Siklos & Kerns, 2007). There are no facial or bodily characteristics associated with the disorders and many doctors have not yet been

properly trained on the various signs of the disorders and how to properly diagnose (Autism Speaks, 2012). These factors contribute to a delay in diagnosis and increased levels of stress and frustration for parents (Moh & Magiati, 2012). Some families must wait years, after seeing various doctors and specialists, for their child to be diagnosed, which is time that many of these families do not have because of the importance of early intervention for these disorders (O'Brien, 2007; Ramisch, 2010; Siklos & Kerns, 2007). The process of looking for doctors and advocating for one's child is time consuming and can also be financially stressful, all before the family even obtains a diagnosis. A study conducted by Moh and Magiati (2012) investigated the impact of various aspects of the diagnostic process on parents. The findings of the study suggest that families who consult fewer professionals and have better relationships with professionals have lower levels of stress during the diagnostic process than those who consult more professionals and have a poorer relationship with professionals. For parents with a child with more severe symptoms, more time spent without a diagnosis may increase levels of stress as that may mean more time spent without treatment.

Characteristics. The deficits associated with the ASDs are characteristics that can cause parent-child bonding to be difficult, as well as increase the difficulty of the individual to function optimally in the world. Parents' stress level has been reported to be higher for those with a child with autism versus with a typically developing child (Davis & Carter, 2008; Epstein, Saltzman-Benaiah, O'Hare, Goll, & Tuck, 2008; Tomanik, Harris, & Hawkins, 2004). Studies conducted by Davis and Carter (2008) and Tomanik et al. (2004) suggest that parenting stress in those with a child with an ASD is associated with the social impairments that characterize the disorder. Some children with ASDs have difficulties with communication and impairments in communication that have been reported to increase parental stress as the parent may not be able

to meet their child's needs and it may be more difficult to bond with the child. The language and communication abilities of children on the more severe end of the spectrum may be more impaired than others, potentially contributing to increased stress for their families and a more difficult time with parent-child bonding.

Disruptive behaviors. Although not all individuals with ASDs exhibit disruptive behaviors, those who do can exhibit behaviors that can be unpredictable and problematic (Gray, 1993; Norton & Drew, 1994). In a study of 169 children diagnosed with an ASD between the ages of 1.5 to 5.8 years conducted by Hartley, Sikora, and McCoy (2008), one third of the children scored in the clinically significant range on the Child Behavior Checklist Total Score. A study conducted by Brereton, Tonge, and Einfeld (2006), included 381 individuals between the ages of 3.8 and 24 who were diagnosed with an ASD. The results from the study indicated that 73.5% of the individuals scored above the clinical cutoff of 46 on the total behavior problem score assessed by the Developmental Behavior checklist. The disruptive behaviors can include tantrums, self-destructive behaviors such as head banging, issues with eating, destruction of property, problems with toileting, violations of social norms such as personal space, perseveration on topics or objects, issues with sleeping, and various others (Gray, 1993; Gray, 1994; Norton & Drew, 1994; Sanders & Morgan, 1997). These behaviors can be extremely difficult for parents to manage and contribute to an increase in parental stress (Barker et al., 2011; Brobst et al., 2009; Hartley, Barker, Baker, Seltzer, & Greenberg, 2012; Hastings et al., 2005; Lecavalier, Leone, & Wiltz, 2006).

In a study investigating the impact of having a child with an ASD on the couple relationship, Brobst et al.'s (2009) results indicate that there is a positive association between parental stress and the intensity of the child's behavioral problems; as the severity of child

behavioral problems increased, so did parental stress. Hastings et al.'s (2005) findings also suggest that maternal stress levels increased as their child's behavioral problems increased. This study intended to build on these findings by investigating whether the severity of the child's autism-related symptoms, and the parenting stress associated with that, is associated with the level of marital satisfaction of the parents. There is consistent and robust evidence that problems in the marital and parent-child relationship spill over into each other (e.g., Black & Pedro-Carroll, 1993; Erel & Burman, 1995), and that in families without a child with an ASD, parenting difficulties explain the association between marital conflict and child outcomes (e.g., Easterbrooks & Emde, 1988). The current gap in the literature is important to fill because it could provide mental health professionals with advanced information regarding how to best work with these families.

Mental health. The severity of the symptoms and behaviors associated vary due to the fact that the disorders are a spectrum. Though some children may be completely nonverbal and not exhibit behavioral problems, others may have some verbal capabilities and have behavioral outbursts. Although raising a child anywhere on the spectrum of autism is difficult, the research suggests that parents whose child has more intense behavioral problems are at an increased risk of experiencing stress, anxiety, and depression (Barker et al., 2011; Brobst et al., 2009; Hastings et al., 2005; Stuart & McGrew, 2009). There is a large body of evidence (e.g., Coyne, Thompson, & Palmer, 2002; Kronmuller et al., 2011; Whisman, 1999) that suggests that there is a negative association between marital satisfaction and depression; couples with at least one partner with depression report lower levels of marital satisfaction. If parents of children with more severe symptoms are at an increased risk of developing depression or anxiety, and there is

a negative association between marital satisfaction and depression, parents of children with more severe symptoms may be more likely to report decreased levels of marital satisfaction.

Services and interventions. Once the child has been diagnosed, it typically becomes the parents' job to search for services, interventions, and treatments (Moh & Magiati, 2012; Woodgate, Ateah, & Secco, 2008). Although doctors may be able to assist parents with their search for services, many parents become frustrated and take the task on themselves because they believe the professionals may not have as much knowledge as they should and may be difficult to work with (Baker-Ericzen et al., 2005; Woodgate et al., 2008). There are many different treatments and interventions for ASDs that have been tried and tested over the years, some of which help alleviate symptoms for some individuals while others do not. The contradictory information that exists concerning many interventions and treatments can be confusing for parents and potentially lead to increased stress and frustration. Due to the fact that early intervention is critical for individuals with an ASD (Autism Speaks, 2012; Norton & Drew, 1994), parents may worry about wasting precious time on treatments that may not work for their child. The stress associated with finding appropriate interventions may be higher when the child has more severe symptomology as those parents may feel as though appropriate treatment would be especially beneficial.

Although the behaviors and symptoms associated with ASDs can be improved with various therapies and interventions, it is extremely unlikely for an individual to eventually no longer meet the criteria of the disorders. Lower-functioning individuals, those with more severe symptomology, are especially unlikely to ever be able to care for themselves. This fact increases the level of stress placed on parents because these parents are aware that their child will likely rely on them for the rest of their lives (Baker-Ericzen et al., 2005; Higgins et al., 2005; Ramisch,

2010). This fact is also stressful for parents because they must plan for their child in case something happens to them and for when they pass due to old age. If there are other children, parents may feel guilty for eventually having to place the caretaking burden on their typically developing children.

Marital relationship. When a child is born, the couple relationship is often set aside for a period of time as the focus is shifted to the young child. For any family, the risk of divorce is highest right before the children's teenage years (Hartley et al., 2010). Researchers suggest that increased risk at this time is likely due to the increased parenting demands and stress as well as decreased spousal support associated with these demands and stress (Hartley et al., 2010). For parents with typically developing children, the demands and stress associated with parenting diminish as the child ages and becomes more independent, allowing the parents to focus more on their marital relationship again (Harris, 1984; Hartley et al., 2010). However this may not be the case for parents with a child with an ASD.

Due to the nature of the disorder, children with an ASD depend on their parents for a prolonged period of time (Harris, 1984; Hartley et al., 2010). In a longitudinal study comparing 391 couples with a child with an ASD versus 391 couples with a typically developing child, Hartley et al.'s (2010) results suggested that couples with a child with an ASD divorced nearly twice as often as those with a typically developing child. Of those parents with a child with an ASD that did divorce, 94.6% of the parents resided with their child with an ASD at the time of the divorce. However, Hartley et al.'s (2012) results suggest that even if the child with the ASD did move out of the family home, marital satisfaction did not necessarily increase. The authors argued that even if the child does move out independently, the parents continue to be concerned about their well being and take part in care decisions. The authors (Harris, 1984; Hartley et al.,

2010; Hartley et al., 2012) suggest that the prolonged period of dependence of the child contributes to the susceptibility of divorce as the parenting demands and stressors remain high.

The prolonged period of dependence also contributes to an extended period of time that the couple relationship is put aside (Harris, 1984; Hartley et al., 2010; Hartley et al., 2012). As with susceptibility for divorce decreasing after childhood, research suggests that when parents become “empty nesters”, marital satisfaction also increases because parents are once again able to focus on one another and their relationship (Gorchoff, John, & Helson, 2008; Hartley et al., 2010; Hartley et al., 2012). However, when there is a child with an ASD, parents may not have the opportunity to become “empty nesters”, and if they do, their child’s needs may continue to place demands on them that will add to the difficulty of placing the marriage first. Individuals with more severe symptoms may be more likely to continue to live with their parents throughout their lives, which may influence parental stress levels. The stress levels of those parents whose children with more severe symptoms do not continue to live with them may also be higher as the child’s needs will continue to remain higher.

Although the findings differ regarding the impact of the disorders on the possibility of divorce, results from various studies do suggest that parents of children with ASDs experience increased marital distress and decreased intimacy (Brobst et al., 2009; Dunn et al., 2001; Gau et al., 2012; Taanila, Kokkonen, & Jarvelin, 1996). Findings from Brobst et al.’s (2009) study suggest that increased child behavior problems not only contribute to increased maternal stress, but also lower levels of marital satisfaction and spousal support for the mothers. Brobst et al. (2009) argue that decreased father involvement may raise the mother’s stress levels, especially as the behavioral problems become more severe, and contributes to her feelings of reduced marital satisfaction because she is not being given support by her husband.

A longitudinal study conducted by Hartley et al. (2012) investigated marital satisfaction of 199 mothers with a child with an ASD over a seven-year span. When marital satisfaction was measured at several time points, the findings suggested that as the behavior problems increased, maternal marital satisfaction decreased. The authors argue that an increase in behavior problems contributes to an increase in stress, which can spillover into the marital relationship. They argue that as the maternal stress increases, positive marital interactions may decrease as the mother may not have as many emotional and psychological resources at her disposal. There may also be an increase in arguing over parenting strategies as the problem behaviors become more difficult or escalate.

This study intended to build on prior research as the goal was to gather information from fathers and mothers. The majority of studies on the impact of a child with an ASD on the family collect data on the mothers (Hartley et al., 2012; Lecavalier et al., 2006; Rodrigue et al., 1990; Stuart & McGrew, 2009; Tomanik et al., 2004). Although collecting data regarding the impact from just one parent is helpful, in order to successfully create interventions for the marriage, it is crucial to obtain information from both partners to begin developing a better understanding of how ASDs effect the whole couple dyad. This study is unique as it explored the associations between symptom severity and marital satisfaction for the couple and the potential differences in the level of associations for the mother versus the father. Assessing the associations in these two ways may provide new information on the effects on the couple dyad as well as the individual parents.

Social support. Although the prevalence of ASDs has been rising over the years, a great deal of stigma and lack of understanding continues. ASDs, unlike many disabilities and disorders, do not have a set of visible characteristics so the sensitivities offered to individuals,

and their families, who do have disorders with visible markers and behaviors are typically not shared with those with ASDs (Higgins et al., 2005; O'Brien, 2007; Ramisch, 2010; Woodgate et al., 2008). Parents of children with an ASD may be concerned about their child's behavior in public places (Higgins et al., 2005; Sanders & Morgan, 1997) because many of these children have a difficult time in areas with many people or with change. The potential difficult behaviors that parents may have to face in public, as well as the potential embarrassment, cause many of these parents to choose not to take their child out in public.

Due to the fact that a fair amount of stigma remains surrounding ASDs, these parents are not highly likely to lean on support from friends, especially if they do not have a child with an ASD (Woodgate et al., 2008). The parents may fear being judged or seen as incompetent, something that many already feel regardless (Higgins et al., 2005; Taanila et al., 1996). Raising a child with a disability increases the burden of the already difficult job of being a parent and it is difficult for parents of children with an ASD to relate to other parents who do not have a child with an ASD because it is nearly impossible for them to understand the difficulties and stressors associated.

Studies have suggested that social support is one of the key factors in reducing and protecting against stress (Dunn et al., 2001; Ramisch, 2010; Sanders & Morgan, 1997; Siman-Tov & Kaniel, 2011; Stuart & McGrew, 2009). In a study conducted by Stuart and McGrew (2009), a direct relation was found between increased levels of social support and decreased individual and family burden for families with a child with autism. This finding suggests the criticalness of social support for families that are raising a child with an ASD in order to assist in alleviating some of the burdens associated with the disorder. Siman-Tov and Kaniel's (2011) research also found a negative association between social support and stress; as levels of social

support increased, stress levels decreased. The authors suggest that support from others may increase feelings of control and therefore contribute to a decrease in feelings of stress. In addition, past research consistently indicates a positive association between marital satisfaction and social support (e.g., Brunstein, Dangelmayer, & Schultheiss, 1996; Pasch & Bradbury, 1998).

The current study intended to investigate whether the level of social support is associated with marital satisfaction depending on the severity of the child's autism. It is hypothesized that those parents whose children have more severe behavioral symptoms will report lower levels of marital satisfaction as their social support will be lower. As discussed, research does indicate that social support lowers levels of stress and it is important to understand if this may also contribute to marital satisfaction for these parents.

In a qualitative study conducted by Woodgate et al. (2008), 16 sets of parents of children with autism were interviewed regarding their experiences associated with raising their child. The researchers found that the overwhelming theme was a feeling of aloneness, especially in the caretaking and parenting aspects. The parents discussed feelings of isolation due to social stigma, disconnection from family, and lack of support from the community and health care system.

The unique demands placed on these parents make it increasingly difficult for them to take time for themselves or engage in activities outside of the home (Baker-Ericzen et al., 2005; Higgins et al., 2005; Sanders & Morgan, 1997). The physical and emotional exhaustion that accompanies ASDs on a daily basis are also likely to prevent parents from wanting to take part in activities outside of the home, even if they had the opportunity (Sanders & Morgan, 1997). The

lack of free time and decreased ability to take part in activities outside of the home only serve to increase levels of stress and isolation for these parents (Sanders & Morgan, 1997).

Parents of a child with an ASD must often times focus almost all of their time and attention on their child (Woodgate et al., 2008). Not only do most of these parents become hypervigilant to their own actions in order to prevent upsetting their child, many also adapt their lives and schedules to fit the very predictable lives that these individuals with ASDs prefer (Norton & Drew, 1994; Woodgate et al., 2008). Many parents also spend enormous amounts of time researching various treatments and interventions, many of which in and of themselves are extremely time intensive (Baker-Ericzen et al., 2005). For example, applied behavior analysis (ABA), one of the most researched and effective interventions for individuals with ASDs, is considered an intensive treatment that typically includes between 25 and 40 hours of therapy per week (Autism Speaks, 2012). This type of therapy is typically expensive and time consuming for parents, as an important part of the intervention is to train parents on the techniques so they reinforce and continue them throughout the rest of the week (Autism Speaks, 2012).

The severity of the child's symptoms may be associated with lower levels of social support for parents for several reasons. The more severe symptoms may contribute to the parents' fears of being stigmatized in public. More severe symptoms may also allot parents less time for themselves and therefore for them to create and uphold a strong social network.

Gender differences. There is a dramatic difference in the research regarding parental stress and coping when there is a child with an ASD, with the majority of research focusing on the mothers and not the fathers. In general, studies have found that when a family has a child with an ASD, the mother is typically the one to stay home with the child and do the majority of the caretaking (Baker-Ericzen et al., 2005; Brobst et al., 2009; Gau et al., 2012; Hastings, 2003;

Myers et al., 2009; Taanila et al., 1996; Woodgate et al., 2008). Due to the fact that the mothers are typically the parent to take on the majority of the parenting and caretaking responsibilities, it would seem logical that they would also be the ones carrying the most stress and be the likeliest to exhibit symptoms of mental health issues.

The uneven division of childcare when there is a child with ASD may also contribute to decreased spousal support and marital satisfaction. This fact not only provides support for explanations regarding increased maternal stress, it may also provide explanation for decreased marital satisfaction. Results from Taanila et al.'s (1996) study suggest that unequal distribution of child caretaking tasks increases the risk of weakened marital relationships, and Willoughby and Glidden's (1995) study suggests that greater father participation in caretaking is associated with increased marital satisfaction for both mothers and fathers. The results from these studies suggest that sharing the stress and burden of caretaking alleviates most of the pressure being placed on one parent, may increase the feeling of working together as a team, and may decrease feelings of isolation within the family system.

Mothers. Research does in fact support the notion that mothers have increased levels of stress and depression and anxiety as opposed to fathers of these children (Gau et al., 2012; Gray & Holden, 1992; Hastings et al., 2005; Sanders & Morgan, 1997). Not only do mothers often leave their jobs to take care of the parenting responsibilities, which are stressful in and of themselves, they often lose their sense of self because they generally become consumed by the world of autism (Gray & Holden, 1992). Along with this comes the inability to receive much respite, unlike their husbands who have the ability to be away from the stressors of autism while at work.

Hastings et al. (2005) conducted a study to investigate the association between the child's characteristics and parental stress and levels of depression. The findings of the study suggested that maternal stress had a strong and positive relationship with the behavioral problems of the child but there was no relationship found between the behavioral problems and paternal stress. Results from Barker et al.'s (2011) longitudinal study also indicated that there is a positive association between the individual's behavior problems and maternal level of anxiety and depression.

Fathers. Although there has been less research conducted regarding paternal stress and mental health issues, it is critical to review this research. Just as with mothers of a child with an ASD, fathers with a child with an ASD reported increased stress levels (Sanders & Morgan, 1997) and increased levels of depressive symptoms (Hartley, Seltzer, Head, & Abbeduto, 2012) than fathers of children with other developmental disabilities. Sanders and Morgan (1997) and Hartley et al. (2012) suggested that these findings were likely due to the unique stressors associated with the disorder.

Although fathers of children with an ASD do experience stress and the possibility of developing depression and/or anxiety, how they are affected may differ from mothers. As previously stated, findings from Hastings et al.'s (2005) study suggested that paternal stress was not related to the intensity of their child's behavior problems. However, an association was found between paternal stress and their partner's depression level. The study suggests that paternal stress levels increase as the levels of maternal depression increase. The mother's depression and stress levels were also found to be positively associated to the father's level of depression.

Hypotheses

The current study investigated the association between autism severity and the level of marital satisfaction for parents with a child with an ASD. Levels of parenting stress and social support were also measured as mediating variables in this potential association. Based on the research that has been reviewed, it was hypothesized that the increased severity of a child's ASD symptoms decreases parental marital satisfaction because parenting stress is higher and social support is lower. It was also hypothesized that these associations will be stronger for mothers than for fathers because of evidence that symptom severity predicts the parenting stress and perceptions of social support of mothers better than it does those characteristics for fathers.

Chapter 2: Method

Participants

The sample included 18 participants (12 women and 6 men); there were 4 couples in the sample. All the participants were parents with at least one child with an ASD. The parents ranged in age from 18-54; 54% were married, 31.8% were living together, and 9.1% were separated. 18.2% of the participants identified as Hispanic or Latino and 61% identified as Caucasian. The parents had varying degrees of education: 4.5% completed some high school, 18.2% graduated high school, 22.7% completed some college and graduated college, 4.5% completed some graduate school, and 18.2% completed graduate school. Average household income ranged from \$0-149,999 with just more than 50% of parents making between \$0 and \$49,999.

Participants were couples that were recruited through four channels. The first was through the Social Skills Training Groups run by the Psychology Department at Colorado State University. The Social Skills Training Groups provide classroom and real life lessons in social skills and social interactions for children between 5 and 11, adolescents between 12 and 17, and adults over the age of 18. The groups are designed for individuals with higher functioning forms of ASD as well as other diagnoses such as Oppositional Defiant Disorder and Social Anxiety Disorder. The second was Firefly Autism located in Denver, Colorado. Firefly Autism is an organization that provides assessments, evaluations, clinical services, and home services for individuals with autism between 18 months to 18 years. The third was the Autism Society of Larimer County, which is a local chapter of the Autism Society of America. This organization provides information and support to families who have a family member diagnosed with autism. The fourth was through postings on social media sites such as Facebook, Craigslist, and

Backpage. For all of these channels, information was provided to couples with a link to the surveys for the study. Potential participants were asked to fill out the surveys and were offered the possibility of winning a \$60 Visa gift card if both members of the couple filled out the surveys and a \$25 Visa gift card if one partner filled out the surveys. Participants were asked to provide email addresses if they would like to be included in the drawing.

One inclusion criterion was that the couples have a child, or children, on the autism spectrum, including those with a diagnosis of Autistic Disorder, Asperger's Disorder, or Pervasive Developmental Disorder Not Otherwise Specified. The second inclusion criteria was due to the fact that this study is interested in marital satisfaction and parenting stress; parents must be married, and married stepparents were allowed to participate.

Power analyses suggested limited power to detect small, medium, and large effects in the multivariate analyses ($< .40$), but adequate power to detect large effects in the bivariate analyses (.71).

Measures

See Table 1 for descriptive statistics and reliability information for each measure.

Demographics. Participants provided information about their gender, age, income, number of children, education, and duration of the relationship were asked.

Marital adjustment. Participants completed the Dyadic Adjustment Scale (DAS) (Spanier, 1976). The DAS is a 32-item scale intended to assess marital adjustment based on a score range of 0 to 151, with the majority of items using 5-point Likert scale. Lower overall scores indicate lower levels of marital adjustment. The items on the scale measure mutual partner agreement on various issues, attitudes, and joint behaviors. An example would be "How often do you discuss or have you considered divorce, separation, or terminating your

relationships?” (Spanier, 1976). Reliability of the measure has been demonstrated with a coefficient alpha of 0.96 (Spanier, 1976). Criterion related validity has been demonstrated by noticeable differences in scores between married and divorced couples. Construct validity is also strong as the DAS was found to correlate 0.86 for married couples and 0.88 for divorced couples with the Locke Wallace Marital Adjustment Scale (Spanier, 1976).

Marital intimacy. Each participant also filled out the Love and Relationships subscale of the Personal Assessment of Intimacy in Relationships (PAIR) questionnaire (Shaefer & Olson, 1981). This subscale is a 6-item scale that measures emotional intimacy based on a score range of 6 to 30, with the items using a 5-point Likert Scale. Higher scores indicate better emotional intimacy. An example of an item would be “I often feel distant from my (spouse/partner)”. The scale has a relatively strong reliability coefficient of at least 0.70 (Shaefer & Olson, 1981). Higher overall scores represent higher levels of perceived intimacy.

Severity of symptoms. Two measures of symptom severity were used, as measures differ in their appropriateness of measuring more or less severe symptoms. The second edition of the Gilliam Autism Rating Scale (GARS-2; Gilliam, 2006) was filled out by each parent to determine the severity of symptoms. The GARS-2 is a 42-item scale with three subscales measuring stereotyped behaviors, communication, and social interaction. The items use a 4-point scale from 0 (never observed) to 3 (frequently observed). A higher total score on the items indicates more severe symptoms. An example of an item is “Laughs, giggles, cries inappropriately” (Gilliam, 2006). Gilliam (2006) reported a good internal consistency of 0.94 and test-retest reliability of 0.88. The parent interview portion of the GARS-2 (Gilliam, 2006) was not be used for this study because it assesses symptoms during the first 3 years of the child’s life and the focus of the study was on the severity of current symptoms.

Parents also filled out the Child Autism Rating Scale (CARS; Schopler, Reichler, DeVellis, & Daly, 1980), a 15-item scale that measures the severity of symptoms in 15 areas from a scale of 1 (age appropriate behavior) to 4 (severally abnormal behavior). Areas include relating to people, emotional response, object use, adaptation to change, visual response, and fear or nervousness (Schopler et al., 1980). Reliability of the measure has been demonstrated with a coefficient alpha of 0.94 and inter-rater reliability of 0.71 (Schopler et al., 1980). Validity of 0.84 was obtained by comparing scores on this measure with clinicians' ratings (Schopler et al., 1980).

Parenting stress. The parents in the study also filled out the Parenting Stress Index-Short Form (PSI/SF) (Abidin, 1995). The PSI/SF is a 36-item questionnaire intended to assess for stress in the parent-child relationship. The questionnaire uses a 5-point Likert scale and contains subscales measuring parental perception of their child's behavior (Difficult Child), parental distress (Parental Distress), and the parent-child interaction (Parental-Child Dysfunctional Interaction). The validity of the PSI/SF was measured by comparing the PSI/SF to the full length PSI and correlations were found between .49 and .94, depending on the subscale (Abidin, 1995). The reliability of the measure has been demonstrated as ranging from .68 to .85, depending on the subscale (Abidin, 1995). Higher scores represent *lower* levels of stress.

Social Support. Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12-item scale in which the items are rated on a 7-point Likert scale from 1 (very strongly disagree) to 7 (very strongly agree). An example from the scale is "I get the emotional support and help I need from my family" (Zimet et al., 1988). Zimet et al. (1988) reported that the

MSPSS has good internal reliability ($r = 0.88$) and test-retest reliability ($r = .085$). Higher scores indicate more social support.

Procedure

Parents were either given a flyer with information and the SurveyMonkey link by the respective agencies or copy and pasted the link into their web browser if they found the project posting on the internet; the link included an informed consent form and the measures. Parents were asked to complete those within 3 weeks. Parents were sent reminders after 2 weeks. They were informed about the \$60 and \$25 Visa gift card drawing for their participation in the informed consent. If they were interested in participating in the card drawing, they were given the opportunity to provide an email address after they have completed the study.

Chapter 3: Results

All Participants

Bivariate correlations. Bivariate correlations and descriptive statistics are presented in Table 1. Overall, those who reported increased autism symptom severity, as rated on the CARS, also reported significantly lower levels of marital adjustment, intimacy, and social support, and marginally significant higher levels of stress. Those who reported increased symptom severity, as rated on GARS-2, also reported significantly higher levels of stress and lower levels of marital intimacy. Reports of symptom severity on the two severity measures were very highly correlated. In addition, those who reported higher levels of marital adjustment reported significantly higher levels of support, and those who reported higher levels of marital intimacy reported significantly lower levels of stress and higher levels of support.

There were also associations between the main variables of interest and some of the demographic characteristics. Overall, those who were older reported significantly lower levels of symptom severity, as rated on the CARS, and marginally significant higher levels of support. Level of education was also significantly associated with several of the measures; those who reported higher levels of education also reported significantly higher levels of stress, higher levels of marital adjustment, decreased symptom severity as reported on GARS-2, and marginally significant decreased symptom severity as reported on the CARS.

Multivariate analyses. Regression analyses were run to test for main effects and potential mediation (see Table 2). For these analyses symptom severity was represented using the CARS measure for three reasons: 1) because the two severity measures were so highly correlated, 2) it was deemed more appropriate because of the levels of severity in this community sample, and 3) it was more consistently correlated with the other variables of interest. Age was

included as a control variable because it was associated with the predictors and outcomes. Gender was included due to its theoretical relevance. Education was not included as a control variable because it was highly correlated with stress, a mediator, and collinearity diagnostics suggested it was problematic to include stress and education in the same model.

Main effects. Controlling for age and gender, severity of symptoms, as indicated by the CARS, was significantly associated with marital adjustment and intimacy, such that those who reported more severe symptoms, reported lower marital intimacy and adjustment.

Potential mediation. Significant associations between symptom severity and marital adjustment persisted when controlling for support and stress. Neither of the potential mediators were significantly associated with adjustment. However, controlling for support and stress, symptom severity was no longer significantly associated with marital intimacy, and stress was marginally related to intimacy, such that those with less stress reported more marital intimacy.

Because severity was significantly associated with marital intimacy before adding mediators to the model, but was non significant after they were included, and stress was related at marginal levels of significance to intimacy, whether stress was a mediator of severity effects was examined. A regression predicting stress based on severity indicated a significant association such that more severity was associated with more stress, $b = -.32$, $SE = .14$, $p = .04$. However, Sobel's (1982) test indicated that stress was not a significant mediator of the association between severity and intimacy, $z = -1.37$.

Gender Differences

Bivariate correlations. Bivariate correlations were examined separately for men and women (see Table 3). Overall, women who reported increased symptom severity, as rated on the CARS, also reported significantly higher stress, lower marital adjustment and intimacy, and

lower levels of support. Women who reported increased symptom severity, as rated on GARS-2, also reported significantly higher levels of stress, lower levels of marital adjustment and intimacy, and lower levels of support. Women who reported higher levels of stress also reported significantly lower levels of marital adjustment and intimacy, as well as significantly lower levels of support. Women who reported lower levels of marital intimacy also reported significantly lower levels of support.

Overall for men, those who reported increased symptom severity, as rated on the CARS, also reported significantly decreased levels of support. Those who reported increased symptom severity, as rated on GARS-2, also reported significantly higher levels of stress. However, symptom severity was not significantly associated with adjustment or intimacy for men. Men who reported increased stress also reported significantly lower levels of marital intimacy and marginally significant lower levels of marital adjustment. Men who reported increased levels of marital adjustment also reported significantly higher levels of support. There were no other significant associations among the variables for males. In addition, several of the correlations were much smaller in magnitude for men than for women.

Multivariate analyses. Regression analyses were run separately for women (see Table 4) and men (see Table 5), controlling for age.

Main effects. Controlling for age, severity of symptoms, as indicated by the CARS, was significantly associated with marital adjustment and intimacy for women, such that those who reported more severe symptoms also reported lower marital intimacy and adjustment. These significant associations were not found for men. The size of the regression coefficient was also much larger for females than for males.

Potential mediation. When support and stress were added to the model, significant associations between symptom severity and marital adjustment persisted for women. There was no significant association for men. There were no significant multivariate associations between support, stress, and marital intimacy for men or women.

Chapter 4: Discussion

The primary goal of this study was to assess if there is an association between child autism symptom severity and parental marital quality, and if parenting stress and social support are mediators of that association. In addition, I also examined potential differences in these associations for mothers versus fathers. Past studies have focused on examining differences in marital quality between couples with and without a child with autism and have not directly tested these theoretically important mediators or gender as a moderator; the goal of this study was to better understand the potential importance of these factors.

The results of this study suggested that, as hypothesized, parents who reported more severe autism symptoms in their child also generally reported decreased marital intimacy and adjustment; these associations were evident controlling for age, stress, and support. The disruptive behaviors that are associated with increased symptomology may be one explanation for this finding. Parents who have a child with more severe symptoms may spend more time and energy on their child than on their marital relationship, which may contribute to a decrease in marital satisfaction (Harris, 1984; Hartley et al., 2010; Hartley et al., 2012). These parents may also be more likely to have mental health issues (Barker et al., 2011; Brobst et al., 2009; Hastings et al., 2005; Stuart & McGrew, 2009), which also have a negative impact on marital satisfaction (Coyne et al., 2002; Kronmuller et al., 2011; Whisman, 1999).

Increased symptom severity at the bivariate level was also associated with decreased social support and increased levels of stress. Children with more severe symptoms are more likely than other children to have issues with communication and social interaction, negatively influencing the parents' ability to bond with their child and their ability to meet their child's needs (Davis & Carter, 2008; Tomanik et al., 2004), likely increasing the parents' levels of

stress. The nature of potential disruptive behaviors also increases stress as they can be extremely tiresome and difficult to manage (Barker et al., 2011; Brobst et al., 2009; Hartley et al., 2012; Hastings et al., 2005; Lecavalier et al., 2006). These parents may also worry more about their child and their child's future, contributing to higher levels of stress (Hartley et al., 2012). Those who have children with increased symptom severity may report lower levels of social support as they may not turn to friends and family as much due to the fear of being stigmatized (Higgins et al., 2005; Taanila et al., 1996; Woodgate et al., 2008). They may also have less time to be around friends and family as the demands of caring for their child may be time consuming (Baker-Ericzen et al., 2005; Higgins et al., 2005; Sanders & Morgan, 1997).

At the bivariate level, higher levels of stress were also related to lower levels of marital intimacy and adjustment. Past research has supported the notion that increased stress lowers marital satisfaction (e.g., Hartley et al., 2010). However, stress and social support did not explain the association of symptom severity with marital intimacy and adjustment. These potential mediators also did not have main effects in the multivariate models. Stress and social support were hypothesized to be mediators because of past research suggesting higher levels of stress and lower levels of support for parents that have a child with an ASD (e.g., Barker et al., 2011; Hartley et al., 2012; Hastings et al., 2005; Stuart & McGrew, 2009; Woodgate et al., 2008). Past research also highlighted the positive association between levels of social support and marital quality (e.g., Brunstein et al., 1996; Pasch & Bradbury, 1998) and the negative association between stress and marital quality (e.g., Harris, 1984; Hartley et al., 2010). There may be other factors that explain the association between increased symptom severity and decreased marital satisfaction such as mental health issues, appraisal of the situation, and coping strategies. In addition, stress and support may be less important than symptom severity in terms

of understanding marital quality, in the context of families with a child with autism, or effects may have been too small to detect in the current study.

As reported in the results, the regressions were not in line with suggesting mediation, however, the small sample size may help explain this. The bivariate correlations do provide some evidence that mediation may be detected with a larger sample because of the strong associations between symptom severity and the mediators, and the strong associations between the mediators and marital quality and adjustment. In order to detect associations in regression analyses, sample sizes should be larger.

The results regarding gender differences suggest that the associations are stronger for women, indicating that these factors may be more important in terms of marital quality for women than men. More specifically, women who reported increased symptom severity were more likely to experience decreased marital intimacy and adjustment, increased stress, and decreased social support, whereas for men marital adjustment and intimacy were not significantly predicted by these variables. Although not investigated in this study, mothers are more likely to be the primary caretakers, increasing their levels of stress, decreasing social support, and decreasing marital satisfaction for reasons discussed above (Baker-Ericzen et al., 2005; Brobst et al., 2009; Gau et al., 2012; Hastings, 2003; Myers et al., 2009, Taanila et al., 1996; Willoughby & Glidden, 1995).

For the fathers, the decreased social support and increased stress associated with increased symptom severity may be explained by the mothers' stress and mental health (Hastings et al., 2005). Although mental health was not investigated, mothers struggling with mental health issues and stress may be less likely to provide support to their partner, increasing their partner's level of stress and feelings of being supported. In addition, the small number of men in

the sample may be one explanation for this finding; however, correlation coefficients (and not just patterns of significance) were often very different between men and women, suggesting that limited power may not be the only explanation for the gender differences that were observed. Men's coping strategies may also be different, and more adaptive, than women's in some respects (e.g., Hastings et al., 2005; Siman-Tov & Kaniel, 2011).

This study had several limitations. The small sample size reduced power to detect associations as well as the ability to generalize the findings. Sample size may have hindered detection of mediated effects and gender differences as well. Another limitation of the study was the homogeneity of the sample. More than half of the total sample was Caucasian and more than half were also female. Future research should not only aim to have a larger and more diverse group of participants, but also to have a more even ratio of men to women. Future research should also include investigate other potential mediators such as mental health, coping strategies, and appraisal of the situation. Additional research should also investigate potential gender differences in caregiving, as well as physical and emotional burden, as such findings may help explain differences in the associations for men versus women.

Overall, the findings of this study suggest that autism symptom severity is associated with marital quality, feelings of social support, and levels of stress, particularly for mothers. These findings may be useful in guiding clinicians to help these families. For instance, these results suggest that mothers of children with an ASD diagnosis may be particularly likely to feel that marital quality is lower when symptoms are severe; clinicians may want to focus on these mothers and families to prevent long-term marital problems. The findings also highlight the importance of further studying fathers in this context. Due to the fact that fathers are understudied, they may not be receiving the support and assistance they need. As the autism

community continues to grow, more families will be affected and further research into how families are impacted will be necessary in order to provide adequate and useful guidance and support.

Table 1
Descriptive Statistics and Bivariate Correlations

	1	2	3	4	5	6	7	8	9	10	11	12
1. CARS severity	X											
2. GARS severity	.64**	X										
3. DAS	-.79**	-.29	X									
4. PAIR	-.48*	-.51*	.60**	X								
5. Support	-.74**	-.39	.59**	.54*	X							
6. Stress	-.44+	-.77**	.30	.65**	.40	X						
7. Gender	.00	.09	.24	.32	.16	.13	X					
8. Age	-.49**	-.20	.34	.05	.40+	.01	.21	X				
9. Years married/living together	-.08	-.07	.18	.17	.18	.16	.17	.44	X			
10. # of children	-.40	-.35	.41	.22	.14	-.20	-.11	.30	.02	X		
11. Level of education	-.48+	-.69**	.52*	.39	.32	.72**	.45*	.54*	.45	.08	X	
12. Income	-.19	-.13	.28	.29	.01	.18	.11	.35	.25	.23	.40	X
M	3.43	2.43	3.56	3.43	5.05	2.88		2.62 ^a	11.24	2.90	4.65 ^b	3.00 ^c
SD	1.78	0.89	1.00	1.19	1.32	0.95		0.81	5.72	1.41	1.53	1.95
α	0.97	0.99	0.87	0.88	0.91	0.97						

+ $p < .10$ * $p < .05$ ** $p < .01$ ^a Age was measured on an ordinal scale; 2.62 indicates that the majority of participants were between the ages of 25 and 44. ^b Education was measured on an ordinal scale; 4.65 indicates that the majority of participants completed some or all of college. ^c Income was measured in on an ordinal scale; 3.00 indicates that the majority of participants earn between \$50,000-74,999

Table 2

Regression Analysis Predicting Marital Adjustment and Intimacy from Symptom Severity for all Participants

	<i>Adjustment</i>		<i>Intimacy</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>
Severity	-.42(.08)**	-.38(.11)**	-.45(.15)**	-.13(.19)
Age	-.20(.19)	-.37(.19)+	-.74(.36)+	-.55(.34)
Stress		-.19(.14)		.46(.25)+
Support		.18(.13)		.31(.23)
Model R ²	0.71	0.78	0.47	0.64

+ $p < .10$ * $p < .05$ ** $p < .01$

Table 3
Descriptive Statistics and Bivariate Correlations by Gender^a

	1	2	3	4	5	6
1. CARS severity	X	.40	-.78	.17	-.82*	-.06
2. Gilliam severity	.85**	X	.13	-.53	-.14	-.85*
3. DAS	-.83**	-.66**	X	-.32+	.94**	-.28+
4. PAIR	-.76**	-.64*	.76**	X	-.07	.89*
5. Support	-.71**	-.62*	.43	.72**	X	.02
6. Stress	-.78**	-.73**	.73**	.63*	.68*	X

$p < .10$ * $p < .05$ ** $p < .01$

^a Correlations for women are below the diagonal; correlations for men are above the diagonal.

Table 4

Regression Analysis Predicting Marital Adjustment and Intimacy from Symptom Severity for Women

	<i>Adjustment</i>		<i>Intimacy</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>
Severity	-.48(.05)**	-.51(.10)**	-.70(.15)**	-.57(.25)+
Age	-.53(.11)**	-.54(.12)**	-.68(.32)+	-.64(.32)+
Stress		.03(.17)		-.27(.45)
Support		-.07(.09)		.39(.24)
Model R ²	0.92	0.92	0.72	0.80

+ $p < .10$ * $p < .05$ ** $p < .01$

Table 5
Regression Analysis Predicting Marital Adjustment and Intimacy from Symptom Severity for Men

	<i>Adjustment</i>		<i>Intimacy</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>	<i>b(SE)</i>
Severity	-.06(.09)	-.04(.13)	-.12(.26)	.15(12)
Age	1.25(.29)*	.03(1.54)	-.80(.88)	-2.27(1.34)
Stress		-.22(.30)		.13(.26)
Support		.53(.64)		1.03(.55)
Model R ²	0.95	0.97	0.24	0.96

+ $p < .10$ * $p < .05$ ** $p < .01$

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