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ROMANTIC RELATIONSHIPS IN THE CONTEXT OF PARENTING CHILDREN WITH AUTISM

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ROMANTIC RELATIONSHIPS IN THE CONTEXT OF PARENTING CHILDREN WITH AUTISM

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THESIS

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A thesis submitted in partial fulfillment of the
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at the University of Kentucky

By
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Lexington, Kentucky

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ABSTRACT OF THESIS

ROMANTIC RELATIONSHIPS IN THE CONTEXT OF PARENTING CHILDREN
WITH AUTISM

This study examines the impact of raising a child with an autism spectrum disorder on relationship quality using the double ABCX model of adjustment and adaptation. Respondents ($N = 126$) recruited through Autism Society listervs completed online surveys designed to measure three factors of relationship quality: satisfaction, positive perceptions, and negative perceptions. Results from hierarchical multiple regression models indicate that the double ABCX model accounted for 47% of variance in satisfaction, 72% in positive perceptions, and 50% in negative perceptions, for predicting the quality of couple relationships. Implications for clinicians working with couples are discussed, such as the need for treatment that focuses on stress management and increasing support through affectionate, emotional, tangible, and social interactions.

KEYWORDS: Autism Spectrum Disorder, Children with Disabilities, Couples, Parenting, Romantic Relationships

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April 17, 2014

ROMANTIC RELATIONSHIPS IN THE CONTEXT OF PARENTING CHILDREN
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Chapter 1: Introduction

Parenting a child with autism can be more emotionally and physically taxing on parents than parenting a child without autism due to the heightened levels of monitoring and guidance these children require (Pisula & Kossakowska, 2010). In addition, a substantial body of empirical literature indicates that an otherwise healthy marriage can be negatively affected by stress in other aspects of life, such as parenting (Twenge, Campbell, & Foster, 2003; Hackel & Ruble, 1992), employment (Ahlborg & Standmark, 2006; Smock & Greenland, 2010; Umberson, Pudrovska, & Reczek, 2010), and caregiving (Ahlborg & Standmark, 2006; Umberson, Pudrovska, & Reczek, 2010). The unique challenges of parenting children with autism coupled with the effect of stress on marital relations suggests that married parents of children with autism may be particularly susceptible to experiencing declines in marital satisfaction. However, research examining the strengths and challenges of marital relationships among couples raising children with autism are scant. Thus, the purpose of this study is to use the double ABCX model to examine how parenting a child diagnosed with an autism spectrum disorder affects marital relationships by conducting three hierarchical regression models. Prior to describing the method employed, I will (a) describe autism spectrum disorders and their prevalence, (b) situate the study within a stress theory framework, and (c) review literature relevant to understanding how the transition to parenthood and parenting a child with autism may affect individual and marital well-being.

Autism Spectrum Disorders

According to the American Psychiatric Association's (APA) most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed., DSM-V; 2013),

autism spectrum disorders impair communication and social interaction skills while also

eliciting repetitive behaviors, and diagnoses are placed on a continuum ranging from mild

to severe symptoms (APA, 2013). Although reports using this new diagnostic criteria are

not yet available, in 2014 the Centers for Disease Control and Prevention (CDC) found

that 1 in 68 children had been diagnosed with an autism spectrum disorder using

diagnostic criteria established in the previous (4th) edition of the *Diagnostic and*

Statistical Manual of Mental Disorders (4th ed.; DSM-IV; APA, 2000), which was a

substantial increase over 2012 when 1 out of 88 children had been diagnosed. According

to CDC (2014), half of the children diagnosed with autism have average or above average

intellectual ability. The data also showed that boys were five times more likely than girls

to be diagnosed with a form of autism spectrum disorder, and that autism spectrum

disorder appears in every race and socioeconomic group. Neither a cause nor a cure has

been identified for autism spectrum disorder (CDC, 2012).

Stress Theory Framework

The double ABCX model of adjustment and adaptation (hereafter referred to as

the double ABCX model; Hill, 1949; McCubbin & Patterson, 1983) provides a

theoretical framework for understanding the effect of simultaneous and sequential

stressors associated with any given experience using four components of that experience:

the stressor (labeled "A"), resources available to deal with the stressor (B), perception of

the stressor (C), and the degree of stress experienced, which becomes a crisis (X) once

the stress exceeds a manageable threshold. The "double" aspect of the model accounts for

pileup stressors that occur as a result of the initial stressor. For example, parents of

children with autism experience stress associated with the process of obtaining an initial

diagnosis, but then experience many years of chronic stress associated with the child's behavior, financial costs of care and treatment, and lack of social acceptance, to name only a few challenges these families face.

The double ABCX model has been used previously by researchers investigating topics revolving around autism. For example, Manning, Wainwright, and Bennett (2010) used the double ABCX model to explore how family resources, coping, and appraisal impact family functioning and parental distress when parenting a school-aged child with autism.

Transition to Parenthood

The effect of parenthood on marital satisfaction is nuanced (Mitnick, Heyman, & Smith Slep, 2009) but a substantial number of people experience a decline in marital satisfaction with the transition to parenthood. Loss of intimacy—that is, feelings of togetherness and shared love (Ahloborg & Strandmark, 2006)—associated with diminished self-disclosure seems to be a contributing factor that accounts for marital satisfaction decline in general, and the transition to parenthood has been associated with a loss of marital intimacy. For example, a longitudinal study of couples transitioning to parenthood found declines in sexual intimacy and emotional intimacy following the birth of a child (Hackel & Ruble, 1992). Another study found that women with children placed a higher level of importance on marital intimacy than did women without children (Guttman & Lazar, 2004), perhaps because intimacy is more difficult to maintain once children are born. Ahlborg and Strandmark (2006) wrote that a first-time mother in their study stated, "at present [my husband and I] are too tired to have a sexual life, but we both know that, when the energy returns, the desire will too" (p. 167). While many

couples might indeed be able to rebuild intimacy as their child grows more independent and they become more settled in their roles as parents, these transitions will be long-delayed for parents of children with autism.

Numerous factors account for the loss of intimacy, but foremost among them is that many mothers and fathers report not being adequately prepared for the transition to parenthood (Ahlborg & Strandmark, 2006). Specifically, a meta-analysis found that diminished freedom and role conflict after the birth of a child weigh heavily on marital satisfaction (Twenge, Campbell, & Foster, 2003). Given the characteristics and special needs of children with autism, one can infer that their parents lose more freedom and experience more role conflict than do parents of non-autistic children. This, in turn, suggests that those parenting autistic children probably experience larger declines in intimacy and marital satisfaction, and that the declines are likely to persistent longer, than among parents of children without autism.

Healthy communication is one component for building and maintaining intimacy in a relationship, and can act as a buffer against marital satisfaction decline during the transition to parenthood (Ahlborg & Strandmark, 2006). The wheel of love theory posits that healthy communication, or rapport, leads to self-revelation, mutual dependency, and personality need fulfillment (Reiss, 1960). However, upon the arrival of a first child, Dainton (2008) found that both conflict and negativity tend to increase in communication among married parents, and some types of healthy communication, such as *mundane talk* and *openness,* tend to decline. Two other aspects of communication, *assurance* and *positivity*, seem to act as buffers and are often maintained through the transition to parenthood (Dainton, 2008). These buffers may be diminished among parents of children

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with autism, however, due to the unique parenting challenges encountered by these couples.

Raising a Child with a Disability

The term disability is an umbrella term used for any diagnosis an individual could receive that entails communication impairment, developmental delay, emotional impairment, health impairment, intellectual impairment, neurological impairment, physical impairment, sensory impairment, or learning disability (Massachusetts Department of Elementary & Secondary Education, 2000). Research on whether children with disabilities detrimentally affect family functioning has been mixed. Some research has concluded that families that include a child with disability function no differently than families with non-disabled children (Daire, Munyon, Carlson, Kimemia, & Mitcham, 2011; Trute, 1990). Other research indicates that parents of children with disabilities are likely to experience higher marital distress (Daire et al., 2011; Risdal, & Singer, 2004). Methodological differences across studies, as well as variations in severity of each child's condition and the resources available to meet the disability, make it challenging to draw clear conclusions concerning the effect that parenting a child with a disability has on a marital relationship (Meadan, Halle, & Ebata, 2010). Each disability diagnosis is associated with a unique set of challenges for family functioning; even the same diagnosis will vary across children according to level of severity. For example, children who cannot communicate with words require different educational and emotional support than higher functioning children, such as those diagnosed with a mild form of an autism spectrum disorder formerly known as Asperger's syndrome (Daire, Munyon, Carlson, Kimemia, & Mitcham, 2011). The severity of autism spectrum

disorders vary widely but, regardless of severity, parenting children with autism spectrum disorders can heighten feelings of stress relative to parents whose children do not have a disability. That additional stress, in turn, can have a detrimental impact on couple relationships.

Stress on the couple relationship. Families that include a child with autism often experience stress proliferation, which "occurs when an initial stressor or set of stressors in one domain of life engenders additional stressors in other life domains" (Benson, 2006, p. 686; Stoneman & Gavidia-Payne, 2006). More specifically, the initial diagnosis and post-diagnosis transition is only a precursor to the daily challenges that ensue and affect all dimensions of family life (Siman-Tov & Kaniel, 2011). Ramisch (2012) used the double ABCX model to frame her exploration of the stressors that families of children with autism might encounter, such as obtaining a correct diagnosis, problem behaviors in the children, financial hardship, unpredictability about the future, and negative reactions of family members and society.

Stress begins to increase during the diagnosis process. Logistically, parents must schedule and maneuver through multiple medical appointments to obtain a diagnosis. One study found that the mean time span needed to reach a diagnosis was 32 months and included visiting a mean of five professionals (Siklos & Kerns, 2006). Beyond logistics, many children experience a developmental regression before the diagnosis process, financial costs begin to mount, and many parents experience a period of disillusionment while grappling with losing the child they had envisioned and accepting the child they have (Boushey, 2001; O'Brien, 2007).

Some of the initial stressors associated with the diagnosis period eventually subside, but others persist and even intensify over time. For example, insurance companies do not cover most of the medical expenses and behavioral interventions associated with autism. The mean cost of medical care spent out-of-pocket for autism-related treatment ranges from $4,110 to $6,200 per year for each child (CDC, 2012), and behavioral interventions typically cost between $40,000 and $60,000 per year for a child with autism (Shimabukuro, Grosse, & Rice, 2008). According the CDC (2014), children with autism cost on average $17,000 more per year than children without a disability. Moreover, in dual-earner families one parent may have to give up paid employment to focus on meeting the needs of the child, which compounds the family's financial challenges (Ramisch, 2012). Financial hardships also have the potential to negatively affect marital relationships (Lempers & Clark-Lempers, 1997).

The substantial reduction in freedom and time to spend on oneself that accompanies the transition to parenthood has been associated with a decline in marital satisfaction (Ahlborg & Strandmark, 2006). This decline may be even more pronounced among couples parenting children with disabilities because, compared to children without disabilities, children with disabilities often require more one-on-one time with parents, therapeutic services, educational meetings, and medical appointments. For example, Daire et al. (2011) found that children with disabilities had a mean of 50.5 healthcare visits over a one-year period, compared to a mean of 0.3 healthcare visits for children without disabilities. Additionally, mothers and fathers respectively report spending approximately 9.5 and 4.9 hours per day on direct care for their children with autism, compared to parents of children without autism who report spending 5.3 and 4.1 hours a

day on direct care for their children (Pisula & Kossakowska, 2010). Overall, the time commitment required to parent children with disabilities is substantial and places a heavier burden on parents and their marital relationships than does parenting children without disabilities.

Psychological effects. Parents of children with disabilities must contend with additional psychological stressors as well (Lee, 2009); parents of children with autism are more susceptible to the symptoms of depression (Benson, 2006; Gray, 2002; Neely, Amatea, Echevarria-Doan & Tannen, 2012; Ramisch, 2012) and high anxiety (Gray, 2002). Compared to mothers of children without autism, mothers of children with autism experience less confidence in their own parenting competence and experience more feelings of inadequacy and failure (Pisual & Kossakowska, 2010). In general, mothers tend to experience more psychological difficulties associated with parenting a child with autism than do fathers (Gray, 2002; Hastings et al., 2005). This is not surprising given that mothers tend to be the primary caregivers for children with autism; mothers typically hold primary responsibility for arranging therapies, providing emotional support, and coordinating a customized educational plan for children with autism (Gray, 2002). Perhaps for this reason, few published studies have focused on fathers' experiences with parenting children with autism.

Support, coping, and adapting. Three key stressors for parents with an autistic child are (a) recognition of permanency of the disorder; (b) lack of acceptance from family, friends, and society concerning their child's behavior; and (c) the general lack of support available to assist (Sharpley, Bitsika, & Efremindis, 1997). Ramisch (2012) found that marital relationships among those parenting children with autism could

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endure, and even thrive, if both parents are supportive of one another and have an effective support system outside of the immediate family. Social and emotional support is associated with fewer child behavior problems and healthier marital adjustment (Lee, 2009). The caveat, however, is that insufficient support inside and outside of the home is a common concern among parents of children with autism.

Social support can be defined as the feeling of comfort received from others through relationships (Turnbull, Turnbull, Erwin, & Soodak, 2006). Some parents join support groups for families of children with autism to gain a sense of support, understanding, and guidance (Banach, Iudice, Conway, & Couse, 2010; Glazzard & Overall, 2012), and one study found that those who joined a support group for family members of children with autism experienced less stress than those who did not join a support group (Cook, Heller, & Pickett-Schenk, 1999). Support groups can empower parents of children with autism by providing knowledge and skills of particular relevance to these parents (Banach, Iudice, Conway, & Couse, 2010). In addition, participation in these groups provides an outlet through which these parents can form social networks with others who have similar parenting experiences and among whom they know will understand their child's disability (Gray, 2002). Support groups provide these families a feeling of normalcy, a social support system, new parenting skills specific to children with autism, and help them understand and process the emotions associated with parenting children with autism (Banach et al., 2010; Gray, 2002; Ramisch, 2012).

Support can also be given and received within the parental dyad, although mothers report receiving less emotional support from their husbands than fathers report receiving from their wives (Bristol, Gallagher, & Schopler 1988). Self-care can be

another source of support and rejuvenation within the home, but parents of a child with autism often put their child's needs first (Altiere & Von Kluge, 2009) and, consequently, have less time for personal care than do parents of children without disability (Mitnick, Heyman, & Smith, 2009).

Coping mechanisms mediate adjustment to stress, and are especially important for the daily hassles of parenting a child with autism. Indeed, research indicates that daily hassles predict family outcomes better than life-altering stressors (Kanner, Coyne, Schaefer, & Lazarus 1980; Stoneman & Gavidia-Payne, 2006). The daily division of household labor and parenting responsibilities are common sources of tension between husbands and wives in many families (Hackel & Ruble, 1992), yet one study found that fathers of children with disabilities assume less responsibility for, and spend less time on, household tasks than do fathers of children without disabilities (Bristol, Gallagher, & Schopler, 1988). Adapting roles and daily responsibilities to account for the heightened monitoring required of children with disabilities is one-way couples can balance the added challenges and stressors associated with parenting a disabilities child (Boyd, 2002; Bristol, Gallagher, & Schopler, 1988).

Chapter 2: Method

Data Collection Procedures

　　Sample. Respondents were recruited using a combination of convenience, criterion, and snowball sampling. A convenience sample was recruited via the Autism Society listservs, which had roughly 800 subscribers residing throughout the United States but eligibility of those subscribers for this study could not be determined. Inclusion criteria were that respondents had to be a primary caregiver to a child with an autism spectrum diagnosis (ASD) and either married or cohabitating in a marriage-like relationship. A reminder e-mail was sent approximately a week after the initial recruitment e-mail was sent to the listserves, and a second reminder e-mail was sent a week after the initial reminder. Snowball sampling was also employed by encouraging individuals who already participated in the study to share the internet address of the survey with other eligible individuals who might not have received the initial email.

　　Participants. These procedures resulted in 126 completed surveys, which provided sufficient power to detect small to medium (Cohen, 1988) effect sizes of $d =$ 0.18 and larger with a two tailed alpha (α) value of .05 and a beta (β) value of .20. Respondents ranged in age from 21 to 68 ($M = 35.3$, $SD = 11.4$), and were primarily Caucasian (84%), female (84%), and married (95%). Thirty-seven percent of respondents self-identified as *not very religious,* 17% said they were *slightly religious,* 18% were *somewhat religious,* and 22% described themselves as *very religious.* The number of children in each respondent's home ranged from 1 to 6 ($M = 2.20$, $SD = 1.04$). Additionally, 77% of respondents described their children with autism as verbal; 23%

described their child as nonverbal. Additional details concerning participants'

demographic characteristics are presented in Table 2.1.

Measures

The survey, which took most participants approximately 30 minutes to complete,

began with demographic items (see Appendix A) then continued with instruments

designed to measure each component of the double ABCX model.

Stressor and pile-up (aA). This component refers to the initial stressor as well as

pile-up stressors that occur simultaneously with, or as a consequence of, the initial

stressor. For the purpose of this study, autism severity was used as the initial stressor and

pile-up stressors were operationalized as daily hassles.

Autism severity. Autism severity was assessed with two questions (see Appendix

B). Respondents were asked, "How many children in your family are diagnosed with an

autism spectrum disorder?" Next, respondents were asked whether their child diagnosed

with an ASD was best described as *verbal* or *nonverbal*. Although autism is diagnosed on

a continuum based on severity of symptoms (APA, 2013), there are still thresholds of

behavioral symptoms relating to the child's ability to function on his or her own which

may also relate to parental stress. For example, a child who has verbal capabilities may

be able to communicate needs to a parents whereas children who are nonverbal usually

have more problematic behaviors. Chiang (2008) indicated that "children with autism

who have severe spoken language development may have a high incidence of challenging

behavior" such as "self-injury, tantrums, and aggression" (p. 967). Moreover, stigma can

be associated with children based on their verbal capabilities. Parents with a nonverbal

child with autism could face scrutiny because of their child's "high incidence of

challenging behavior" (p. 967) compared to parents who are raising a child who is diagnosed with a mild form of autism (Chiang, 2008). For these reasons, autism severity was measured using the question, "How would you describe your child?" with dichotomous response options of *verbal* or *nonverbal*.

Daily hassles. The *Hassles Scale* (HS; Kanner, Coyne, Schaefer, & Lazarus, 1980; Appendix C) is comprised of 117 hassles that represent common areas of stress, and respondents are asked how often each hassle occurs in their lives. Examples of daily hassles included on the instrument include "misplace or losing things," "not enough time for family," and "overload with family responsibilities." For this study, the instrument was modified from its original three response options, which ranged from *somewhat often* (1) to *extremely often* (3), to have four response options ranging from *never* (1) to *often* (4) to better measure the frequency of each daily hassle. Responses were scored by summing all responses, with possible scores ranging from 117 to 468.

Resources (bB). Access to resources was measured using the 19-item *Medical Outcomes Study Social Support Survey* (MOS; Sherbourne & Stewart, 1991; see Appendix D). The MOS assesses social support by measuring how often different types of support are available to the respondent when needed—response options range from *none of the time* (1) to *all of the time* (5)—on four subscales: (a) emotional and informational support (8 items; e.g., "Someone you can count on to listen to when you need to talk"); (b) tangible support (4 items; e.g., "Someone to help you if you were confined to bed"); (c) affectionate support (3 items; e.g., "Someone to love you and make you feel wanted"); and (d) positive social interaction (3 items; e.g., "Someone to get together with for relaxation"). Each subscale is summed for each participant and then the

scores is transformed to a 0-100 scale by (1) determining the difference between the observed score and the minimum possible score divided by the difference between the possible score and the minimum possible score and (2) multiplying the result by 100 (RAND, 2010). The MOS has an overall Cronbach alpha of .79 and subscale Cronbach alphas range from .91 to .96.

Appraisal (cC). Appraisal is the family's interpretation of the combined crisis precipitating event, pileup stressors, and family resources. This component was assessed by measuring life orientation and family crisis orientation.

Life orientation. The 10-item *Revised Life Orientation Test* (RLOT; Scheier, Carver, & Bridges, 1994; see Appendix E) assesses an individual's dispositional optimism with 5-point response options anchored by *strongly disagree* (1) and *strongly agree* (5). Four items are distracters; six items are used for scoring. Three of the scored items are summed for a total optimism score (e.g., "In uncertain times, I usually expect the best"), and the other three scored items are summed for a total pessimism score (e.g., "If something can go wrong for me, it will").

Family crisis orientation. The 8-item reframing subscale of the *Family Crisis Oriented Personal Evaluation Scale* (FCOPES; McCubbin, Olson, & Larsen, 1991; see Appendix F) was used to measure the extent to which respondents' families handle problems by reframing them. Example items include "knowing we have the power to solve major problems," "knowing that we have the strength within our own family to solve our problems," and "facing the problem 'head-on' and trying to get solutions right away," each with five response options ranging from *very unlikely* (1) to *very likely* (5).

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The eight items are summed for a total possible score range from 8 to 40. McCubbin et al. reported a Cronbach's alpha of .82 for the reframing subscale.

Coping (BC). Following the lead of Manning et al. (2010), resources and perception of the stressor were combined to create a hybrid component of the double ABCX model representing the family's level of coping. Manning et al. used the FCOPES; the current study uses both the FCOPES and a measure of the couple's conflict style.

Conflict style. The *Conflict Style Questionnaire* (CSQ; Holman & Jarvis, 2003; see Appendix G) was used to assess couples' conflict styles according to Gottman's couple-conflict typology. The CSQ presents four short vignettes that describe fictional couples, each corresponding with one of Gottman's four conflict styles: volatile, avoiding, validating, and hostile. Respondents indicate the extent to which each fictional couple's style of interaction resembles the respondent's own relationship, with response options anchored by *never* (1) and *very often* (5).

Problem-solving strategies. Four subscales from the FCOPES (McCubbin et al., 1991; see Appendix F) were used to assess problem-solving strategies. The subscales included (a) acquiring social support (9 items; e.g., "Sharing difficulties with relatives"); (b) seeking spiritual support, (4 items; e.g., "Attending church services"); (c) mobilizing to acquire and accept help (4 items; e.g., "Seeking information and advice from persons in other families who have faced the same or similar problems"); and (d) passive appraisal (4 items; e.g., "Watching television"). McCubbin et al. reported Cronbach alpha's for accruing social support as .83, seeking spiritual support as .82, mobilizing to acquire and accept help as .80, and passive appraisal as .63.

Relationship adaption (xX). The outcome variable is couple adaptation. This was measured by relationship satisfaction, positive relationship qualities, and negative relationship qualities.

Relationship satisfaction. The *Kansas Marital Satisfaction Scale* (KMSS; Schumm et al., 1986; see Appendix H) was used to measure satisfaction with the couple relationship. The 3-item instrument asks respondents how satisfied they are with their marriage, with their husband or wife as a spouse, and with their relationship with their husband or wife, and provides seven response options anchored by *extremely dissatisfied* (1) and *extremely satisfied* (7). Scores are summed across the three items, with a possible range of 3 to 21. Schumm et al. reported an alpha coefficient of .93 for the KMSS.

Relationship qualities. The 14-item *Positive and Negative Semantic Differential Scale* (PN-SMD; Mattson, Rogge, Johnson, Davidson, & Fincham, 2012; see Appendix I), which is comprised of two 7-item subscales that measure positive qualities (PSD; e.g., "Interesting" and "Enjoyable") and negative qualities (NSD; e.g., "Lonely" and "Discouraging"), was used to assess individual perceptions of one's committed relationship. Response options range from *not at all* to (0) *completely* (7), with possible summed subscale scores sums ranging from 0 to 49; higher scores indicate either a more positive or negative outlook (in accordance with the given subscale) on the relationship.

Table 2.1

Demographic Characteristics of Participants

Characteristic	n	%
Relationship status		
Married	120	95.2
Single (cohabiting)	6	4.8
Sex		
Female	106	84.0
Male	20	16.0
Race		
White/Caucasian	106	84.1
Latino or Hispanic	4	3.2
Black or African American	8	6.3
Asian American	3	2.4
American Indian	2	1.6
Other	1	0.8
Religiosity		
Not very religious	47	37.3
Slightly religious	22	17.5
Somewhat religious	23	18.3
Very religious	28	22.1
Education level		
Less than high school diploma	2	1.6
High school diploma/GED	30	23.8
Some college	46	36.6
Bachelor's degree	30	23.8
Some graduate school	6	4.8
Graduate Degree	12	9.5
Income		
< $20,000	2	1.6
$20,000-$29,999	4	3.2
$30,000-$49,999	17	13.5
$50,000-$69,999	32	25.4
$70,000-$89,999	26	20.6
$90,000-$119,999	17	13.5
$120,000-$149,999	12	9.5
Over $150,000	11	8.7
Description of Children with ASD		
Verbal	96	76.2
Nonverbal	28	22.2

Chapter 3: Results

Sample Comparisons

One-sample *t*-tests were used to assess the extent to which the recruited sample resembled those of relevant previous studies (see Table 3.1). Although no meaningful differences were found concerning emotional, tangible, and positive interaction supports between the current sample and a sample of patients with chronic medical conditions (Sherbourne & Stewart, 1991), the current sample did experience more affectionate support, perhaps because children with autism often seek physical comforts as a primary way of calming themselves. The current sample also reported substantially more optimism and substantially more pessimism than a sample of adults seeking outpatient treatment for weight loss (Fontaine & Cheskin, 1999). Children with autism can have dramatic progression or regression in development (CDC, 2012), which may lead families to experience heightened levels of both optimism and pessimism. Similarly, parents in the current sample reported substantially more reframing than did a sample of families participating in autism support groups (Twoy, Connolly, & Novak, 2006). Parents in the current sample scored much lower on all four relationship conflict styles compared to Holman and Jarvis' (2003) sample of couples from the Church of Jesus Christ of Latter-Day Saints. When compared to Twoy et al.'s sample of families involved with autism support groups, the current sample of parents also reported a considerably less acquired social support, seeking spiritual support, and mobilizing to acquire and accept help. When outcome variables were examined using one-sample *t*-tests, the current sample reported notably lower relationship satisfaction compared to a sample of Army couples (Schumm et al., 2008), as well as fewer positive relationship qualities and

somewhat more negative relationship qualities compared to a sample of individuals in romantic relationships obtained from online forums (Mattson et al., 2012).

Hierarchical Regression Models

Hierarchical multiple regression models were constructed to examine the extent to which the double ABCX model predicted overall relationship satisfaction ($M = 15.13$, $SD = 4.78$), positive relationship qualities ($M = 34.00$, $SD = 10.38$), and negative relationship qualities ($M = 9.06$, $SD = 10.27$) among couples parenting a child with autism, while controlling for religiosity and income. All three models followed similar block entry patterns: (1) religiosity and income were added as covariates in the first block, followed by measures of (2) stressors, (3) resources, (4) appraisal, and (5) coping. Preliminary analyses were conducted to test for multicollinearity. Religiosity and income were used at covariates in all hierarchical regression models because they were statistically correlated with predictor variables (see Table 3.2). Correlations between predictor and outcome variables and additional means and standard deviations are reported in Table 3.3.

Relationship satisfaction. The full regression model (see Table 3.4) including all ABCX model components accounted for 47% of the variance in relationship satisfaction. After controlling for religiosity and income, which together explained 13% of the variance, stressors explained an additional 5% of the variance, $F(2, 112) = 3.66$, $p = .029$, then resources accounted for an additional 14%, $F(4, 108) = 5.58$, $p < .001$, appraisal added another 4%, $F(3, 105) = 2.31$, $p = .080$, and finally, coping explained 10% of the variance in relationship satisfaction beyond what all other variables in the model were able to explain, $F(8, 97) = 2.21$, $p = .033$. Five individual variables statistically and meaningfully predicted relationship satisfaction: income ($\beta = .31$, $p = .001$), tangible

support ($\beta = .32$, $p = .004$), and a validating conflict style ($\beta = .26$, $p = .007$) were associated with more relationship satisfaction; daily hassles ($\beta = -.22$, $p = .016$) and a volatile conflict style ($\beta = -.26$, $p = .007$) were associated with less relationship satisfaction. Three other variables meaningfully, even if not statistically, contributed to the prediction of relationship satisfaction in these data: affectionate support ($\beta = .23$, $p = .055$) and reframing ($\beta = .17$, $p = .089$) were positively associated with relationship satisfaction, and an avoiding conflict style ($\beta = -.16$, $p = .070$) was negatively associated with relationship satisfaction.

Positive relationship characteristics. Roughly 72% of the variance in positive relationship qualities was accounted for by the full regression model that included all ABCX model components (see Table 3.5). Stressors, resources, and appraisal explained 22%, $F(2, 112) = 19.47$, $p < .001$; 26%, $F(4, 108) = 18.76$, $p < .001$; and 5%, $F(3, 105) = 5.54$, $p = .001$, of the variance in positive relationship qualities, respectively, and coping explained an additional 5% of the variance, $F(8, 97) = 1.95$, $p = .061$. Six individual variables statistically and meaningfully predicted positive relationship characteristics. Daily hassles were negatively associated with positive relationship perceptions($\beta = -.45$, $p < .001$). Income ($\beta = .34$, $p < .001$), affectionate support ($\beta = .29$, $p = .002$), positive social interaction support ($\beta = .20$, $p = .034$), reframing ($\beta = .28$, $p < .001$), and a validating conflict style ($\beta = .24$, $p = .001$) were each associated with more positive relationship qualities. Additionally, parents with a nonverbal autistic child tended to have fewer positive relationship perceptionsthan those with a verbal autistic child ($\beta = -.13$, $p = .097$).

Negative relationship characteristics. The full regression model accounted for 50% of the variance in negative relationship qualities (see Table 3.6). The predictive ability of the model was enhanced 27% by stressors, $F(2, 112) = 20.35$, $p < .001$, 11% by resources, $F(4, 108) = 4.80$, $p = .001$, 3% by appraisal, $F(3, 105) = 1.65$, $p = .182$, and 8% by coping, $F(8, 97) = 2.04$, $p < .049$. Six individual variables statistically and meaningfully enhanced the prediction of negative relationship characteristics. Daily hassles ($\beta = .52$, $p < .001$), emotional support ($\beta = .36$, $p = .003$), and hostile conflict style ($\beta = .26$, $p = .009$) were associated with having more negative relationship characteristics; tangible support ($\beta = -.22$, $p = .036$), positive social interaction support ($\beta = -.28$, $p = .022$), and pessimism ($\beta = -.20$, $p = .039$) were associated with having fewer negative relationship characteristics. Passive appraisal was also meaningfully, but not statistically, associated with negative relationship qualities ($\beta = .15$, $p = .077$)

Table 3.1
Results from One-Sample t-*Tests*

	Comparison Study		Current Study		One-sample *t*-test				
	M	*SD*	*M*	*SD*	*t*	*p*	η^2	Mean Difference	95% CI
Resources									
Emotional support[a]	69.60	25.50	68.60	23.10	-0.50	.621	.00	-1.03	[-5.11, 3.06]
Tangible support[a]	69.80	28.50	65.25	28.80	-1.73	.087	.02	-4.45	[-9.55, 0.65]
Affectionate support[a]	73.70	28.30	81.80	22.61	4.01	< .001	.11	8.10	[4.10, 12.10]
Positive interaction support[a]	69.80	26.00	72.93	26.17	1.34	.183	.01	3.13	[-1.50, 7.77]
Appraisal									
Reframing[b]	29.80		39.20	6.55	15.85	< .001	.68	9.40	[8.23, 10.58]
Optimism[c]	7.40	2.65	10.73	2.72	13.50	< .001	.60	3.33	[2.84, 3.82]
Pessimism[c]	4.61	2.93	8.20	2.95	13.44	< .001	.60	3.59	[3.06, 4.12]
Coping									
Acquired social support[b]	24.90	n/a	40.75	8.74	20.03	< .001	.77	15.86	[14.29, 17.43]
Seeking spiritual support[b]	10.54	n/a	16.96	4.82	14.72	< .001	.64	6.42	[5.56, 7.29]
Mobilizing family[b]	15.02	n/a	19.04	3.35	13.26	< .001	.59	4.02	[3.42, 4.62]
Passive appraisal[b]	15.39	n/a	11.18	5.65	-8.21	< .001	.36	-4.20	[-5.22, -3.19]
Volatile conflict style[d]	4.03	n/a	2.46	1.03	-16.96	< .001	.70	-1.57	[-1.75, -1.39]
Validating conflict style[d]	4.36	n/a	2.91	1.11	-15.54	< .001	.52	-1.66	[-1.88, -1.45]
Avoiding conflict style[d]	4.06	n/a	2.70	1.19	-11.54	< .001	.66	-1.14	[-1.34, -0.95]
Hostile conflict style[d]	3.38	n/a	2.11	1.13	-12.54	< .001	.56	-1.27	[-1.47, -1.07]
Relationship satisfaction[e]	18.74	4.75	15.13	4.78	-8.48	< .001	.36	-3.61	[-4.46, -2.77]
Positive qualities[f]	41.80	7.40	34.00	10.38	-8.43	< .001	.36	-7.80	[-9.63, -5.97]
Negative qualities[f]	6.30	9.10	9.06	10.27	3.02	.003	.07	2.76	[0.95, 4.57]

Note. n/a = not available.
[a] Compared to Sherbourne and Stewart (1991)
[b] Compared to Twoy, Connolly, & Novak (2006)
[c] Compared to Fontaine & Cheskin (1999)
[d] Compared to Holam & Jarvis (2003)
[e] Compared to Schumm et al. (2008)
[f] Compared to Mattson et al. (2012)

Table 3.2

Testing for Covariates: Religiosity and Income

Variable	Religiosity	Income
Demographic		
Parent age	-.17*	-.29**
Covariate		
Religiosity	—	.30**
Income	.30**	—
Stressors		
Age of child with ASD	.08	.28**
Number of child with ASD	.05	-.09
Daily hassles	.06	-.20*
Resources		
Emotional support	.09	.31**
Tangible support	.14	.27**
Affectionate support	-.17	.16
Positive social interaction support	-.11	.30**
Appraisal		
Reframe	.17	.21*
Coping		
Acquiring social support	-.20*	.15**
Seeking spiritual support	.53**	.21**
Mobilizing family	-.09	.17
Passive appraisal	.15	.13

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

Table 3.3

Means, Standard Deviations, and Correlations

Variable	Relationship satisfaction	Positive qualities	Negative qualities
Daily hassles	-.27**	-.51**	.53**
Resources			
Emotional support	.37***	.62***	-.22*
Tangible support	.47***	.55***	-.33***
Affectionate support	.37***	.63***	-.42***
Positive social interaction support	.34***	.62***	-.39***
Appraisal			
Reframing	.40***	.55***	-.14
Optimism	.37***	.41***	-.26**
Pessimism	-.27**	-.40***	.10
Coping			
Acquiring social support	.22*	.40***	-.09
Seeking spiritual support	.29**	.38***	-.13
Mobilizing family to acquire/accept help	.28**	.35***	.00
Passive appraisal	.17	.15	.15
Volatile conflict style	-.28**	-.10	.17
Avoiding conflict style	-.05	.00	.08
Validating conflict style	.29**	.32***	-.14
Hostile conflict style	-.33***	.47***	.51***
Relationship satisfaction	—	.67***	-.29**
Positive qualities		—	-.45***
Negative qualities			—

*p < .05. **p < .01. ***p < .001

Table 3.4

Hierarchical Multiple Regression Analysis for Predicting Relationship Satisfaction (N =120)

Step and Predictor Variables	R^2	ΔR^2	B	SE B	95% CI	β	t	p
1. Covariate	.13	.13						< .001
Religiosity			0.42	0.36	[-0.30, 1.14]	0.11	1.16	.250
Income			0.80	0.23	[0.33, 1.27]	0.31	3.40	.001
2. Stressors	.18	.05						.029
Description of child with ASD			-0.86	0.98	[-2.81, 1.09]	-0.08	-0.86	.383
Daily hassles			-0.02	0.01	[-0.03, -0.00]	-0.22	-2.44	.016
3. Resources	.32	.14						< .001
Emotional support			-0.02	0.03	[-0.07, 0.04]	-0.07	-0.56	.574
Tangible support			0.05	0.02	[-0.02, 0.09]	0.32	2.95	.004
Affectionate support			0.05	0.03	[-0.00, 0.10]	0.23	1.94	.055
Positive social interaction support			0.00	0.02	[-0.04, 0.05]	0.01	0.11	.910
4. Appraisal	.37	.04						.080
Reframing			0.13	0.07	[-0.02, 0.27]	0.17	1.72	.089
Optimism			0.22	0.19	[-0.16, 0.60]	0.12	1.14	.259
Pessimism			0.11	0.16	[-0.21, 0.42]	0.07	0.68	.501
5. Coping	.47	.10						.033
Acquiring social support			-0.01	0.07	[0.16, 0.13]	-0.02	-0.18	.856
Seeking spiritual support			-0.01	0.11	[-0.24, 0.22]	-0.01	-0.09	.925
Mobilizing family			0.24	0.19	[-0.13, 0.61]	0.17	1.28	.205
Passive appraisal			0.07	0.07	[-0.08, 0.21]	0.08	0.91	.364
Volatile			-1.11	0.40	[-1.91, -.031]	-0.24	-2.76	.007
Avoiding			-0.68	0.37	[-1.42. 0.06]	-0.16	-1.83	.070
Validating			1.06	0.39	[0.30, 1.83]	0.26	2.75	.007
Hostile			0.13	0.43	[-0.71, 0.98]	0.03	0.31	.756

Note. CI = confidence interval for *B*.

Table 3.5

Hierarchical Multiple Regression Analysis for Predicting Positive Relationship Perceptions(N =126)

Step and Predictor Variables	R^2	ΔR^2	B	SE B	95% CI	β	t	p
1. Covariate	.14	.14						< .001
Religiosity			0.55	0.78	[-1.01, 2.10]	0.06	0.70	.487
Income			1.91	0.51	[0.90, 2.91]	0.34	3.77	< .001
2. Stressors	.36	.22						<.001
Description of child with ASD			-3.16	1.89	[-6.89, 0.58]	-0.13	-1.67	.097
Daily hassles			-0.08	0.01	[-0.11, -0.05]	-0.45	-5.78	< .001
3. Resources	.62	.26						< .001
Emotional support			0.05	0.04	[-0.04, 0.13]	0.11	1.13	.262
Tangible support			0.05	0.03	[-0.01, 0.11]	0.13	1.66	.099
Affectionate support			0.13	0.04	[0.05, 0.21]	0.29	3.25	.002
Positive social interaction support			0.08	0.04	[0.01, 0.15]	0.20	2.15	.034
4. Appraisal	.67	.05						.001
Reframing			0.44	0.11	[0.22, 0.67]	0.28	3.91	< .001
Optimism			-0.27	0.30	[-0.86, 0.32]	-0.07	-0.90	.370
Pessimism			-0.15	0.25	[-0.64, 0.34]	-0.04	-0.62	.538
5. Coping	.72	.05						.061
Acquiring social support			-0.02	0.12	[-0.25, 0.21]	-0.02	-0.19	.850
Seeking spiritual support			0.31	0.18	[-0.05, 0.67]	0.14	1.72	.088
Mobilizing family			0.08	0.29	[-0.50, 0.66]	0.03	0.28	.777
Passive appraisal			0.08	0.11	[-0.15, 0.30]	0.04	0.68	.501
Volatile			-0.14	0.63	[-1.40, 1.11]	-0.01	-0.23	.821
Avoiding			-0.51	0.58	[-1.67, 0.65]	-0.05	-0.87	.385
Validating			2.09	0.60	[0.89, 3.29]	0.24	3.45	.001
Hostile			-0.63	0.67	[-1.96, 0.69]	-0.07	-0.95	.346

Note. CI = confidence interval for *B*.

Table 3.6

Hierarchical Multiple Regression Analysis for Predicting Negative Relationship Perceptions(N =126)

Step and Predictor Variables	R^2	ΔR^2	B	SE B	95% CI	β	t	p
1. Covariate	.02	.02						.320
Religiosity			0.05	0.83	[-1.59, 1.68]	0.01	0.06	.955
Income			-0.78	0.53	[-1.84, 0.27]	-0.14	-1.47	.146
2. Stressors	.28	.26						< .001
Description of child with ASD			0.53	1.97	[-3.38, 4.44]	0.02	0.27	.789
Daily hassles			0.09	0.01	[0.06, 0.12]	0.52	6.30	< .001
3. Resources	.39	.11						.001
Emotional support			0.16	0.05	[0.05, 0.27]	0.36	2.99	.003
Tangible support			-0.08	0.04	[-0.15, -0.01]	-0.22	-2.12	.036
Affectionate support			-0.08	0.05	[-0.18, 0.03]	-0.17	-1.48	.142
Positive social interaction support			-0.11	0.05	[-0.20, -0.02]	-0.28	-2.32	.022
4. Appraisal	.42	.03						.182
Reframing			0.08	0.15	[-0.21, 0.38]	0.05	0.56	.577
Optimism			-0.09	0.39	[-0.87, 0.69]	-0.03	-0.24	.811
Pessimism			-0.68	0.33	[-1.33, -0.04]	-0.20	-2.09	.039
5. Coping	.50	.08						.049
Acquiring social support			0.01	0.15	[-0.29, 0.31]	0.01	0.07	.944
Seeking spiritual support			-0.38	0.24	[-0.85, 0.09]	-0.18	-1.60	.112
Mobilizing family			0.14	0.38	[-0.62, 0.90]	0.05	0.36	.719
Passive appraisal			0.27	0.15	[-0.03, 0.57]	0.15	1.79	.077
Volatile			0.72	0.83	[-0.93, 2.37]	0.07	0.86	.391
Avoiding			0.86	0.77	[-0.66, 2.39]	0.09	1.12	.265
Validating			-0.72	0.80	[-2.30, 0.86]	-0.08	-0.91	.367
Hostile			2.35	0.88	[0.61, 4.09]	0.26	2.68	.009

Note. CI = confidence interval for *B*.

Chapter 4: Discussion

This study examined the relationship between stress and relationship quality among parents of children diagnosed with autism. Results indicate that family stress theory's double ABCX model provides a good explanatory framework for predicting relationship quality in this context. Specifically, each component of the theoretical model made modest to substantial contributions for predicting relationship satisfaction, positive relationship qualities, and negative relationship qualities in the statistical models, and each of the statistical models as a whole explained roughly one-third to one-half of the variance in relationship quality after controlling for religiosity and income.

The finding that stress stemming from daily hassles was a better predictor of relationship quality than autism severity contrasts with Manning et al. (2011), who found that autism behavior severity was a stronger predictor of family functioning than life stress. In conjunction with one another, these findings suggest that family functioning may be more susceptible to the effects of a child's behavior than is relationship quality within the parental subsystem, which makes sense intuitively in that a child's behavior may be directly connected to family functioning but only indirectly connected to the inner realm of the parents' relationship. Nonetheless, the modest but consistent effects that daily hassles have on relationship quality in the current study demonstrate that the inner realm of the couple relationship is not immune to exogenous stressors. It appears that the effects of stressors on marital quality can be at least somewhat mitigated, however, when resources—especially tangible and affectionate support—are available to help cope with stress and when couples have a validating coping style (or, at least do not have a volatile or avoiding coping style). One caveat to this explanation could be the

difference between the two studies' operationalizations of autism severity: Manning et al. (2011) used a continuous variable determined by responses to the *Social Communication Questionnaire* and the *Child Behavior Checklist* whereas a dichotomous variable was used in the current study.

Couples need time to learn coping and communication strategies for managing the stresses of parenthood (Pinquart & Teubert, 2010). However, the typical stresses of parenthood are magnified and compounded by an autism diagnosis (Siklos & Kerns, 2006), and these parents are particularly susceptible to stress proliferation (Benson, 2006; Stoneman & Gavidia-Payne, 2006). More structured approaches to alleviating daily hassles may be worthwhile in these circumstances; examples of clinician-assisted interventions include problem-focus strategies (Ebata & Moos, 1994), creating and comparing lists of stressors experienced by each family member (Ramisch, 2012), and creating a daily schedule to keep all family members on a well-defined routine (Solomon & Chung, 2012). While implementing these interventions, clinicians can also help couples by guiding them to better resources. Resources available to parents raising a child with autism can have implications for relationship quality; results of the current study suggest that relationship quality is associated with several types of support: affectionate, emotional, tangible, and positive social interaction. In particular, emotional support was the best predictor for negative relationship perceptions but not for satisfaction or positive perceptions. This finding is notable because it suggests that higher levels of emotional support are associated with higher levels of negative relationship perceptions but are not related to relationship satisfaction or positive relationship perceptions. One explanation for this could be whom participants were thinking about when they answered these two

measures during the survey. In the instructions for the PN-SMD, it tells individuals to only think about the positive or negative qualities in his or her "marital relationship". With these instructions, individual were persuade to think about their marital or single (cohabitating) partner while answering these questions. Where as when individuals were answering questions on the MOS, it did not suggest to them whom to think about when answering. A participant could reported high levels of emotional support but could have been thinking about individuals outside the marital relationship. So when the participant reflected specifically on the positive and negative qualities in their relationship the participant could report high levels of negative qualities even though they indicated on the MOS they feel emotionally supported. This interpretation suggests that clinicians should not focus primarily on improving emotional support unless there is a severe lack of emotional support, although more research is needed to determine what level of emotional support can be considered poor or severe. Rather, these findings indicate that clinicians should focus on other aspects of support, such as tangible and affectionate support given that they were better predictors of satisfaction and positive qualities.

While implementing these interventions, clinicians can also help couples by guiding them to better resources. Resources available to parents raising a child with autism can have implications for relationship quality; results of the current study suggest that relationship quality is associated with several types of support: affectionate, emotional, tangible, and positive social interaction. Particularly noteworthy is that emotional support was the best predictor of negative relationship perceptions, but was not associated with relationship satisfaction or positive relationship perceptions. Although these results may seem counterintuitive, the MOS was designed to measure resources

available to the respondent regardless of origin, and those who held negative relationship perceptions likely sought, elicited, or received heightened levels of emotional support from members of their family or social networks. These findings as a whole suggest that tangible and affectionate support are important predictors of relationship quality, and that emotional support is not particularly important except as a coping mechanism when negative relationship perceptions are high.

When working with couples who are raising a child with an autism spectrum disorder, clinicians need to evaluate the type of support needed by each individual in the relationship, then seek relevant avenues for increasing the needed resources available to couples, which may include providing direct support, referrals to new sources of support, or reviving existing support. Clinicians can help partners provide these forms of support to one another. For example, partner-assisted emotional disclosure—originally aimed at facilitating emotional disclosure with couples facing a cancer diagnosis (Porter, Baucom, Keefe, & Patterson, 2012)—could help partners provide better support to one another when they are raising a child with autism. Clinicians can guide the couple's conversation to include positive communication skills while they disclose their support needs and concerns revolving around the child with autism. Autism support groups can be an important resource during adjustment after a diagnosis as well—interacting with other couples raising a child with autism provides insight and normalizes one's own experiences (Altiere & Von Kludge, 2009; Neely, Amatea, Echevarraia-Doan, & Tanner, 2012).

Reframing was a strong predictor of relationship satisfaction and positive relationship perceptions for this sample. The results of this study augment previous

research which found that reframing was a predictor of family functioning for both the families and parents of children with autism (Manning et al., 2011) and that individuals often positively re-define family problems to avoid feeling discouraged (Luther et al., 2005). Our findings extend this perspective by indicating that reframing might be a way to stabilize or improve the couple relationship when faced with an autistic diagnosis for a child and the subsequent behaviors it entails. In contrast to reframing, pessimism was a strong predictor of negative relationship qualities. It may be that, after receiving an autism diagnosis, one's future expectations are colored by a greater sense of pessimism. The results of this study shed light on how the type of conflict style affects relationship quality for couples raising a child with autism. As expected, results indicated that a validating conflict style was a strong predictor for positive relationship qualities while a hostile conflict style was a strong predictor for negative relationship qualities. However, relationship satisfaction was predicted almost equally by both volatile and validating conflict styles, although the effects of each occurred in separate directions. A volatile conflict style involves passionate and energetic arguments (Goldenberg & Goldenberg, 2008), which could be especially disruptive in a household with an autistic child. For example, loud noises and high energy in the household could be over-stimulating for the child, thereby potentially creating behavioral issues in the child and consequently compounding parental stress during and following an argument. In contrast, a validating conflict style involving confirmation of how the other is feeling, understanding of the other partner's view, and having a rational conversation about the topic and possible solutions might produce a calmer environment for the child and while also resulting in more productive arguments. However, more research specifically exploring how couples

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argue and the direct impact it has on an autistic children is needed to confirm this explanation.

Limitations

Results of this study should be understood in the context of a few limitations. Although the purpose was to understand relationship quality among couples parenting a child with autism, data was onlywere collected from one partner, and primarily from the wife's perspective, which prevents us from examining gender differences, as well as from understanding the experiences of different partners within the same relationship and the concordance or discordance between those experiences. Also, in retrospect, focusing on a more homogenous population with regard to the target child's age and duration since the initial diagnosis—neither of which were controlled or measured—would have removed some important potential confounds.

Conclusion

Previous research has found mixed results regarding the effect of a child's autism diagnosis on relationship quality between parents. This study attempted to fill this gap by examining several aspects of relationship quality—satisfaction as well as positive and negative preceptions perceptions—utilizing a stress theory framework. Results reveal that the key predictors of relationship quality when raising a child with autism coalesce around the components of the double ABCX model. In particular, the intensity of the stressor, resources available, appraisal of the situation, and coping strategies each play a meaningful role in predicting relationship quality among those parenting children with autism. Clinicians and family life educators can play an essential role in educating these

couples on realistic expectations and coping strategies to decrease the negative impact of

a diagnosis.

Demographic Questions

1. Gender
   1 Male
   2 Female

2. What month were you born in?
   1 January
   2 February
   3 March
   4 April
   5 May
   6 June
   7 July
   8 August
   9 September
   10 October
   11 November
   12 December

3. What year were you born in? _____

4. Which of the following best described you racial or ethnic group?
   1 White/Caucasian
   2 Latino or Hispanic
   3 Black or African American
   4 Asian American
   5 Middle Eastern
   6 American Indian
   7 Other
   8 Don't know

5. Are you currently married, separated, divorced, widowed, or have you ever been married?
   1 Married
   2 Separated
   3 Divorced
   4 Widowed
   5 Single (never married, not cohabiting)
   6 Single (cohabiting)

6. What month was your husband, wife, or partner born in?
   1 January
   2 February

3   March
4   April
5   May
6   June
7   July
8   August
9   September
10 October
11 November
12 December

7.   What year was your husband, wife, or partner born in?   _____

8.   What is your zip code?   _____

9. Are you the primary caregiver of a child diagnosed with an Autism Spectrum Disorder?
    1   Yes
    2   No

10. Are you currently married to the biological parent of your child with ASD?
    1   Yes
    2   No

11. How many children do you have?
    1   0
    2   1
    3   2
    4   3
    5   4
    6   5
    7   6
    8   7
    9   8
    10 9
    11 10
    12 11+

12. Which of the following best describes your religious preference?
    1   Catholic
    2   Protestant ("Christian")
    3   Islamic
    4   Jewish
    5   Something Else
    6   No Religious Preference

      7   Don't Know/Not Sure

13. How religious would you say you are?
      1   Not Very Religious
      2   Slightly Religious
      3   Somewhat Religious
      4   Very Religious
      5   Not Applicable (e.g. atheist)

14. How often do you attend religious services?
      1   Never
      2   Rarely
      3   A few times per year
      4   Once or twice a month
      5   Almost every week
      6   Twice per week or more

15. Which of the following best describes the highest level of formal education you have completed?
      1   Grade school only
      2   Some of high school
      3   GED
      4   Graduated high school
      5   1 or 2 years college, no degree
      6   Graduated junior or community college
      7   Vocational-technical degree
      8   3 or 4 years of college, no degree
      9   Bachelor's degree
      10 Some graduate schoolwork
      11 Graduate degree

16. Last year what was your total household income from all sources before taxes?
      1   Under $4,999
      2   $5,000-$7,499
      3   $7,500-$9,999
      4   $10,000-$12,499
      5   $12,500-$14,999
      6   $15,000-$19,999
      7   $20,000-$24,999
      8   $25,000-$29,999
      9   $30,000-$39,999
      10 $40,000-$49,999
      11 $50,000-$69,999
      12 $70,000-$89,999
      13 $90,000-$119,999
      14 $120,000-$149,999

15 Over $150,000

17. How many hours per week do you perform paid work outside away from your house?
 1 0
 2 1-5
 3 6-10
 4 11-15
 5 16-20
 6 21-25
 7 26-30
 8 31-35
 9 36-40
 10 41-45
 11 46-50
 12 51-55
 13 56-60
 14 Over 61

18. How many hours per week do you perform paid work at home?
 1 0
 2 1-5
 3 6-10
 4 11-15
 5 16-20
 6 21-25
 7 26-30
 8 31-35
 9 36-40
 10 41-45
 11 46-50
 12 51-55
 13 56-60
 14 Over 61

19. How many hours per week does your partner perform paid work away from your house?
 1 0
 2 1-5
 3 6-10
 4 11-15
 5 16-20
 6 21-25
 7 26-30
 8 31-35
 9 36-40

10 41-45
        11 46-50
        12 51-55
        13 56-60
        14 Over 61

20. How many hours per week does your partner perform paid work at home?
        1   0
        2   1-5
        3   6-10
        4   11-15
        5   16-20
        6   21-25
        7   26-30
        8   31-35
        9   36-40
        10 41-45
        11 46-50
        12 51-55
        13 56-60
        14 Over 61

Autism Severity

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1. Which best describes your child diagnosed with ASD? *Verbal* or *Nonverbal*

2. How many children in your family are diagnosed with an ASD?

      1   0
      2   1
      3   2
      4   3
      5   4
      6   5
      7   6
      8   7
      9   8
      10 9
      11 10

Daily Hassles

Directions: Identify how frequently each of the following hassles occurs in your life.

	Never	Rarely	Occasionally	Often
1. Misplace or losing things	1	2	3	4
2. Troublesome neighbors	1	2	3	4
3. Social obligations	1	2	3	4
4. Inconsiderate smokers	1	2	3	4
5. Troubling thoughts about your future	1	2	3	4
6. Thoughts about death	1	2	3	4
7. Health of a family member	1	2	3	4
8. Not enough money for clothing	1	2	3	4
9. Not enough money for housing	1	2	3	4
10. Concerns about owing money	1	2	3	4
11. Concerns about money for emergencies	1	2	3	4
12. Someone owes you money	1	2	3	4
13. Financial responsibility for someone who doesn't live with you	1	2	3	4
14. Conserving electricity, water, etc.	1	2	3	4
15. Smoking too much	1	2	3	4
16. Use of alcohol	1	2	3	4
17. Personal use of drugs	1	2	3	4
18. Too many responsibilities	1	2	3	4
19. Decisions about having children	1	2	3	4
20. Non-family members living with you	1	2	3	4
21. Planning meals	1	2	3	4
22. Concerns about the meaning of life	1	2	3	4
23. Trouble relaxing	1	2	3	4
24. Problems getting along with coworkers	1	2	3	4
25. Concerns about medical treatment	1	2	3	4
26. Fear of rejection	1	2	3	4
27. Sexual problems due to physical causes	1	2	3	4
28. Sexual problems other than physical	1	2	3	4
29. Friends or relative too far away	1	2	3	4
30. Wasting time	1	2	3	4

	Never	Rarely	Occasionally	Often
31. Filling out forms	1	2	3	4
32. Financing children's education	1	2	3	4
33. Gender bias/harassment at work	1	2	3	4
34. Being exploited	1	2	3	4
35. Rising prices of common goods	1	2	3	4
36. Not getting enough sleep	1	2	3	4
37. Problems with your children	1	2	3	4
38. Problem with younger people	1	2	3	4
39. Problems with older people	1	2	3	4
40. Unchallenging work	1	2	3	4
41. Concerns about meeting high standards	1	2	3	4
42. Financial dealing with friends	1	2	3	4
43. Trouble reading, writing, or spelling	1	2	3	4
44. Trouble with math	1	2	3	4
45. Legal problems	1	2	3	4
46. Not enough time to get things done	1	2	3	4
47. Not enough energy	1	2	3	4
48. Side effects of medication	1	2	3	4
49. Physical illness	1	2	3	4
50. Inability to express yourself	1	2	3	4
51. Silly practical mistakes	1	2	3	4
52. Financial security	1	2	3	4
53. Fear of confrontation	1	2	3	4
54. Not enough money for health care	1	2	3	4
55. Feeling lonely	1	2	3	4
56. Concerns about accidents	1	2	3	4
57. Concerns about getting a loan/credit	1	2	3	4
58. Having to wait in lines	1	2	3	4
59. Too much time on your hands	1	2	3	4
60. Unexpected company	1	2	3	4
61.Too many interruptions	1	2	3	4
62. Not enough money for food	1	2	3	4
63. Not enough money for necessities	1	2	3	4
64. Dislike coworkers	1	2	3	4
65. Dislike current work duties	1	2	3	4
66. Laid-off or out of work	1	2	3	4
67. Concerns about retirement	1	2	3	4

	Never	Rarely	Occasionally	Often
68. Care for pets	1	2	3	4
69. Concerns about job security	1	2	3	4
70. Housekeeping responsibilities	1	2	3	4
71. Trouble making decisions	1	2	3	4
72. Difficult customers/clients	1	2	3	4
73. Physical appearance	1	2	3	4
74. Difficulties getting pregnant	1	2	3	4
75. Concerns about health in general	1	2	3	4
76. Social isolation	1	2	3	4
77. Preparing meals	1	2	3	4
78. Auto maintenance	1	2	3	4
79. Neighborhood deterioration	1	2	3	4
80. Declining physical abilities	1	2	3	4
81. Concerns about bodily functions	1	2	3	4
82. Not getting enough rest	1	2	3	4
83. Problems with again parents	1	2	3	4
84. Problems with your lover	1	2	3	4
85. Difficulties seeing or hearing	1	2	3	4
86. Too many things to do	1	2	3	4
87. General job dissatisfaction	1	2	3	4
88.Worry about changing jobs	1	2	3	4
89.Too many meetings	1	2	3	4
90. Problems with divorce/separation	1	2	3	4
91. Gossip	1	2	3	4
92. Concerns about weight	1	2	3	4
93. Watching too much television	1	2	3	4
94. Concerns about inner conflicts	1	2	3	4
95. Feeling conflicted about what to do	1	2	3	4
96. Regrets over past decisions	1	2	3	4
97. Menstrual problems	1	2	3	4
98. The weather	1	2	3	4
99. Nightmares	1	2	3	4
100. Concerns about getting ahead	1	2	3	4
101. Hassles from boss/supervisor	1	2	3	4
102. Difficulties with friends	1	2	3	4
103. Overload of family responsibilities	1	2	3	4
104. Problems with employees	1	2	3	4

	Never	Rarely	Occasionally	Often
105. Not enough time for family	1	2	3	4
106. Transportation problems	1	2	3	4
107. Not enough money for transportation	1	2	3	4
108. Not enough money for recreation	1	2	3	4
109. Shopping responsibilities	1	2	3	4
110. Prejudice/discrimination from others	1	2	3	4
111. Property, investments, or taxes	1	2	3	4
112. Not enough time for recreation	1	2	3	4
113. Home maintenance (inside)	1	2	3	4
114. Yard work/outside maintenance	1	2	3	4
115. Concerns about current events	1	2	3	4
116. Noise	1	2	3	4
117. Crime	1	2	3	4
118. Traffic	1	2	3	4
119. Pollution	1	2	3	4

Social Support

Directions: People sometimes look to other for companionship, assistance, or other types for support. How often is each of the following kinds of support available for you if you need it?

Emotional/informational support	None of the time	A little of the time	Some of the time	Most of the time	All of the time
1. Someone you can count on to listen to you when you need to talk	1	2	3	4	5
2. Someone to give you information to help you understand a situation	1	2	3	4	5
3. Someone to give you good advice about a crisis	1	2	3	4	5
4. Someone to confide in or talk to about yourself or your problems	1	2	3	4	5
5. Some whose advice you really want	1	2	3	4	5
6. Someone to share your most private worries and fears with	1	2	3	4	5
7. Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5
8. Someone who understands your problems	1	2	3	4	5

Tangible support	None of the time	A little of the time	Some of the time	Most of the time	All of the time
9. Someone to help you if you were confined to bed	1	2	3	4	5
10. Someone to take you to the doctor if you need it	1	2	3	4	5
11. Someone to prepare your meals if you were unable to do it yourself	1	2	3	4	5
12. Someone to help with daily chores if you were sick	1	2	3	4	5

Affectionate support	None of the time	A little of the time	Some of the time	Most of the time	All of the Time
13. Someone who shows you love and affection	1	2	3	4	5
14. Someone to love and make you feel wanted	1	2	3	4	5
15. Someone who hugs you	1	2	3	4	5

Positive social interaction	None of the time	A little of the time	Some of the time	Most of the time	All of the time
16. Someone to have a good time with	1	2	3	4	5
17. Someone to get together with for relaxation	1	2	3	4	5
18. Someone to do something enjoyable with	1	2	3	4	5

Revised Life Orientation Test

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1 = strongly disagree
2 = disagree
3 = neutral
4 = agree
5 = strongly agree

___ 1.   In uncertain times, I usually expect the best.
___ 2.   It's easy for me to relax.
___ 3.   If something can go wrong for me, it will.
___ 4.   I'm always optimistic about my future
___ 5.   I enjoy my friends a lot.
___ 6.   It's important for me to keep busy
___ 7.   I hardly ever expect things to go my way.
___ 8.   I don't get upset too easily.
___ 9.   I rarely count on good things happening to me.
___ 10. Overall, I expect more good things to happen to me than bad.

Family Crisis Oriented Personal Evaluation Scale

Directions: Decide how well each statement describes your attitudes and behaviors in response to problems or difficulties. If the statement describes your response *very well*, then circle the number 5 indicating that you VERY LIKELY; if the statement does not describe your response at all, then circle the number 1 indicating that you VERY UNLIKELY; if the statement describes your response to some degree, then select a number 2, 3, or 4 to indicate how much you agree or disagree with the statement about your response.

When we face problems or difficulties in our family, we respond by:

	Very Unlikely	Somewhat Unlikely	Neither Likely Nor Unlikely	Somewhat Likely	Very Likely
1. Sharing our difficulties with relatives	1	2	3	4	5
2. Seeking encouragement and support from friends	1	2	3	4	5
3. Knowing we have the power to solve major problems	1	2	3	4	5
4. Seeking information and advice from persons in other families who have faced the same or similar problems	1	2	3	4	5
5. Seeking advice from relatives (grandparents, etc.)	1	2	3	4	5
6. Seeking assistance from community agencies and programs designed to help families in our situation	1	2	3	4	5
7. Knowing that we have the strength within our own family to solve our problems	1	2	3	4	5

8. Receiving gifts and favors from neighbors (e.g., food, taking in mail, etc.)	1	2	3	4	5
9. Seeking information and advice from the family doctor	1	2	3	4	5
10. Asking neighbors for favors and assistance	1	2	3	4	5
11. Facing the problem "head-on" and trying to get solutions right away	1	2	3	4	5
12. Watching television	1	2	3	4	5
13. Showing that we are strong	1	2	3	4	5
14. Attending church services	1	2	3	4	5
15. Accepting stressful events as a fact of life	1	2	3	4	5
16. Sharing concerns with close friends	1	2	3	4	5
17. Knowing luck plays a big part in how well we are able to solve family problems	1	2	3	4	5
18. Exercising with friends to stay fit and reduce tension	1	2	3	4	5
19. Accepting that difficulties occur unexpectedly	1	2	3	4	5
20. Doing things with relatives (get-togethers, dinners, etc.)	1	2	3	4	5
21. Seeking professional counseling and help for family difficulties	1	2	3	4	5
22. Believing we can handle our own problems	1	2	3	4	5
23. Participating in church activities	1	2	3	4	5

24. Defining the family problem in a more positive way so that we do not become too discouraged	1	2	3	4	5
25. Asking relatives how they feel about problems we face	1	2	3	4	5
26. Feeling that no matter what we do to prepare, we will have difficulty handling problems	1	2	3	4	5
27. Seeking advice from a minister	1	2	3	4	5
28. Believing if we wait long enough, the problem will go away	1	2	3	4	5
29. Sharing problems with neighbors	1	2	3	4	5
30. Having faith in God	1	2	3	4	5

Conflict Style Questionnaire

Below are descriptions of how people in four different types of relationships handle conflict. We would like to see which type most closely describes how you and your partner deal with conflict in your relationship. (Respondents did not see the couple-conflict type labels presented here in parenthesis)

> 1= Never
> 2= Rarely
> 3= Sometimes
> 4= Often
> 5= Very Often
> R= Refuse

(Volatile)

In our relationship conflicts may be fought on a rand scale, and that is okay, since our making up is even grander. We have volcanic arguments, but they are just a small part of warm and loving relationships. Although we argue, we are still able to resolve our differences. In fact, our passion and zest for fighting actually lead to a better relationship, with a lot of making up, laughing, and affection.

(Avoiding)

In our relationship, conflict is minimized. We think it is better to "agree to disagree" rather than end up in discussion that will result in a deadlock. We don't think much is to be gained from getting openly angry with each other. In fact, a lot of talking about disagreements seems to make matters worse. We feel that if you just relax about problems, they will have a way of working themselves out.

(Validating)

In our relationship, when we are having conflict, we let each other know the other's opinions are valued and their emotions valid, even if we disagree with each other. Even when discussing a hot topic, we display a lot of self-control and are calm. When fighting, we spend a lot of time validating each other as well as trying to persuade our partner, or trying to find a compromise.

(Hostile)

We argue often and hotly. There are a lot of insults back and forth, name-calling, putdowns, and sarcasm. We don't really listen to what the other is saying, nor do we look at each other very much. One or the other of us can be quite detached and emotionally uninvolved, even though there may be brief episodes of attack and defensiveness. There are clearly more negatives than positives in our relationship.

Kansas Marital Satisfaction Scale

How satisfied are you with your . . .

Items	Extremely Dissatisfied	Very Dissatisfied	Somewhat Dissatisfied	Mixed	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
marriage?	1	2	3	4	5	6	7
husband/wife as a spouse?	1	2	3	4	5	6	7
relationship with your husband/wife?	1	2	3	4	5	6	7

Appendix I

Positive and Negative Relationship Satisfaction

Positive Relationship Satisfaction

Directions: Considering only the *positive qualities* of your marital relationship and ignoring the *negative ones, e*valuate your marital relationship on the following qualities:

My marital relationship is…

	Not at all	A tiny bit	A little	Somewhat	Mostly	Very	Extremely	Completely
1. Interesting	0	1	2	3	4	5	6	7
2. Full	0	1	2	3	4	5	6	7
3. Sturdy	0	1	2	3	4	5	6	7
4. Enjoyable	0	1	2	3	4	5	6	7
5. Good	0	1	2	3	4	5	6	7
6. Friendly	0	1	2	3	4	5	6	7
7. Hopeful	0	1	2	3	4	5	6	7

Negative Relationship Satisfaction

Directions: Considering only the *negative qualities* of your marital relationship and ignoring the *positive ones*, evaluate your marital relationship on the following qualities:

My marital relationship is…

	Not at all	A tiny bit	A little	Somewhat	Mostly	Very	Extremely	Completely
1. Bad	0	1	2	3	4	5	6	7
2. Lonely	0	1	2	3	4	5	6	7
3. Discouraging	0	1	2	3	4	5	6	7
4. Boring	0	1	2	3	4	5	6	7
5. Empty	0	1	2	3	4	5	6	7
6. Fragile	0	1	2	3	4	5	6	7
7. Miserable	0	1	2	3	4	5	6	7

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