

*Perceptions of Parent-Child Relationship Quality in Parents of
Children With and Without Autism*

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Abstract

Previous research has shown close links between stress and well-being (e.g., Pearlin, Lieberman, Menaghan, & Mullan, 1981) and between parent-child relationship quality and parental well-being (Umberson, 1989). Parents of children with autism experience higher levels of stress than parents of typically developing children and parents of children with any other developmental disability (Sanders & Morgan, 1997). Links were found between parent-child relationship quality and parental well-being in mothers of adult children with autism (Greenberg, Seltzer, Krauss, Chou, & Hong, 2004). However, the current study is the first to examine these links in parents of young children with autism. In addition, utilizing the double ABCX model of adjustment, the role of parent-child relationship as a protective factor against parenting stress was examined. A total of 45 parents, including 18 parents of children with autism and 27 parents of typically developing children between the ages 3 and 6 years completed the Autism Behavior Checklist (Krug, Arick, & Almond, 1980), the Parenting Stress Index – Short Form (Abidin, 1995), the Parent-Child Relationship Inventory (Gerard, 2005), the Perceived Attachment Questionnaire (Hoppes & Harris, 1990), and two well-being questionnaires: the Subjective Happiness Questionnaire (Lyubomirsky & Lepper, 1999) and the Global Life Satisfaction Questionnaire (Schwartz & Strack, 1991). In addition, some demographic data was collected, and a brief interview was conducted in which the participants described their relationship with the child. Parents of children with autism reported lower quality of parent-child relationship as well as higher levels of stress and lower levels of well-being as compared with parents of typically developing children. Parent-child relationship quality was associated with well-being in the sample of parents

of typically developing children but not in the sample of parents of children with autism. A stepwise linear regression revealed that social support and parental distress predicted both well-being measures. A thematic analysis of the qualitative data revealed that parents of children with and without autism share many similar parenting experiences. However, parents of children with autism also had unique concerns that resulted from their situation as caring for a child with autism, including worrying about the child's future, feeling pressured to present a normal facade and dealing with others reactions to child behaviors. The findings regarding the protective role of parent-child relationship quality were mixed, and good parent-child relationship was associated with higher levels of happiness, but not life satisfaction, when stress levels were low. In terms of the double ABCX model, Pakenham, Samios and Sofronoff (2005) noted that cognitive reappraisal of stress was an effective coping resource for mothers of children with Asperger's Syndrome. Based on the findings of the present study, it is speculated that social resources are more effective in coping with moderate levels of stress, whereas cognitive resources are more effective in coping with high levels of stress. Future research should further investigate the role of resources such as social support and parent-child relationship quality as well as cognitive coping strategies in the ability of parents of children with autism to cope with the diagnosis and the demands of the disorder. In addition, future research should focus on better understanding the complex experience of parenting a child with autism and the relationship that is formed between the parent and the autistic child.

This work is dedicated to my husband Guy, for hours of patiently listening to my ramblings, for being my manager, my rock, my comfort, and my compass.

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Introduction

“[I worry] whether he’ll be growing up as a functional, happy [person]... somebody who is actually a full-blown adult, as oppose to someone who is unable to care for himself”.

Participant 204, mother of a five year old boy with autism.

Research has shown that parenting entails a decline in subjective well-being (McLanahan & Adams, 1987). *Subjective well-being* is used by researchers to capture happiness and satisfaction with life (Diener, Suh, Lucas & Smith, 1998). In other words, parenting entails high costs for the parents. However, parenting also entails rewards. Parents, for instance, report higher levels of social integration as compared with childless adults (Nomaguchi & Milkie, 2003). They also report more sense of meaning (Umberson & Gove, 1989).

Several studies have shown that parent-child relationship quality is associated with parental well-being (Shek, 1997; Umberson, 1989). *Parent-child relationship* is a special type of social relationship, one in which the partners are closely interdependent in terms of emotions, goals and needs (Kuczynski, 2003). Parents and children interact with each other daily over many situations. Attachment research showed that the quality of the interactions between parents and their children exerts a large impact on children’s development (e.g., Belsky & Fearon, 2002). It seems, therefore, that both parents and children are affected deeply by the parent-child relationship and its quality.

Autism is a neurodevelopmental disorder that is characterized by difficulties in communication and social interaction (American Psychological Association [APA],

2000). Research involving parents of children with autism showed that these parents experience extremely high levels of stress (Bouma & Schweitzer, 1990; Holroyd & McArthur, 1976; Olsson & Hwang, 2002; Sanders & Morgan, 1997; Wolf, Noh, Fisman & Speechley, 1989). It seems that parents of children with autism are an extreme case of parenting stress. However, many parents of children with autism adjust and function well despite experiencing stress (e.g., Bristol, 1987; Pakenham et al., 2005). Understanding how these parents cope with stress may improve scholars' ability to help other parents of children with autism, and indeed parents in general, to function better.

McCubbin and Patterson (1983) suggested a theoretical framework to understand the coping process of families who have a child diagnosed with an illness. The double ABCX model proved to be useful in understanding the coping processes of families who have a child with autism (Bristol, 1987; Pakenham et al., 2005). Parents of children with autism use resources such as social support, and utilize cognitive appraisals and value shifts to be able to adjust and function well (Bromley, Hare, Davison, & Emerson, 2004; Hassall, Rose, & McDonald, 2005; King et al., 2006; Tunali & Power, 1993).

Greenberg et al. (2004) found that quality of the parent-child relationship was associated with subjective well-being in a sample of mothers of adult children with autism ($N = 102$) and with schizophrenia ($N = 292$). These authors examined mothers' reports of their well-being, the quality of their relationship with their child, and dispositional optimism. They found that parent-child relationship quality as reported by the mother predicted maternal well-being, $R^2 = .29$, and maternal depressive symptoms, $R^2 = -.37$. Controlling for optimism reduced the predictive value of parent-child relationship quality for well-being, $R^2 = .10$, and for depressive symptoms, $R^2 = -.18$, but,

at least for depression symptoms, parent-child relationship quality remained a significant predictor.

Based on the work of Greenberg et al. (2004), the current study was aimed at examining whether a good parent-child relationship can help parents of children with and without autism to cope with the stress they experience. Parents were asked about their stress, well-being, and relationship with their child. In the next section, I will define some key terms and describe the rationale behind testing the relationship between stress, well-being, and parent-child relationship.

Parenting

Parenting is one of the most important social roles in adult life. It permeates every aspect of the parent's life from the moment the child is born. Parenting usually involves high levels of stress (Barnett & Baruch, 1985; McLanahan & Adams, 1987) and greater time demands (e.g., Umberson, 1989). However, several researchers noted that parenting also comes with rewards (e.g., Nomaguchi & Milkie, 2003; Umberson & Gove, 1989). For instance, Nomaguchi and Milkie (2003) found that parents ($N = 1,933$) reported more demands, but also higher levels of social integration, as compared with childless adults. Married mothers had more house-work and more marital conflict as compared to childless married women, but they also reported lower depression levels. These authors and other (e.g., Umberson & Gove, 1989) urge researchers to focus on both the positive and negative aspects of parenting.

Stress and Parenting

Despite the understanding that parenting involves as much rewards as it does costs, psychological research tended to focus, until recently, on the adverse effects of parenting on the parent. The research on parenting stress is copious (see Abidin, 1995). Historically, there are three approaches to conceptualize stress in parents: the major life events approach; the daily hassles approach; and the parental distress and child difficulties approach (Crnic, Gaze & Hoffman, 2005). The major life events approach, though useful to screen for families at risk, relies on low frequency events. The daily hassles approach focuses on minor, day-to-day events, both in the parenting domain and in parents' life in general. Research on daily hassles showed that this type of stress is associated with parental dissatisfaction and with child behavior problems (Creasey & Reese, 1996; Crnic et al., 2005). Finally, the parental distress and child difficulties approach conceptualize stress as parenting-related difficulties. This approach is widely used in special populations, including developmental delays (see Abidin, 1995).

Parenting stress has detrimental effects on both the child and the parent. Associations have been reported between parenting stress and child outcomes, including behavior problems (Crnic et al., 2005) and insecure attachment (Jarvis & Creasey, 1991). Parenting stress was also linked to negative parenting behavior, including yelling and showing negative affect towards the child (e.g., Crnic et al., 2005), as well as authoritarian disciplining and marital dissatisfaction (Deater-Deckard & Scarr, 1996). Parents who experience stress seem to be less satisfied with their lives and to practice less effective parenting behaviors.

Coping with Stress

Coping in modern psychology is conceptualized as a process rather than as a trait or an unconscious defense (Lazarus & Folkman, 1984). McCubbin and Patterson (1983) suggested the double ABCX model to conceptualize the coping process of families of children with chronic illness. This model also proved useful in understanding the coping process of families of children with autism (Bristol, 1987; Pakenham et al., 2005). According to the double ABCX model, the coping process can be conceptualized as influenced by the initial and pileup stressors (aA), the resources available for the family (bB), and the cognitive appraisal of the stressors (cC). The result of the process is the level of adjustment of the family to the stressful situation (xX). In other words, the appraisal of the stressor and the resources that are available for the family can be seen as moderating the effects of the stressors on the functioning of the family (McCubbin & Patterson, 1983). While the stressors, resources, and appraisals are many and varied, adjustment is usually measured by measures of subjective well-being such as positive affect, life satisfaction, and the absence of depression symptoms (e.g., Bristol, 1987; Greenberg et al., 2004; McLanahan & Adams, 1987; Pakenham et al., 2005)

Research had shown that parents of typically developing children also use resources such as social support and cognitive appraisals to cope with the stressors of parenting (Jarvis & Creasey, 1991; Simons, Beaman, Conger & Chao, 1993). It seems, then, that the ABCX model may be utilized to understand the coping process of parents of typically developing children as well as parents of children with developmental disabilities such as autism. The present study was aimed at examining another resource

that may help parents of children with and without autism to cope with stress, namely, a good parent-child relationship.

Parent-Child Relationship Quality

Parent-child relationships are a specific type of social relationships. Kuczynski (2003) suggested that "a relationship is formed between two partners as they accumulate a history of interactions and begin to interject symbolic representations... of their past interactions into subsequent interactions with each other" (p. 8). A parent-child relationship is developed through the many interactions that the partners experience. The focus of the present study is the quality of parent-child relationships.

Parent-child relationship quality is a complex construct (Cook, 2003). There are two ways in which researchers measure parent-child relationship quality: attachment pattern and self-report. *Attachment* is thought to be a behavioral biology-based system, developed through evolution to protect the baby from predators (Bowlby, 1969/1982; Cassidy, 1999). Attachment is developed during the first year of life and is a result of recurring reciprocal interactions between the infant and the caregiver, or attachment figure (Sroufe, Cooper & DeHart, 1996). Ainsworth and colleagues (Ainsworth, Blehar, Waters, & Wall, 1978) created a system to classify infants' behavior into three attachment patterns: secure, insecure-avoidant, and insecure-resistant. A secure pattern, exhibited by most typically developing children, is thought to be the optimal pattern in parent-child relationships, and was found to be associated with positive child outcomes in social and cognitive development (e.g., Belsky & Fearon, 2002).

Another way that is used by researchers to measure parent-child relationship is the direct self-report method. Researchers simply ask the parents to rate the quality of their

relationship with their child (e.g., Greenberg et al., 2004; Shek, 1997; Umberson, 1989).

This approach is simple and direct, but exposed to bias by factors that influence participant response, including social desirability (Shek, 1997).

Parent-Child Relationship as a Coping Resource

Utilizing the double ABCX model, it can be argued that a good parent-child relationship can function as a resource for parental coping. There is some evidence that a good parent-child relationship can serve as a reward for parents, helping them overcome the stress that is associated with parenting. For example, Umberson (1989) found that the quality of parent-child relationship was associated with well-being in 1,494 parents of children under the age of 18 years. This finding was true for a wide range of well-being measures.

In a more recent investigation conducted in Hong Kong, Shek (1997) found similar correlations between parent-child relationship quality and parental well-being in a sample of 1,501 parents. Parent-child relationship quality was found to correlate with parental well-being even when controlling for parental and family characteristics such as age, gender, and number of children in the family. In summary, there is evidence that a good parent-child relationship is associated with parental happiness and satisfaction.

Both studies described above have an important limitation. They both used non-validated measurements to assess parent-child relationship quality. Although Shek (1997) did conduct a reliability analysis and found the measurement to be reasonably consistent ($\alpha = 0.65$), the scale consisted of three items, and no data was gathered on social desirability and participants consistency. Both Shek (1997) and Umberson (1989)

encourage researchers to conduct further investigations to establish reliability and validity of the finding that parent-child relationship quality is correlated with parental well-being.

Another important limitation of the two studies (Shek, 1997; Umberson, 1989) is that they did not measure parenting stress per se. Although both studies measured parent-child relationship demands, both researchers refer to the parent-child relationship demands scale as measuring parent-child relationship negative content, and not necessarily parenting stress. Both researchers do not view parent-child relationship as a coping resource, but merely as a factor that correlates with good outcomes. In other words, the moderating effects of parent-child relationship had not yet been investigated.

In summary, parenting can entail high levels of stress. Most parents manage to cope with the stress and function, but some do not. One of the factors that may protect parents from the adverse effects of parenting stress is a good parent-child relationship. However, this association has not been investigated thoroughly. One extreme case of high levels of stress and presumably low quality of parent-child relationship is the case of parents of children with autism.

Autism and Parent-Child Relationship

Autism is a neurodevelopmental disorder that is characterized mainly by deficits in communication and social interaction (APA, 2000). This deficit lends itself to the assumption that the relationship a parent develops with their child will be different when the child has autism. In addition, it has been well documented that parents of children with autism experience extremely high levels of stress (Bouma & Schweitzer, 1990; Bristol, 1987; Gray, 1994; Holroyd & McArthur, 1976; Konstantareas, Homatidis & Plowright, 1992; Olsson & Hwang, 2002; Pakenham et al., 2005; Pisula, 2003; Sanders &

Morgan, 1997; Wolf et al., 1989). Moreover, parents of children with autism experience levels of stress that are higher than the levels of stress reported by parents of children with other disabilities (e.g., Bouma & Schweitzer, 1990; Holroyd & McArthur, 1976; Sanders & Morgan, 1997). This is due to unique situations that result from the pattern of behavior that characterizes children with autism, such as uneven course of development and the child's typical physical appearance, which creates expectations for typical behavior (Gray, 1994; Marcus, Kuncze & Schopler, 2005; Pisula, 2003; Schuntermann, 2002).

There is a disagreement among researchers about whether parent-child relationship quality in parents of children with autism is comparable to that of parents of typically developing children. On the one hand, evidence exists to support the notion that the quality of parent-child relationship in dyads that include a child with autism is lower than in dyads that do not include such a child (e.g., Greenberg et al., 2004). On the other hand, some investigations suggest that parent-child relationship quality in dyads that include a child with autism is comparable to parent-child relationship quality in dyads that include a typically developing child (e.g., Rutgers, Bakermans-Kranenburg, van IJzendoorn, & van Berckelaer-Onnes, 2004).

Greenberg et al. (2004) examined the quality of parent-child relationship and well-being of mothers of adult children with autism, schizophrenia, and Down Syndrome. They found that the quality of parent-child relationship was lower in dyads that included a child with autism ($N = 102$) than dyads that included a child with Down syndrome ($N = 126$). These authors used a direct self-report approach, asking the mothers to rate the quality of the relationship with their child.

In contrast, Rutgers et al. (2004) conducted a meta-analysis on attachment studies in children with autism (total $N = 287$) and found that cognitive functioning accounted for all the variability in attachment pattern. In other words, it was mostly the children with low cognitive functioning who showed insecure attachment patterns, whereas children with autism who had high cognitive functioning exhibited a pattern of attachment security. These authors used only studies that utilized the Strange Situation procedure (Ainsworth et al., 1978). In other words, these authors found no evidence to support the hypothesis that attachment security patterns differ in children with autism as compared with typically developing children (Rutgers et al., 2004).

There are a few possible explanations to the fundamental difference in results reported in the two studies (Greenberg et al., 2004; Rutgers et al., 2004). One possible explanation is that the differences in results are due to methodological differences. Specifically, Greenberg et al. (2004) used self-report questionnaires filled by the mothers, while the attachment patterns meta-analysis used an observation tool in a laboratory setting (Rutgers et al., 2004). It is possible that mothers of children with autism experience their relationship with their child in a more grim way, and their reports paint a picture of low parent-child relationship quality. The mothers' construction of the relationship, therefore, may account for the disparate results.

This seems like a plausible explanation, especially if the evidence of increased depression symptoms in mothers of children with autism is considered (Abbeduto et al., 2004; Ryde-Brandt, 1990; Wolf et al., 1989). It is possible, then, that low levels of well-being can account for the lower levels of reported quality of parent-child relationship in mothers of children with autism. However, Greenberg et al. (2004) did not find a

significant difference in depression symptoms between mothers of children with autism, schizophrenia, and Down syndrome – in the same sample of mothers of children with autism that reported lower parent-child relationship quality. Therefore, at least for Greenberg et al.'s investigation, depression symptoms cannot account for the lower reported parent-child relationship quality in mothers of children with autism.

Another possible explanation of the differences in findings regarding parent-child relationship quality in dyads that include a child with autism is that the attachment studies used in the meta-analysis (Rutgers et al., 2004) did not look at attachment per se. It is common in studies of attachment in children with disabilities to use a sub-classification system. In this approach, the children are first classified according to the original classification system developed by Ainsworth et al. (1978). They usually receive a classification of disorganized attachment (e.g., Capps, Sigman, & Mundy, 1994). Then the children are sub-classified using behaviors such as being able to differentiate between their caregiver and a stranger (Dissanayake & Sigman, 2001). In this sub-classification, a typical proportion of “secure attachment pattern” is usually found (Capps et al., 1994; Dissanayake & Sigman, 2001). Although this sub-classification system is more sensitive and reveals the subtle interactions between the child with autism and the caregiver, it is nevertheless divergent from the original attachment classification method (Ainsworth et al., 1978). It is possible, then, that the studies measuring attachment in children with autism do not measure the same construct that was originally referred to as attachment by Bowlby (1969/1982). If that is the case, it is possible that the mothers' report about the quality of their relationship with their child captures the genuine picture, and that indeed their relationship with their child is of lower quality.

There are several reasons to think that parent-child relationship quality in dyads that include a child with autism will be lower than the quality of typical parent-child relationship. First, the very essence of autism is a deficit in communication and social interactions (APA, 2000). Parent-child relationships are first and foremost a social relationship, and therefore if one of the partners has inherent difficulties with social interactions and reciprocity, it is reasonable to assume that the quality of the relationship will be affected.

A second reason for a lower quality of parent-child relationship in dyads that include a child with autism is that autism has a very large genetic component (Rutter, 2005). For instance, Piven, Palmer, Jacobi and Childress (1997) showed that parents of children with autism exhibited a “broader autism phenotype”, which includes language delays and impaired or lack of friendships. It is therefore plausible that parent-child relationship quality in dyads that include a child with autism is lower than the quality of parent-child relationship in dyads that do not include a child with autism because the formers include a parent of a child with autism.

It seems, then, that there are good reasons to assume that parent-child relationship quality will be lower in dyads that include a child with autism. Nevertheless, several investigations have found similar characteristics of parent-child interactions when the child has autism. For instance, Siller and Sigman (2002) found no difference in synchronization of parent-child play behaviors between dyads with and without autism. The comparability of parent-child relationship in dyads that include a child with autism to dyads with a typically developing child is still controversial.

In summary, parent-child relationships, when the child has autism, are a complex issue. In light of the contradicting findings, the scarcity of research on the topic is surprising. It is possible that researchers tiptoe around this topic because of the history that psychology, as a field of expertise, has with parents, and particularly mothers of children with autism (Siller & Sigman, 2002). In the 1950s and 1960s, blaming the mothers for their child's autism was common. In fact, some children were taken from their home and placed at special units in mental hospitals so as to recover from the trauma they suffered at home (e.g., Rapin, 2005). Today there is wide agreement among researchers that autism is a genetic, biological disorder, but the frigid mother theory has not been forgotten.

Parent-Child Relationship as a Coping Resource for Parents of Children with Autism

There is strong evidence that parent-child relationship quality is associated with parental well-being in parents of typically developing children (Shek, 1997; Umberson, 1989). The double ABCX model specifies the coping processes that parents of children with autism may experience when coping with caring for their child (Bristol, 1987; Pakenham et al., 2005). But can parent-child relationship quality be conceptualized as a coping resource for parents of children with autism?

There is some evidence that parent-child relationship quality is associated with parental well-being in parents of children with autism. For example, in a recent investigation of the well-being of mothers of adult children with different mental disorders, Greenberg et al. (2004) found that quality of parent-child relationship when the child had autism was correlated with mothers' well-being measurements. Specifically,

mothers who reported a better quality of parent-child relationship also reported less depressive symptoms and higher psychological well-being. This relationship was partially, but not entirely, mediated by optimism. In other words, parent-child relationship quality was an independent influence on well-being in mothers of adult children with autism. In a similar investigation, Orsmond, Seltzer, Greenberg and Krauss (2006) found that positive aspects of mother-child relationship predicted lower levels of strain and higher levels of gain in 202 mothers of adolescents and adults with autism.

In summary, parent-child relationship quality affects parental well-being both in parents of typically developing children (Shek, 1997; Umberson, 1989) and in parents of children with autism (Greenberg et al., 2004; Orsmond et al., 2006). However, the role of a good parent-child relationship as a coping resource has not yet been investigated in either population. In terms of the double ABCX model, it is possible to conceptualize the initial and pileup stressors (aA) as parenting stress, adjustment (xX) as parental well-being, and the cognitive appraisal of the stressor as coping strategies (cC; see Pakenham et al., 2005). The present study also conceptualizes a good parent-child relationship as one of the adaptive social resources the parent can draw upon (bB).

The present study had three goals. First, it was aimed at directly comparing self-reported parent-child relationship quality of parents of children with and without autism. Second, it was aimed at investigating the role of the parent-child relationship as a protective factor against parenting stress. Third, it was aimed at exploring the parenting experience of parents of children with and without autism. To that end, parents of children with and without autism reported their parenting stress, well-being, perceived

relationship with their child, and parenting experience. The following three hypotheses were examined.

Research Hypothesis 1 – self-reported parent-child relationship quality will be lower in parents of children with autism as compared to parents of typically developing children. This hypothesis is based on Greenberg et al.'s (2004) study. These authors found that mothers of children with autism reported lower quality of parent-child relationship than mothers of children with Down syndrome. However, these authors investigated mothers of adult children with autism, whereas the current investigation examined parents of younger children (age 3-6 years). The important characteristic of the current sample, apart from being younger, is that the parents in the sample were not exposed to the psychogenic theories of autism. Therefore, extending the findings of Greenberg et al. to the younger group of children will rule out the explanation that the difference in parent-child relationship quality reported by the mothers in these authors' sample was due to the positive results they had despite negative prediction made by professionals. On the other hand, if reported parent-child relationship quality is similar in parents of children with and without autism, support will be lent to the findings reported by Rutgers et al. (2004), contending that parent-child relationship quality in dyads that include a child with autism is comparable to the quality of parent-child relationship in parents and children who are typically developing.

Research Hypothesis 2 –parent-child relationship quality will moderate the relationship between stress and well-being in parents of children with and without autism. This hypothesis is based on research showing that a good parent-child relationship has a positive effect on parental well-being (Shek, 1997; Umberson, 1989).

However, the role of parent-child relationship quality as a moderator, or a coping resource, had not yet been investigated. If parent-child relationship quality is a significant moderator of the relationship between stress and well-being, it can be conceptualized as a coping resource for parents. On the other hand, if parent-child relationship quality does not moderate the relationship between stress and well-being, the exact mechanisms in which parent-child relationship quality operates on parental well-being will have to be further investigated. In terms of the double ABCX model, if parent-child relationship quality mediates the relationship between parenting stress (aA) and measures of well-being such as happiness and life satisfaction (xX), it can be conceptualized as a coping resource (bB).

Research Hypothesis 3 – The parenting experience of parents of children with autism will be qualitatively different from that of parents of typically developing children.

This hypothesis was more explorative in nature, as little research had been done so far to compare the parenting experience of parents of children with and without autism. Parents of children with autism experience higher levels of stress (e.g., Olsson & Hwang, 2002), and therefore it was hypothesized that their parenting experience will be qualitatively different from the experience of parents of typically developing children. In accordance with previous recommendations (e.g., Nomaguchi & Milkie, 2003; Umberson & Gove, 1989), the investigation focused on both positive and negative aspects of the parenting experience.

Methods

Sample

Participants were 45 parents of children age 3-6 years ($M = 48.07$ months, $SD = 9.82$). Participants were predominantly white (98%), mainly female (91%), and well educated (93% had some education after finishing high-school). All participants were married, and reported raising their child with their marital partner. Yearly income in the sample was relatively high (80% reported a yearly household income of more than \$65,000). The average number of children in the family was 2.11 ($SD = .935$).

The participants were divided into two groups: 1) Autism Spectrum Disorder (Autism) group ($N = 18$): parents who reported having a child diagnosed within the autistic spectrum disorder (ASD, PDD-NOS, autism, or Asperger's Syndrome); 2) Typically Developing group ($N = 27$): parents who reported having a child with no known disorders or disorders that are not on the autistic spectrum ($N = 2$).

Procedure

Participants were recruited in two main ways: a) by recruitment ads posted at daycare, community centers, and online support groups for parents of children with autism; and b) by a snow-balling method, or word of mouth. Within the Autism group, some participants met with the primary investigator in person and some filled the questionnaires online. The participants who filled the questionnaires online ($N = 8$) did not differ in any way from the participants who met in person with the researcher ($N = 10$) in any of the demographic variables, scales scores (see Tables 1 and 2), or amount of

missing values, $t(8.215) = -1.256$, $p = .244$, and therefore were collapsed into one Autism group.

All participants read and signed the informed consent form (see appendix A). They then proceeded to filling the questionnaires. The interview was conducted after the participants filled the questionnaires. The interview was recorded and later transcribed. After the interview ended, the participants were given a debriefing page and the primary investigator explained the purpose of the study.

Table 1: Demographic Data of Participants Who Participated Online and In Person (N = 18)

Variable	Frequencies In Person Group	Frequencies Online Group	χ^2	df	p value
Participant's Gender	100% Female	87.5% Female	1.324	1	.250
Participant's Ethnic background	100% White	100% White	-	-	-
Participant's First language	50% English	87.5% English			
	40% French	12.5% French	2.948	2	.229
	10% Other				
Participant's Education level	10% High-School	25% High-School			
	90% Post High-School	75% Post High-School	3.600	5	.608
Co-parent's Gender	100% Male	87.5% Male	1.324	1	.250
Co-parent's Ethnic background	90% White	100% White	.847	1	.357
Co-parent's First language	50% English	87.5% English			
	40% French		6.188	3	.103
	10% Other	12.5% Other			
Co-parent's Education level	10% Some University	37.5% High-School or below			
	90% Post High-School	62.52% Post High-School	5.175	5	.395

Table 1 (continued)*Demographic Data of Participants Who Participated Online and In Person (N = 18)*

Variable	Frequencies In Person Group	Frequencies Online Group	χ^2	df	p value
Household Yearly Income	10% less than 35,000\$				
		37.5% between 35,000\$ and 65,000\$	4.982	2	.083
	90% more than 65,000\$	62.5% more than 65,000\$			
Languages the child is exposed to		75% English			
	50% English and French	12.5% English and French	11.154	6	.084
	50% English and other languages	12.5% English and other languages			

Table 2: Comparing Participants Who Participated Online and In Person^a

Variable	In-person Mean (SD)	Online Mean (SD)	F-score	P value	Partial η^2	Observed power
Demographic variables						
Age Participant	40.10 (1.70)	37.75 (1.90)	.846	.371	.050	.139
Age co-parent	42.10 (1.65)	39.00 (1.84)	1.571	.228	.089	.218
No. of children in the family	1.8 (.22)	2.0 (.24)	.374	.549	.023	.089
Age of youngest child in the family (months)	42.90 (6.16)	36.12 (6.89)	.537	.474	.032	.106
Age of child (months)	52.60 (3.36)	54.00 (3.76)	.077	.785	.005	.058
Average scale scores						
Social Desirability Inconsistency	2.76 (.11)	2.51 (.12)	2.403	.141	.131	.308
Social Support	1.40 (.32)	1.00 (.36)	.694	.417	.042	.123
Satisfaction	2.22 (.09)	1.99 (.10)	2.817	.113	.150	.351
Involvement	2.63 (.08)	2.42 (.09)	2.674	.123	.142	.334
Communication	2.17 (.07)	2.16 (.08)	.011	.920	.001	.051
Limit Setting	2.71 (.08)	2.70 (.09)	.004	.949	.0003	.050
Autonomy	2.40 (.07)	2.33 (.08)	.374	.549	.023	.089
Role Orientation	2.68 (.05)	2.60 (.06)	.963	.341	.057	.152
Parent-Child Relationship composite score	2.02 (.15)	2.00 (.17)	.010	.922	.001	.051
	3.22 (.10)	3.02 (.11)	1.908	.186	.107	.255

Table 2 (continued): Comparing Participants Who Participated Online and In Person^a

Variable	In-person Mean (SD)	Online Mean (SD)	F-score	P value	Partial η^2	Observed power
Autism Symptoms	71.10 (8.56)	74.00 (9.57)	.051	.824	.003	.055
Attachment	3.54 (.13)	3.30(.15)	1.495	.239	.085	.210
Life Satisfaction	5.50 (.54)	5.37 (.61)	.023	.880	.001	.052
Happiness	4.80 (.32)	3.81 (.36)	4.093	.060*	.204	.477
Parental Distress	2.98 (.24)	3.22 (.27)	.410	.531	.025	.092
Parent-Child Dysfunctional Interaction	2.32 (.22)	2.58 (.25)	.616	.444	.037	.114
Difficult Child	3.57 (.24)	3.71 (.27)	.136	.717	.008	.064
Total Parenting Stress	2.96 (.19)	3.17 (.22)	.513	.484	.031	.103

* $p < 0.1$. ** $p < 0.05$. *** $p < 0.001$.

^a $n=10$ for in-person group and $n=8$ for online group.

Materials

Two complementary measurements methods were utilized in the present study. Since autism is an uncommon condition, and considering time limitations of the project, the possibility of a small sample size was considered. To accommodate this possibility, both quantitative and qualitative data was gathered from participants, in order to ensure meaningful results.

Questionnaires

Background questionnaire. The background questionnaire was designed for the present study, and included questions about the participant's age, gender, marital status,

and income. As well, questions about the system of intervention were asked of parents of children with autism. The questionnaire appears in Appendix B.

Autism Symptoms. Autism symptoms were tapped using the Autism Behavior Checklist (ABC; Krug et al., 1980). The ABC is a list of 57 behaviors, to which the responder reports on each behavior its existence or absence. This list can be completed by a teacher, a parent, or a therapist. The ABC has five sub-scales: the Sensory subscale (9 items; alpha coefficient = .59) includes items such as “Seems not to hear, so that a hearing loss is suspected”; the Relating subscale (12 items; alpha = .75) includes items such as “Frequently does not attend to social/environmental stimuli”; the Body and Object Use subscale (12 items; alpha = .76) includes items such as “Whirls self for long periods of time”; the Language subscale (13 items; alpha = .60) includes items such as “Has pronoun reversal (your for I, etc.)” ; and the Social and Self Help subscale (11 items; alpha = .57) includes items such as “Learns a simple task but "forgets" quickly”. All subscales alphas are reported in Eaves and Williams (2006). The total score is the sum of all five scales, and is used to screen for autism, with higher scores indicating more severe symptoms (Eaves & Williams, 2006). The recommended cutoff for screening for autism is 68 (Krug et al., 1980), although a score in the range of 54 to 67 is considered to be of high risk for autism (Eaves & Williams, 2006). Reliability for the total score of the ABC is reported between .74 (Volkmar et al., 1988) and .89 (Eaves & Williams, 2006).

Parenting Stress. Parenting stress was assessed by using the short form of the Parenting Stress Index (PSI-SF; Abidin, 1995). The PSI-SF is a 36-item, 5-point Likert scale questionnaire assessing stresses associated with parenting. The short form yields a total stress score, a parental distress (PD) score, parent-child dysfunctional interaction (P-

CDI) score, and a difficult child (DC) score, with each subscale containing 12 items. The Parental Distress subscale (alpha coefficient = .87) includes items such as “I feel trapped by my responsibilities as a parent”; the Parent-Child Dysfunctional interaction subscale (alpha = .80) includes items such as “I expected to have closer and warmer feelings for my child than I do and this bothers me”; and the Difficult Child subscale (alpha = .85) includes items such as “My child gets upset easily over the smallest thing”. The total stress score has a high reliability coefficient (alpha = .91), and correlates highly with the full-length PSI ($r = .94$ for the total stress score). A total stress raw score that is higher than 90 is considered to indicate clinically significant levels of stress.

Parent-Child Relationship. The parent-child relationship quality was assessed using two measurements: the attachment questionnaire (Hoppes & Harris, 1990), and the Parent Child Relationship Inventory (PCRI; Gerard, 2005). *Maternal Perception of Child Attachment* is a questionnaire developed by Hoppes and Harris (1990) with a sample of mothers of children with autism. The questionnaire consists of 23 items on a 5-point Likert scale that measures the mother's perception of the child's attachment pattern. Higher scores indicated a maternal perception of stronger child attachment. The questionnaire includes items such as “My child enjoys my company and attention and actively seeks my attention on a regular basis” and “When my child is hurt or in pain, (s)he comes to me for comfort and help”. This questionnaire was chosen because it was intended for parents of children with autism, and measured attachment – a construct whose comparability for parents of children with autism is controversial. However, to establish reliability and validity of this questionnaire, it was used in conjunction with the PCRI. The PCRI is a 78-item parent questionnaire (Gerard, 2005). It has 7 content

subscales, a social desirability scale and an inconsistency scale. The alpha coefficients as reported by Gerard (2005) as well as sample items and the clinical cutoff score recommended in the manual for each subscale are presented in Table 3. A recent research (Coffman, Guerin, & Gottfried, 2006) found slightly lower, but still mostly reasonable alphas (satisfaction = .82; involvement = .80; communication = .68; limit setting = .87). The autonomy scale was found to be less reliable (alpha = .47).

Parental well-being. The psychological well-being of participants was assessed using two measurements: The *Subjective Happiness Scale* is a 4-item, 7-point Likert scale (Lyubomirsky & Lepper, 1999) with an internal reliability of .86 and test-retest reliability of .72. Though short, it was found as reliable and valid as other, longer measures, and was recommended by researchers (e.g., Kashdan, 2004). The *Global Life Satisfaction Scale (GLS)* is a 7-item, 11-point Likert scale questionnaire, based on Schwartz and Strack (1991). The questionnaire assesses global satisfaction and domain satisfaction for six domains: academic, social, home and recreational life, as well as emotional state and physical health.

The questionnaires were divided into two blocks: parent-related (Subjective Happiness Scale and GLS) and child-related (ABC, PSI-SF, Attachment Scale, and PCRI). For the on-paper group, the order of the blocks was counterbalanced. The order of the questionnaires in the parent-related block was counterbalanced, and the order of the questionnaires in the child-related block was randomized. The background questionnaire always appeared first. The online group received the questionnaires in the fixed following order: background, GLS, happiness, PCRI, attachment perception, PSI, and ABC.

Table 3: Subscales of the Parent-Child Relationship Inventory

Subscale	Description	No. of items	α	Clinical cutoff average score	Sample item
Parental Support	Level of emotional and social support a parent receives	9	.70	1.89	“When it comes to raising my child, I feel alone most of the time”
Satisfaction with Parenting	Amount of pleasure and fulfillment derived from being a parent	10	.85	2.35	“I get as much satisfaction from having children as other parents do”
Involvement	Level of parental interaction with and knowledge of the child	14	.76	2.57	“I spend a great deal of time with my child”
Communication	The parent's perception of how effectively he or she communicates with the child	9	.82	2.33	“My child generally tells me when something is bothering him or her”
Limit Setting	Parental experience of disciplining the child	12	.88	1.54	“I have trouble disciplining my child”
Autonomy	The ability of the parent to promote child's independence	10	.80	1.55	“Teenagers are not old enough to decide most things for themselves”
Role Orientation	Parental attitudes about gender roles in parenting	9	.75	1.78	“Women should stay home and take care of the children”

Interview

The semi-structured interview was designed for the current study, and included five questions in a fixed order. Table 4 shows the questions that were asked. The first two questions had numeric answers, and were asked first in order to create a state of mind of answering questions for the participants. All interviews were recorded and transcribed.

Table 4: Interview Questions

1. On a scale of 1 to 10, rate the quality of your relationship with your child.
 2. What percentage of the overall stress in your life is caused by your child?
10% - some of the stress; 50% - about half the stress; 100% - all of the stress in my life is caused by my child.
 3. What is the worst part of being a parent for you?
 4. How do you handle the stress that is associated with parenting?
 5. What is the best part of being a parent for you?
-

Statistical Analysis

For all statistical tests, the significance cut-off was $p < .05$. However, trends are also reported as marginally significant with $p < .10$.

Preliminary Analysis. Demographic variables were compared between the two main groups (Autism and Typically Developing). Continuous variables were compared by ways of MANOVA, while categorical variables were compared with a χ^2 test. Standardized scores were calculated for each main group separately, and an absolute value of a Z-score that was higher than 3 was examined as an outlier. All analyses were conducted with and without each of the outliers, and outliers that did not change the

statistical significance of the analysis were kept. In addition, correlations between all questionnaires and sub-scales scores were examined. Specifically, correlations between attachment scores and Parent-Child Relationship Inventory subscales were examined to establish reliability of the attachment questionnaire and applicability of the Parent-Child Relationship Inventory to parents of children with autism. In addition, correlations between well-being measures and other variables were examined.

Research Hypothesis 1. Scores on the Perceived Attachment Questionnaire, as well as scores on the Parent-Child Relationship Inventory Questionnaire and its sub-scales and the Parent-Child Dysfunctional Interaction subscale of the Parenting Stress Index Questionnaire measured the parent-child relationship. A MANOVA was on those scores to compare parents of children with and without autism. In addition, a Parent-Child Relationship quality composite score was calculated as the average score of the Perceived Attachment Questionnaire, Parent-Child Relationship Inventory content sub-scales, and the Parent-Child Dysfunctional Interaction subscale of the Parenting Stress Index. The latter sub-scale was flipped, as higher scores in the Parenting Stress Index indicate lower levels of functioning. The Parent-Child Relationship quality composite score was also entered into the MANOVA.

Research Hypothesis 2. Moderation was tested using Baron and Kenny's (1986) four criteria. The analysis examined the role of parent-child relationship, represented by the Parent-Child Relationship quality composite score, as a mediator of the relationship between total score on the Parenting Stress Index (stress levels) and scores on the Global Life Satisfaction and Happiness questionnaires (well-being measures) separately. As a first step, all variables were standardized jointly for the entire sample. Next, an

interaction term was calculated for the interaction between Parenting Stress Index total score and Parent-Child Relationship quality composite score. Then, a step-wise regression was carried out, with Parent-Child Relationship quality composite score and Parenting Stress Index scores as the first block, and the interaction term as a second block.

Research Hypothesis 3. To examine the parenting experience of the participants, the interview data was coded in an iterative process as suggested by Ritchie, Spencer and O'Connor (2003). In this process, a sub-sample of the interviews was first coded for themes. These themes were then applied to the entire data set. When themes that were not included in the sub-sample were identified, they were added to the themes list and the entire data set was coded a third time using the complete list. The coping question was coded according to the sub-scales provided by Folkman and Lazarus (1985) in their Ways of Coping Questionnaire. These sub-scales include: Problem focused coping (e.g., go over in my mind on what I will say or do); Wishful thinking (e.g., wish that I can change what is happening); Distancing (e.g., try to forget the whole thing); Seeking social support (e.g., talk to someone about how I'm feeling); Emphasizing the positive (e.g., I'm growing as a person in a good way); Self blame (e.g., criticize or lecture myself); Tension reduction (e.g., I jog or exercise); and Self isolation (e.g., I try to keep my feelings to myself).

*Results**Preliminary Analysis*

All 45 parents completed the questionnaires. The demographic variables comparison between the parents of children with and without autism is presented in Table 5. As shown in the table, parents of children with autism in the sample were significantly older than parents of typically developing children. Moreover, the children in the autism group were significantly older than the children in the typically developing group. The participants in the two groups did not differ in any other demographic variable. Table 6 shows the χ^2 and p values for the categorical demographic variables that were tested.

Table 5: Comparison of Background Variables (MANOVA)

Variable	Autism ^a Mean (SD)	Typically Developing Mean (SD)	F-score	P value	Partial η^2	Observed power
Participant's age	39.06 (5.36)	34.72 ^b (3.35)	10.640	.002**	.206	.890
Co-parent's age	40.72 (5.30)	37.12 ^c (4.04)	8.376	.006**	.170	.807
Number of children in the family	1.89 (.676)	2.26 ^d (1.06)	1.229	.274	.029	.191
Age of youngest child in the family (months)	39.89 (19.23)	30.85 (12.28)	3.287	.077	.074	.425
Age of child (months)	53.22 (10.34)	44.63 (7.91)	9.319	.004**	.185	.846

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

^an=18. ^bn=25. ^cn=26. ^dn=27.

One participant in the Typically Developing group had extreme Z-scores in the stress questionnaire, but excluding her from the MANOVA did not change the results. Therefore, this participant was included in all subsequent analyses. Another participant in the control group had an extreme Z-score in the inconsistency subscale of the Parent-Child Relationship Inventory. Excluding her changed the results of the MANOVA of the inconsistency subscale only, so she was excluded from all analyses that included the inconsistency subscale, but included in all other analyses.

The scores on the ABC Questionnaire reported by parents of children with autism in the sample ranged from 32 to 118 ($M = 72.39$, $SD = 26.29$). Five parents reported scores that are lower than the recommended “at-risk” cutoff (i.e., scores lower than 54), and two more parents reported scores that were lower than the screening cutoff (i.e., scores lower than 67). However, these parents were not different from the other parents in the autism group, and therefore were not excluded from the analysis.

The parents of children with autism reported stress levels that ranged from an average of 1.44 to 4.17 (on a 5-point scale). Abidin (1995) recommends considering any parent who reports a raw score of 90, i.e., an average score of 2.5 out of 5, as exhibiting clinically significant levels of stress. The average stress score of the group was 3.05 ($SD = .61$), well above the clinical cutoff. Only three parents in the autism group reported an average score that was lower than the clinical cutoff, as compared with one parent in the typically developing group who reported an average score that was above the clinical cutoff.

Table 6: Categorical Demographic Variables Comparison (N = 45)

Variable	Autism Group Frequencies	Typically Developing Group Frequencies	χ^2	df	p value
Participant's Gender	94.4% Female	88.9% Female	.412	1	.521
Participant's Ethnic background	100% White	96.3% White	.682	1	.409
Participant's First language	66.7% English	81.5% English	9.175	6	.164
	27.8% French	3.7% French			
	5.6% Other	14.8% Other			
Participant's Education level	16.7% High-School	3.7% Some University	7.223	5	.205
	83.3% Post High-School	96.3% Post High-School			
Co-parent's Gender	94.4% Male	85.2% Male	1.146	2	.564
Co-parent's Ethnic background	94.4% White	92.6% White	2.837	3	.417
	5.6% Other	7.4% Other			
Co-parent's First language	66.7% English	77.8% English	7.626	7	.367
	22.2% French	7.4% French			
	11.1% Other	14.8% Other			

Table 6 (continued): Categorical Demographic Variables Comparison (N = 45)

Variable	Autism Group Frequencies	Typically Developing Group Frequencies	χ^2	df	p value
Co-parent's Education level	16.7% High-School or below		10.804	6	.095
	5.6% Some University				
	77.8% Post High-School	100% Post High-School			
Household Yearly Income	5.6% less than 35,000\$		1.539	2	.463
	16.7% between 35,000 and 65,000\$	18.5% between 35,000\$ and 65,000\$			
	77.8% more than 65,000\$	81.5% more than 65,000\$			
Languages the child is exposed to	38.9% English	25.9% English	10.534	11	.483
	33.3% English and French	48.1% English and French			
	27.8% English and other languages	26% English and other languages			

Table 7 shows the correlation coefficients between attachment scores and scores on the Parent-Child Relationship Inventory subscales for each group separately, along with the z and p values of an r-to-z test that compared the strength of two coefficients. The correlation between attachment scores and scores on the communication subscale of the Parent-Child Relationship Inventory differed significantly for the two groups. Specifically, the correlation between the two variables was positive in the Typically Developing group, indicating that higher attachment scores were associated with more effective communication, while the same coefficient was negative in the Autism group, indicating that higher attachment scores were associated with less effective communication.

Table 7: Correlations Between Attachment Scores and PCRI Subscales

	Autism ^a	Typically Developing ^b	r-to-z Z value	r-to-z p value (2-tailed)
Attachment Score				
Support	.071	.442*	-1.23	.22
Satisfaction	.208	.117	0.28	.78
Involvement	.168	-.173	1.05	.29
Communication	-.346	.370	-2.28	.02‡
Limit Setting	-.053	.491**	-1.79	.07
Autonomy	.109	-.455**	1.82	.07
Role Orientation	-.401	.195	-1.89	.06
Content Subscales compound score	-.188	.406*	-1.89	.06

^an = 18. ^bn = 27.

R is different from zero: *p < .05. **p < .01.

Z is different from zero: ‡p < .05. ††p < .01.

Several coefficients were marginally different. Higher attachment scores in the Typically Developing group were associated with higher role orientation and limit setting, while higher attachment scores in the Autism group were associated with lower role orientation and lower limit setting. In addition, the correlation between attachment scores and scores on the autonomy subscale showed a reversed flipping pattern, indicating that while higher attachment scores in the Typically Developing group were associated with lower ability to promote child autonomy, in the Autism group higher attachment scores correlated with higher ability to promote autonomy. Because of this flipping pattern, it was not possible to collapse over the groups for examining the correlations between attachment and Parent-Child Relationship Inventory.

In the Typically Developing group, attachment score was significantly correlated with the subscales support, limit setting, and autonomy, indicating that higher attachment scores correlated with higher scores on the support and limit setting subscales, and with lower scores on the autonomy subscale. Attachment score was not significantly correlated with any of the Parent-Child Relationship Inventory subscales in the Autism group.

Pearson correlations between scores revealed interesting results. Key correlations are shown in Table 8. Several correlation coefficients were significantly different between the groups, as shown in Table 9, and therefore correlations were considered for each group separately. Specifically noteworthy are the correlations between attachment and well-being measurements in the Typically Developing group, indicating that high scores on the attachment questionnaire correlated with high scores on both well-being questionnaires. In accordance with other studies, high stress levels were associated with low well-being in the Typically Developing group.

Table 8: Key Correlations Matrix

Questionnaires	Attachment	Life Satisfaction	Happiness	Parent-Child Relationship Quality	Parenting Stress
Autism Group (N=18)					
Autism Symptoms	-.247	.203	.456*	.273	.034
Attachment		-.088	.315	-.188	-.397
Life Satisfaction			.395	.306	-.489**
Happiness				.229	-.235
Parent-Child Relationship Quality					-.010
Typically Developing Group (N=27)					
Autism Symptoms	-.049	-.259	-.459**	-.396**	.521***
Attachment		.481**	.413**	.406**	-.240
Life Satisfaction			.826***	.599***	-.614***
Happiness				.537***	-.697***
Parent-Child Relationship Quality					-.542***

*p < 0.1. **p < 0.05. ***p < .01

Interestingly, scores on the ABC questionnaire were marginally significantly *positively* correlated with scores on the happiness questionnaire in the Autism group. In other words, more severe autism symptoms in the child correlated with higher levels of happiness. One possible explanation for this counter-intuitive finding is that children who exhibit more severe symptoms of autism are diagnosed at an earlier age. At the time of the study, the parents of those children who are diagnosed earlier had had a longer time to adjust and accept the diagnosis. Indeed, the positive correlation between autism

symptoms and happiness was no longer after the age of the child's diagnosis was partialled out, $r = .393, p = .206$.

Table 9: Correlation Coefficients Comparison – Autism and Typically Developing Groups^a

	Correlation	r-to-z Z value	r-to-z p value
Attachment	Autism symptoms	-.62	.5353
Life Satisfaction	Autism symptoms	1.43	.1527
Happiness	Autism symptoms	3	.0027***
Parent-Child Relationship	Autism symptoms	2.12	.034**
Parenting Stress	Autism symptoms	-1.65	.0989*
Life Satisfaction	Attachment	-1.86	.0629*
Happiness	Attachment	-.34	.7339
Parent-Child Relationship	Attachment	-1.89	.0588*
Parenting Stress	Attachment	-1.65	.0989*
Happiness	Life Satisfaction	-2.3	.0214**
Parent-Child Relationship	Life Satisfaction	-1.14	.2543
Parenting Stress	Life Satisfaction	.55	.5823
Parent-Child Relationship	Happiness	-1.11	.267
Parenting Stress	Happiness	1.89	.0588*
Parenting Stress	Parent-Child Relationship	1.81	.0703*

^an=18 for the autism group n=27 for the Typically Developing group.

*p < 0.1. **p < 0.05. ***p < 0.001.

Research Hypothesis 1

A MANOVA examined group differences in parent-child relationship quality between parents of children with and without autism. The scales scores for the two groups are shown in Table 10. Using those group differences, it is possible to address the first research hypothesis, namely, that *self-reported parent-child relationship quality will be different in parents of children with and without autism*. As can be seen from Table 10, parents of children with autism reported much lower perceived attachment, $F(1,43) = 56.562, p < .01$, as well as lower effective parent-child communication, $F(1,43) = 11.573, p = .001$, and lower ability to set limits, $F(1,43) = 15.607, p < .01$. As well, parents in the autism group scored significantly higher on the Parent-Child Dysfunctional Interaction sub-scale that is derived of the Parenting Stress Index, $F(1,43) = 43.961, p < .01$. Parents of children with autism reported marginally higher levels of autonomy, $F(1,43) = 4.022, p = .051$. Interestingly, satisfaction from parenting, involvement in the child's life, and role orientation were not significantly different between the two groups (see Table 10).

With the rationale that the Parent-Child Relationship Inventory was aimed at capturing several parent-child relationship aspects, a compound Parent-Child Relationship Inventory score was calculated as the average of all content scales of the Parent-Child Relationship Inventory questionnaire. As shown in Table 10, parents in the Autism group had significantly lower scores on this compound variable, $F(1,43) = 12.843, p = .001$. When asked directly, parents in the Autism group rated the quality of their relationship with their child as lower ($M = 8.60, SD = 1.174$) than did parents in the

Typically Developing group ($M = 9.28, SD = .792$), albeit only marginally so, $F(1,33) = 3.972, p = .055$.

Table 10: Average Questionnaire Scores – Group Comparison (MANOVA)^a

Variable	Autism Mean (SD)	Typically Developing Mean (SD)	F-score	P value	Partial η^2	Observed power
Social Desirability	2.65 (.35)	2.61 (.24)	.160	.691	.004	.068
Inconsistency^b	1.22 (1.00)	.46 (.65)	9.375	.004***	.182	.849
Support	2.12 (.31)	2.75 (.36)	37.137	<.001***	.463	1.00
Satisfaction	2.54 (.28)	2.65 (.16)	2.836	.099	.062	.377
Involvement	2.17 (.21)	2.06 (.18)	3.549	.066*	.076	.453
Communication	2.71 (.25)	2.99 (.29)	11.573	.001***	.212	.914
Limit Setting	2.37 (.22)	2.61 (.19)	15.607	<.001***	.266	.971
Autonomy	2.65 (.16)	2.53 (.20)	4.022	.051*	.086	.500
Role Orientation	2.01 (.46)	1.82 (.37)	2.434	.126	.054	.332
Parent-Child Relationship Quality composite score	3.13 (.06)	3.80 (.05)	71.783	<.001***	.625	1.00
Autism Symptoms	72.39 (26.29)	8.70 (6.70)	145.739	<.001***	.772	1.00
Attachment	3.43 (.43)	4.25 (.30)	56.562	<.001**	.568	1.00
Life Satisfaction	5.44 (1.67)	7.39 (1.44)	17.343	<.001***	.287	.983

Table 10 (continued): Average Questionnaire Scores – Group Comparison (MANOVA)^a

Variable	Autism Mean (SD)	Typically Developing Mean (SD)	F-score	P value	Partial η^2	Observed power
Happiness	4.36 (1.12)	5.61 (1.04)	14.676	<.001***	.254	.963
Parental Distress	3.09 (.16)	1.99 (.13)	27.751	<.001***	.392	.999
Dysfunctional Interaction	2.44 (.12)	1.41 (.10)	44.199	<.001***	.507	1.00
Difficult Child	3.63 (.15)	2.10 (.12)	66.281	<.001***	.607	1.00
Parenting Stress	3.05 (.61)	1.83 (.41)	64.426	<.001***	.600	1.00
Parent-Child Relationship Quality – Direct Question ^c	8.60 (1.174)	9.28 (.792)	3.972	.055*	.107	.490
Percentages of child-related stress ^c	65.50 (23.973)	23.62 (18.663)	29.430	<.001***	.471	1.00

^an=18 for the Autism group n=27 for the Typically Developing group.

^bn=18 for the Autism group n=26 for the Typically Developing group.

^cn=10 for the Autism group n=25 for the Typically Developing group.

*p < 0.1. **p < 0.05. ***p < 0.001.

Research Hypothesis 2

A moderator analysis was carried out in order to examine the second research hypothesis, namely, that *parent-child relationship will moderate the correlation between stress and well-being*. A regression table for both well-being measures separately is presented in Table 11. The parent-child relationship quality X stress interaction term did not add significantly to the explained variability of the model predicting life satisfaction. However, the interaction term did add marginally significant amount of explained variability to the model predicting happiness.

Table 11: Moderator Analysis (N = 45)						
	Variables	β	t	R2	R2 change	F change
Predicted variable: Global Life Satisfaction (GLS)						
Step 1	Stress	-.204	-3.462**	.034	.034	21.010***
	Parent-Child Relationship Quality	-.023	-.399			
Step 2	Stress	.197	.778	.036	.002	2.639
	Parent-Child Relationship Quality	.147	1.228			
	Interaction Term	-.268	-1.625			
Predicted variable: Happiness						
Step 1	Stress	-.091	-1.618	.023	.023	15.716***
	Parent-Child Relationship Quality	.065	1.164			
Step 2	Stress	-.353	1.480	.025	.002	3.649*
	Parent-Child Relationship	.254	2.252**			
	Interaction Term	-.297	-1.910*			

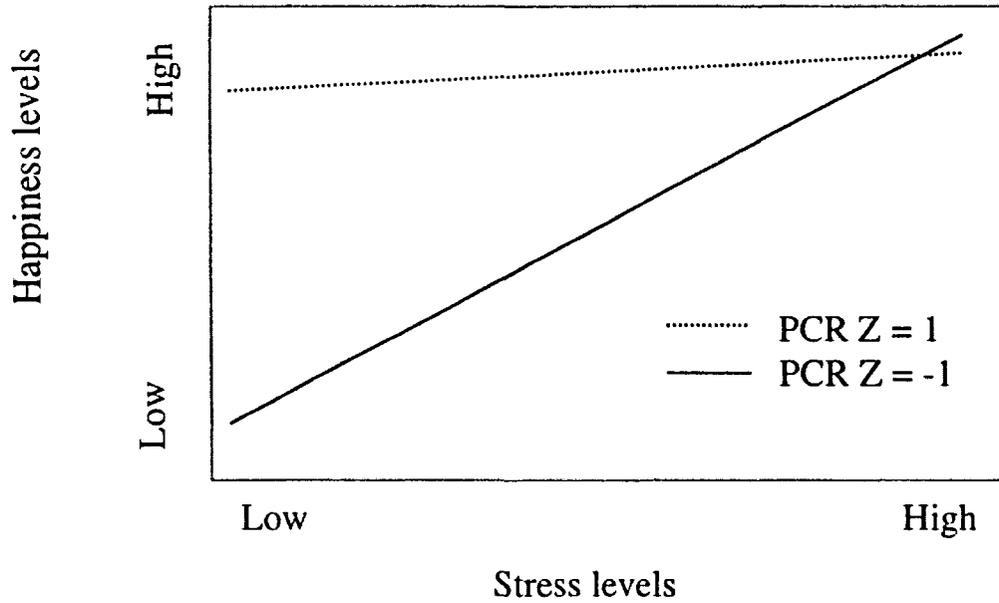
*p < 0.1. ** p < .05. *** p < .001.

To examine this interesting trend, following Cleary and Kessler (1982), a schematic graph of stress levels and happiness levels was plotted for two representative parent-child relationship quality scores: $Z = -1$ to represent low parent-child relationship quality, and $Z = 1$ to represent high parent-child relationship quality. Figure 1 shows the plot. As can be seen from the figure, while in high levels of stress parent-child relationship does not influence happiness levels, in low levels of stress, high quality of parent-child relationship correlates with high levels of happiness, and low quality of parent-child relationship correlates with low levels of happiness. Although an interesting trend, the observed power for this analysis was extremely low (12%), and therefore no conclusions can be drawn from it. Further research is needed to examine this trend thoroughly.

To explore variables that might predict life satisfaction and happiness, all variables that correlated significantly with life satisfaction or happiness were entered into a stepwise regression. Because these analyses were not based on a-priori hypotheses, all results should be considered with caution. The regression analyses were done on the entire sample together. The regression tables for predicting happiness and life satisfaction are shown in Table 12.

In predicting happiness, scores on the support subscale of the Parent-Child Relationship Inventory questionnaire and the Parental Distress subscale of the Parenting Stress Index were significant. When entered together in the model, the two variables predicted 51.2% of happiness variability, $F(2,42) = 22.046, p < .01$. In predicting life satisfaction, the same two variables were significant, predicting together 66.3% of life satisfaction variability, $F(2,42) = 41.327, p < .01$.

Figure 1: Relationship between stress and happiness for representative levels of parent-child relationship



Note: PCR = Parent-Child Relationship Quality composite score

Table 12: Stepwise Regression (N = 45)

	Variables	β	t	R2	R2 change	F change
Predicted variable: Global Life Satisfaction (GLS)						
Step 1	Support	.760	7.668	.578	.578	58.795***
Step 2	Support	.446	3.400	.663	.085	10.656**
	Parental Distress	-.429	-3.264			
Predicted variable: Happiness						
Step 1	Parental Distress	-.669	-5.896	.447	.447	34.767***
Step 2	Parental Distress	-.395	-2.500	.512	.065	5.603**
	Support	.374	2.367			

*p < 0.1. **p < 0.05. ***p < 0.001.

Research Hypothesis 3

Thirty-four parents completed the interview. Of those, ten reported to be parents of children who were previously diagnosed with a developmental disorder on the autism spectrum (Autism group), and twenty-four reported to be parents of children who were not diagnosed with autism (Typically Developing group). In accordance with previous analyses of qualitative data (e.g., Lollis, Kuczynski, Oliphant, & Parkin, 2007; Miall & March, 2005; Perreira, Chapman, & Stein, 2006), the content of the data was divided into domains: negative aspects of parenting, coping strategies, and positive aspects of parenting. Overall, 435 statements were identified, of which 142 (33%) were classified as negative, 113 (26%) were classified as positive, and 159 (36.5%) were classified as coping.

Negative Aspects of Parenting

Table 13 shows the key themes that emerged from the interviews in the context of negative parenting content. Although parents in the Autism group seem to have made more negative statements ($M = 7.6$, $SD = 7.10$) than the parents in the Typically Developing group ($M = 2.54$, $SD = 2.02$), the two groups did not differ significantly in the average number of negative statements, $t(32) = -.97$, $p = .34$. The following section describes the major negative parenting themes that emerged from the interviews.

Demands

As can be expected, parents talked about the demands that parenting entails in the context of negative parenting content. Some referred to parenting as being “a lot of work”, and others referred to specific categories.

Time demands. Parenting seems to be very time consuming. More than half of the parents (56%) talked about some variation of time demands that parenting entails. Parents talked about not having time for all family members, namely, finding time for all the children and finding time for one's spouse. A father of three said:

We have three children at home right now... the youngest being twins that are 14 months [old], so trying to incorporate individual time with all the children is hard, because the twins are very demanding, so our 4 year old suffers a little bit by us not being able to spend as much time with her.

A mother of two said: “[the worst part of being a parent is] not getting to spend as much time with my partner [as a couple]”. Many parents mentioned not having time for themselves. A mother of two said: “[the worst part of being a parent is] not always having time to do things for yourself”. Several working mothers mentioned the challenge of balancing work and family life. A working mother of a three-year-old said:

I would say the worst part is the juggling of responsibilities. Trying to do everything. Be a parent while also working and trying to do things for yourself, having your own life. It's hard to try to do everything and do everything well.

Disciplining. Several parents talked about disciplining their children in the context of negative parenting content. A mother of two said: [the worst part of being a parent is] the discipline aspect of it. Being consistent”. Another mother said: “...and that gets to be a bit of a hassle to have to be the crappy one and say ‘no, you’re going to stay home this afternoon, because we haven’t seen you... “. It seems that disciplining is hard for parents because they have to be consistent, and be the “bad person”, the one to say to the child that she can’t have something she wants.

Table 13: Negative Parenting Content – Key themes

Theme	% Autism Group ^a	% Typically Developing Group ^b
A. Demands	35	56
1. Time demands		
i. Finding time for all family members		
ii. Finding time for oneself		
iii. Balancing work and family life		
2. Disciplining		
3. Being responsible for the child's needs		
4. Financial demands		
B. Lack of confidence as a parent	9	13
1. Worrying about making the right decision for the child		
2. Looking for feedback about parenting decisions		
i. From other parents		
ii. From books or other sources		
C. Strain on the relationship between the participant and their partner.	14	3
D. Negative content resulting from the child's diagnosis	24	
1. Worrying about the children's future		
2. Feeling pressured to behave normally		
3. Others' reaction to the child's public behavior		
4. Not being able to give the child everything they need		

^an = 10. ^bn = 25.

Being responsible for the child's needs. Some parents talked about the responsibility of the task in the context of negative parenting content. One mother said:

I guess the responsibility. The feeling or the weight of the responsibility... of their health and well-being... I guess making sure that he's healthy, emotionally healthy, and balanced and educated... we're home schooling so, making sure that he's educated and those things as well.

A mother of two children, one of them an autistic boy, said: "You constantly having to put them first, you constantly having to think about their needs. You know, you forget something and, you know, it's your fault, you know, it's all comes down to you". It seems that both parents of typically developing children and of children with autism find the complete responsibility for another person's life straining.

Financial demands. Considering the fact that having children entails more financial strain on the family, surprisingly few parents mentioned the financial strains in the context of negative parenting content. Indeed, only two parents mentioned financial demands, one of them a mother of two boys with autism who said: "[the worst part of being a parent is] not being able to give them everything they really need to help them in their development. ...Financially we can't afford to do full blown therapy, we can only do partial [therapy]". In this sense, the financial demands were related to a theme that seemed to be unique to parents of children with autism, who also talked about not being able to give the child enough to ensure the child's development. This theme will be discussed later.

Lack of Confidence as a Parent

Several parents talked about questioning the decisions they make as parents. One mother said: “Am I doing the right thing? ‘Cause being a parent is... you don’t get a book with the kid (laughs) you learn as you go”. Another mother said:

It’s a different stress than work. It’s stressful because I want to make sure I do a good job with my children... I actually find [that] a little bit stressful, ‘cause I think... am I doing the right thing? ...Am I giving them enough of what they need?

This theme emerged also with the parents in the Autism group. One mother said: “[the worst part of being a parent is] being uncertain as to whether or not I’m making the right choices when it comes to difficult experiences”. Another mother said: “you have to make decisions based on finances and on what you think would work, and... it’s very difficult because, I mean, you don’t know what the impact would be when he’s an adult”. It seems that, especially for parents of children with autism, it is hard to be certain that the choices and decisions you make are the best ones. In parents of children with autism, this theme was related to the “uncertain future” theme, which will be discussed shortly.

In addition to talking about lack of confidence in the context of negative parenting content, several parents mentioned that they look for guidance, in the form of “folk wisdom” from other parents or in the form of research, so as to increase the confidence that they do indeed make the right decisions. For instance, one mother said: “talking to other people, making sure that it’s... you know, the appropriate thing to do. That there’s no damage, psychologically, emotionally... constant guidance”. Another mother said:

[I handle the stress by] realizing that a lot of the things that I do are often well informed, and supposedly give good results because he’s autistic, and... in terms of managing certain types of behaviors or giving certain types of directions in a certain way... it sounds strange but I know that the science is behind it in terms of giving results.

Strain on the Relationship with the Spouse

This theme emerged mainly in the Autism group, although not exclusively. In addition to mentioning the lack of time spent with the spouse, as discussed previously, parents also talked about the change in family dynamics that resulted from having a child. For instance, one mother said, with some difficulty: “My husband and I used to be very very close and now it’s like... it’s like... he’s a father, I’m a mother, but as a couple, you tend to loose that special connection”. Another mother of an autistic boy stated: “...with me and my husband, every time that [my child] has a bad day we inevitably have an argument”. However, this theme was not exclusive to parents of children with autism. For instance, a mother of a three-year-old boy said:

Probably the hardest part has been the tension it caused with my husband over issues of childcare, housework, you know, the division, cause there’s a lot of work that comes with having a child and therefore the hardest part has been arguments or disagreements over how this work should be allocated.

Autism-related Unique Negative Content

Several themes emerged from the data of the Autism group were not mentioned at all in the Typically Developing group, because they were related to the situation of the child. One interesting theme that emerged from the interviews of parents of children with autism was *worrying about the child’s future*. For instance, a mother of an autistic boy said:

[The worst part of being a parent is] not knowing what’s going to happen in the future. Not having my crystal ball... Right now I can protect him, I can do everything for him,

but when he's 20, 25, 30... he'll be a man. I won't be there forever, so... yeah, that's the hardest part. The unknown.

Another theme that emerged was *feeling pressured to act normal*. For instance, one mother said: "in order to be able to have a quote unquote normal life, or seemingly normal life, it takes a lot of work". Parents of children with autism also talked about *dealing with other people's comments about or reactions to the child's public behavior*, which they felt was not supportive nor accepting. For instance, one mother said: "...the tantrums... often people look at us like, can't you control your child? And... you know, you can't just go up to everybody and say he's autistic, you know, he can't express himself".

Another interesting theme that was unique to parents of children with autism was *being unable to give the child what he/she needs for their development*. Parents of children with autism talked about not being able to give their children the appropriate support, either because they do not have enough money or because they do not know how. For instance, one mother said: "[the worst part of being a parent is] not being able to give them everything they really need to help them in their development. ...Financially we can't afford to do full blown therapy, we can only do partial [therapy]". Another mother said: "...the worst part of being a parent I would have to say is just not being able to give enough... [of] what he wants".

Positive Aspects of Parenting

Table 14 shows the key themes that emerged from the interviews in the context of positive parenting experience. Parents in the Autism group ($M = 3.8$, $SD = 2.53$) made approximately the same number of positive statements as the parents in the Typically

Developing group ($M = 3.08$, $SD = 1.91$), $t(32) = -.905$, $p = .37$. The following section describes the major positive parenting themes that emerged from the interviews.

Table 14: Positive Parenting Content – Key themes

Theme	% Autism group ^a	% Typically Developing group ^b
A. Relationship with the child	48	38
1. Parent-child interactions		
i. Child differentiates parent		
ii. Child initiates interaction		
iii. Spending time with the children		
2. Positive affect		
3. Physical contact		
B. Watching the children grow	13	33
1. Vicarious participation		
2. Development		
3. Seeing the child's accomplishments		
4. Seeing the fruits of your labor		
5. Individualization		
C. Child characteristics	8	15

^an = 10. ^bn = 25.

Watching the Children Grow

A major theme that emerged from the data on the positive aspects of parenting was watching the child's growth and development. A total of 30 statements were classified to this category (26.8% of the positive statements made in the interviews).

Parents seem to agree that watching the children grow up is one of the best things about being a parent.

Some talked in general about watching the children grow, and some referred to specific things they like to watch the children do.

Vicarious participation. Several parents mentioned that they enjoy watching the children do activities. For instance, one mother said: “[the best part of being a parent is] watching them play their sports”. Another mother said: “It’s the little things... It’s watching them sell hot chocolate outside yesterday in their hot chocolate stand. There’s something genetic or emotional or something that’s just makes it whole... totally great.”

Development. Several parents talked about watching the child’s development in the context of positive parenting content. One mother said: “[the best thing about being a parent is] just watching her grow and develop and change”. A mother of three, one of whom a five-year-old boy with autism said: “[The best part of being a parent is] seeing them grow up and have little milestones along the way and little celebrations of growth”.

Seeing the children’s accomplishments. Several parents mentioned the child’s accomplishments in the context of watching the children grow. For instance, one mother said: “[The best part about being a parent is] ...see their faces when they get their badges swimming”. Another mother said:

[The best part of being a parent is] seeing them achieve new... steps and new accomplishments that they weren’t able to do before and... just growing. And when they get it right, when they accomplish it... even if it’s not perfect but it’s better than what they could do, like they’re moving ahead, then... I’m happy with that.

Individualization. Several parents talked about the child becoming a person in the context of positive parenting content. For instance, one mother said:

I guess I really enjoy watching them become interesting people. And discover their potential for who they are... each of my kids I think is really different, and watching them come into themselves is a really neat gift and I really like that.

A mother of two, one of whom a five-year-old boy with autism said: “[the best part of being a parent is a] sense of achievement that you see them developing, growing up, taking on their personalities”.

Seeing the fruits of your labor. Some parents mentioned that they like to know or see that they had affected the child’s life and caused them to become a person. For instance, one mother said: “...you sort of see them turning into real good people, and you sort of feel like you had something to do with that”. A mother of a boy with autism said: “...you can see what you’ve given them, the strengths that you’ve given them”.

Parent-Child Relationship

The positive content related to parent-child relationship was rich and universal. Many parents (41%) mentioned at least some aspects of their relationship with their child when they talked about the positive content of parenting. Aspects of the parent-child relationship included parent-child interactions, positive affect, and physical touch.

Parent-child interactions. Several parents talked about interactions with their child in the context of positive parenting content. Some parents talked about the fact that their child treats them as a special person. For instance, one mother said: “[the best part of being a parent is] them yelling “mama” when I get home from work”. A mother of a 4-year-old boy with autism said: “[the best part of being a parent is when] my son first thing in the morning calls me from his room, he says, ‘mommy’, you know, ‘it’s morning’ and then he says, ‘come over here’ or ‘can I come to lie in your bed’”. Several

parents of children with autism mentioned child-initiated interactions. For instance, one mother of an autistic boy said: "...when [my son] wants to play with us he says 'mommy, come play with me'". A mother of a girl with autism described a situation when the girl tried to get her younger brother to play with her: "[for the first time] she was pulling on my little guy's arm and saying, 'come play, come play'". Several parents talked about spending time with the children in the context of positive parenting content. For instance, one mother said: "[it's] the time with the kids, really. It doesn't matter what we're doing, if we're playing Lego or having a water fight. That's the best part. It's a lot of fun". One father said: "[the best thing about being a parent is] I guess just... the fact that I get to spend so much time with them...I like spending time with them".

Positive affect. A total of 12 parents mentioned positive affect the children display towards them as a positive aspect of parenting. For example, one mother said that the best part of being a parent is "...having my kids come up to me and give me a big hug and say I love you". A mother of a three-year-old boy with autism said: "when he starts laughing, everything that was going on that day you forgotten".

Physical contact. It was assumed that physical contact is a part of the parent-child relationship. For example, a mother of a boy with autism said: "the snuggles are very nice". A mother of three-and-a-half-year-old boy said: "I get to snuggle with someone every single day". Another mother said: "[the best part of being a parent is] the hugs and the kisses and the snuggles".

Child Characteristics

Several parents talked about their children's characteristics, such as personality or skills, in the context of positive parenting content. For instance, one mother said: "I like

my kids a lot, they're really interesting people, they're nice people, they are... amusing, entertaining, funny, and intelligent, they ask good questions...". Another mother said:

...In general, they're both just a hoot. I mean... look at her (shows the interviewer a picture of her daughter, smiling broadly). How is that not fun? I mean, come on, that's just... every day she's like that and her sister is the same... they're lots and lots of fun, and generally happy, social little kids.

Coping strategies

Parents were asked how they handle the stress that is associated with parenting. Table 15 shows the themes that emerged from the interviews in the context of coping strategies. In general, participants mentioned many varied strategies they utilize to cope with parenting stress. The two groups were quite similar in terms of coping strategies they reported. Although parents in the Autism group made more statements about coping strategies on average ($M = 6.8$, $SD = 5.43$) than the parents in the Typically Developing group ($M = 3.67$, $SD = 1.95$), the two groups did not differ significantly in the number of coping-related statements, $t(32) = -1.01$, $p = .321$. The following section describes the coping strategies mentioned by the parents.

Social Support

Many (24%) of the statements made by parents in both groups about coping with parenting stress were related to social support. Social support was divided into four sub-categories, since parents tended to define these sub-categories as disparate coping strategies.

Supportive spouse. Several parents talked about having a supportive spouse. For instance, one mother said: "I talk to my husband about it. If there's something that

bothers me, normally we would have a conversation about it and that will sort of... alleviate any concerns that I have". This theme was more in line with the notion of a partner as a best friend than it was with the notion of a partner as someone who shares the burden of parenting.

Table 15: Coping Strategies – Key themes

Theme	% Autism group ^a	% Typically Developing group ^b
A. Social support	18	29
1. Supportive spouse		
2. Co-parenting		
3. Supportive friends		
4. Guidance		
5. Formal social support		
B. Problem focused coping	13	10
1. Being proactive		
2. Just do it		
C. Tension reduction	14	25
1. Tension reduction activities (e.g., exercise)		
2. Do enjoyable things		
3. Taking a break		
D. Emphasizing the positive	13	2

^an = 10. ^bn = 25

Co-parenting. In contrast with the theme that emphasized a friendship with one's spouse, this theme was more along the lines of shared parenting. For instance, one mother said:

...When it gets to be too much, I essentially walk away. Not in an abandoning sort of way, but if I'm not doing well as a parent and I realize I need time to myself I'll hand [the children] off to [my husband] and walk away.

One participant in the Autism group shared the interview for this study with her husband. At one point he said: "we learned over time to play off of each other. When one gets stress[ed], the other one sees it, and take over".

Supportive friends. Several parents talked about having a supportive network of friends or family. For instance, a mother of a four-year-old boy with autism said:

[I deal with the stress by] having a really good network of, you know, family and friends, that are, you know, very caring for my husband and I, and have always been, even before we had [my child]. And who have, you know, really embraced our situation with [my child] and treat him as if nothing was, even though they know that he's different, and they help, the family and the friends help keep everything in balance.

Guidance. Several parents mentioned that they talk with other parents in order to be reassured that they are making the right choices. This tendency was discussed in the context of "lack of confidence as a parent" theme.

Formal social support. Finally, a few parents talked about formal forms of social support. One father said: "sometimes I drop my son off here, if I need a break or just... [to] devote time to something else". The interview was taking place at a daycare center intended mostly for home-schooling parents, to which parents could come in and leave their children under supervision. However, most of the parents in the Autism group that

talked about formal social support referred to the significant lack there of, and complained about not having enough support, mainly for parents during the time immediately following the diagnosis. For instance, the couple that interviewed for the study talked about the period of time when their first son was diagnosed with autism. The father said: “There was a six months period where, well, things could have gone either way, way back when”. The mother completed the sentence: “when he was first diagnosed. That... you know, because there was not proper supports in place, there still isn’t proper supports in place for people of newly diagnosed children or anything like that, that’s lacking”.

Problem-Focused Coping

Several parents mentioned strategies that can be classified as problem-focused strategies.

Being proactive. Several parents talked about tackling problems with a proactive approach. For instance, one mother said: “I just get into it, and, get things organized, and find a system and put it in place, and see how it’s doing, that sort of things”. A mother of a four-year-old boy recently diagnosed with autism said:

I think we try to stay engaged and as proactive as possible, so like, not just dwell in it, but try to come up with solutions or ideas that we think we can work with. I think not being afraid of making major changes.

Just do it. Several parents in the Autism group made this statement. They talked about dealing with the child’s behavior and demands, and said that they “just deal with it”. It may be that these parents were refusing to disclose a difficult emotion, but as one mother of a five-year-old girl with autism said: “...that’s what makes our life a little bit

crazy. Or a lot crazy, but you know what, we don't, I don't think we see it as crazy because it's become our new normal". Another mother of a four-year-old boy with autism said:

...Because of our life situation with [my child's] autism it's made us really more aware that it's not 'oh poor us', it's that everybody seems to have something going on with their life... people have aging parents, or they have sickness or they lost their job, or... you know, they're depressed... so everybody's got their thing at a certain time of their life, so... it helps to deal with... it's not always oh poor me.

It is likely that the parents adjust to life with autism.

Tension Reduction

Tension reduction category in Folkman and Lazarus's (1985) Ways of Coping questionnaire includes items such as "I jog or exercise" and "Try to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.". This category was divided into three sub-categories.

Tension reducing activities. Several parents talked about exercising or using alcohol for tension reduction. For instance, one mother said: "I try and work out frequently". Another mother said: "...these are the prime coping methods apart from some alcohol use in the evenings (laughs)... a glass of wine... it helps to take a little bit of the stress off too...".

Do enjoyable things. The ability to take a break from responsibility and do something for oneself seems to be important for the modern human's mental health. Parents mentioned a general statement such as "I do things for myself" as a coping strategy. For instance, one mother said:

...I guess also seeking out some time to be alone and be quiet, because I'm naturally an introverted person... I often... you know, my idea of a good time is being left alone with a book (laughs), so... I will seek that out.

These statements were not classified as tension reducing activities because they are not in themselves tension reducing, but differ from one person to another.

Taking a break. Several parents mentioned taking a "time-out" or a break from parenting. For instance, one mother said: "...try and make sure that you make time to get out... away from the kids". In addition, some parents mentioned having something else in their lives other than parenting as a coping strategy. For instance, one mother said:

I... go to school (laughs) and I go to work... before I went to school I was at home with [the children] until [my child] was about one and a half, and I was getting kind of grumpy and I didn't really like it very much. And so I applied to do a master's, which is why I'm here [at University]. So kind of like an out... yeah, having something else to do. That's really helped.

Emphasizing the Positive

Several parents, mostly in the Autism group, made statements that implied they are trying to look at the full half of the glass. Parents talked about being strengthened by the struggle with autism and being better parents because of it. As one mother explained:

I think in some ways having a child with autism is like a dilemma. You don't feel you're an adequate parent because you have a child that needs more from you. You may be less patient with other people because all your patience is used up by that child, and... therefore you... you know, you have these inadequacies. But probably you're a better parent really because you are dealing with more issues and therefore probably more patient and you appreciate the smaller things.

Discussion

The present study was aimed at better understanding the parenting experience of parents of children with and without autism. This was addressed by three hypotheses. First, the difference in reported quality of parent-child relationship was examined. Second, the role of parent-child relationship quality as a coping resource was investigated. Third, the nature of the parenting experience as it emerges from interviews with parents of children with and without autism was explored.

Different Perceptions of Parent-Child Relationship Quality

With regards to the first hypothesis, it seems that when asked indirectly, parents of children with autism report lower quality of parent-child relationship. This was evident from the much lower perceived attachment security and lower reported effective communication. As well, a lower average score on the Parent-Child Relationship Inventory and higher scores on the Dysfunctional Interaction subscale of the Parenting Stress Index strengthen the conclusion that parents of children with autism report lower quality of parent-child relationship. When asked directly, parents of children with autism rated the quality of their relationship with their child as lower than did parents of typically developing children, but this difference was only marginally significant in the sample.

These findings are congruent with the findings reported by Greenberg and colleagues (Greenberg et al., 2004), who reported a lower perceived quality of parent-child relationship in mothers of adult children with autism as compared with mothers of adult children with Down Syndrome. However, the findings contrast with the findings of Rutgers et al. (2004), who reported no differences in the pattern of attachment between

children with and without autism. Although this discrepancy can only be solved by a study that will directly compare the observed and reported attachment patterns in parents of children with autism, it is interesting to note that parents of children with autism report less attachment security than parents of typically developing children. Also of interest is the lack of correlation between the scores on the attachment questionnaire and on the Parent-Child Relationship Inventory subscales within the Autism group, although these low correlations are likely due to a small sample size.

Another interesting aspect of the data regarding this hypothesis is that, when asked directly, parents of children with autism did not rate the quality of their relationship with their child as low. There are several possible explanations for this finding. The first is that the sample size was indeed lower for the direct question than it was for the other questionnaires (see Table 10). However, the possibility that this finding reflects a real discrepancy cannot be ruled out.

It is possible that parents of children with autism try to present a picture of a good relationship, even though in reality their relationship with their child is of lower quality as compared to dyads with typically developing children. Parents of children with autism, when encountering a figure of authority, may be afraid that they will be portrayed as unloving or as poor parents, and therefore try to paint a picture in which, despite their child's difficulty in creating social relationships, they succeeded in establishing a good relationship with the child. Another possibility is that the parents present this picture of a good relationship with their child subconsciously, in an attempt to reject or deny the child's difficulties. This explanation seems unlikely, partly because social desirability did not differ between the groups (see Table 10), and partly because the parents who

participated in the interviews talked openly about the hardships of raising a child with autism.

Another possible explanation is that parents of children with autism, when asked to rate their relationship with their child, attend to different aspects of the parent-child relationship than those assessed by the Parent-Child Relationship Inventory and the attachment construct. As revealed by the qualitative data, parents of children with autism attend to “the little things” much more and rate their relationship with their child as good although to the outside observer the elements that are considered to be characteristic of a good parent-child relationship are missing. During the interviews, parents of children with autism made statements such as “you appreciate the smaller things” or “when small things happen you appreciate them more for some reason”. It is plausible, then, that parents of children with autism assess the quality of their relationship with their children according to different standards and expectations. This tendency can explain the discrepancy between the direct report of parents of children with autism about the quality of their relationship with their child and their scores on the questionnaires, which, for the most part were designed with typically developing children in mind.

The discrepancy between the direct report and the questionnaires scores raises the question of the applicability of questionnaires that were designed with typical child development in mind to the population of children with autism. It could be argued that parent-child relationship patterns are so fundamentally changed when the child experience difficulties in social interactions, that the tools researchers use to assess parent-child relationship quality in parents of typically developing children cannot be applied to the population of parents of children with autism. Some support to this claim

can be derived from the findings of the present study. For instance, the Perceived Attachment Questionnaire, which was designed to measure attachment in parents of children with autism, revealed a large disparity between parents of children with and without autism. It seems, therefore, that the two experiences are not comparable. However, as will be discussed shortly, the qualitative data reveals similarities rather than differences in the parenting experiences.

In summary, as compared with parents of typically developing children, parents of children with autism generally report lower quality of parent-child relationship when answering indirect questions. This result reflects the discrepancy of findings in the general literature (e.g., Greenberg et al., 2004; Rutgers et al., 2004) that was discussed before. Further investigations should focus on better understanding the quality of parent-child relationship in parents of children with autism, utilizing a variety of measurements. For instance, comparing parental report of attachment and observed attachment patterns would be extremely useful.

Perceptions of Parent-Child Relationship Quality as a Coping Resource

With regards to the second hypothesis, no evidence was found to support the role of parent-child relationship quality as a coping resource. Parent-child relationship quality did not moderate the correlation between stress and life satisfaction, and only marginally moderated the correlation between stress and happiness. Moreover, as can be seen from Figure 1, a good parent-child relationship is associated with happiness only for low levels of stress. In other words, a good parent-child relationship does not help a parent to cope with high levels of stress. On the other hand, good quality of parent-child relationship

was associated with happiness when stress levels were low, indicating that the association between parent-child relationship quality and well-being should be further investigated.

It is possible that although a good parent-child relationship cannot function as a coping resource for parents who experience extremely high levels of stress, parents who experience mild but significant levels of stress can benefit from drawing on a good relationship with their child as a coping resource. In terms of the double ABCX model, it is possible that cognitive resources such as coping strategies are more effective when coping with high levels of stress and pileup stressors, whereas social resources such as social support and a good parent-child relationship are more effective when coping with moderate levels of stress and pileup stressors. This speculation is indirectly supported by Pakenham et al.'s (2005) finding that, for mothers of children with Asperger's Syndrome, the most effective coping resources were positive perception of stress as well as using effective coping strategies. In the same study, social support did not predict adjustment or satisfaction. This possible explanation warrants further investigation so as to better understand the effectiveness of different coping resources for different stressful situations.

When predicting well-being in the present sample, it seems that a combination of parental distress and emotional support can be used. This finding should be taken with caution, as the stepwise regression was done post-hoc. However, when considering the qualitative data that is available from the study, it seems warranted to note that the coping strategy mentioned by most of the parents, both in the Typically Developing group and in the Autism group, was seeking social support.

When talking during the interviews about coping strategies, many parents talked about social support. They talked about their spouse being helpful in two ways: as a co-parent and as a best friend. This is not quite the same, as being a co-parent means to take on some of the tasks and responsibilities of parenting, thus alleviating the amount of tasks or stress directly, while being a friend entails mostly listening and supporting through problems or dilemmas, thus providing indirect support. Parents in both groups also talked about a network of friends and family that provides both direct support – in providing guidance from experience, for instance – and indirect support – in providing a “shoulder to cry on” so to speak.

The emphasis on social support is interesting especially in light of the quantitative results that show that emotional support was a significant predictor of well-being in the sample. Although not without limitations, the findings converge to support a very important role for social support and social networks. This is by no means a new finding. For instance, Bromley et al. (2004) reported that the amount of social support received by mothers of children with autism was negatively correlated with their well-being. However, only a small portion of the children in Bromely et al.’s study was under the age of five years. In this sense, the current study extends Bromely et al.’s (2004) findings to the population of parents of young children. In line with many studies (e.g., Bristol, 1987), these results warrant a closer investigation of the availability of social support for parents of children with autism and how to increase the level of social support in order to facilitate parental well-being.

As a cross-sectional study, this study cannot determine which of the three possible explanations is correct: well-being affects parent-child relationship quality, parent-child

relationship quality affects well-being, or a third variable affects both. Shek (1997) suggested an explanation of the association between parent-child relationship quality and parental well-being in which social desirability affects both parental well-being and parent-child relationship quality in self-report studies. The present study can rule out this suggested explanation. The parents in this sample did not exhibit high levels of social desirability or inconsistency, and therefore these two variables cannot account for the correlation between parent-child relationship quality and parental well-being. Nonetheless, the mechanisms by which parent-child relationship quality is associated with parental well-being should be further investigated.

Parenting Experiences of Parents of Children with and Without Autism

The qualitative data in this study was gathered as a precaution to a predicted small sample size. It reveals an interesting pattern, however. Although group differences were pronounced in every questionnaire the participants filled, the themes that emerged from interviews with the parents were quite similar.

Parents of children with autism and of typically developing children alike talked about similar negative parenting content. Most of the statements concerning negative parenting content focused on the demands of parenting, including time demands, discipline issues, and being responsible for the child's needs. Another theme that emerged from the interviews in the context of negative parenting was the lack of confidence that parents felt. Parents in both groups talked about questioning their decisions and methods, mostly with regards to disciplining, but also in a more general sense. Several parents mentioned that the stress that results from parenting encumbers

their relationship with their spouse, whether because they spend less time together or because they tend to take out the stress on one another.

In terms of positive parenting context, it was interesting to note that parent-child relationship was prominent in both groups. Parents talked about several aspects of the relationship, namely, physical touch, positive affect shown by the child, and interactions with the child. It seems that the parent-child relationship is a major component of the positive experience of parents. However, for parents of typically developing children, the relationship in itself was at least as prominent as another positive aspect of parenting. These parents talked about watching their child grow and become an individual as a major positive aspect of parenting.

The age range of the children in this study was 3-6 years. This is an age in which children begins to proclaim their independence from their parents, a process that begins around the child's second birthday. In terms of Erikson's (1963) personality development theory, these children are in the stage of initiative vs. guilt. In this stage, the child supposedly achieved autonomy from the parent, and is now exploring his or her newfound personality and how it fits with the environment of the adults' world and rules. The parents who witness this spurt of personality feel rewarded, possibly because they begin to see that they were successful in their task to provide the child with the support he or she needs to become a functional, happy adult.

Parents in the Autism group talked more about their relationship with the child than they did about the child's individualization process. One possible reason for this emphasis is that children with autism develop slower, and therefore at the age of 5 years they do not yet exhibit the promise of the individual they may become as typically

developing 5-year-olds do. In this sense it will be interesting to examine the positive and negative parenting content of parents of older children with autism.

Another possible reason that parents of children with autism emphasized their relationship with their child more than they did the child's individualization is the salience of social interactions for those parents. Parents of children with autism know a great deal about autism, because they are usually deeply involved with the child's therapy process. They are aware that the domain in which the child has the most difficulties is the social domain, and therefore may pay more attention to social interactions, especially if the child initiates them. It is possible, then, that as compared with parents of typically developing children, the social aspect of their child's development is more prominent and therefore was mentioned more in the interviews with parents of children with autism.

A third possible explanation of the emphasis on parent-child interaction is social desirability. As parents of children with autism know that the social domain is the most impaired in autism, they wish to paint a picture in which the child does initiate interactions with them, thus, perhaps subconsciously, negate their child's diagnosis by emphasizing, in the context of positive experience, the most impaired aspect of the child. Although parents of children with autism in this study did not exhibit higher levels of social desirability as compared with parents of typically developing children, this explanation cannot be ruled out, as some extent of social desirability was present in both groups, and the manifestation of this desire may differ between the groups. In other words, although parents in both groups exhibited similar levels of social desirability, it is possible that the social desirability was directed to different aspects of the parents' presentation of themselves to the investigator.

In summary, the parenting experience of parents of children with and without autism is surprisingly similar. Parents in the sample talked about time demands and lack of confidence as a parent when asked about negative aspects of parenting, and talked about their relationship with their child in the context of positive aspects of parenting. Parents of children with autism also mentioned some unique negative aspects of parenting, which result from their unique situation as caring for a child with autism. In this sense, it is plausible that the differences in stress levels between parents of children with and without autism can be explained by the additional stressors that are experienced by parents of children with autism.

Limitations

This study has several limitations. One obvious limitation is the small sample size. Although the qualitative data was gathered to compensate for that issue, the statistical analyses are still based on a relatively small sample. In addition, the sample was much more homogenous than expected in a population. All the participants were married, and most of them were white. All were from a relatively high socio-economic status, and generally well educated. This select sample is not representative of the population, and therefore generalizations from this study should be done with extreme caution.

In addition, the children in the Autism group exhibited relatively mild symptoms of autism according to parental report. In other words, the sample consisted mainly of parents of high-functioning children with autism. In this regard, conclusions about the entire population of children with autism should not be drawn from this study, especially

given the heterogeneity of the population of individuals with autism (e.g., Beglinger & Smith, 2001).

As well, many variables that may influence parent-child relationship and parental well-being, such as occupational status, family size, personality, and cognitive style were not collected. In addition, the sample was too small to analyze possible effects of gender, age and ethnicity, although similar themes emerged from the interviews with the few dads in the sample ($N = 3$), as well as with the non-white parent ($N = 1$). However, the possibility that group differences may have been explained by either of the aforementioned variables cannot be ruled out.

With regards to the minorities in the sample (i.e., the three fathers and one non-white mother), their inclusion in the analyses does not imply that the results of the study can be generalized to these populations. It is consistently found that fathers, for instance, experience different stress and rewards from parenting (e.g., Nomaguchi & Milkie, 2003). Moreover, the two fathers of the typically developing children in the current study were the primary caregivers of the children, thus taking upon themselves a “mothering role” in essence (Risman, 1986). However, the minorities in the sample were included in the analyses because, as mentioned earlier, the themes that emerged from the qualitative interviews that were conducted with them indicated similar themes and parenting experiences.

Another limitation to this study is its cross-sectional nature. Parent-child relationships are dynamic (e.g., Kuczynski, 2003; Cook, 2003). Measuring parent-child relationship quality at a single point in time may lead to an incomplete picture of the complex and rich context and dynamics of the relationship. In addition, parent-child

relationships exist in the context of a family system. Neglecting to measure the relationships of the parent with other family members again presents an incomplete picture of the delicate balance that is created within a family system. More research is needed to examine the stability and continuity of the association between parent-child relationship quality and parental well-being.

Finally, this study examined only parental perceptions of parent-child relationship quality. As parent-child relationships are bidirectional processes, children's perceptions of parent-child relationship quality are of importance and interest. Moreover, parenting stress and parental well-being may influence the perceptions of the parents in general, and the parental perceptions of the parent-child relationship quality in particular. Therefore, more research is needed to investigate both partners' perceptions of the parent-child relationship quality, as well as utilizing direct observations of the interactions to objectively ascertain the parent-child relationship and dynamics of interactions.

General Discussion and Implications

Despite the limitations, some interesting issues arise from the current investigation. First, it seems that the difference in parent-child relationship quality between dyads that include children with and without autism is more complex than previously assumed. As scholars learn more about parent-child relationships in general (e.g., Kuczynski, 2003), this knowledge has only recently been applied to parents of children with autism, and indeed with other developmental disabilities. In addition to being of theoretical interest, a good parent-child relationship may be a protective factor for the child, as well as for the adult (Rutter, 1987; Umberson, 1989). Although not yet

thoroughly examined in children with autism, it has been found that parental adjustment to the diagnosis and the resulting parent-child relationship patterns may contribute to the child's ability to cope with a developmental disability such as a learning disability (Morrison & Cosden, 1997). Moreover, some evidence had been gathered to support the theory that parent-child interactions plays a role in the child's development and outcome when the child has autism (Siller & Sigman, 2002). Future investigations should further examine the possible role that parent-child relationship quality plays in the outcomes of children with autism.

Second, the combining of qualitative and quantitative data revealed an interesting pattern. Although group differences in the quantitative measures were significant, the themes that emerged from the qualitative data were surprisingly similar in both groups of parents. This pattern implies that perhaps looking at either quantitative or qualitative data alone does not paint a complete picture of the parenting experience of parents of children with autism. Thus, the quantitative data portrays a glum picture of parents of children with autism, one in which they experience clinical levels of stress in addition to low quality of relationships with their child. However, the qualitative data reveals that those parents do not view themselves in this glum way. Rather, they focus on little things, find joy in the child's special abilities, and discover ways to cope with the situation they face. The picture the parents themselves paint is one of hope and coping.

In summary, this study shows that social support and a good parent-child relationship are important resources for coping with parenting stress. Parenting is a very important aspect of adult development. Although not vital to the development of a complete and happy adult, parenting is experienced by the vast majority of adults and

comprises an important part of the formation of society itself. Understanding the positive and negative aspects of parenting enables scholars and clinicians to help parents who struggle with this immense role.

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*Appendices***Appendix A: Informed Consent Form****Informed Consent Form**

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide sufficient information so that you can determine whether you wish to participate.

Title of study: Well being in parents of children with autism and typically developing children.

Research personnel: This project is being conducted by Gal Podjarny as an extension of her MA Psychology thesis project, under the supervision of Professor Shelley Parlow. For more information about this project, you can contact Gal Podjarny by e-mail ghusteck@connect.carleton.ca or Prof. Parlow at shelley_parlow@carleton.ca.

Should you have any ethical concerns about this study, please contact Dr. Avi Parush, Chair, Carleton University Ethics Committee for Psychological Research, avi_parush@carleton.ca, 613-520-2600 ext 6026. Should you have any other concerns about this study, please contact Professor Anne Bowker (Chair, Dept of Psychology, psychchair@carleton.ca, 613-520-2600, x 2648).

Purpose of study: The purpose of this study is to look at the well being of parents of children with autism and parents of typically developing children, and to explore coping processes.

Nature of your involvement: You will be asked to complete several brief questionnaires and an interview. **The interview will be recorded.**

Location and time involved: The session will take about an hour and 15 minutes, and will take place in the Developmental Psychology lab, in Loeb A516, or at a place that was agreed upon in advance with the researcher.

Potential risks and discomfort: There are no physical risks in this study. However, some people may experience some emotional discomfort when asked to reflect on themselves or their families.

Anonymity/Confidentiality: The data collected in this experiment are confidential and your anonymity will be respected at all times. All data will be coded such that names are not associated with the data. The data will be used for research and teaching purposes. Please note that individual feedback will not be provided, as we are interested only in comparisons between groups of individuals.

Right to Withdraw: Participants have the right to withdraw from the experiment at any time without penalty. You may also decline to answer any question that you do not wish to answer.

Signatures: I have read the above description of the study entitled, "*Well being in parents of children with autism and typically developing children*" and understand the conditions of my

involvement. My signature indicates that I agree to participate in this experiment. I understand that my interview will be recorded for transcription purposes.

Participant's Name (please print): _____ Date: _____

Participant's Signature: _____

Researcher's Signature: _____

Permission to contact participant at a later time

By signing below, you are permitting the researcher to contact you and offer you to participate in subsequent, related studies (such as follow up of the current study or other studies relating to parental well being). Of course, when you will be contacted **you may decline to participate in the subsequent study** without penalty. **You can participate in this study without giving such permission.**

Signatures: I have read the above description regarding permitting the researcher of the study entitled "*Well being in parents of children with autism and typically developing children*" to contact me and offer me to participate in related studies. My signature and contact information indicate that I am permitting the researcher to contact me.

Participant's Name (please print): _____ Date: _____

Participant's phone number for contact: _____

Participant's e-mail for contact: _____

Participant's Signature: _____

Researcher's Signature: _____

Appendix B: Background Questionnaire

Please fill out this questionnaire to the best of your ability.

The next questions should be answered about **the child's primary caregiver**.

1) Age _____

2) Gender: Male Female

3) What is your cultural or ethnic background? (Check one)

White	African
Chinese	First Nations
Japanese	South Asia (e.g. Pakistani, Sri Lankan, etc.)
Korean	Filipino
Arab	Latin American
Multi-ethnic or mixed race	West Asian (e.g. Afghan, Iranian, etc.)
Other (specify) _____	

4) What is your first language?

English	French
Arabic	Farsi
Chinese	Japanese
Hindi	Spanish
Italian	Portuguese
Punjabi	German
Bengali	Russian
Other (specify) _____	

5) Your current relationship status is best described as:

Single, never married	Married or common-law
Dating	Widowed
Divorced or separated	Other (specify)

6) What is your highest education level?

Below high school	High school diploma
Trade school or college diploma	University degree
Other (specify) _____	

7) I am the child's biological parent Yes No

8) I am raising the child by myself Yes No

9) If you are **not** raising the child by yourself, who is raising the child with you?

My life partner (husband, wife, common-law partner, etc.)
My mother

My father
 Other relative, specify: _____
 Other, not a relative, specify: _____

If you are **not** raising the child by yourself, please answer the following questions **about the co-parent (the person who is raising the child with you)**.

10) Age _____

11) Gender: Male Female

12) What is the co-parent's cultural or ethnic background? (Check one)

White	African
Chinese	First Nations
Japanese	South Asia (e.g. Pakistani, Sri Lankan, etc.)
Korean	Filipino
Arab	Latin American
Multi-ethnic or mixed race	West Asian (e.g. Afghan, Iranian, etc.)
Other (specify) _____	

13) What is the co-parent's first language?

English	French
Arabic	Farsi
Chinese	Japanese
Hindi	Spanish
Italian	Portuguese
Punjabi	German
Bengali	Russian
Other (specify) _____	

14) The co-parent's current relationship status is best described as:

Single, never married	Married or common-law
Dating	Widowed
Divorced or separated	Other (specify)

15) What is the co-parent's highest education level?

Below high school	High school diploma
Trade school or college diploma	University degree
Other (specify) _____	

16) Is the co-parent the child's biological parent? Yes No

The following questions refer to your **family**.

17) Which of the following best describe your **total** yearly household income (before taxes):

- Less than 35,000
- Between 35,000 and 65,000
- More than 65,000

18) Number of **all** the children in the family: _____

19) Ages of **all** the children in the family:

20) Please indicate **all** the languages that the child is exposed to:

- | | |
|-----------------------|------------|
| English | French |
| Arabic | Farsi |
| Chinese | Japanese |
| Hindi | Spanish |
| Italian | Portuguese |
| Bengali | Russian |
| Punjabi | German |
| Bengali | Russian |
| Other (specify) _____ | |

The next questions refer to **the child**:

21) Think back of the time before the child was born. At that time, did you think of the possibility that your child might have a disability of any kind? Yes

No

22) The child is diagnosed with a developmental disorder: Yes

No

23) The diagnosis: _____

24) The child's age when the diagnosis was given: _____

25) Does the child receive treatment for his/her diagnosis? Yes

No

26) What system of treatment does your family work with?

27) Do you take an active part in the child's treatment (i.e., do you work with the child on treatment goals)? Yes No

28) How many hours a week do you work with the child on treatment goals?
