HAIGAZIAN UNIVERSITY

The Relationship between Challenging Behaviors of Children Who Have Autism Spectrum Disorders in Lebanon, Coping Styles and Marital Satisfaction of the Mothers

Nanar Aknadibossian

A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the requirements for the Master of Art in Psychology – Emphasis: Clinical Psychology at Haigazian University.

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The Relationship between Challenging Behaviors of Children Who Have Autism Spectrum Disorders in Lebanon, Coping Styles and Marital Satisfaction of the Mothers

By Nanar Aknadibossian

is accepted by the Graduate Thesis Committee as satisfying the thesis requirements for the degree Master of Arts/ Clinical Psychology

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Date ____________________________ Signature of Thesis Committee Member

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DEDICATION

I would like to dedicate this thesis to my nephew Haig, he was diagnosed with Autism Spectrum Disorder. He turned our life upside down and showed us the meaning of love and that different does not mean less. I also dedicate this thesis to all the mothers and families of children who have Autism Spectrum Disorders, you are resilient and one of a kind, hoping that there will be more autism awareness, support and resources in Lebanon, and that the world will be ready to celebrate neurodiversity.

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Table of Contents

List of Tables……………………………………………………………………………………VII

Abstract…………………………………………………………………………………………...VIII

Chapter 1 Introduction…………………………………………………………………………..1

Chapter 2 Literature Review……………………………………………………….....................7

Chapter 3 Method……………………………………………………………...................20

Chapter 4 Results……………………………………………………………………………....26

Chapter 5 Discussion…………………………………………………………………………..32

References………………………………………………………………………………………...42

Appendix A Information and Consent Forms…………………………………………….……....54

Appendix B,C Demographic Questionnaire……………………………………………...…58

Appendix D,E Brief Cope……………………………………………………………….......64

Appendix F,G Indian of Scale Assessment for Autism……………………………...………...68

Appendix H,I Quality of Marriage ……………………………………………………….....74

List of Tables

Table 1: Descriptive of the Sample Characteristics (N=59)…………………………………......28

Table 2: Descriptive of the Sample Demographics……………………………….......………29

Table 3: Descriptive Statistics of Variables for Mothers of Children with Autism……………..29

Table 4: Means and Standard Deviations Across Genders……………………………………....30

Abstract

Research about Autism Spectrum Disorders and its effects on parents is rare in the Arab world (Taha & Hussein, 2014). This study assessed whether challenging behaviors in children who have ASD and the coping styles of their mothers predict perceived marital satisfaction in the mothers in Beirut, Lebanon. The study employed a cross sectional survey design with a convenient of N = 59 mothers, who were recruited from inclusive schools, and NGOs, they completed a demographic form and three questionnaires (The Brief Cope, Quality of Marriage Index and the Indian Assessment of Autism Scale). The data was analyzed using multiple regression analysis and descriptive, inferential statistics. Only 50% of the required sample was recruited over 6 months, due to non-responsiveness of institutions and parents, and the sociopolitical uprising that occurred in Lebanon. Mothers reported above average marital satisfaction. This could be due to socially desirability; mothers maintain expectations that are consistent with traditional parental and societal expectations (Goodman & Glenwick, 2012). They also reported their children's challenging behaviors as below the midpoint. The severity of behaviors is related to marital satisfaction (Baker et al., 2002), mothers who reported more positive perceptions of their child's behavior, reported better relationship adjustment (Lickenbrock et al. 2011). In line with previous work (Stoneman, et al. 2006) Engagement coping was associated with better marital satisfaction, indicating that seeking emotional support, is related to higher marital satisfaction. The main hypotheses of the study were not supported, coping styles and challenging behaviors were non-significant predictors of marital satisfaction. Due to small sample size the study was underpowered and at risk of a type II error. Future research should recruit a larger sample with a focus on participants' dyadic coping, taking into account the challenges in reaching this specific population.

Keywords: mothers of children, autism spectrum disorder, coping, marital satisfaction, behavioral problems, Lebanon

Chapter I Introduction

According to the Diagnostic Statistical Manual, 5th edition, American Psychiatric Association (2013), Autism Spectrum Disorder or ASD, refers to a neurodevelopmental disorder that is characterized by deficits in social communication and social interaction within different contexts such as failure in initiating, developing and maintaining relationships, lack of nonverbal communication and lack of eye contact to name a few. In addition to repetitive and restricted behaviors, interests and activities such as stereotyped movements and rigidity. It is important to note that ASD has different levels of severity and can range from mild, high functioning to severe, requiring a high level of support (APA, 2013). Providing such support may be quite taxing specifically as it relates to the primary caregivers, who are often the parents or parent of a child who has ASD. Challenging behaviors are operationally defined as behaviors that are socially unacceptable, causing physical harm to others, self-injurious behavior, verbal aggression and property destruction (Matson, Mahan, Hess, Fodstad, & Neal, 2010).

Parents of children who have ASD face many challenges such as dealing with the challenging behavior of the child, the impact of the disorder on the family, judgment of the people and lack of support (Ludlow, Skelly & Rohleder, 2011). ASD is also often associated with a number of other pathologies such as depression, attention deficit hyperactive disorder and anxiety (Matson & William, 2013) which may add to the list of challenges. It is important to note that providing care for a child with ASD is time consuming and very costly, since it is considered a chronic disorder (Jensen & Spannagel, 2010). These stressors and challenges all contribute to the well-being of mothers of children who have ASD who have reported significant levels of stress; that have at times reached clinical thresholds and been attributed for the most part to their roles as primary caregivers (Rivard, Terroux, Parent-Boursier, & Mercier, 2014). Research has

shown that psychological well-being among mothers of children who have ASD is related to their challenging behaviors. Research carried out by Obeid and Daou (2014) in Lebanon, established a strong negative correlation between behavior problems of children who have ASD and the mother's psychological well-being. Similarly, a study carried out among parents of children who have ASD, showed that the more the adaptive behaviors the lower the stress levels, meaning the higher the maladaptive challenging behaviors the higher the levels of stress (Rivard, Terroux, Parent-Boursier, & Mercier, 2014).

Several research studies have found that mothers of children with ASD experienced significantly greater levels of stress than fathers did. Severity of ASD symptoms and related behavior problems have been associated with maternal distress (Hastings & Johnson, 2001), these associations are few when it comes to the fathers.

The theoretical framework for this study is the Family Systems Theory (FST). According to Family system theory, every member in the family has a role to play (Morgan, 1988). The family is a system in which members are co-dependent, and any change in the functioning of one family member will inevitably cause a change in the behavior of other members. The family is made up of sub-systems, parent-child, marital relationship and sibling sub-systems (Morgan, 1988). The area of family focused ASD research is underdeveloped, and is in its initial stage as researchers try to understand the influence of individual with ASD on family members (Cridland, Jones, Magee, & Caputi, 2013). This study will be able to shed light on how the marital relationship is affected and how mothers cope in the presence of a child with ASD.

Stress and psychological well-being of parents who have children with ASD would in turn reflect on the marital relationship. Parents of children who have ASD are more likely to report

lower marital satisfaction and intimacy in comparison to parents of typically developing children (Dunn, Burbine, Bowers & Tantleff-Dunn, 2001).

In an effort to understand factors that influence marital satisfaction, several studies have been carried out. Jones & Passey (2003) concluded that coping styles and perception of child's behavior had an influence on the levels of stress in parents with children who have developmental and behavioral challenges. Additionally, according to Dunn et al., (2001) coping styles influenced the relationship between challenges and negatives outcomes of parents of children with ASD. Lazarus and Folkman (1984) conceptualized coping as being either problem focused or emotion focused. Problem focused coping has been positively correlated with lower levels of parental stress as well as psychological and emotional health (Stoneman & Gavidia-Payne, 2006). Positive marital relationship has been associated with the application of effective coping techniques (Stoneman & Gavidia-Payne, 2006).

The purpose of the current research is to inquire into the perceived challenging behaviors of children who are diagnosed with Autism Spectrum Disorders (ASD) in Lebanon, Beirut and the coping styles of their mothers, as predictors of the mothers's perceived marital satisfaction.

Coping styles are defined as ways and strategies that individuals resort to employ in order to deal with or decrease levels of stress. Strategies are separated into two different approaches; problem focused and emotion focused (Lazarus & Folkman, 1984). Benson (2010) stated that it is too simple to categorize coping into problem focused and emotion focused, he studied the coping styles of mothers in relation to their wellbeing and analyzed the results through exploratory factor analysis. The study yielded four significant coping dimensions; engagement coping, disengagement coping, cognitive reframing and distraction coping. Benson (2010) found four factors that are used among mothers of children with autism. Marital satisfaction is defined as

how individuals in marriages perceive the quality of their relationship as weighing the costs and benefit leading up to how satisfied they are in their relationship with their partner (Vohs, 2007).

Chaaya, Saab, Maalouf and Boustany (2015), tried to estimate the prevalence of ASD in toddlers in Lebanon. A thesis carried out in Lebanon addressed psychological well-being of parents of children with ASD and found that self-acceptance appeared to be lower in parents of children diagnosed with ASD (Chamseddine, 2017). Another thesis study reported that parents of children with autism reported the highest level of distress when compared to parents of typically developing children (Zaarour, 2017). Obeid and Daou, (2015) investigated the relationship between coping styles of parents, challenging behaviors of children and social support. These studies although addressed parents of children with ASD, they did not however address marital satisfaction in this particular population.

Rationale

Although many studies have investigated quality of marriage, challenging behaviors, and coping styles in parents who have children with special needs, most of these studies have been done in the Western context (Jahangir & Batool, 2017; Ozgun & Honig, 2005). In addition, Taha and Hussein (2014) state that research about ASD and its effects on parents has been rare in the Arab world and has mostly been addressed in Western countries. In a study carried out in China, a negative relationship was established between perceived stigma and marital satisfaction in Chinese women who have children with intellectual disabilities. It was also found that specifically mothers of children who have ASD reported lower marital satisfaction and higher perceived stigma (Kwok, Leung, & Wong, 2014). Mothers are usually more involved in taking care of their children and tend to participate actively in their education (Benson, Karlof, & Siperstein, 2008) and they continue to spend significantly more time with their children than do

fathers. Mothers are the persons most affected by this situation because they are the primary caregivers of the child, whereas fathers are often less engaged in this responsibility, in the Middle East studies have found that there is a lack of paternal involvement and in turn mothers are regarded as the primary care-giver (Azar & Badr, 2006). According to Azar and Badr (2006), the stigma associated with disabilities in Lebanon contributes to the levels of parental stress. In addition, in the Arab culture the stigma and feelings of guilt and shame that come along with having a child with disabilities may also have negative effects on parents (Khamis, 2007). Therefore, the importance of this study lies in the lack of research about the relationship between quality of marriage and coping styles of mothers of children with ASD in Lebanon. To our knowledge, this has not been conducted in Lebanon before. It is important to evaluate the relationship between these variables as it will inform our understanding of these relationships in a nonwestern context, something which has not been done before. The evaluation of cross-cultural differences in marital satisfaction and coping styles of parents of children with ASD can later inform interventions conducted in Lebanon, such as support groups and couples therapies.

Significance

There is a need for further research in the Arab world in order to better understand ASD and to help provide support to children and families (Taha & Hussein, 2014). Thus, this research study would be able to provide additional information to support the literature regarding children with ASD, challenging behavior, marital satisfaction in mothers within the Middle East and Lebanon. The study may perhaps provide a better understanding on how the marital subsystems function in presence of challenging behavior and children with ASD and how coping styles play a role. According to Jose and Alfons (2007) it is of significance to investigate marital satisfaction, as it is important to individual wellbeing, in addition a strong marriage positively

affects the community, finally there is a need to develop programs that promote marital satisfaction. In addition, there is a lack of formal support for parents of children who have ASD in Lebanon (Obeid & Daou, 2015), by understanding these variables, professionals can provide prevention/ intervention therapy and support groups to teach coping strategies in an attempt to support positive spousal relationships and avoid dissatisfaction in couples who have children with ASD.

Research Questions

Are perceived challenging behaviors in children who have ASD and the coping styles of the mothers predictors of perceived marital satisfaction in a sample of mothers of children with ASD in Beirut, Lebanon?

Chapter II Literature Review

In this chapter, an in-depth review of literature will be presented regarding the different variables of the current study.

Autism Spectrum Disorder

The study will examine the relationship between the challenging behaviors of children who are diagnosed with Autism Spectrum Disorders (ASD) in Lebanon, Beirut and the coping styles of their mothers, in relation to the mothers' marital satisfaction.

According to the Diagnostic Statistical Manual, 5th edition, American Psychiatric Association (2013), Autism Spectrum Disorder or ASD is a neurodevelopmental disorder, symptoms of ASD include impairments in verbal and non-verbal communication skills, deficits in social skills, restrictive, repetitive and self-stimulating behaviors (rocking, flapping hands, echolalia) (American Psychiatric Association, 2013; Williams et al., 2013). Most of the studies done have based their definition on the DSM IV, Autism Spectrum Disorders (ASD) as previously referred to a range of neurodevelopmental disorders that include, Asperger's Disorder, Autistic Disorder and Pervasive Developmental Disorder Not Otherwise specified (APA, 2013). This continuum of neurodevelopmental disorders present symptoms that range from mild to severe. Surveys done in the west show, one in 68 children as having been diagnosed with ASD, with boys more commonly identified as being on the spectrum (CDC, 2012).

ASD in the Middle East and Lebanon

According to Taha and Hussein (2014), there has been an increasing interest in ASD in the Middle East and the Arab world, they pointed out that it is mostly in its early stages and mainly coming from Egypt and Saudi Arabia. They concluded that there is further need to support research on ASD in the Middle East (Taha & Hussein, 2014). Therefore, the current study, which

will be carried out in Lebanon, will contribute to the Middle Eastern literature by adding information about challenging behaviors in children with ASD as well as coping style and marital satisfaction of the mothers. The study may provide critical information regarding the different variables challenging behavior in Autism, coping styles, marital satisfaction in the Middle East, presenting a clearer vision of how marital subsystems are affected in Lebanon. Similarly, there is a lack of statistic for the prevalence of ASD in the Middle East and specifically Lebanon (Chaaya, Saab, Maalouf, & Boustany, 2015). However, Chaaya, Saab, Maalouf and Boustany (2015), tried to estimate the prevalence of ASD in toddlers in Lebanon by doing a cross-sectional study of 117 nurseries in Beirut and Mount, Lebanon, based on a sample of 998 children, the statistical results were similar to those of the west with one out of 66 children (Chaaya, Saab, Maalouf and Boustany, 2015) diagnosed of having ASD. In addition, Obeid and Daou (2015) mentioned the lack of formal support and services for children who have ASD and their parents in Lebanon. Culture plays a role in how individuals perceive the diagnosis or disability of their child. Furthermore, in a study comparing levels of knowledge and stigma associated with ASD in Lebanon and USA, the results showed that knowledge about ASD was lower and stigma was higher in Lebanon (Obeid & Daou., 2015). According to a thesis carried out in Lebanon, on 75 participants, 21 of which were parents of children who have autism; parents of typically developing children were more satisfied in their life than those having children with ASD. The same study yielded that the overall psychological well-being of parents in this study, self-acceptance, which is a subscale of well-being, appeared to be lower in parents of children diagnosed with autism (Chamseddine, 2017). Furthermore, another thesis study carried out in Lebanon on 132 participants, 44 of which were parents of children who have autism, 43 were parents of children who have learning disabilities and 43 were parents of typically developing

children, showed that mothers of females with autism reported higher distress than mothers of males with autism. In addition, gender had no effect on maternal guilt nor on maternal quality of life. However, mothers of children with autism reported the highest level of distress when compared to the other two groups (Zaarour, 2017). Perhaps the current study will help shed light, provide more information, and in return reduce the stigma.

Family Systems Theory

The theoretical framework for this study is the Family Systems Theory as founded by Murray Bowen. Bowen is a psychiatrist, who originated his theory and its eight interlocking concepts. He formulated the theory by using systems thinking to integrate family research (Kerr, 2000). According to Family system theory, every member in the family has a role to play. The family is a system in which members are co-dependent, and any change in the functioning of one family member will inevitably cause a change in the behavior of other members. As anxiety goes up in the one of the members, the emotional connectedness of family members becomes more stressful than comforting and will eventually lead to members feeling overwhelmed, isolated, or out of control (Kerr, 2000). A family member with an autism spectrum disorder presents influences on the entire family system,(Cridland, Jones, Magee, & Caputi, 2013). Principles of the family system theory apply in a case of a family who has a child with ASD. The child is part of the family system, which includes parent-child subsystems as well as the marital relationship and sibling subsystem. It is recognized more and more that consideration must be given to the family system in planning interventions with families that have children who have autism (Morgan, 1988).

Challenging Behaviors

It is important to discuss challenging behaviors in the context of ASD in order to better understand the variables and how they might play out. Although not all children who fall on the spectrum of autism disorders necessarily exhibit challenging behaviors (Matson, Boisjoli, & Mahan, 2009), challenging behaviors are common to children who have ASD (Williams et al., 2013). These behaviors include aggression, repetitive motor behavior and stereotypes, defiance, disruptions, tantrums, property destruction. Behaviors can escalate and transform to more severe behaviors over time (Machelicek et al. 2016). Challenging behaviors may be either internalizing or externalizing (Adams, Matson, & Jang, 2014) and may come in the form of tantrums that are socially unacceptable, physical harm to others, self-injurious behavior, verbal aggression and property destruction (Matson, Mahan, Hess, Fodstad, & Neal, 2010). Matson et al. (2010) mention that children who have ASD exhibit challenging behavior at some point in their lifespan, they are also more likely to exhibit such behavior, in comparison to children who have other intellectual or developmental disorders. In addition, Dominick, Davis, Lainhart, Tager-Flusberg and Folstein (2007) found that children who have ASD show early onset of challenging behavior such as eating and sleeping problems, severe temper tantrums, self-injurious behavior, and aggression. Children with ASD scored higher on challenging behaviors than did children who had language impairments (Dominick et al., 2007). Kanne and Mazurek (2010) concluded that the level of aggression is almost equal in children and adolescents, both males and females who have ASD.

ASD and Challenges Faced by Mothers

Having a child with ASD is very stressful, culture can sometimes add to this stress, according to Azar and Badr (2006), the stigma associated with disabilities in Lebanon contributes

mainly to the levels of parental stress. Similarly, in the Arab culture people have the tendency to blame either the mother's or the father's side of the family, and having a child with a disability may be a source of shame, guilt and humiliation for the parents (Diken, 2006), which might add further stress. Another challenge faced by parents of children who have ASD is the expenses and costs that come along with diagnosing, treating and taking care of the child, in Middle Eastern countries these expenses mostly fall on the immediate family (Taha & Hussein, 2014). Studies conducted in the West also show that it is very costly to provide care for a child with ASD since it is a chronic disorder; in addition, it is also a challenge to access and receive treatment and services which are efficient and effective (Jensen & Spannagel, 2010). Another challenge to ASD is that comorbid psychiatric disorders are common in children who have ASD such as social anxiety disorder, Attention Deficit Hyperactive disorder and Oppositional Defiant Disorder (Simonoff et al., 2008). Furthermore, parents experience behaviors exhibited by the child who has ASD, these behaviors are age inappropriate, unacceptable and might cause harm to others or self (Machelicek et al. 2016). Emerson et al. (2001) concluded that individuals who had higher levels of challenging behavior needed more help in every-day tasks including assisting them washing, getting dressed and eating.

The Impact of Challenging Behaviors on Mothers

Parents of children who have ASD face a variety of challenges. According to Shtayermman (2013), children with ASD suffer from lifelong developmental impairments. This makes the parents' and caregiver's job much more difficult. Hartley, Barker, Seltzer, Greenberg and Floyd (2011), state that parents of children with ASD have many responsibilities due to the lifelong nature of the diagnosis. A qualitative study carried out by showed that mothers of children who have ASD exhibit feelings of loss and grief in addition to guilt, fear and anger.

(Fernańdez-Alcántara et al., 2016). Children diagnosed with ASD often behave in socially unacceptable ways, exhibiting aggression self-stimulation these behaviors can be a source of humiliation and shame in their parents (Farrugia, 2009).

Parents have stated that they consider repetitive behaviors to be a significantly difficult characteristic of ASD and that these repetitive behaviors negatively affect learning and subsidize challenging behavior. These restricted repetitive behaviors are stereotyped speech and movements, using objects inapproprately, rigidity and need for routine, repetitive self-injurious behavior (Boyd, McDonough & Bodfish, 2011). These challenging behaviors negatively affect the children who are on the spectrum. They can affect the quality of their own life, and decrease from the quality of their families' lives (Adams, Matson, & Jang, 2014). According to Matson, Boisjoli and Mahan (2009), maladaptive behaviors that are exhibited by children who have ASD are usually chronic, very rarely do children grow out of them independently, and therefore parents are exposed to them over a long period.

The relationship between stress levels in parents of children who have ASD, and child's behavioral problems is stronger than stress and symptoms of ASD itself (Matson, Boisjoli, & Mahan, 2009). Higher levels of depression, anxiety and stress in parents are also related to ratings of their child's behavior, more specifically the more severe and problematic the behavior the higher the levels of stress, anxiety and depression (Hastings et al., 2005). Study carried out by Lecavalier, Leone and Wiltz (2006) showed that behavioral problems were significantly correlated with stress in the caregivers more so than any other characteristic of the child. It also revealed that parent's reports of the behavior problems and stress were constant over time. Externalizing behaviors were correlated with stress in both mothers and fathers due to attracting negative attention in social situations (Davis & Carter, 2008) the study pointed out that parents

and caregivers of children with ASD reported higher levels of stress and symptoms of depression however, the predictors differed between mothers and fathers. Similar to other studies, the results revealed that the behavioral problems that are not symptoms of ASD resulted in a strong association with parental stress. Similarly, both mothers and fathers of children who have ASD in Iran showed high levels of stress and poor emotional well-being and these two variables were significantly related to behavioral problems in the child (Samadi & McConkey, 2012).

ASD and Marital Satisfaction

Studies show that challenging behavior in ASD is related to lower interactions with both the community and peers, in addition to decreased adaptive and functional skills such as self-management or social skills (Matson et. al, 2010) which means increased attention from parents. Parents often focus so much on their child who has ASD that they neglect their own marital relationship (Higgins, Bailey & Pearce, 2005).

According to Randall and Bodenmann (2009), stress is related to marital satisfaction and can put a strain on the quality of marriage, the higher the levels of stress the lower the marital satisfaction. Parents of children who have ASD face added obstacles in comparison to parents of normally developing children (Hartley, Barker, Seltzer, Greenberg, & Floyd, 2011). The challenges that accompany having a child with ASD may be in the form behavioral problems, social acceptance, and the heavy reliance of the child on the caregivers (Shtayermman, 2013). These stressors have an influence on the marital relationship and have implications on the levels of marital satisfaction in parents of children who have ASD (Higgins, Bailey & Pearce, 2005; Kwok, Leung, & Wong, 2014). In one study, parents of children who have ASD reported low marital happiness in comparison to parents of typically developing children. Mother's low levels

of wellbeing was related to the severity of the behavioral problems, whereas father's well-being was related to social acceptance (Higgins, Bailey & Pearce, 2005).

According to Shtayermman, (2013), marital problems arise due to lack of clear communication with the partner, difficulty in solving problems and difficulty in accepting one another. He conducted a cross sectional study and explored the level of marital satisfaction in relation to stress related to having children who have ASD. Results showed that levels of depression and anxiety were associated with diagnosis of Autism Spectrum Disorder. In addition, connections were established between the diagnosis of ASD, levels of stress in parents and levels of marital satisfaction (Shtayermman, 2013). Negative relationship were established between perceived stigma and marital satisfaction in Chinese women who have children with intellectual disabilities. Results showed that perceived stigma predicted marital satisfaction; furthermore, the results established that specifically mothers of children who have ASD reported lower marital satisfaction, higher perceived stigma (Kwok, Leung, & Wong, 2014). This might be the case in Lebanon, since culturally ASD is subjected to stigma (Azar & Badr, 2006).

The results of the study done by Santamaria et.al (2012) showed that parents of children who have Autism Spectrum Disorders, generalized the attribution of negative behavior to their spouse, meaning that they blamed each other for the things that went wrong or perceived one another as not being proactive enough (Santamaria et.al, 2012). Furthermore, the authors concluded and explained that the struggles of raising a child who has ASD and more specifically the children who are low functioning will result in maladaptive patterns of attribution in the parents and in return, it will result to lower marital satisfaction (Santamaria et.al, 2012). According to Baker (2002), the more severe the behavior exhibited by the child who has ASD the lower the marital satisfaction of the mother. In contrast, Hartley, Seltzer, Barker and Greenberg

(2011) reported that many parents of children with developmental disorders, including ASD report average to above-average levels of marital satisfaction and have longer marriages.

Coping and ASD

Coping plays an important role in the wellbeing of parents of children who are on the Autism Spectrum. It is important to discuss the model of coping strategies conceptualized by Lazarus and Folkman (1984). This model discusses coping strategies by separating the term into two different approaches; problem focused and emotion focused. Problem focused coping strategies include being proactive and taking action, whereas emotion-focused coping strategies are based on changing emotions in order to face and deal with stress. Emotion focused coping comes in the form of avoidance, denial and disengagement (Lazarus and Folkman, 1984). Studies show that problem focused coping has been related to psychological wellbeing whereas emotion focused coping has been linked to psychological problems (Dabrowska & Pisula, 2010). Dabrowska and Pisula, (2010) aimed to study coping styles of parents of children with ASD and Down's syndrome in relation to parental stress compared with parents of typically developing children. The results highlighted that emotion-focused coping was a predictor of parental stress, especially in parents of children with ASD and Down's syndrome. A similar cross sectional study carried out by Lyons, Leon, Roecker, Phelps and Dunleavy (2009), showed a that emotion-focused coping style by parents of children who have ASD is related to higher family problems. However, the relationship was not directional, meaning it could also be that negative family situations lead to emotion-focused coping. Furthermore, other studies showed that parents who rated their child's symptoms as severe were more likely to apply an emotion focused coping style and experience more pessimism (Lyons, Leon, Roecker, Phelps, & Dunleavy, 2009). Glidden, Billings and Jobe (2006), investigated the relationship between problem-focused, and emotion

focused coping strategies and wellbeing in parents of children with developmental disorders. Results showed that positive appraisal, which is a coping strategy that enables the individual to interpret events positively, was related to higher levels of wellbeing. In line with previous research, escape and avoidance were related to higher levels of depression and lower levels of wellbeing specifically in mothers. Contrary to previous research, plan-full problem solving, although considered problem focused coping strategy did not yield to any positive relationships with wellbeing (Glidden, Billings, & Jobe, 2006).

Benson (2010) stated that it is too simple to categorize coping into problem focused and emotion focused, he studied the coping styles of mothers in relation to their wellbeing and analyzed the results through exploratory factor analysis. The study yielded four significant coping dimensions; engagement coping, disengagement coping, cognitive reframing and distraction coping. The result of this study showed that coping styles were influenced by the extent to which the behaviors of the child are problematic, higher levels of wellbeing in mothers was related to cognitive reframing whereas distraction and disengagement coping were linked to lower levels of wellbeing (Benson, 2010). Obeid and Daou, (2015) made use of the four dimensions found by Benson (2010). They compared 65 mothers of children who have Autism Spectrum Disorders to 98 mothers of typical children in Lebanon. They aimed to investigate the relationship between coping styles of parents, challenging behaviors of children and social support. The results showed that challenging behaviors were negatively correlated with mother’s wellbeing. Furthermore, the results also showed that mothers used varied coping styles; disengagement and distraction coping strategies were related to low levels of well-being and cognitive reframing was related to positive levels wellbeing in the mothers (Obeid & Daou, 2015).

In contrast, study carried out by Higgins, Bailey and Pearce (2005), showed that there was no significant relationship between coping styles and marital happiness in parents of children who have Autism Spectrum Disorders. However, coping styles such as active coping, reinterpretation and growth as well as planning were positively correlated with relationship satisfaction in parents that have children with autism (Gordon and Baucom 2009).

Individuals who have high levels of resilience have a higher ability of overcoming stressors in life (Ong, Bergeman, Bisconti, & Wallace, 2006). Parents of children who have ASD identified the symptoms of ASD as being the ultimate challenge they face while raising the child (Bitsika, Sharpley & Bell, 2013. Even at lower levels, resilience seems to act as a buffer against depression and anxiety (Bitsika, Sharpley & Bell, 2013).

Ruiz-Robledillo, De Andrés-García, Pérez-Blasco, González-Bono and Moya (2014) established that resilience had a protective value for parents and caregivers of children who have ASD. The results of the study showed that the higher the levels of resilience in the parents, the lower the levels of stress, insomnia and anxiety. They also found that social support mediates the relationship between resilience and perceived health, the authors went on to explain that having higher resilience could be the reason that leads the individuals into looking for social support in more functional and appropriate ways (Ruiz-Robledillo, De Andrés-García, Pérez-Blasco, González-Bono & Moya, 2014).

A study carried out by Pastor-Cerezuela, Fernández-Andrés, Tárraga-Mínguez and Navarro-Peña (2016) indicated that parents of children who have ASD reported significantly higher levels of stress than did the comparison group, the more hyperactive the behavior of the child and the higher the severity of the symptoms, the higher the levels of stress in the parents (Pastor-Cerezuela, Fernández-Andrés, Tárraga-Mínguez & Navarro-Peña, 2016). The results of

the study showed that resilience in the form of optimism and self-efficacy can help parents cope with the daily struggles of raising a child who has ASD (Pastor-Cerezuela, Fernández-Andrés, Tárraga-Mínguez & Navarro-Peña, 2016).

Hypotheses

In this study the following hypotheses were tested:

Hypothesis 1: Challenging behaviors as measured by Indian Scale for Assessment of Autism will negatively predict marital satisfaction as measured by Quality of Marriage Index.

Hypothesis 2a: Use of distraction coping styles by parents as measured by the Brief Cope will negatively predict marital satisfaction as measured by the Quality of Marriage Index.

Hypothesis 2b: Use of disengagement coping styles by parents as measured by the Brief Cope will negatively predict marital satisfaction as measured by the Quality of Marriage Index.

Hypothesis 2c: Use of cognitive reframing styles by parents as measured by the Brief Cope will positively predict marital satisfaction as measured by the Quality of Marriage Index.

Hypothesis 2d: Use of engagement coping styles by parents as measured by the Brief Cope will positively predict marital satisfaction as measured by the Quality of Marriage Index.

Chapter III Research Methodology

This chapter will address the research methodology that will be adopted for this study. First, the purpose of the study and quantitative approach will be discussed. In addition, the chapter will discuss the target population, procedures, and ethical considerations, instruments of data collection and data analysis that will be utilized in order to answer the research questions at hand.

Purpose

The purpose of the current research is to inquire into the challenging behaviors of children who are diagnosed with Autism Spectrum Disorders (ASD) and the coping styles of their mothers, in relation to the parent's marital satisfaction. A quantitative design aims in identifying variables that effect or relate to a specific outcome (Creswell, 2014). In order to investigate the current study and the relationship of the independent variables (challenging behaviors and coping styles) and the dependent variable (marital satisfaction) a non-experimental cross-sectional survey design was used as the main aim is to predict outcomes and generalize the result (Creswell, 2014).

Participants

The target population of the current study are mothers of children who have ASD. The inclusion criteria for the research is that the individuals are required have a child/children who have autism spectrum disorders. Since the study employed a quantitative methodology, with five independent variables as predictors and one dependent variable, multiple regression analysis was used. According to Field (2013), in order to detect a small effect size of 0.02 with five predictors, we would need a sample size of 635 individuals. On the other hand, in order to detect a medium effect size of 0.13 with our five predictors, we would need a total sample size of 92 individuals.

We recruited the sample over a period of six months and were able to achieve a sample size of only 59 mothers. This is primarily due to two factors: (1) ASD is a low incidence disability, which only occurs in 1 out of 66 individuals in Lebanon, and (2) it was challenging to recruit individuals with ASD in Lebanon due to the low response rate from parents and their unwillingness to participate. However, this is not uncommon in Lebanon, as previous research has also yielded small sample sizes. For example, Obeid and Daou (2015) collected data from 65 mothers of children who had Autism Spectrum Disorder (ASD), Chamseddine (2017) collected data from 21 participants, and Zaarour (2017) collected data from 44 individuals.

Procedure and data collection

A purposive non-probability convenience sampling was applied to collect data for the current research Schools that have inclusive programs for children who have ASD, NGOs that advocate for ASD were contacted in order to recruit participants[1]. We were unable to recruit participants, either because the institutions did not respond or did not agree to support the study. Occupational, speech and language, behavioral and psychomotor therapists were also contacted, however they expressed that parents did not want to take part in the research. This process took several months, whereby the organizations were continuously and consistently contacted through email, phone and in person.

An information letter stating the purpose and significance of the research, and asking the schools and NGOs to participate was sent through email and delivered as a hard copy. Schools/NGOs did not receive incentives however they were informed of the potential benefits of

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[1] Saida orphanage, Lebanese Autism society, Al Doha school, Step together, BCBA Mona Saab, Vio, CARE, St. Luke, Wellspring Learning Community, Skild agreed to support the research study. Autism Awareness Association, North Autism Center, Kafaat, Leaps, Mosaic, Al Hadi, Lebanese Evangelical School, Class Orange, AID were also contacted

this study, which is to contribute and increase knowledge related to marital satisfaction of mothers of children with autism in a new cultural environment, Lebanon. After schools/NGOs agreed to this proposal, the required consent form, information letter and questionnaires were provided to them in envelopes. The schools and NGOs were asked to contact the mothers and inform them of the study. The sealed envelopes were disseminated to parents by the NGO and parents completed them in the comfort of their homes or wherever they chose. The investigator returned to the schools/NGOs after contacting them and receiving confirmation to pick up the envelopes.

Participants did not receive any monetary compensations for participating in this study. All participants received a consent form and participation information letter (Appendix A), in the language of their choice either Arabic or English. Participants reported their written acceptance regarding their participation in the research, through a signed consent. Participants were informed through the consent form that the questionnaires and results will remain anonymous as no identifiers (e.g. name and contact information) are requested, and that their participation is voluntary and they will be able to withdraw from the research at any point in time.

Participation in the study was of minimal risk to participants. Probability and magnitude of harm or discomfort anticipated in the proposed research were not greater, than those usually encountered in daily life or during the performance of routine physical or psychological tests. In addition, this potentially is an opportunity for them to express themselves and open-up through these questionnaires that might tackle areas that they have difficulties in. In case of adverse impact, they were encouraged to contact the primary investigator, additionally a contact list of licensed psychologists was sent to them. In addition, participants interested in the results of the

study contacted the investigator after data analysis and a summary of the results was sent to the participants if they requested it.

Instruments

Paper and pencil questionnaires were used in order to collect the data needed for the research study. The four questionnaires were: one general demographic questionnaire (Appendix B,C), and four scales that addressed the different variables, Brief Cope (Appendix D,E), Indian Assessment of Autism Scale (Appendix F,G) and the Quality Marriage Index (Appendix H,I) . The questionnaires were translated into Arabic in previous studies. Initially the questionnaires were not counterbalanced, therefore we received 33 questionnaires that were not counterbalanced versus 26 questionnaires that were counterbalanced ,by doing this, order effects were minimized (Marsden & Wright, 2010).

Demographics Questionnaire. This questionnaire included questions about age, gender of child, marital status, and duration of marriage, number of children and number of children who have ASD, mothers' education, time spend with the child, household income.

Brief COPE. The Brief COPE Scale developed by Carver (1997) was used to assess the different coping styles of the parents of children who have autism spectrum disorders. The shortened version of the COPE consists of two items for each of the 14 strategies used. Therefore, it is made up of 28 items on a 4-point Likert-type scale, ranging from “I haven't been doing this at all” to “I've been doing this a lot”. Scores for each subscale are calculated and the higher the scores on a specific coping style means the higher the use of that specific style. The scale has a moderate to high internal consistency, averaged .72 (Benson, 2010). In order to establish construct validity, Carver (1997) conducted exploratory factor analysis with the original COPE instrument, and the items were very similar to it. The factor analyses resulted in 9 items with

eigenvalue higher than 1 (Carver, 1997). Scales are computed as follows (with no reversals of coding): Self-distraction, items 1 and 19. Active coping, items 2 and 7. Denial, items 3 and 8. Substance use, items 4 and 11. Use of emotional support, items 5 and 15. Use of instrumental support, items 10 and 23. Behavioral disengagement, items 6 and 16. Venting, items 9 and 21. Positive reframing, items 12 and 17. Planning, items 14 and 25. Humor, items 18 and 28. Acceptance, items 20 and 24. Religion, items 22 and 27. Self-blame, items 13 and 26.

Benson (2010) studied the coping styles of mothers in relation to their wellbeing and analyzed the results through exploratory factor analysis. The study yielded four significant coping dimensions; engagement coping, disengagement coping, cognitive reframing and distraction coping. Benson (2010) found four factors that are used among mothers of children with autism . Factor 1: Engagement coping: included four Brief COPE subscales (use of instrument support, active coping ,planning, and use of emotional support). Factor 2 Distraction coping: also included four subscales (self-distraction, humor, self-blame, and venting). Factor 3 Disengagement coping: included three Brief COPE subscales (substance use, behavioral disengagement, and denial). Factor 4 Cognitive Reframing, included three scales (acceptance, use of religion,and positive reframing) This scale was translated by Obeid and Daou and used to assess the four coping styles (2012). In the current study, reliabilities for the subscales were good with Cronbach's alphas of .71 for the engagement coping subscale, .62 for the distraction coping subscale, .73 for the disengagement subscale and .67 for cognitive reframing.

Quality Marriage Index (Norton, 1983). The QMI is recommended by researchers for a global assessment of marital satisfaction (Bradbury, Fincham, & Beach, 2000).The QMI is a 6-item measure of marital satisfaction. Items are rated on a 7-point scale and summed for a total score (ranging from 6 to 42) with higher scores indicating higher marital satisfaction (Feeney,

2006). The cronbach's α for the scale was .94 (Feeney, 2006), and exceeded .95 for husbands and wives (Lawrence et al, 2008). This scale was translated into Arabic by Bawab (2010) in order to carry out her thesis study in addressing marital satisfaction in Lebanon, reliability analysis showed excellent internal consistency (α =.96).

Indian Scale for Assessment of ASD. The ISAA measures six components of autism: social relationships and reciprocity, emotional responsiveness, speech-language and communication, behavioral patterns, sensory aspects, and cognitive component. It is a 40-item 5-point Likert-type scale which was commissioned by the National Institute for the Mentally Handicapped (NIMH) in 2008 (Amr, Raddad, El-Mehesh, Mahmoud, & Gilany, 2011).Obeid and Daou (2014) in their study carried out in Lebanon with a similar population made use of the Indian Scale for Assessment of ASD (Deshpande, Chakraborty, Thomas, Bhatia & Nimgaonkar, 2015). They stated that it was more appropriate for Lebanese culture compared to other Western scales such as the CARS. They also reported that the reliability was considered strong with the alpha coefficient equal to 0.96, in addition reliability of the behavioral pattern subscale yielded a Chronbach's alpha of 0.88 which is also high (Obeid & Daou, 2014). The criterion test validity was significant in comparison to the Childhood Autism Rating Scale with $r = 0.765$ and $p < 0.001$ (Deshpande, Chakraborty, Thomas, Bhatia & Nimgaonkar, 2015). This scale has been translated into Arabic by Amr et. al (2010).

Data Analysis

Descriptive and inferential statistics were applied using the IBM Statistical Package for Social and Behavioral Sciences (SPSS) version 2.0. Hypotheses 1 through 2d were addressed using multiple regression analysis to assess whether challenging behaviors and coping styles predict marital satisfaction. In addition, correlational analyses were conducted in order to identify

any relationships between our predictors, demographics and the outcome measure, whereas t tests were conducted to examine any between group differences in coping mechanisms for mothers of female and male children.

Chapter IV Results

Preliminary analysis

Prior to analysis the data was checked for accuracy of data entry and the percentage missing values per item within a scale. Missing values were found on items from the Brief Cope, the Indian Scale Assessment for ASD and the Quality of Marriage Index. Missing values were found for the Brief Coping scale, whereby the number of missing values ranged from one missing value to two values per item in this scale. Additionally, on the Behavioral Patterns subscale of the Indian Scale Assessment for ASD, the number of missing values ranged from one to three. Lastly, on the Quality of Marriage Index, the maximum number of missing values was one. To replace missing values Expectation Maximization (EM) was used throughout. Univariate outliers were checked using z-scores and all values exceeding the absolute value of +/-1.96 were considered outliers significant at the 95th confidence interval. A total of one outlier was found on Engagement coping, three on Distraction coping, four on Disengagement coping, two on Cognitive Reframing, one on the Behavioral Patterns subscale of the Indian Scale Assessment for ASD, and three on Quality of Marriage Index.

Normality of the data for all continuous variables was checked through the standardized skew statistics (z skew), and histograms. Standardized scores above the absolute value of 3.29 significant at the 99.99th confidence interval were considered skewed. Only the QMI had a standardized score of -4.27> 3.29 and was negatively skewed. All other scales had a Z Score of less than 3.29.

Descriptive statistics

Descriptive data on the study measures are found in Tables 1, 2 and 3. A total of 59 mothers (M_{age}=38.61, *SD*=6.83) were recruited. Mothers had, on average, 2 children and 1 child

with ASD, with an average age of 9.39 years (*M*=9.39, *SD*=4.28) ages ranging from 2 to 21 years. Additionally, the majority of their children were male (*N*=41, 69.5%). Furthermore, the majority of mothers were married (*N*=56, 94.9%) for an average of 12.84 years (*M*=12.84, *SD* = 5.53), had a bachelor's degree (*N*=25, 43.1%), were employed (*N*=36, 62.7%), had an average monthly income that ranged between 1,500,000 – 3,000,000 L.L/month (N=14,26.9%) and 3,000,000 LL – 7,500,00 L.L/month (*N*=14, 26.9%). Generally, mothers spent between 81% to 100% of their time with their child (*N*=22, 37.3%). Furthermore, the majority of mothers used Engagement coping (*M*=3.23, *SD*=0.56) and Cognitive Reframing (*M*=3.14, *SD*=0.59). Mothers generally rated their marriage as happy with average QMI scores (*M*=5.45, *SD*=1.52) and their child's behavior patterns as moderate (*M*=2.31, *SD*=0.76).

Table 1

Descriptive of the Sample Characteristics (N=59)

Characteristics	N	%
Version		
English	25	42.4
Arabic	34	57.6
Child's Gender		
Male	41	69.5
Female	18	30.5
Time spent with child		
Rarely (up to 20%)	2	3.4
Sometimes (21-40%)	10	16.9
Frequently (41-60%)	15	25.4
Mostly (61-80%)	10	16.9
Always (81-100%)	22	37.3
Mother's Marital Status		
Married	56	94.9
Divorced	3	5.1
Separated	0	0.0
Widowed	0	0.0
Mother's Educational Level		
Brevet	3	5.2
Baccalaureate	12	20.7
Bachelor's	25	43.1
Master's	16	27.6
Doctoral Degree	2	3.4
Mother's Employment Status		
Part-Time	6	10.2
Full-Time	21	35.6
Unemployed	22	37.3
Employed but nor specified	10	16.9
Household Income		
Less than 500,000 L.L/ month	0	0.0
500,000 - 750,000 L.L/ month	4	7.7
750,000 - 1,500,000 L.L./month	11	21.2
1,500,000 – 3,000,000 L.L./month	14	26.9
3,000,000 – 7,500,000 L.L/month	14	26.9
More than 7,500,000 L.L./month	9	17.3

Table 2

Descriptive of the Sample Demographics

	M	*SD*	*Minimum*	*Maximum*
Age of Mother	38.61	6.83	27	55
N of Children	2.06	0.80	1	5
N of Children with ASD	1.03	0.18	1	2
Age of the child	9.38	4.28	2	21
Time spent	3.67	1.23	1	5
Years of Marriage	12.84	5.53	3	25
Education	3.03	0.91	1	5
Employment	2.93	1.08	1	4

Table 3

Descriptive Statistics of Variables for Mothers of Children with Autism

	M	*SD*	*Min*	*Max*	*N*
Engagement	3.23	0.56	1.75	4	59
Distraction	2.11	0.49	1	3.38	59
Disengagement	1.52	0.44	1	2.67	59
Cognitive Reframing	3.14	0.59	1.33	4	59
Behavioral Patterns	2.31	0.76	1	4	59
Quality of Marriage	5.45	1.52	1	7	59

Correlational analyses

Pearson's Correlations between QMI and the independent variables showed that no significant correlations were found. However, it is important to note that Engagement coping was marginally significantly correlated with QMI with a positive relationship ($r = 0.248$, $p = .059$). In addition, Engagement coping was significantly positively correlated with number of children ($r = 0.463$, $p < 0.001$), and years of marriage ($r = 0.358$, $p < 0.001$). Disengagement coping was negatively correlated with child age ($r = -0.258$, $p =.048$) and years of marriage ($r = -0.317$, $p =$

0.015). Finally, Cognitive Reframing was positively correlated with number of children (*r* = 0.275, *p*= 0.035).

Independent samples t-test

A series of independent samples t-tests were conducted to assess whether differences on coping styles, marital satisfaction and challenging behaviors emerged across sex of the child with ASD. A statistically significant difference between genders was found for distraction as a coping style ($t(57) = 2.26$, p=.028), such that mothers of male children scored higher (M = 2.21, SD = .47) compared to mothers of female children (M = 1.90, SD = .50). Means and standard deviations can be found in table 6 below.

Table 4.

Means and Standard Deviations Across Genders

		N	*M*	*SD*
Engagement	Male	41	3.23	0.59
	Female	18	3.23	0.52
Distraction	Male	41	2.21	0.47
	Female	18	1.90	0.50
Disengagement	Male	41	1.48	0.43
	Female	18	1.62	0.45
Cognitive Reframing	Male	41	3.22	0.64
	Female	18	2.94	0.39
Behavioral Patterns	Male	41	2.41	0.79
	Female	18	2.09	0.66
Quality of Marriage	Male	41	5.49	1.65
	Female	18	5.37	1.21

Regression

A multiple regression analysis was conducted to evaluate whether Engagement, Distraction, Disengagement, Cognitive Reframing, and Behavioral Patterns predicted the QMI scores. Using the enter method, independent variables were entered in one block. Results did not support any of the hypotheses as the overall model was not statistically significant (F(5, 53)

= .885, p=.498). None of the variables were statistically significant predictors of quality of marriage; Engagement (β=.513, t(57) =1.71, p=.247), Distraction (β = -.118, t(57) = -.260, p=.796), Disengagement (β = .241, t(57) = .497, p=.621), Cognitive Reframing (β = .262, t(57) = .610, p=.544), and Behavioral Patterns (β = .186, t(57) = .684, p=.497). Therefore, the null hypothesis is retained as no evidence was found that can allow the acceptance of the alternative hypothesis.

Chapter V Discussion

The aim of the current study was to examine any predictors of marital satisfaction in Lebanese mothers of children who have Autism Spectrum Disorders. Similar studies related to challenging behaviors of children, coping styles of parents and quality of marriage, were carried out mostly in Western populations (Jahangir & Batool, 2017). According to Chaaya, Saab, Maalouf and Boustany (2015), one out of 66 children are diagnosed with autism in Lebanon, meaning that the autism community is significant in Lebanon, thus it is important to conduct research in the area. It is important to note that, although this is a prevalent disorder in Lebanon, the current study did not support the following hypotheses: (1) Challenging behaviors as measured by Indian Scale for Assessment of Autism will negatively predict marital satisfaction as measured by Quality of Marriage Index; (2a) the use of distraction coping styles by parents as measured by the Brief Cope will negatively predict marital satisfaction as measured by the Quality of Marriage Index; (2b) the use of disengagement coping styles by parents as measured by the Brief Cope will negatively predict marital satisfaction as measured by the Quality of Marriage Index; (2c) the use of cognitive reframing styles by parents as measured by the Brief Cope will positively predict marital satisfaction as measured by the Quality of Marriage Index; (2d) the use of engagement coping styles by parents as measured by the Brief Cope will positively predict marital satisfaction as measured by the Quality of Marriage Index. However, the fact that these hypotheses were not supported does not indicate that the null hypothesis is true as there are several factors that prevented the ability to detect an effect. First and foremost, the small sample size obtained for this study was about 50% of the required sample size that was determined by the power analysis, which hinders the ability to detect an effect and increases chances of a Type II error. Notably, the main contributors to the small sample size were

difficulties in data collection, such as the unresponsiveness and unwillingness of mothers of children with ASD to participate in this study. Furthermore, the lack of incentives did not motivate mothers to participate in this study.

Although the study was unable to yield significant relationships in regards to the hypotheses, some information emerged regarding the relationships between the examined variables. In addition, limitations associated with carrying out research with this specific population in Lebanon were highlighted. It is worthy to mention that participants were recruited through schools and NGOs, these institutions provide some resources to mothers, such as workshops, recommendations, support and sharing of knowledge, therefore these mothers were likely empowered and supported to a certain extent.

While the main hypotheses proposed in this study were not supported, the data did yield some findings that are in line with what has been reported in the literature. First, and consistent with previous findings regarding gender differences in ASD, males with ASD outnumbered females with the disorder ($N = 41$ versus $N = 18$ respectively) (CDC, 2012).

Furthermore, results revealed that on average mothers' reports of marital satisfaction were above the scale midpoint, which indicates that mothers were generally satisfied with their marriage. However, it is important to be wary of the fact that high scores on the QMI might be indicative of socially desirable responding. Socially desirable responding is likely to happen when individuals are asked to complete self-report questionnaires, which address personal topics that individuals might not want to reveal about. For example, research has shown that mothers maintain expectations that are consistent with more traditional parental roles and societal expectations, in addition, society expects mothers to report positive feelings about their children in general (Goodman & Glenwick, 2012). In light of the possibility that mothers were responding

in a socially desirable manner, it might be interesting for future studies to have a multi informant approach, whereby more than one parent is asked to complete the survey. This would increase the reliability of findings in assessing more than one perspective.

Results also revealed that all mothers indicated that their children had below average challenging behaviors, in addition to the high use of positive coping styles such as Engagement coping and Cognitive Reframing, this is in line with previous research (Obeid & Daou, 2015). The fact that all mothers reported having observed positive behaviors in their children suggests that they were more likely to positively report about their children's behaviors, which also indicates socially desirable responsiveness. It is important to point out the ISAA being a self-report questionnaire measured the perceptions of the mothers and not the actual severity of the disorder and behavior. The results also revealed that mothers of male ASD children exhibited significantly more distraction coping styles in comparison to mothers of female ASD children. However, this is likely due to the fact that most of the current sample consisted of male participants. Hence, this result should be interpreted with caution.

Hypothesis 1 was not confirmed, whereby challenging behaviors of children who have autism were unsuccessful in predicting marital satisfaction in the mothers. It is important to note that mothers on average reported their children's challenging behaviors as below the midpoint. Studies have shown that the severity of behaviors is related to marital satisfaction (Baker et al., 2002) and that mothers, who reported more positive perceptions of their child's behavior, reported better relationship adjustment (Lickenbrock et al. 2011). According to Hartley, Seltzer, Barker and Greenberg (2011) many parents of children with developmental disorders, including ASD, report average to above-average levels of marital satisfaction and have longer marriages. Hartley et al., (2011) noticed significant variability in reporting on marital quality across several

studies, showing that there is no consensus about the quality of marriage of parents of children with ASD. It is also possible that the current sample tended to score highly on QMI, but that perhaps another sample taken from a different population might not reveal the same results. In turn, this hinders the generalizability of the current results to the larger population. Additionally, the lack of behavioral problems in the present sample and the high rates of QMI (indicative of overall positive emotional wellbeing) sheds light on a possible underlying relationship that should be further investigated in future studies; the relationship between the severity of a child's behavioral problems and the overall QMI. It also indicates that future studies should attempt to replicate this study with a larger and more representative sample.

Although not addressed in the study, it is worth mentioning that perceptions on marital quality are guided by cultural and religious factors. Marks (2005) found positive associations between religiosity and marital satisfaction, this association was observed among different religions including Christianity and Islam, which are the most common religions in Lebanon. Cultures differ in their familial duties and values, such that collectivistic cultures are more likely to consider fulfilling familial obligations as an important aspect of marital satisfaction. Arab cultures tend to place less importance on personal desires and more importance on the overall well-being of the family as a whole unit (Khalili, 2018). It is important to also note that our sample reported a high use of Cognitive Reframing, Benson (2010) found that Cognitive Reframing helps parents restructure their beliefs with the help of religion, acceptance, and positive reframing (Benson, 2010). The high scores achieved on Cognitive Reframing which could entail use of religion might possibly indicate that the population from which our sample is derived may rely on religious beliefs among others in order to cope with the stress of having

children with ASD. Therefore, the effect of cultural and religious factors should also be investigated in future studies conducted on the Lebanese population.

Education might have played a role as well in the high levels of marital satisfaction. 75% of the participants in the current study have university degrees. This can indicate that the sample consisted of highly educated individuals, a factor which is more likely to indicate high marital satisfaction (Heaton, 2002). Heaton found that marital dissolution, which is a great indicator of marital satisfaction, was lower in woman who were educated (Heaton, 2002). Therefore, it is possible that this sample had unrepresentatively high quality of marriage due to the sociodemographic profile of participants. Therefore, future studies should aim to target women from all educational backgrounds.

The majority of mothers in the current study were married for an average of 12.84 years (*SD* = 5.53). According to a study carried out by Hartley et al. (2010) 75% of the families of children who have ASD remain married to their partners even though they were considered to be at risk of divorcing during the later years of marriage. It is important here to note that the current research showed a significant positive correlation between Engagement coping and years of marriage and a negative correlation between disengagement and years of marriage. This suggests that as years go by mothers, make use of engagement coping which includes emotional support; thus making the marital bonds stronger. Additionally, disengagement coping was found to be significantly and negatively correlated with the age of the child. This indicates that the younger the child, the more likely the mother is to use disengagement coping; a coping style which consists of behavioral disengagement, denial, and substance use (Benson, 2010). This is not surprising considering that mothers face difficulties in accepting their child's initial ASD diagnosis (Tekinarslan, 2018), experience shame, guilt and humiliation (Diken, 2006) and,

frequently, stigma in the Arab world (Obeid & Daou., 2015). Consequently, as children get older, mothers will increasingly normalize their child's disorder and become more accepting of it.

Previous research has found that problem focused coping is positively correlated with lower levels of parental stress, enhanced psychological and emotional health, and that the application of effective coping techniques positively influence marital satisfaction (Stoneman et al., 2006). Similarly, the current study found a marginally significant relationship between Engagement Coping and QMI. This suggests that there is a positive and linear relationship between Engagement Coping and marital satisfaction. Engagement coping can be considered a problem focused coping mechanism because it entails the use of instrument support, active coping planning and use of emotional support (Benson, 2010). Coping styles such as active coping, reinterpretation and growth as well as planning were shown to be positively correlated with relationship satisfaction in parents that have children with autism (Gordon and Baucom 2009). According to Ekas, Timmons, Pruitt, Ghilain, & Alessandri (2015) the use of instrumental coping and emotional support positively correlate with relationship satisfaction of partners who are parents of children who have ASD. In addition, emotional support successfully predicted the partner's relationship satisfaction. It is possible that when parents seek emotional support from each other and ask for advice which is instrument support since they are going through this together, this might strengthen their marriage and in turn lead to higher marital satisfaction. However, given the current sample size a statistically significant relationship did not emerge. Future research should thus attain a larger sample size in order to further inform our understanding of the relationships between these two variables.

The predictive model did not yield any significant results and coping styles were not significant predictors of marital satisfaction. Similarly, a study carried out by Higgins, Bailey and

Pearce (2005), showed that there was no significant relationship between coping styles and marital happiness in parents of children who have ASD. Previous studies have shown that these coping mechanisms were associated with increased well-being in mothers of children who have ASD (Benson, 2010). However, there are no studies using these coping styles as predictors of marital satisfaction. It is possible to look at the marital relationship itself as a coping mechanism. Couples make use of their relationship as a resource for coping this is called dyadic coping. According to a study carried out by Brown, Whiting, Kahumoku-Fessler, Witting, & Jensen (2019) dyadic coping was positively associated with marital satisfaction in married couples that have children with ASD. Indicating that parents of children who have ASD should develop relationship based coping.

It is important to note that future studies should also consider exploring quality of marriage as a coping styles or a predictor of coping styles, instead of the latter being a predictor of the former. It is postulated that perhaps the positive marital relationship is what is supporting the parents in dealing with challenging behaviors of their children who have ASD. This is grounded in previous studies which have shown that marital satisfaction was a significant predictor of parental experience in parents of children who had ASD (Hartley, Barker, Seltzer, Greenberg, & Floyd, 2011). Parents rated marital satisfaction as above-average and were less burdened by children with ASD than parents with below-average marital satisfaction (Hartley et al., 2011). Individuals with higher levels of marital satisfaction felt less stressed by their children who have ASD. Studies have also found that parents are more likely to report difficult child behavior when there are low levels of partner support and high levels of disagreement between partners (Cuzzocrea & Larcan, 2005). Therefore, positive marital relationships could be a great

resource and can help support families of children who have ASD by acting as a buffer against stress and maladaptive coping mechanisms.

Limitations

The small sample size poses the main limitation of the current study. This limitation is due to difficulties in recruiting participants. Recruitment of participants took over six months, over twenty schools, NGOs, centers and therapists were contacted. However, a few were quick and flexible but many did not want to take part in the research study. Organizations were contacted repeatedly to follow-up, however, there was a very low response rate from the mothers. According to Azar and Badr (2006), the stigma associated with disabilities in Lebanon contributes to the levels of parental stress. Stigma, feelings of guilt and shame that come along with having a child with disabilities may also have negative effects on parents (Khamis, 2007) and this could be why many mothers did not want to participate. In addition, data collection was also affected by nationwide school closures, due to political and economic turmoil in Lebanon, the country came to a standstill for several weeks since the uprising which started on October 17th (Centre for Lebanese Studies, 2019) this greatly impacted data collection. The small sample size reduced power to detect associations as well as the ability to generalize the findings.

Additionally, the measures (ISAA, Brief Cope, QMI) were self-reports and there was no scale to control for social desirability. Majority of parents reported low challenging behavior, high marital satisfaction and high use of positive coping styles. This means that participants were engaged in social desirability bias.

It is also important to note that the lack of restrictions on child age and years of marriage are considered limitations as they might have affected the results however restriction were canceled due to difficulties in recruiting participants.

Future Research

Since the major limitation was sample size, future research could focus on recruiting more participants in efforts of being able to generalize findings. The current study has been a cross-sectional one, it would be interesting to see a longitudinal research study examining challenging behaviors, coping styles of parents and marital satisfaction over time. Diving deeper into the relationship between years of marriage and use of adaptive coping styles, future research might assess this relationship through a cross-sectional study that addresses groups of parents who have been married for different periods of time. Future research could also have a heterogeneous group and investigate both partners in terms of gender differences. It would be valuable for future research to investigate other factors, such as parents' appraisal of the situation, their attribution styles as well as adaptive and maladaptive behaviors that affect the marital relationships. For instance, in looking at marital satisfaction within parents of children diagnosed with ADHD, the relationship between child ADHD and marital satisfaction was fully mediated by parental stress and parental self-efficacy (Ben-Naim, Gill, Laslo-Roth, & Einav, 2018) therefore future studies could look into the importance of parental self-efficacy within the marital relationship.

Additionally, this study did not assess the actual severity of ASD,or whether children with ASD had comorbidities. This should be investigated as previous studies have found that a major challenge in ASD research is that comorbid psychiatric disorders are common in children who have ASD such as social anxiety disorder, Attention Deficit Hyperactive disorder and Oppositional Defiant Disorder (Simonoff et al., 2008). In addition, seeing as how research in West suggests that challenging behaviors of ASD are higher comparison to other disabilities, and are related to higher levels of stress (Matson et al.,2010), it would be interesting to compare

challenging behaviors of children who have Down Syndrome, coping styles and marital satisfaction of their caregiver to those with ASD.

Moreover, future research should also investigate the effect of resilience on coping styles and quality of marriage, because it has been shown that individuals who have high levels of resilience have a higher ability of overcoming stressors in life (Ong, Bergeman, Bisconti, & Wallace, 2006) and that resilience seems to act as a buffer against depression and anxiety (Bitsika, Sharpley & Bell, 2013).

As the autism community continues to grow in Lebanon, more families will inevitably be affected. Therefore, further research should also investigate the impact of ASD on the coping styles of families in order to inform future family interventions that can provide support and resources to those in need.

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Appendix A

Information and Consent Forms

Dear Ms./Mr.

I am Nanar Aknadibossian, a student at Haigazian University from the Department of Social and Behavioral Sciences. I am currently carrying out a research study titled: The relationship between challenging behaviors of children who have Autism Spectrum Disorders in Lebanon, coping styles and marital satisfaction of the mothers, advised by Ms. Lucy Tavitian.

You are being asked to take part in this study since you have a child or children who have Autism Spectrum Disorders. Kindly read the below information to decide whether you would like to participate in this research study.

Purpose of the Research Project

This research study aims at understanding how perceived challenging behaviors of children who have Autism Spectrum Disorders and coping styles of the mothers relate to perceived marital satisfaction. This study will help support the literature on ASD in Lebanon and in turn perhaps initiate support for mothers of children who have ASD. This study will contribute towards the partial fulfillment of my academic study requirements at Haigazian University.

What will I be asked to do?

- If you choose to participate in this research study, you will be asked to fill in 4 questionnaires. Your participation will involve completing 3 surveys that entails statements that you will have to rate based on agreement, a demographic form for approximately 15-30 minutes. Participation in this project is voluntary. You are free to withdraw anytime without having to give any reason for your withdrawal.

What are my rights?

- Participation in this study is completely voluntary, anonymous and confidential. Your name or any other identifying information will not be asked.
- Data you provide along with data from all participants in the present research will be stored in aggregate in a password protected folder on the personal computer. The data will be analysed and reported in aggregate. Only the principle investigators of this study will have access to the compiled data which will be stored for a period of 10 years post data. During this time, you have the right to inspect the data.
- You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to refuse participation or withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with Haigazian University.
- This research study has been reviewed and has received clearance from the Haigazian University ethics committee and Ms. Lucy Tavitian. If you have any further concerns about your rights as a research participant, please, do not hesitate to contact Ms. Lucy Tavitian, Haigazian University P.O.Box 11-1348 Mexique Street, Kantari Beirut, Lebanon 01-349230 Ext. 309, lucy.tavitian@haigazian.edu.lb

What are the risks and benefits of participation?

- Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life.
- You will receive no direct benefits from participating in this research; however your participation does help researchers better understand how perceived challenging behaviors of children who have Autism Spectrum Disorders and coping styles of the

parents relate to perceived marital satisfaction of the parents. This study will help support the literature on ASD in Lebanon and in turn perhaps initiate support for parents of children who have ASD.

Contact information

If you have any questions or concerns about the research you may contact:

Ms. Lucy Tavitian

Instructor - Haigazian University

01 349 230 - Ext. 309

lucy.tavitian@haigazian.edu.lb

Nanar Aknadibossian

MA Student - Haigazian University

nanar.iknadiossian@gmail.com

Please read the following statements and place a check mark in the boxes adjacent to them.

- I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.
- I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever.
- I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.
- My participation may involve answering questionnaires.
- I have been assured that the researcher will maintain my identity securely confidential.
- I have been assured that the information from this interview will be used for the purpose of academic study only.
- I have received the assurance that this research study has been duly reviewed and approved by the Faculty of Social and Behavioural Sciences at Haigazian University.
- I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of a period of 10 years as per the regulations of the Faculty of Social and Behavioural Sciences at Haigazian University.
- I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.
- I, therefore, choose to voluntarily participate in this research study.
- I have received a copy of this consent form co-signed by the investigator.

Appendix B

Demographic Questionnaire

1. Your age (in years): ______

2. Gender: _____

3. Number of Children: ______

4. Number of Children with ASD: _____

a. Child's Age (in years): ________

c. Child's Gender:

□ Male

□ Female

5. In a typical week, I spend _______ of my child's free time (i.e. when he or she is not at school) with him or her

□ Up to 20% (Rarely)

□ 21-40% (Sometimes)

□ 41-60% (Frequently)

□ 61-80% (Mostly)

□ 81-100% (Always)

6. Marital Status:

□ Married

□ Divorced

□ Separated

□ Widowed

7. Years of Marriage: ____

8. Educational Level:

□ Brevet

□ Baccalaureate

□ Bachelor’s Degree

□ Master’s Degree

□ Doctoral Degree (PhD or MD)

9. Employment Status:

□ Employed

o Part-time employed

o Full-time employed

□ Unemployed

10. Household income

□ Less than 500,000L.L per month

□ 500,000L.L - 750,000L.L per month

□ 750,000L.L – 1,500,000 L.L per month

□ 1,500,000 L.L. – 3,000,000 L.L per moىth

□ 3,000,000 L.L. – 7,500,000 L.L per month

□ More than 7,500,000 L.L per month

Appendix C

الاستبيان الديموغرافي

1. عمرك (بالسنوات): ______

2. الجنس: _____

3. عدد الأطفال: ______

4. عدد الأطفال المصابين بالتوحد: _____

ا. عمر الطفل (بالسنوات): ________

ج. جنس الطفل:

□ **ذكر**

□ **أنثى**

5. في أسبوع عادي ، أقضي _______ من وقت فراغ طفلي (أي عندما لا يكون في المدرسة) معه أو معها

□ **حتى 20٪ (نادرًا)**

□ **21 40 ٪ (في بعض الأحيان)**

□ **41 60٪ (بشكل متكرر)**

□ **61 80٪ (معظمهم)**

□ **81 100٪ (دائمًا)**

6. الحالة الزواجية:

□ **متزوج**

□ مطلق

□ منفصل

□ أرمل

7. سنوات الزواج: _____

8. المستوى التعليمي:

□ برفيت

□ البكالوريا

□ درجة البكالوريوس

□ درجة الماجستير

□ درجة الدكتوراه (دكتوراه أو دكتوراه في الطب)

9. الوضع الوظيفي:

□ موظف

وظيفة بدوام جزئي

وظيفة بدوام كامل

□ ربة منزل (أو عاطلة عن العمل)

10. دخل الأسرة

□ أقل من 500,000 LL شهريا

□ 500,000 L.L. -750,000 L.L. في الشهر

□ 750,000 L.L. – 1,500,000 L.L في الشهر

□.L.L. 1,500,00 – .L.L 3,000,000 في الشهر

□ 3,000,000 – .L.L 7,500,000 شهريا

□ أكثر من .L.L 7،500،000 في الشهر

Appendix D

Brief COPE

These items deal with ways you have been coping with the stress in your life since you found out your child is diagnosed with autism, or since you have become a parent (which ever applies to you). There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with parenting your child. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you are doing it. Use these response choices provided below. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all

2 = I've been doing this a little bit

3 = I've been doing this a medium amount

4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things. _____

2. I've been concentrating my efforts on doing something about the situation I'm in. _____

3. I've been saying to myself "this isn't real." _____

4. I've been using alcohol or other drugs to make myself feel better. _____

5. I've been getting emotional support from others. _____

6. I've been giving up trying to deal with it. _____

7. I've been taking action to try to make the situation better. _____

8. I've been refusing to believe that it has happened. _____

9. I've been saying things to let my unpleasant feelings escape. _____

10. I’ve been getting help and advice from other people. _____

11. I've been using alcohol or other drugs to help me get through it. _____

12. I've been trying to see it in a different light, to make it seem more positive. _____

13. I’ve been criticizing myself. _____

14. I've been trying to come up with a strategy about what to do. _____

15. I've been getting comfort and understanding from someone. _____

16. I've been giving up the attempt to cope. _____

17. I've been looking for something good in what is happening. _____

18. I've been making jokes about it. _____

19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping. _____

20. I've been accepting the reality of the fact that it has happened. _____

21. I've been expressing my negative feelings. _____

22. I've been trying to find comfort in my religion or spiritual beliefs. _____

23. I’ve been trying to get advice or help from other people about what to do. _____

24. I've been learning to live with it. _____

25. I've been thinking hard about what steps to take. _____

26. I’ve been blaming myself for things that happened. _____

27. I've been praying or meditating. _____

28. I've been making fun of the situation. _______

Appendix E

المقياس الموجز للتأقلم

هذه العناصر تتعامل مع الطرق التي كنت تستعينين بها للتأقلم مع الإجهاد في حياتك منذ اكتشافك أن طفلك يعاني من التوحد (أو منذ أن كنت قد أصبحت أم لطفل ذو نمو طبيعي). هناك العديد من الطرق لمحاولة التعامل مع المشاكل. هذه البنود تسأل ما تقومين به للتعامل مع هذا الوضع. من الواضح إن مختلف الناس يتعاملون مع الأشياء بطرق مختلفة ، ولكن أنا مهتمة في معرفة كيفية محاولتك التعامل مع أمومة طفلك. كل بند يقول شيئا حول طريقة معينة للتأقلم. أريد أن أعرف إلى أي مدى كنت تفعلين ما ينص عليه كل بند. وكم من الأحيان. لا تجيبي على اساس ان هذه الطريقة (للتأقلم) تبدو لك فعالة ام لا،بل اجيبي على اساس انك تستعملينها ام لا مجرد كنت تفعلين ذلك أم لا.رجاء استخدامي هذه الخيارات الأربعة للاجابة. حاولي أن تعطي معدل لكل بند منفصلا عن الأخر. اجعلي إجاباتك صحيحة بالنسبة لك بقدر الامكان.

1 = لم أكن أ فعل هذا بتاتا

2 = كنت أفعل هذا قليلا

3 = كنت أفعل هذا بشكل متوسط

4 = كنت أفعل هذا كثيرا

1. كنت ألجأ إلى العمل أو نشطات أخرى لكيلا اشغل بالي بأمور أخرى ______

2. كنت أركز جهودي لإيجاد حل للوضع الذي أنا فيه ______

3. كنت أقول لنفسي أن هذا غير حقيقي ______

4. كنت ألجأ إلى الكحول أو مخدرات أخرى للشعور بتحسن______

5. كنت أحظى بدعم عاطفي من الأخرين ______

6. كنت استسلم في محاولة التعامل مع الأمر______

7. كنت أحاول أن اجعل الوضع أفضل ______

8. كنت أرفض أن أصدق أن ذلك قد حصل ______

9. كنت أقول أشياء للتخلص من المشاعر السيئة ______

10 . كنت أحظى بمساعدة ونصائح من أشخاص اخرين ______

11 . كنت ألجأ إلى الكحول ومخدراتٍ أخرى لمساعدتي لتخطي الوضع ______

12 . كنت أحاول أن أرى الوضع بمنظار أخر لجعله يبدو أكثر إيجابيا ______

13 . كنت انتقد نفسي _____

14 . كنت أحاول إيجاد إستراتيجية حول كيفية التصرف ______

15 . كنت أحظى براحة وتفهم من شخص ما ______

16 . كنت أفقد الأمل من محاولة التأقلم مع المشكلة______

17 . كنت ابحث عن شيء اجابي فيما يحدث ______

18 . كنت أمزح حول الأمر ______

19 . كنت أفعل أشياء لكي أقلل التفكير بالامر، كالذهاب إلى السينما، مشاهدة التلفاز، المطالعة، الحلم باليقظة , النوم,أو التسوق______ .

20 . كنت أتقبل واقع حصول الأمر ______

21 . كنت اعبر عن مشاعري السلبية ______

22 . كنت أحاول أن ألجأ إلى الراحة من خلال ديانتي أو معتقداتي الروحية ______

23 . كنت أحاول الحصول على نصائح أو مساعدة من أشخاص اخرين حول كيفية التصرف ______

24 . كنت أتعلّم التعايش مع الوضع ______

25 . كنت أفكر مليا بالخطوات التي يجب أن اتبعها ______

26 . كنت ألوم نفسي على الأشياء التي حصلت ______

27 . كنت أصلي أو أتأمل ______

28 . كنت أسخر من الوضع ______

Appendix F

Indian Scale for Assessment of Autism

Below you are given 40 statements which are divided under six domains, please tick ( ) mark the appropriate rating for each item of the scale by observing your child. Please answer to the best of your ability.

Gender of child: Male

– Female Age of child:

____

ITEMS	Rarely Up to 20% Score 1	Sometimes 21-40% Score 2	Frequently 41-60% Score 3	Mostly 61-80% Score 4	Always 81-100% Score 5
SOCIAL RELATIONSHIP & RECIPROCITY					
1. Has poor eye contact					
2. Lacks social smile					
3. Remains aloof					
4. Does not reach out to others					
5. Unable to relate to people					
6. Unable to respond to social/environmental cues					
7. Engages in solitary and repetitive play activities					
8. Unable to take turns in social interaction					
9. Does not maintain peer relationships					
EMOTIONAL RESPONSIVENESS					
10. Shows inappropriate emotional response					
11. Shows exaggerated emotions					
12. Engages in self-stimulating emotions					
13. Lacks fear of danger					
14. Excited or agitated for no apparent reason					
SPEECH-LANGUAGE & COMMUNICATION					
15. Acquired speech and lost it					
16. has difficulty in using non-verbal language or gestures to communicate					

17. Engages in stereotyped & repetitive use of languages					
18. Engages in echolalic speech					
19. Produces infantile squeals/unusual noises					

ITEMS	Rarely Up to 20% Score 1	Sometimes 21-40% Score 2	Frequently 41-60% Score 3	Mostly 61-80% Score 4	Always 81-100% Score 5
20. Cannot initiate or sustain a conversation with Others					
21. Uses jargon or meaningless words					
22. Uses pronoun reversals					
23. Unable to grasp pragmatics of communication (real meaning)					
BEHAVIOR PATTERNS					
24. Engages in stereotyped and repetitive motor mannerisms					
25. Shows attachment to inanimate objects					
26. Shows hyperactivity/restlessness					
27. Exhibits aggressive behavior					
28. Throws temper tantrums					
29. Engages in self-injurious behavior					
30. Insists on sameness					
SENSORY ASPECTS					
31. Unusually sensitive to sensory stimuli					
32. Stares into space for long periods of time					
33. Has difficulty in tracking objects					
34. Has unusual vision					
35. Insensitive to pain					
36. Responds to objects/people usually by smelling, touching, or tasting					
COGNITIVE COMPONENT					
37. Inconsistent attention and concentration					
38. Shows delay in responding					
39. Has unusual memory of some kind					
40. Has "savant" ability					

Classification	**No autism <70**	**Mild Autism 70 to 106**	**Moderate Autism 107-153**	**Severe Autism >153**
Total score				

Appendix G

المقياس الهندي لتقييم التوحد

عمر الطفل .... الجنس .... التاريخ..........................
تعليمات المقياس:
فيما يلي أربعين فقرة مقسمة لستة أبعاد، الرجاء وضع إشارة(   ) لكل فقرة في هذا المقياس من خلال مراقبتك للطفل .

	أبعاد المقياس وفقراته	نادرا- درجة 1	بعض الأحيان- درجة 2	كثيرا- درجة 3	غالبا- درجة 4	دائما- درجة 5
	البعد الأول : التفاعل والعلاقات الاجتماعية ويتكون من (9) فقرات وهي:					
1	ضعف في التواصل البصري					
2	يفتقر للابتسامة الاجتماعية					
3	يبقى وحيدا					
4	لايقترب من الآخرين					
5	لا يتقبل الآخرين					
6	عاجز عن الاستجابة للمثيرات الاجتماعية والبيئية					
7	ينشغل بالعاب فردية لها طابع تكراري					
8	غير قادر على مواصلة التفاعل الاجتماعي					
9	ليس لديه القدرة على الاحتفاظ بعلاقاته مع أقرانه					
	البعد الثاني : الاستجابات الانفعالية وتتكون (5) فقرات وهي:					
10	يظهر استجابات انفعالية غير مناسبة					
11	يظهر انفعالات مبالغ بها كنوبات الصراخ والضحك					
12	ينشغل بالإثارة الانفعالية الذاتية كالضحك والبكاء					
13	يظهر عدم خوف من المخاطر					
14	يثار بدون سبب واضح					
	البعد الثالث : الكلام واللغة والتواصل ويتكون من (9) فقرات وهي:					
15	يفقد اللغة التي اكتسبها					
16	لديه صعوبات في استخدام اللغة غير اللفظية والإيماءات					
17	ينشغل بتعبيرات لغوية نمطية وتكرارية					
18	يصدر اصواتا لا معنى لها مكررة					
19	يصدر صرخات أطفال غير طبيعية					
20	عاجز عن البدء والاستمرار بمحادثة مع الآخرين					

21	يستخدم لغة غير مفهومة					
22	يعكس الضمائر اللغوية (أنا – أنت ....)					
23	غير قادر على فهم مضمون الكلام (المعنى الحقيقي)					

الرجاء الإجابة على الفقرات التالية على أفضل وجه

	أبعاد المقياس وفقراته	نادرا- درجة 1	بعض الأحيان- درجة 2	كثيرا- درجة 3	غالبا- درجة 4	دائما- درجة 5
	البعد الرابع: الأنماط السلوكية وتتكون من (7) فقرات وهي:					
24	ينشغل بحركات نمطية وذات طابع تكراري					
25	يظهر ارتباط بأشياء جامدة غير حية					
26	يظهر نشاطا زائدا وقلقا					
27	يظهر سلوك عدواني					
28	يظهر نوبات غضب					
29	ينشغل بإيذاء ذاته					
30	يصر على الروتين يرفض التغيير					
	البعد الخامس : المظاهر الحسية وتتكون من (6) فقرات وهي:					
31	استجابة غير طبيعية للمثيرات الحسية					
32	يحدق لفترات طويلة بشيء محدد					
33	يجد صعوبة بتقليد الأشياء					
34	لديه رؤية غير طبيعية					
35	غير حساس للألم					
36	يستجيب للأشياء والناس من خلال استخدام غير طبيعي للحواس من خلال الشم واللمس والتذوق					
	البعد السادس : القدرات المعرفية وتتكون من (4) فقرات وهي:					
37	يظهر انتباه وتركيز متناقض (مضطرب)					
38	يظهر ضعف بالاستجابة					
39	لديه ذاكرة غير طبيعية من نوع ما...........					
40	لديه قدرات خارقة في مجال ما					

توحد شديد من 153 ما فوق درجة	توحد متوسط من 153 - 107 درجة	توحد بسيط من 106 - 70درجة	لا يوجد لديه توحد اقل من 70 درجة	تفسير الدرجات
				الدرجة الكلية للطفل

Appendix H

Quality Marriage Index (Norton, 1983).

DIRECTIONS: The following statements describe feelings that one may have toward one's marriage. Please respond to each of the following statements by indicating the degree to which the statement is true for you in general in your life. Use the following scale:

Very strong Disagreement	1	2	3	4	5	6	7	Very Strong agreement

We have a good marriage.							
My relationship with my partner is very stable.							
Our marriage is strong.							
My relationship with my partner makes me happy.							
I really feel like part of a team with my partner.							

On the scale below, indicate the point which best describes the degree of happiness, everything considered, in your marriage.

1	2	3	4	5	6	7
Very Unhappy			Happy			Perfectly Happy

Appendix I

مؤشر نوعية الزواج (نورتون، ١٩٨٣)

التعليمات: تصف البيانات التالية المشاعر التي قد تنتاب أحدهن تجاه زواجها. الرجاء الإجابة على كلّ من البيانات التالية عبر الإشارة إلى أي درجة يعتبر هذا البيان صحيحا بالنسبة لك في حياتك بشكل عام. إستخدمي المقياس التالي:

١ ٢ ٣ ٤ ٥ ٦ ٧

أعارض بشدة أوافق بشدة

	٧	٦	٥	٤	٣	٢	١
زواجنا جيد.	٧	٦	٥	٤	٣	٢	١
علاقتي بزوجي مستقرة.	٧	٦	٥	٤	٣	٢	١
زواجنا قوي.	٧	٦	٥	٤	٣	٢	١
علاقتي بزوجي تجعلني سعيدة.	٧	٦	٥	٤	٣	٢	١
أشعر حقا أني أشكل فريقا مع زوجي.	٧	٦	٥	٤	٣	٢	١

في الجدول أدناه، أشيري إلى النقطة التي تصف بأفضل صورة درجة السعادة في زواجك، مع الأخذ بعين الإعتبار كافة النقاط.

١ ٢ ٣ ٤ ٥ ٦ ٧

مستاءة جدا سعيدة سعيدة تماما