Autism and Families: Perceived Stress, Emotional Stability & Coping in Parents of Children with ASD

Amy Dillon

Submitted in partial fulfilment of the requirements of the BA Hons in Psychology at Dublin Business School, School of Arts, Dublin.

Supervisor: Dr. John Hyland

March 2019

Department of Psychology

Dublin Business School
# Table of Contents

**Declaration** .................................................................................................................. 2

**Acknowledgements** ..................................................................................................... 3

1. **Abstract** ...................................................................................................................... 4

2. **Introduction** ................................................................................................................. 5  
   2.1 Autism Spectrum Disorder (ASD) .............................................................................. 5  
   2.2 The Family & ASD .................................................................................................... 6  
   2.3 Perceived Stress ......................................................................................................... 7  
   2.4 Emotional Stability .................................................................................................... 9  
   2.5 Coping Self-Efficacy ................................................................................................ 10  
   2.6 Hypotheses ................................................................................................................ 12

3. **Methodology** ............................................................................................................... 13  
   3.1 Participants ................................................................................................................ 13  
   3.2 Design ........................................................................................................................ 13  
   3.3 Materials/Apparatus ................................................................................................... 14  
   3.4 Procedure ................................................................................................................... 16  
   3.5 Ethical Considerations ................................................................................................. 17

4. **Results** ....................................................................................................................... 19  
   4.1 Descriptive Statistics ............................................................................................... 19  
   4.2 Inferential Statistics .................................................................................................. 20  
   4.3 Further Analyses ........................................................................................................ 24

5. **Discussion** .................................................................................................................. 25  
   5.1 Interpretation ............................................................................................................... 25  
   5.2 Strengths, Limitations and Future Research ............................................................... 26  
   5.3 Implications and Applications .................................................................................... 28  
   5.4 Conclusion .................................................................................................................. 30

6. **References** .................................................................................................................. 32

7. **Appendices** .................................................................................................................. 36  
   Appendix A: Information Sheet & Consent ..................................................................... 36  
   Appendix B: Demographic Questions ............................................................................. 37  
   Appendix C: Coping Self-Efficacy Scale ........................................................................ 38  
   Appendix D: TIPI Scale .................................................................................................. 41  
   Appendix E: Perceived Stress Scale ............................................................................... 42  
   Appendix F: Debrief Sheet .............................................................................................. 43
Declaration

‘I declare that this thesis that I have submitted to Dublin Business School for the award of BA (Hons) Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.’

Signed: AMY DILLON

Student Number: 10268706

Date: 22\textsuperscript{nd} March 2019
Acknowledgements

First and foremost, I would like to thank all the participants who gave their time to take part. This research project would not have been possible without you!

I would like to thank my supervisor and lecturer Dr. John Hyland for his continuous support, guidance and encouragement throughout this research project.

A very special thank you to my group of college peers, especially Wendy, Orla, Fiona, Sandra, Jess and Tara, for their endless support over the last four years.

Thank you to my family who have been there through the stress and my many rants.

And finally, thank you to my partner, Will, who has always encouraged me to follow my dreams and been there to support and uplift me through it all. You are my rock!
1. Abstract

This study investigated the relationship between perceived stress, emotional stability and coping self-efficacy and examined whether relationship status and number of children had an influence on these variables between groups of parents of children with ASD. Parents of children with ASD (N=124), 120 females and 4 males, took part in this study, with age ranging from 28-58 years old. It involved participants completing a quantitative survey consisting of 5 demographic questions and the following scales: The Coping-Self Efficacy scale, the TIPI scale and the 4-item Perceived Stress scale. Using a MANOVA on all hypotheses, it was found that both relationship status and number of children had no significant effect on the three variables. However, perceived stress levels significantly influenced emotional stability and coping self-efficacy in parents of children with ASD. This highlighted the importance of accurate stress management in parents in order to improve their coping self-efficacy and emotional stability.
2. Introduction

2.1 Autism Spectrum Disorder (ASD)

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder characterised by impairments in social interaction, including difficulty communicating and interacting with others, cognition and repetitive behaviours (Ratajczak, 2011). It can also effect thinking, feeling and language (Benson, 2016). The DSM-5 classes Autism as a member of the pervasive development disorders (PDD), which are a group of disorders classed by the deferment of social and communication skills (Ratajczak, 2011). Within this group of PPDs, the term ASD applies to Autistic Spectrum Disorder, Asperger’s Disorder, and Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS), excluding Rett’s syndrome and Childhood Disintegrative Disorder (McPartland et al., 2012). Some symptoms of ASD include language issues in children for example delayed speech, non-verbal, behavioural issues such as repetitive behaviours, self-harm, impulsiveness, lack of attention, excessive rocking, hand flapping, sensitivity to sound (Hartmann, 2012). Social interaction is hugely challenging for individuals with ASD often with these individuals finding it extremely difficult to form friendships with peers. With this said, the symptoms and severity of autism differ in every individual; therefore, they are referred to as being on a “spectrum” with functioning ranging from low to high. (Benson, 2016).

The pathology of Autism was first described by Dr. Leo Kanner in 1943 when he wrote a paper involving case studies with 11 children all believed to have autism (Kanner, 1943). Since then, and especially in the last decade, the prevalence of individuals being diagnosed with ASD has increased from 6.7 to 14.7 per 1000 children (Luciano, 2016). The reason for this rise is unknown, although it could be said that growing research and education around the disorder and its diagnostics, increased public awareness, increased supports and assessments for individuals with ASD may be factors behind this surge
(McPartland et al., 2012). According to the DSM-5, ASD is found to be 4 times more common in men than in women (Loomes et al., 2017). The average age of diagnosis is 3 years for children with autistic disorder and 7 years for Asperger’s disorder (Mandell et al., 2005) however, as symptoms differ in every individual with ASD, diagnosis can be delayed. This can lead to a missed opportunity to provide treatment during a critical developmental period (Daniels & Mandell, 2013). Early diagnosis of ASD in children is integral for treatment and quality of life for the individual and their families.

2.2 The family and ASD

It has been found that the burdens faced by parents of children with developmental disabilities are especially heavy due to the emotional, behavioural and communication problems associated with the disability (Dabrowska & Pisula, 2010). When a child is born with a disability, parents bear greater demands that can affect the whole family (Dardas & Ahmad, 2013). When a child is first diagnosed with ASD it can produce feelings of confusion and stress for families as, without warning, the family’s lifestyle must change depending on the severity of the diagnosis (Hartmann, 2012). This diagnosis can often cause problems between both parents of the child with ASD due to possible lack of acceptance of the diagnosis (Hartmann, 2012). Though the exact cause of Autism is unknown, it has been said that some underlying causes may be genetic factors, environmental factors e.g. mother having bacterial infection during pregnancy and, neurological factors e.g. particular complications with the development of the brain and nervous systems (Health Service Executive, 2018). There have also been many common misconceptions around causes of ASD over the years. One of which was Leo Kanner’s term “refrigerator mother” which he proposed in the 1960s. Kanner stated that the cause of autism in children was due to parents who were cold and emotionally distant with their infant, which in turn coaxed them to revert into autism (Cohmer, 2014). However, Kanner
later retracted this statement as it was found to be incorrect and caused huge trauma to parents of children with ASD, particularly mothers (Cohmer, 2014). Although Kanner’s theory was deemed untrue, it has not stopped some parents from feeling blame for their child’s autism which results in problems in the family relationships (Hartmann, 2012).

The demands of parenting a child with a disability also affects the whole family. Previous research has found that having other children as well as having a child with ASD can be massively challenging. Sivberg (2002) found a negative relationship between the level of strain on the family system and the level of coping. This emphasises the importance of families developing and employing as many well-functioning coping strategies as possible (Sivberg, 2002). However, this can prove difficult when parenting more than one child as it can take much more time and effort from an individual. It has been reported that the behavioural problems, for example unpredictable temper tantrums and repetitive behaviours, that are found in children with ASD are one of the various indicators of stress among their parents (Ludlow et al., 2011). However, Ludlow et al., (2011) found that the most difficult part of parenting a child with ASD is the social implications of their behaviours including judgement from others. In addition to this research, this study will examine the differences in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child in order to explore the effects of ASD on the family.

2.3 Perceived stress

Lazarus and Folkman (1984) classified stress as a two-way mechanism; Firstly, the stressors which are presented to the individual by the environment and secondly, the individual’s perception of their ability to cope with these stressors. It was more formally defined as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his
or her well-being” (Lazarus & Folkman, 1984, p. 19). Stress has been a popular topic of research over the years as it has been shown to affect both mental and physical health. Past research has found that daily stress correlates with decline in overall health and mood (DeLongis et al., 1988) Although it is important that individual differences are considered, it has been well documented that becoming a parent is challenging and it is normal for parenting to evoke daily stressors. However, previous research has indicated that parenting a child with a disability can be more stressful than parenting a child with typical development, due to additional needs, and requires various coping strategies. Hayes and Watson (2012), found that parenting stress is particularly greater in families of children with ASD compared to families of neurotypical children. They reported that finding ways to moderate parenting stress may aid a family’s functioning.

The stress of parenting a child with ASD stretches throughout the lifespan. It has been posited that parents of young children with ASD reported more adversity caring for their child than parents of children with other developmental disorders. Similar results were also found in mothers of adult children with ASD as it was reported that their emotional well-being had been jeopardised due to the demands of the disorder (Barker et al., 2011). Similarly, Pisula and Kossakowska (2010) found that parents of children with autism have a more fragile sense of coherence. This means that they have less confidence in the predictability of their environment and less faith that things will work out as expected. This result may support previous findings that high levels of stress, due to the demands of raising a child with ASD, have a negative effect on parent’s sense of coherence (Pisula & Kossakowska, 2010). Finding the correct education path for a child with ASD can also be a source of stress in parents of children with ASD, particularly mothers. Considerable research has found that mothers of children with ASD report higher
levels of stress than fathers of children with ASD as mothers are usually the primary carer (Dabrowska & Pisula, 2010).

Increased stress in parents of children of ASD can also lead to relationship breakdowns. There has been scarce research carried out on this topic over the years. One of the very few by Hartley et al. (2010), found an overall divorce rate of 23.5% in parents of children with ASD, which was higher than the divorce rate of parents of neurotypical children. They also found that parents of children with ASD were at a proliferate risk for divorce when their child was between the ages of 8-30 than parents of neurotypical children (Hartley, Barker, Seltzer, Floyd, Greenberg, Orsmond, & Bolt, 2010). In contrast to these findings, Freedman et al. (2011), found that having a child with ASD does not impact on divorce rates in parents and that children with ASD are just as likely to live in a two-parent household compared to children who do not have ASD. This could be down to better social supports for families of children with ASD. It was also found that symptom severity in children with ASD does not affect whether children live in a two-parent household (Freedman et al., 2011). In this case, situational factors must be contemplated as each family’s experience varies just as the ASD spectrum varies. It has been stated that, due to such little research being carried out around stress and relationship status in parents of children with ASD, more future research is needed. This study seeks to add to previous research and examine whether there are differences in perceived stress, emotional stability and coping self-efficacy in one parent families compared to two parent families of parents of children with ASD.

2.4 Emotional stability

Emotional stability, more formally known as neuroticism, is one of the Big Five personality traits. It is classified as feeling calm and relaxed, not anxious, moody, easily agitated or easily stressed (Gosling et al., 2003). Emotional stability is important for
overall positive mental health as it has been found that individuals who are emotionally stable experience less negatively valenced emotions and less disposition to perceived negative information (Johnson et al., 2008). Previous research has found that parents of children with ASD are at higher risk of developing poor emotional well-being than parents of children with neurotypical children (Barker, Hartley, Seltzer, Floyd, Greenberg & Orsmond, 2011). This could be down to the unpredictability of their environment and the strains associated with caring for a child with ASD. However, adaptation may cause this to change. Long periods of care have been found to eventually lead to an increase in emotional stability (Barker et al., 2011). Anxiety plays a vital role in emotional stability as lower anxiety in an individual tends to correlate with higher emotional stability. Parents of children with ASD tend to exhibit inflated levels of anxiety compared to those who do not have a child with ASD (Bitsika & Sharpley, 2004). With regard to the family unit and ASD, it was found that parents who had access to childcare through other family members had lower anxiety and better emotional well-being (Bitsika & Sharpley, 2004). It is also important for parents to maintain higher emotional stability as it has been reported by parents that their own emotional state of mind affects their children’s behaviours and emotions. (Crowell et al., 2018).

There has been little research carried out specifically on emotional stability in parents of children with ASD, however, as it links into both stress and how well a parent copes with their everyday life with a child with ASD, it is apparent that there is a need for future research. This study will examine the impact that parenting a child with ASD has on emotional stability and how this variable will influence both perceived stress and coping.

2.5 Coping self-efficacy

Due to the challenging nature of ASD, parents must acquire various coping strategies. Self-efficacy is an individual’s perception of their ability to accomplish certain objectives
whereas, coping self-efficacy is an individual’s perception of their ability to cope with stressors. Coping self-efficacy in parents of children with ASD is a critical factor in managing the stresses associated with the disorder. Parents play a vital role in the interventions of their children with ASD. From becoming educated and up to date on the disorder to serving as coaches and co-therapists, parents are one of the main sources of intervention for their children (Crowell et al., 2018). This highlights the importance of greater perception in a parent’s ability to cope with the care of their child with ASD, as it may be integral for the child’s development. Luque Salas et al. (2017) carried out a study on a sample of parents of children with ASD and reported that higher self-efficacy leads to greater life satisfaction. In line with this, Weiss, Robinson, Fung, Tint, Chalmers and Lunsky (2013) reported that to strengthen family hardiness, interventions that help nurture self-efficacy in parents of children with ASD are urgently needed. Family hardiness is an important design to understand coping in parents of children with ASD, who are often at risk for extreme adversity when encountering multiple stressors (Weiss et al., 2013).

Dardas and Ahmad (2013) conducted a study involving parents of children with autistic disorder. They found that accepting responsibility as a way of coping in parents improves quality of life and lowers stress. In that study, accepting responsibility meant that parents accept the difficulties and feel that they are the only ones who can fix them. Dardas and Ahmad (2013) also found seeking social supports and escape avoidance to be moderator strategies in the relationship between quality of life and perceived stress. This means that in order to combat stressful situations when parents seek social supports and use more escape avoidance strategies, their quality of life is improved. However, using escape avoidance as a coping strategy for stress in the long term can have a negative effect on an individual’s mental health (Holahan et al., 2004).
2.6 Hypotheses

The variables mentioned above influence each other without an individual’s knowledge. It could be said that without emotional stability an individual may find it hard to cope and in turn become stressed. Lazarus (1999) stated that stress, emotion, and coping should be viewed as existing in a part whole relationship as they are one conceptual unit. Using this as a theoretical framework, this study will explore how perceived stress, emotional stability and coping self-efficacy relate to each other and how they separately relate specifically in parents of children with ASD. Lazarus’s theory has been successfully used clinically in the past in the assessment, evaluation and intervention of an individual’s psychological stress and coping responses (Matthieu & Ivanoff, 2006). Although this study is not diagnostic, it seeks to interpret perceived stress, emotional stability and coping self-efficacy as a combined variable in the psychological well-being of parents of children with ASD. There has also been scarce research carried out on how having more than one child can affect an individual’s level of stress and emotional stability. In addition to previous research, this study seeks to examine the relationship between perceived stress, emotional stability and coping self-efficacy. The aim of this research is to compare the influence of these variables between groups of parents of children with ASD. The main hypotheses are:

1. It is hypothesised that relationship status in parents of children with ASD will have a significant effect on perceived stress, emotional stability and coping self-efficacy.
2. It is hypothesised that there will be a significant difference in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child.
3. It is hypothesised that perceived stress will influence emotional stability and coping self-efficacy. Therefore, if perceived stress is high, then emotional stability and coping self-efficacy will be low in parents of children with AS
3. Methodology

3.1 Participants

A mixture of purposive, convenience and snowball sampling were employed. Participants consisted of parents of children with ASD. In order to participate, respondents must have at least 1 child with ASD which was explained in the information page of the survey. The sample was sourced through the following means: the study was shared on online internet forums created specifically for parents of children with ASD or groups discussing ASD (purposive sampling). It was also posted on personal Facebook and Twitter accounts and passed on through word of mouth to colleagues and friends (convenience sampling). Snowball sampling occurred due to participants sharing the link with other parents outside of these medias. The total number of participants were 124 with 120 females and 4 males. The age range of participants was between 28 – 58 with a mean age of 40.2 and SD of 6.38.

3.2 Design

A quantitative survey was employed for this study consisting of closed quantitative questions. All participants were invited to answer all demographic and quantitative questions. The main hypotheses were a mix of a cross-sectional design and between groups design. For hypothesis 1 and hypothesis 2, the design was between groups as they measured the differences between specific groups in the overall sample. For hypothesis 1, the dependant variables (DV) were perceived stress, emotional stability and coping self-efficacy, while the independent variable (IV) was relationship status. For hypothesis 2, the dependant variables (DV) were perceived stress, emotional stability and coping self-efficacy, while the independent variable (IV) was number of children. Hypothesis 3 was a cross-sectional design. It compared the independent variable of high and low perceived
stress levels on the combined dependant variables of emotional stability and coping self-efficacy.

3.3 Material/Apparatus

Equipment: An online survey was created using Google Forms specifically for parents of children with ASD. The first page of the survey consisted of an information sheet detailing the full nature of the study (please see appendix A). When participants volunteered to participate in this study, the information sheet made them aware that it was mandatory for them to give their informed consent before proceeding. If respondents answered “Yes” they continued with the study and if respondents answered “No” they were then redirected to the debrief sheet that was provided at the end of the questionnaire (please see appendix F). The six demographic variables collected were gender, age, relationship status, employment status, number of children and number of children with ASD (please see appendix B).

For the purpose of the present study the following scales were used:

*The Coping Self-Efficacy Scale (Chesney et al., 2006)*

The coping self-efficacy scale was used in this study to measure the dependent variable coping self-efficacy. This scale consists of a 26-item questionnaire which is used to measure an individual’s belief in their ability to cope effectively with the challenges of life (please see appendix C). The scale is measured based on “When things aren’t going well for you, or when you’re having problems, how confident or certain are you that you can do the following” and statements consist of some of the following “Keep from getting down in the dumps”, “Look for something good in a negative situation” and “Try other solutions to your problems if your first solutions don’t work”. Questions are answered using an 11-point Likert scale ranging from 0 to 10. The 3 main points on the scale 0 –
“Cannot do at all”, 5- “moderately certain can do” and 10 – “Certain can do”. As per Chesney et al., (2006), exploratory (EFA) and confirmatory factor analyses (CFA) revealed a 13-item reduced form of the coping self-efficacy scale with three factors. The internal consistency and reliability have proven high with this scale as Chesney et al. (2006) reported strong Cronbach’s Alphas of .91 for problem focused coping (6 items), .91 for stop negative emotions and thoughts (4 items) and .80 (3 items) for get social support.

The Ten Item Personality Inventory (TIPI) (Gosling et al., 2003)

The TIPI scale was used in the present study only to measure emotional stability (please see appendix D). The scale was designed as a brief way to measure the Big Five personality traits of Extraversion, Agreeableness, Conscientiousness, Emotional Stability (otherwise known as Neuroticism) and Openness to Experience. The scale provides 10 personality traits that may or may not apply to the participant which include statements such as “I see myself as: Extraverted, enthusiastic” and “I see myself as: Dependable, self-disciplined”. Participants must answer how much they agree or disagree to the statement using a 7-point Likert scale ranging from 1 – “Disagree Strongly” to 7 – “Agree Strongly”. Results are calculated by recoding questions 2,4,6,8 and 10. Each of the five personality traits are then averaged to find a total score for each trait. Gosling et al. (2003) reported Cronbach alphas of .68 for Extraversion, .40 for Agreeableness, .50 for Conscientiousness, .73 for Emotional Stability, and .45 for Openness to Experiences. Although these alpha scores seem low and the TIPI scale has been found to usually hold low internal reliability, it is widely used due to its content validity.

The 4-item Perceived Stress Scale (PSS) (Cohen et al., 1983)

The perceived stress scale was used in this study to measure the independent variable perceived stress among parents of children with ASD (please see appendix E). The scale is used to measure the overall perception of stress in an individual’s life. There are three
versions of the PSS (PSS 14, PSS 10 and PSS 4). The shortest version, PSS 4, was used in this study. The scale consists of a 4-item questionnaire and questions are answered based on participants thoughts and feelings in the past month. Questions consist of statements such as “In the last month, how often have you felt that you were unable to control the important things in your life?” and all are answered using a 5-point Likert scale ranging from 1 – “Never” to 5 – “Very Often” (Please see appendix E). Results are calculated by reverse scoring items 2 and 3. Scores are then summated across all 4 items to find a total overall score. Cohen et al. (1983) reported a Cronbach’s alpha of .84 - .86 in three samples using the PSS, which proves it holds good internal reliability.

**Resources:** To collect the sample, internet forums were used including Facebook groups and blogs created specifically for parents of children with ASD. Personal Facebook and Twitter accounts were also used to share the survey along with the app WhatsApp Messenger. SPSS-25 was the software used to analyse the data.

### 3.4 Procedure

A research proposal was submitted to the ethics committee in Dublin Business School (DBS). After ethical approval was granted, an online survey was created using Google Forms which was used to collect and analyse the data for this study. After receiving permission from the relevant administrators and board moderators, the survey was then shared on their internet forums and blogs created specifically for parents of children with ASD. The survey was also shared on personal Facebook and Twitter accounts. Colleagues and friends were informed of the study and for anyone who expressed interest in participating, the survey link was then shared via WhatsApp messenger. Participants completed the survey anonymously online and submitted it. Once submitted, the response
data was automatically saved to Google Forms for further analysis. After the survey was completed, all participants were redirected to a debrief page. This consisted of thanking the participant for their involvement in the study and included several support services that participants could contact should any negative feelings have arisen for them due to the nature of the study.

3.5 Ethical considerations

Ethical approval was granted from the DBS ethics committee prior to the commencement of the study. Before the sample was sourced from online groups/forums for parents of children with ASD, the relevant board moderator or administrator were contacted to get their consent. When colleagues and friends were informed of the study, verbal consent was obtained before sending the survey link via WhatsApp. This allowed them to complete the questionnaire anonymously. As the survey was strictly anonymous no personal data was collected, for example, name, address or contact details which ensured anonymity. Full details of the study were included in the information sheet as part of the online survey. This ensured all participants were fully briefed prior to giving their consent to partake in the study and also stopped possible deception. Details of informed consent were clear and comprehensible and explained that due to the study being anonymous, it was not possible to withdraw from participation after the questionnaire had been submitted. To protect the data of each participant, all data was stored on a password protected laptop equipped with antivirus software. This study involved minimal risk to participants. However, as it focused on a sensitive subject, it may have evoked some slight negative feelings for the participants. To address this risk, the information sheet at the start of the survey informed participants of the possibility of minor negative feelings. This ensured that the participant was aware of the full nature of the study before consenting to participate. A debrief sheet
was included at the end of the study with a list of contact numbers for support services should there have been any issues that arose for them during the study.
4. Results

4.1 Descriptive statistics

Survey data was entered into the software SPSS 25 and results were analysed. Participants consisted of 124 parents of children with ASD. Out of 124 participants, 120 were female (96.8%) and 4 were male (3.2%). Ages ranged from 28–58 years old, with most of the participants falling into the age category of 39-48 years old (54.2%). The variable groups used in the main hypotheses were relationship status and number of children. Within these groups most participants were married (71%) and had 2-3 children (74.2%). Descriptive statistics for relationship status and number of children are shown below in figures 1 and 2.

![Figure 1: Relationship status distribution bar chart](image1)

![Figure 2: Number of children distribution bar chart](image2)
A reliability analysis was completed for each psychological scale used and each of the scales were found to have high reliability with a Cronbach’s alpha of .84 for PSS, .70 for emotional stability and .93 for coping self-efficacy. A median split was performed on the total score for each scale to interpret high and low scores. The mean number of participants on each scale scored slightly higher than the median indicating slightly higher scores for perceived stress, emotional stability and coping self-efficacy. The mean, median, standard deviation and Cronbach’s alpha of each scale used for this study are shown below in table 1.

**Table 1: Descriptive statistics for total scores of psychological scales**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Min</th>
<th>Max</th>
<th>C. Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Stress</td>
<td>13.02</td>
<td>13.00</td>
<td>3.10</td>
<td>-.01</td>
<td>-.24</td>
<td>6</td>
<td>20</td>
<td>.84</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>3.7</td>
<td>3.50</td>
<td>1.55</td>
<td>.27</td>
<td>-.64</td>
<td>1</td>
<td>7</td>
<td>.70</td>
</tr>
<tr>
<td>Coping self-efficacy</td>
<td>111.62</td>
<td>109.50</td>
<td>36.69</td>
<td>-.06</td>
<td>-.35</td>
<td>22</td>
<td>194</td>
<td>.93</td>
</tr>
</tbody>
</table>

4.2 Inferential statistics

Using SPSS 25, a MANOVA was carried out for each of the three hypotheses. To keep in line with hypothesis 3, a median split was carried out on computed total scores for perceived stress to categorise scores into high and low levels of perceived stress.

*Hypothesis 1: It is hypothesised that relationship status in parents of children with ASD will have a significant effect on perceived stress, emotional stability and coping self-efficacy.*
It was found that relationship status (F(12, 304.55) = .60, p = .838, effect size = .02) had no significant effect on perceived stress (F(4, 117) = 1.53, p = .198, effect size = .05), emotional stability (F(4, 117) = .38, p= .822, effect size = .01), and coping self-efficacy (F(4, 117) = .17, p = .955, effect size = .01). Therefore, the null cannot be rejected.

**Hypothesis 2: It is hypothesised that there will be a significant difference in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child.**

It was found that number of children (F(9, 282.46) = 1.2, p = .301, effect size = .03) had no significant effect on perceived stress (F(3, 118) = .44, p= .724, effect size = .01), emotional stability (F(3, 118) = 2.16, p = .096, effect size = .05) and coping self-efficacy (F(3, 118) = 1.19, p = .318, effect size = .03). Therefore, the null cannot be rejected.

**Hypothesis 3: It is hypothesised that perceived stress will influence emotional stability and coping self-efficacy. Therefore, if perceived Stress is high, then emotional stability and coping self-efficacy will be low in parents of children with ASD.**

It was found that perceived stress levels had a statistically significant effect on emotional stability and coping self-efficacy (F (2, 120) = 13.17, p=.000, effect size = .18). Following a Bonferroni adjustment to .025, there was a significant effect for the high and low stress groups on emotional stability (F (1, 121) = 19.47, p = .000, effect size = .14) with low perceived stress scores (M = 4.14, SD = .16) reporting higher levels of emotional stability than high perceived stress scores which reported lower levels of emotional stability (M= 2.96, SD= .21). Table 2 below shows univariate test of between-subjects effects.
Table 2: Univariate Test of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependant Variable</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS Score</td>
<td>CSE Total</td>
<td>1</td>
<td>24408.94</td>
<td>21.07</td>
<td>.000</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Emotional Stability</td>
<td>1</td>
<td>40.53</td>
<td>19.47</td>
<td>.000</td>
<td>.14</td>
</tr>
</tbody>
</table>

SPSS-25

There was also a significant effect for the high and low stress groups on coping self-efficacy \( (F(1, 121) = 21.07, p = .000, \text{ effect size} = .15) \) with low perceived stress scores \( (M = 122.77, \text{ SD} = 3.88) \) reporting higher levels of coping self-efficacy than high perceived stress scores which reported lower levels of coping self-efficacy \( (M= 93.65, \text{ SD}= .5.02) \). Therefore, the null can be rejected.

Table 3: Estimated marginal means showing mean differences in perceived stress levels between emotional stability and coping self-efficacy.

<table>
<thead>
<tr>
<th>Dependant Variable</th>
<th>PSS Levels</th>
<th>Mean</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Self-Efficacy</td>
<td>Low</td>
<td>122.77</td>
<td>3.88</td>
<td>115.09</td>
<td>130.45</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>93.65</td>
<td>5.02</td>
<td>83.72</td>
<td>103.59</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>Low</td>
<td>4.14</td>
<td>.16</td>
<td>3.82</td>
<td>4.47</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>2.96</td>
<td>.21</td>
<td>2.53</td>
<td>3.38</td>
</tr>
</tbody>
</table>

SPSS-25

The figures below portray the influence of levels of stress on emotional stability and coping self-efficacy. As shown in these figures, stress levels are grouped into high and low scores with lower levels of stress leading to higher emotional stability and higher coping...
self-efficacy and higher levels of stress leading to lower emotional stability and lower coping self-efficacy.

Figure 3: Histogram showing influence of perceived stress levels on emotional stability

Figure 4: Histogram showing influence of perceived stress levels on coping self-efficacy
4.3 Further analysis

Although no significance was found in hypothesis 2 regarding number of children, a further analysis was carried out to test for a significant difference in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child with ASD. However, this was also found to be insignificant. A one way MANOVA found that number of children with ASD (F(6, 234) = .35, p = .908, effect size = .01) had no significant effect on perceived stress (F(2, 119) = .03, p = .972, effect size = .00), emotional stability (F(2, 119) = .58, p = .560, effect size = .01) and coping self-efficacy (F(2, 119) = .15, p = .862, effect size = .00). Therefore, the null cannot be rejected.
5. Discussion

5.1 Interpretation

The aim of this research was to examine the relationship between perceived stress, emotional stability and coping self-efficacy and to compare the influence of these variables between groups of parents of children with ASD. The first hypothesis stated that relationship status in parents of children with ASD will have a significant effect on perceived stress, emotional stability and coping self-efficacy. Results found this hypothesis to be insignificant meaning that the null cannot be rejected. As most participants were married (71%), these results contrast previous studies such as Hartley et al. (2010), who found an overall divorce rate of 23.5% in parents of children with ASD which was higher than the divorce rate of parents of neurotypical children. However, on the other hand, these results correlate with Freedman et al. (2011), who found that having a child with ASD does not impact on relationship status in parents of children with ASD. Therefore, in this study, relationship status does not have a significant effect on perceived stress, emotional stability and coping self-efficacy.

The second hypothesis stated that there will be a significant difference in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child. A further analysis was also carried out to test for a significant difference in perceived stress, emotional stability and coping self-efficacy in parents of children with ASD that have more than one child with ASD. Results found both hypotheses to be insignificant meaning that the null cannot be rejected. Again, this contrasts previous findings such as Sivberg (2002) who suggested that having more than one child creates more difficulty when acquiring various coping strategies, thus leading to increased strain on the family system. The results of this hypothesis may have been found
to be insignificant as most participants in this study had 2-3 children (74.2%) and it could be said that individuals with more children are possibly better at stress management.

The third hypothesis stated that perceived stress will influence emotional stability and coping self-efficacy. Therefore, if perceived Stress is high, then emotional stability and coping self-efficacy will be low in parents of children with ASD. Results found this hypothesis to be significant therefore rejecting the null. It was found that higher perceived stress levels lead to lower coping self-efficacy and lower emotional stability. It was also found that lower perceived stress levels lead to higher coping self-efficacy and higher emotional stability. These results correlate with Lazarus’s (1999) theory of stress, emotion and coping. This highlights the importance of viewing the three variables as one combined variable when measuring an individual’s overall psychological well-being.

5.2 Strengths, limitations and future research

The strengths and limitations of this study must now be discussed. Regarding strengths, as this study was an online survey, it enabled a wider audience to participate as it could be shared throughout the cohort. Had another method been used, the sample may not have been collected efficiently due to time restrictions. The survey was quick and easy for participants to fill out. It was also cost effective as the design and download of all data was free using Google Forms. For the selective cohort, the sample size was adequate to produce accurate results. Another strength was the high reliability of each scale used. The reliability analysis that was carried out on each scale proved high internal validity. Lastly, this study is easy replicable should further research be carried out using the same methods in the future.

In terms of the limitations, the categories within the sample were not equally weighted. There was a significantly larger number of females with just 4 males completing the study. This causes results to be one sided and mainly aimed at the female population of
parents of children with ASD. Although there is no coherent reason as to why participants were predominantly female, certain assumptions can be made. Most of the data was collected through Facebook groups set up specifically for parents of children with ASD however, most followers of the group were female. Based on this, an assumption can be made that more females are full-time carers and use Facebook groups as a social support while parenting their child with ASD. As mentioned above, previous research has found that mothers of children with ASD are usually the primary caregiver and report higher levels of stress than fathers of children with ASD (Dabrowska & Pisula, 2010). Regarding this study, a high number of participants were found to be unemployed (45%) with the assumption that unemployment is because of being full-time carers for their child and as most participants were female this may be in line with Dabrowska and Pisula (2010). However, this is just one of many assumptions that can be made for why there were more female participants compared to males. For future research, it is suggested that a qualitative study be carried out specifically on fathers of children with ASD. The rationale for this would be to address questions such as why more females use social media groups as a support when caring for their child with ASD. Regarding future research using a replica of the methods in this study, it is suggested that an equal sample of gender be collected in order to address queries of whether results would differ due to gender. Unequally weighted categories were also a limitation in the first hypothesis as 71% of participants were married, leading to results being predominantly dependent on married individuals. Should future research be carried out regarding relationship status influencing stress, emotional stability or coping in parents of children with ASD, it is suggested that equal representations of each category within relationship status be collected.

Another limitation is the use of self-report measures for data collection. Although self-report measures prove to hold high reliability and validity, individuals may be biased
in how they answer each question. There is also difficulty controlling the wider contexts in an individual’s personal experience when using self-report measures. For example, an individual may be having a good or bad day and answer questions based on their mood in that present moment. This can provide a skewed representation of their general response to stress, emotional stability and coping self-efficacy.

Despite the limitations discussed, this study introduced new variables into previous research. Little research had been carried out on relationship status in parents of children with ASD with studies by Hartley et al. (2010) and Freedman et al. (2011) being two of the few. Due to this, no clear assumptions can be made on how relationship status affects stress, emotional stability and coping self-efficacy. Also, most research carried out regarding the family and ASD does not include the question of how having more than one child can increase stress thus decreasing emotional stability and coping self-efficacy. Although this question was found to be insignificant in this study, further research should be carried out to improve on these findings and solidify the overall results as previous research has found to be conflictual. In terms of the variables perceived stress, emotional stability and coping self-efficacy, considerable research has been carried out to test the influence of each variable singularly in parents of children with ASD. This study improved on previous research by combining these variables together, proving that they all correlate with each other. This suggests that in future research to predict the influence of one, the others must also be measured to get an accurate representation of their overall influence.

5.3 Implications & applications

Although some of the findings in this study were deemed insignificant, it has real life implications. These findings give insight into how levels of stress can influence the ability to cope as well as emotional stability in parents of children with ASD. From the initial diagnosis of ASD, which often includes adaptation to a new lifestyle and finding suitable
support services for their child’s needs, parents endure considerable amounts of stress when parenting a child with ASD (Hartmann, 2012). Most research has been aimed at mothers of children with ASD and it has been previously found that emotional well-being in mothers of children with ASD had been jeopardised due to the demands of the disorder (Barker et al., 2011). In line with these findings, this study predominately consisted of mothers of children with ASD and reported that higher levels of stress caused lower emotional stability. There is a greater need for higher emotional stability as it leads to better overall mental health. It has been found that emotionally stable individuals are not as predisposed to perceived negative information than individuals who have lower emotional stability (Johnson et al., 2008). Similarly, it is reported that parents of children with ASD are at higher risk of developing poor emotional well-being (Barker et al., 2011). From the findings of this study, it can be assumed that lower emotional stability is due to higher levels of stress which also leads to poor coping self-efficacy. As previously discussed, Hayes and Watson (2012), found that perceived stress levels are higher in families of children with ASD in comparison to families of neurotypical children, suggesting that finding ways to moderate parenting stress may aid a family’s functioning.

The findings of this study can be applied to real world settings in order to possibly improve overall psychological well-being in parents of children with ASD. As it has been found that higher stress levels lead to lower emotional stability and lower coping self-efficacy, it is suggested that to improve emotional stability and coping self-efficacy parents must find ways to manage stress more accurately. It has been previously suggested that social support from friends, family and spouses reduced feelings of depression and increased well-being in parents of children with ASD. Similarly, it was indicated that respite care was a significant support to parents when coping with children with ASD (Hartmann, 2012). There are many ways these findings can be implemented. This could
involve using the results to educate social/support workers who work with families of children with ASD. By educating these workers on the importance of stress management and support for parents of children with ASD, it can encourage them to assist parents in finding the right support services. It can also enable social/support workers to organise groups for parents of children with ASD, dealing with issues such as stress management. The information from the findings, along with further research, could also be included in leaflets given to parents when attending community health centres in order to educate them on the importance of managing stress more effectively to increase their emotional stability and coping self-efficacy when caring for a child with ASD.

5.4 Conclusion

The overall findings of this research project are important additions to the current understanding of perceived stress, emotional stability and coping self-efficacy in parents of children with ASD. It was found that relationship status and number of children had no significant effect on these variables, however, it found that higher perceived stress levels lead to lower emotional stability and lower coping self-efficacy. In conclusion, these findings show that parents who are caring for a child with ASD need to be made aware of the importance of managing stress effectively. This can lead to an ability to cope better as well as higher overall emotional stability which may add to an improved quality of life. Although it has been suggested that stress associated with caring for a child with ASD is unavoidable, the family, community health services, social/support workers and the education system must work together in order to achieve better supports when caring for a child with ASD. This may be an integral factor for assisting parents in managing stress effectively. As discussed, the participants of this study were 96.8% female, meaning results are predominately directed at mothers of children with ASD. Further research must be carried out using the same methods on an equal sample of gender in order to have a
better representation of how perceived stress levels influence emotional stability and coping self-efficacy in parents of children with ASD.
6. References


7. Appendices

Appendix A: Information sheet and consent for online survey.

Information Sheet & Consent
Autism & Families:
Perceived Stress, Emotional Stability & Coping in parents of children with ASD

My name is Amy Dillon and I am conducting research in the Department of Psychology in Dublin Business School that examines Perceived Stress, Emotional Stability & Coping in parents of Children with ASD. This research is being conducted as part of my final year project and will be submitted for examination and possible presentations in the future.

You are invited to take part in this study and participation involves completing and returning the following anonymous survey. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research in the past. Should any of the questions raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Therefore, responses cannot be applied to any one participant. Due to this, it will not be possible to withdraw from participation after the questionnaire has been completed and submitted.

Data from the questionnaires will be electronically collected and stored on a password protected computer equipped with antivirus technology.

As this data is used for examination purposes, all data will be kept for a year post collection and then destroyed from the electronic device from which it was stored.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research, please contact Amy Dillon, xxxxxxxx@mydbs.ie. My supervisor can be contacted at xxxxxxxx@dbs.ie.

Do you consent to take part in this study? *Required
- Yes
- No
Appendix B: Demographic Questions

1. What sex are you?
   - Male
   - Female
   - Prefer not to say

2. What age are you? ______

3. Please select your employment status:
   - Full-time Employed
   - Part-time Employed
   - Unemployed

4. Please select your relationship status:
   - Single
   - In a relationship
   - Married
   - Separated
   - Divorced
   - Widowed

5. Please select how many children you have:
   - 1
   - 2-3
   - 4-5
   - 6+

6. Please select how many children you have with ASD:
   - 1
   - 2-3
   - 4-5
   - 6+
Appendix C: Coping Self-Efficacy Scale & Scoring

When things aren’t going well for you, or when you’re having problems, how confident or certain are you that you can do the following

<table>
<thead>
<tr>
<th>Cannot do at all</th>
<th>Moderately certain can do</th>
<th>Certain can do</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

For each of the following items, write a number from 0 - 10, using the scale above.

When things aren’t going well for you, how confident are you that you can:

1. Keep from getting down in the dumps. _______
2. Talk positively to yourself. _______
3. Sort out what can be changed, and what cannot be changed. _______
4. Get emotional support from friends and family. _______
5. Find solutions to your most difficult problems. _______

6. Break an upsetting problem down into smaller parts. _______
7. Leave options open when things get stressful. _______
8. Make a plan of action and follow it when confronted with a problem. _______
9. Develop new hobbies or recreations. _______
10. Take your mind off unpleasant thoughts. ______

11. Look for something good in a negative situation. ______

12. Keep from feeling sad. ______

13. See things from the other person's point of view during a heated argument. _____

14. Try other solutions to your problems if your first solutions don’t work. ______

15. Stop yourself from being upset by unpleasant thoughts. ______

16. Make new friends. ______

17. Get friends to help you with the things you need. ______

18. Do something positive for yourself when you are feeling discouraged. ______

19. Make unpleasant thoughts go away. ______

20. Think about one part of the problem at a time. ______

21. Visualize a pleasant activity or place. ______

22. Keep yourself from feeling lonely. ______

23. Pray or meditate. ______

24. Get emotional support from community organizations or resources. ______
25. Stand your ground and fight for what you want. ________

26. Resist the impulse to act hastily when under pressure. ________

**Scoring:**
An overall CSES score is created by summing the item ratings. The standard scoring rule with summated rating scale scores is that respondents must answer at least 80% of the scale items. For respondents missing an item or items, estimate an individual’s score for the missing item(s) by adding in their mean for the items that they answered for each item that they skipped, resulting in a “corrected sum.” (Prevention Research Centre, n.d)
Appendix D: The Ten Item Personality Inventory (TIPI) & Scoring

Here are a number of personality traits that may or may not apply to you.

Please select an answer next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1. Disagree strongly
2. Disagree moderately
3. Disagree a little
4. Neither agree nor disagree
5. Agree a little
6. Agree moderately
7. Agree strongly

I see myself as:

1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. _____ Conventional, uncreative.

Scoring:

TIPI scale scoring ("R" denotes reverse-scored items):

Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness: 3, 8R; Emotional Stability: 4R, 9; Openness to Experiences: 5, 10R.
Appendix E: The 4-Item Perceived Stress Scale (PSS 4) & Scoring

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way.

<table>
<thead>
<tr>
<th>Item</th>
<th>Never (1)</th>
<th>Almost Never (2)</th>
<th>Sometimes (3)</th>
<th>Fairly Often (4)</th>
<th>Very Often (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>In the last month, how often have you felt that you were unable to control the important things in your life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>In the last month, how often have you felt confident about your ability to handle your personal problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>In the last month, how often have you felt that things were going your way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scoring:**

PSS-4 scores are obtained by reverse coding items numbers 2 and 3 and then summing across all 4 items.
Appendix F: Debrief Sheet

Thank you for taking the time to participate in this study.

If any issues emerged for you as a result of completing this questionnaire, below are contact details of support groups which can help.

The Samaritans: 116123
Aspire: 01 8780027
Autism Ireland: +353 44 9371680
Special Needs Parents Association: 087 7741917