

Investigating the difference in parental stress across different sized families

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Abstract

Objective: Past research has looked at parental stress and how many different factors such as age, gender and marital status, may affect it. Although, none has looked at the relationship between parental stress and the number of children in a household. Therefore, the current study was designed to investigate the difference in parental stress across different sized families. **Methods:** Data was collected from 193 participants (females: n = 182; males: n = 11) but due to the unexpected unevenness in numbers, data from all males was removed. Participants' perceived stress and parental stress levels were tested. **Results:** Findings did not show any statistical significance for hypotheses 1 and 2 which investigated the relationship between age and parental stress levels and marital status and parental stress levels, but they showed a small significance for hypothesis 3 which investigated number of children and parental stress levels. **Discussion:** As the current study was the first of its kind, findings suggest that there is a negative relationship between number of children and parental stress levels. There were a few limitations to the study and future research should address these as well as investigating the topic further as it is needed in order to better understand it.

Keywords: parental stress, perceived stress, different sized families

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1. Introduction

1.1. Defining parenthood and parenthood theories

The life event of becoming a parent and the responsibilities that come with it is known as parenthood (Bouchard, 2016) and while this is the accurate term for this, the act of actively raising and caring for a child (or children) even if they are not related to the individual by blood is called parenting (Brooks, 2012). Based on this, it is necessary to discuss the theories of parenthood and the cycle of life. Hansen (2011)'s study, for example, states that there are three main modern theories that individuals may believe in and follow when they become adults.

The first one is the theory that people are happier when they have children; 90-95% of people believe that having children is a vital part to become happy and fulfilled when they are older and the same percentage of young adults worldwide plan on having children in the future (Stanley, Edwards, & Hatch, 2003) as well as many cross sectional surveys found that most people do support this theory. The second theory is the idea that childless individuals are sad and live empty lives. Although, young and educated people nowadays may not support this theory as they have become more accepting of childlessness (Basten, 2009), there is still a minor percentage of people (from 50% down to 25% among North Americans; Blake, 1979; Halle, 2002) who support this idea, mainly older adults. The third and final theory is that childless individuals are very selfish individuals. Many qualitative studies indicated that people (especially parents) believe that individuals who choose not to have children are incomplete and are people who want to run away from their responsibilities and only focus on their own self-interests, such as career, leisure activities, and so on (e.g. Chancey and Dumais, 2010). What these three theories seem to have in common is that societal pressure plays a crucial role in people's lives; they either have children because they believe it is necessary for them to be happy

and fulfilled or those who do not have children are immensely judged in one way or another.

Another similar study looked at the family life cycle, which involves factors such as sense of belonging and raising children (McGoldrick, & Shibusawa, 2012). It relates back to Hansen's theories and suggested that every family member goes through these factors at some point in their life cycle. On the other hand, though, what these theories fail to note is that most, if not all, empirical evidence on parenthood goes against them. Hansen (2011) himself found empirical evidence against the mentioned theories. Parenthood does not seem to bring people more happiness and fulfilment, in fact, it seems to cause individuals major distress and does not seem to have any advantage for individuals' mental health (Evenson, & Simon, 2005), as it may lead to parental stress and higher levels of mental issues such as depression.

1.2. Parenthood and psychological well-being

As the transition to parenthood occurs, usually between pregnancy and a child's second year of life (Bouchard, 2016), parental pressures increase, as well as a child's basic needs, and so it may affect parents' psychological well-being as they may become more and more overwhelmed. An early review done on this area by McLanahan and Adams (1987), suggested that parenthood really does have a big impact on individuals' psychological well-being. They were able to show that parents encounter higher levels of depression and anxiety as compared to non-parents and that these levels have been getting higher compared to earlier years. This happens due to parents being worried and stressed because of parental pressures and difficulties that they may face such as time management and financial problems. While this current review investigated many significant issues such as the ones previously mentioned, it is out dated and may not be so significant anymore as different issues may have

risen nowadays. Similarly, a more recent study done by Umberson, Pudrovska, & Reczek (2010) investigated the effects of parenthood on individuals' psychological and physical well-being through a life course point of view. Even though the methodology used in this recent study was different, findings showed that the previously mentioned review was accurate. They have found that childless individuals still report having better anxiety and depression levels than those who have children which backs up the early findings from 1987; although, a new finding linked to this was that parents with adult children still report worrying and having anxiety because of them, however, if the relationship between a parent and their adult children is a positive one, it affects parents' mental health positively as well.

Even though the previously mentioned studies backed up each other's hypotheses and looked at various socioeconomic factors, such as financial difficulties, that may affect parents' well-being, they do not take into consideration more general and simple factors such as gender and age. A 2011 study done by Thomas Hansen looked at these two factors in detail, and with a very valid methodology as he collected data from surveys from across the globe as well as other smaller surveys from a few specific and major countries such as the United States of America (USA) and Australia. Global findings showed that parenthood has higher negative effects for women compared to men but that those change significantly from negative to positive the older they get. Hansen suggested then that having children may act as a good investment for the future as parents tend to have improved social lives as their children grow older and move out of their homes, meaning that while having small children and adolescents living at home and being responsible for them may affect parents' social lives and well-being, when they grow older and move out, not only parents' responsibilities decrease but they also may have improved social lives as they are able to visit their children wherever they live and so on. Whereas, North American and Australian findings showed that the effects of parenthood on women's and men's well-being is consistent with global findings

but unlike the previous findings, it does not have a great impact on older individuals' lives, with its significance stopping altogether at around the age of 55, which may mean that, once again, older adults at around 55 years of age may have children who are already older and living out of their home and so parenthood may not have an effect to them as it would if they were younger. However, early studies done in this area did not seem to have the same findings as recent ones. For example, Glenn & McLanahan (1981) looked at the effects of having children in older adults' (50 years or older) psychological well-being. Findings showed that there were no significant or major effects of having young children in older adults' psychological well-being when data was collected in the 1970's. Both studies (Hansen, 2011 and Glenn & McLanahan, 1981) used the same methodology while collecting data - through surveys, but while the earlier study only looked at North American older adults, the most recent study looked at a bigger sample in a much larger extent covering many different countries from across the globe and this may be a possible explanation for the drastic difference in results for the age factor because having gathered a bigger sample from different countries also means that there were different cultures involved and so results may have been affected and more accurate as compared to only North Americans and their culture. This also shows that Hansen's study may be more reliable as well as more current.

Also, in relation to psychological well-being, one of the main psychological effects an individual may encounter due to parenthood is depression; which is also related to gender and age as females usually report having higher levels of depression than males and it also affects parents depending on how old they are. Once again, this occurs due to parental pressures being too overwhelming for parents. Previous studies looked at parents' stress levels and women showed slightly higher levels than men; but when it comes to depression levels, it seems that the difference is much higher, with women reporting being two times more likely to show symptoms of depression than men (20% vs 10%; Lyons-Ruth, Wolfe & Lyubchik,

2000). Another study conducted in Canada at around the same time, also showed that rates of depression in women who are 45 or lower were also two times higher than it used to be in the 1970s, with men and women who are older than 45, reporting less likely to show any depression symptoms (Murphy, Laird, Monson, Sobol & Leighton, 2000). Both studies had the same method of data collection – through surveys, and findings from both supported Hansen (2011)'s findings on the gender and age factors as they are affected by parenthood.

1.3. Stress

Moving forward to a more specific psychological effect of parenthood which is stress. Stress is said to be the inappropriate level of pressure an individual may face. Although it is only the response to the pressure or stressor and not the pressure itself (Arroba & James, 1992). Types of stress an individual may encounter include psychological, work or parental stress.

1.4. Parental stress

This brings us to parental, or parenting, stress. As parents' psychological well-being is affected due to parental pressures, this is also when parental stress arises. As previously mentioned, Hansen (2011) suggested that women's psychological well-being is more impacted than men's. In support of this, Deater-Deckard (1998) conducted a research study which looked at the difference between parenting stress and gender. Parents did not always take equal roles while parenting and mothers tended to do most of the work so shared care-giving is a relatively new change when it comes to parenthood (Lamb, 1987). Despite these changes, mothers are still reported being slightly more stressed than fathers are nowadays. Similarly, a research study conducted by McBride, Schoppe & Rane (2002) investigated parental stress and parental involvement (mothers versus fathers). The methodology used here was both self-report and interviews and included families with two parents who had

children in pre-school. Results showed that fathers do tend to be less involved in parenting and so mothers' parental stress levels are higher; child temperament is also affected in relation to parental stress levels as they get higher which in turn may increase parental stress levels once again as parents have to deal with angry or disobedient children. This may be a major negative effect of parenting stress as it affects the entire household and acts in a vicious cycle if parenting stress does not decrease. These findings also support the previously mentioned studies done on parenting stress and gender (e.g. Deater-Deckard, 1998; Lamb, 1987) and because it is a relatively more current study, it suggested that father involvement in parenting can be used as a reference for future research in the area as research on it seems to still be needed.

The idea of parental stress causing parent-child problems was also supported by a study done by Webster-Stratton (1990) which looked at possible stressors and the effects of these. One major stressor for parents mentioned in this study is unemployment or low socioeconomic status. This was also previously mentioned in McLanahan & Adams (1987)'s study as financial problems is one of the main parental pressures parents may face and this increased pressure leads to higher stress levels. Parents may be unemployed due to not being able to afford child care once they become parents and being forced to leave their jobs because of this and so the pressure on them increases considerably. In addition to that, Webster-Stratton (1990) also investigated the role marital status or divorce plays as a stressor. Findings showed that divorce or separation affects parent-child relationship immensely as the parents become more irritable and end up punishing the child more than necessary, once again creating that negative cycle due to parenting stress. Earlier studies also supported these findings and showed that divorce is a major stressor for parents; e.g. Wallerstein & Kelly (1980); Hetherington, Cox & Cox (1982).

As parental stress is a psychological effect of parental pressures, it is inevitably related to high mental health issues. Quittner, Glueckauf, & Jackson (1990) found that mothers who score high in levels of parenting stress also have high levels of depression and anxiety (as previously mentioned) but they also have low perceptions of emotional support which means that they may go through parental stress as well as depression on their own without ever telling anyone and seeking help for themselves. This is a major psychological effect of parental stress and worse psychological issues may arise. Neglect of their children may also occur as they may not be able to take care of themselves. This shows that it is extremely important to address parental stress and investigate it as most research studies usually look at psychological effects for the children but not for the parents.

1.5. The current study

Past research has looked at parenthood and how parents' mental health and stress levels are affected. A downside to them though, is that there is little to none that look at how the number of children a family has may affect parents more (or less). Most research studies focus on either the comparison and effects between parents and non-parents, male and females or on the effects that having children with special needs (autism, ADHD, etc) has on parents. Based on the previously studies mentioned and their findings, this current research study being conducted will look at the relationship between age and stress levels, raising the research question '*Is there a relationship between age and parental stress levels?*', it will also look at the effects that marital status may have on parental stress levels, raising the research question '*Are single (or divorced) parents more stressed than married (or in a long-term relationship) parents?*', but the focus of the study will be on parental stress across different sized families (i.e. the different number of children in a household), raising the research question '*Is there a relationship between number of children and parental stress levels?*'.

Therefore, the current study will be looking at three different hypotheses:

Hypothesis 1 - There will be a significant relationship between age and parental stress levels.

Hypothesis 2 – Individuals/parents who are single (or divorced) will be more stressed than parents who are married (or in a long-term relationship).

And finally, **Hypothesis 3** - There will be a significant difference in parents' stress levels the more children they have.

2. Methods

2.1. Participants

193 participants were recruited for the current research study. 93.4% ($n = 182$) were females and 6.6% ($n = 11$) were males. Participants were recruited through a convenience method of sampling, from January 3rd, 2019 until March 4th, 2019. An online survey was created and shared on social media websites such as Facebook, Instagram and Twitter, although most participants, if not all, were recruited from Facebook group pages targeting the desired sample. Inclusion criteria required that participants were over the age of 18 and were parents to at least one child. At the time of collection, no other exclusion criteria were required but due to the high difference in distribution of gender, it was decided that all data from male participants would be removed before conducting any statistical tests as it would not be possible to compare results between the two categories. Therefore, 100% of participants whose data were used and analysed were females, with age ranging between 21 and 56 (Mean = 38.27, SD = 7.32).

Table 1. Frequencies for the current sample of mothers on each categorical, demographic variable ($N = 182$)

Variable	Frequency	Valid Percentage
Gender		
Male	0	0
Female	182	100.0
Marital Status		
Single or Divorced	26	14.3
Married or in a long-term relationship	156	85.7

2.2. Design

The current research study used a quantitative method of data collection (i.e. online survey) and it also adopted a cross-sectional, correlational research design. This study is cross-sectional due to data being collected and measured at one specific point in time and it is correlational because the association between two or more variables is investigated. A within-subjects approach is used, with the independent variables investigated being age, marital status and number of children and the dependent variable being parental stress levels for all hypotheses.

2.3. Materials

An online questionnaire was created on *www.docs.google.com*. The questionnaire was, firstly composed of an information sheet which outlined information such as the nature of the study, anonymity and rights of withdrawal, risks and benefits, and contact information for the researcher. Following this, a consent form was also included, in which participants had to confirm that they have read the information sheet and agreed to all terms and conditions related to the study and that they wished to take part in it. (*See Appendices A and B*). The questionnaire also included demographic questions such as age and gender of the participant, number of children they have and their age (s), marital status and whether they have ever been diagnosed with any clinical condition such as anxiety or depression (*See Appendix C*).

There were two main scales used in the questionnaire. The first one was, the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). The 10-item version of PSS was used, and its purpose was to measure individuals' perceived stress levels in the month prior to the study. Each question is presented as a statement varying between positive

statements (e.g. *In the last month, how often have you felt confident about your ability to handle your personal problems?*) and negative statements (e.g. *In the last month, how often have you been upset because of something that happened unexpectedly?*) and participants could choose their answer from a 5-item Likert-scale (0 = *Never*, 1 = *Almost Never*, 2 = *Sometimes*, 3 = *Fairly Often*, and 4 = *Very Often*). Reverse score is applied for the positive statements (i.e. items 4, 5, 7 and 8 with scores changing as follows: 0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0), with total scores varying from 0 – 40 and higher scores indicating higher levels of perceived stress. Cronbach's alpha for this scale is 0.82 indicating high internal consistency. (See Appendix D for full scale).

The second scale then, was the Parental Stress Scale (Berry & Jones, 1995). This is an 18-item self-report scale and it was used to measure parents' perceptions and feelings related to parenthood. Once again, questions were presented as statements, including both positive statements (e.g. *I am happy in my role as a parent*) and negative statements (e.g. *Caring for my child (ren) sometimes takes more time and energy than I have to give*). Similar to PSS, a 5-item Likert-scale was available where participants could choose their answer from (1 = *Strongly Agree*, 2 = *Agree*, 3 = *Undecided*, 4 = *Disagree* and 5 = *Strongly Disagree*). Reverse score is applied for the positive statements (i.e. items 1, 2, 5, 6, 7, 8, 17 and 18 with scores changing as follows: 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1), with total scores varying from 18 – 90 and higher scores indicating higher levels of parental stress. Cronbach's alpha for this scale is 0.84 indicating high internal consistency. (See Appendix E for full scale).

A final step, a debriefing sheet, was included in the questionnaire to thank participants for their participation in the study. (See Appendix F).

2.4. Procedure

Ethical considerations took place prior to the beginning of the study. It was not expected that any major ethical issues would arise from the study as it not involved any participants from vulnerable categories such as the elderly or children. Although, it was expected that some psychological distress may arise as participants would have to think and answer questions on what may be sensitive topics to them. Once ethical approval was given by the Ethics committee in National College of Ireland, procedures for the study could then, begin.

An online questionnaire was created from the *Google Docs* website and approval from the researcher's supervisor was needed before it was made public. Once approval was given, the questionnaire was then, made public and shared on various social media websites in order to recruit participants. To ensure that no possible ethical issues would arise, participants firstly had to read through an information sheet provided at the beginning of the questionnaire. This information sheet included information on the nature of the study, risks and benefits, right of withdrawal, anonymity and contact information for the researcher, as well as a consent form which required participants to tick a box to confirm that they have read the information sheet and agreed to take part in the study, before starting to complete the questionnaire.

Following this, participants began to complete the questionnaire. First, they were asked to answer demographic questions such as their age and gender (*See Appendix C*); no identifying questions were asked. The PSS (Cohen, Kamarck, & Mermelstein, 1983) followed this, and answering all 10 items in the scale was required before moving forward to the next scale. Finally, the Parental Stress Scale (Berry & Jones, 1995) was completed and again, participants were required to complete all 18 items in the scale before finishing the

questionnaire. A debriefing sheet was then presented to participants, in order to thank them for their participation and giving contact information for the *Samaritans*, in case any psychological distress occurred because of the study. In total, this questionnaire should only have taken participants 10 – 15 minutes to complete and it was open to the public for a period of two months.

Once data collection was completed, the questionnaire was closed to the public and an excel spreadsheet was downloaded, containing individual data for all participants, in which a number was assigned to each participant to ensure anonymity and data was stored in a password protected device to ensure data protection. Data was later inputted into *IBM SPSS* for data analysis.

2.5. Data analysis

A reliability test was conducted using Cronbach's alpha coefficient in order to check the reliability of each scale used, as well as descriptive statistics to check data normality, means, medians and standard deviations. Pearson correlation was conducted to check the relationship between variables for hypotheses 1 and 3, and an independent samples t-test was conducted to compare mean scores between variables for hypothesis 2.

3. Results

3.1. Reliability Statistics

Two scales were used in the current study, the Perceived Stress Scale and the Parental Stress Scale, and both were tested to check their internal consistency. Cronbach's alpha coefficient (α) was used and ideally, in order to indicate high internal consistency, it should be 0.7 or higher (DeVellis, 2012). Below is shown reliability results for each scale.

Table 2. Reliability statistics for each scale. ($N = 182$)

Variable	Number of Items	Cronbach's Alpha (α)
Perceived Stress Scale	10	0.82
Parental Stress Scale	18	0.84

This indicates that both scales used in the current study have high internal consistency.

3.2. Descriptive statistics

Descriptive statistics for each continuous variable measured in the current study are presented in *Table 3*. Preliminary analysis indicated that mean and median scores for each of the variables (i.e. age, number of children, PSS total scores and Parental total scores) were very similar which indicates a normal distribution of the data. However, the Kolmogorov-Smirnov test of normality showed that scores for all variables were less than .05, indicating that the data is non-normally distributed.

PSS total scores ($M = 19.88$, $SD = 6.41$) indicated moderate levels of perceived stress as individual scores could range between 0 and 40, whereas Parental Stress total scores ($M =$

66.44, SD = 9.74) indicated moderate to high levels of parental stress as individual scores could range between 18 and 90.

Despite showing a few extreme values and outliers, the relatively low standard error values, and close 95% confidence intervals suggest that the current sample is reasonably representative of the female, parental population.

Table 3. Descriptive statistics of all continuous variables ($N = 182$)

	Mean (95% Confidence Intervals)	Std. Error Mean	Median	SD	Range
Age	38.27 (37.20 – 39.34)	.54	38	7.32	21-56
Number of Children	2.53 (2.33 – 2.73)	.10	2	1.38	1-9
PSSTotal	19.88 (18.95 – 20.82)	.48	21	6.41	3-39
ParentalTotal	66.44 (65.02 – 67.86)	.72	67	9.74	35-90

Note: Number of Children = Number of children for each participant; PSSTotal = Total scores on the Perceived Stress Scale; ParentalTotal = Total scores on the Parental Stress Scale.

3.3. Inferential Statistics

For the purpose of this study, each category that measured stress levels (perceived stress and parental stress as measured by the Perceived Stress Scale and the Parental Stress Scale) was looked at individually.

Hypothesis 1 – A Pearson product-moment correlation coefficient test was conducted to investigate the relationship between age and stress levels in hypothesis 1. Initially, preliminary analyses were performed to make sure that there was no violation of the assumptions of normality, linearity and homoscedasticity. There was no statistical difference found between age and perceived stress ($r = -.12$ [95% CI = $-.27 - .04$], $n = 182$, $p > .001$),

nor between age and parental stress ($r = -.07$ [95% CI = $-.24 - .09$], $n = 182$, $p > .001$). This suggests that there was no relationship between age and stress levels (perceived stress and parental stress).

Hypothesis 2 - An independent samples t-test was conducted to compare the stress levels (perceived stress and parental stress) scores between single (or divorced) and married (or in a long-term relationship) individuals. There was no significant difference in scores between the two groups and parental stress, $t(180) = -.36$, $p = .72$, two-tailed with single (or divorced individuals ($M = 65.81$, $SD = 11.65$) scoring lower than married (or in a long-term relationship) individuals ($M = 66.54$, $SD = 9.42$). The magnitude of the differences in the means (mean difference = 0.73 , 95% CI: 64.88 to 68.03) was very small (Cohen's $d = .08$).

There was also no significant difference in scores between the two groups and perceived stress, $t(180) = .56$, $p = .58$, two-tailed with single (or divorced) individuals ($M = 20.54$, $SD = 6.68$) scoring higher than married (or in a long-term relationship) individuals ($M = 19.78$, $SD = 6.37$). The magnitude of the differences in the means (mean difference = -0.73 , 95% CI: 18.73 to 20.77) was very small (Cohen's $d = .12$).

Hypothesis 3 – A Pearson product-moment correlation coefficient test was conducted to investigate the relationship between number of children and stress levels in hypothesis 3. Preliminary analyses were performed to make sure that there was no violation of the assumptions of normality, linearity and homoscedasticity. There was a small, negative correlation between number of children and parental stress ($r = -.17$ [95% CI = $-.32$ to $-.02$], $n = 182$, $p < .001$). This indicates that the two variables share approximately 3% of variance in common. Results suggest that higher numbers of children are associated with lower levels of parental stress. However, there was no statistical difference found between number of children and perceived stress ($r = .031$ [95% CI: $-.09$ to $.17$], $n = 182$, $p = > .001$).

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Consequently, this suggests that there was no relationship between number of children and perceived stress.

4. Discussion

The current research study investigated the effects of parental stress across different sized families (i.e. the number of children in a household) as its main focus while also looking at the relationship between age and parental stress and marital status and parental stress. Three main research questions were raised: *'Is there a relationship between age and parental stress levels?'*, *'Are single (or divorced) parents more stressed than married (or in a long-term relationship) parents?'* and *'Is there a relationship between number of children and parental stress levels?'* as well as three hypotheses: *'There will be a significant relationship between age and parental stress levels'*, *'Individuals/parents who are single (or divorced) will be more stressed than parents who are married (or in long-term relationship)'* and *'There will be a significant difference in parents' stress levels the more children they have'*.

Past literature mainly focused on the transition to parenthood (Bouchard, 2016), on the effects of parental pressures on parents' psychological well-being (McLanahan & Adams, 1987), or on comparing stress levels between parents and non-parents (Umberson, Pudrovskaya & Reczek, 2010). Therefore, investigating the effects of parental stress across different sized families was an evident gap in the literature as little to none has looked at how the number of children in a household may affect parents' stress levels.

4.1. Discussion of results

In order to test **hypothesis 1**, a Pearson product-moment correlation coefficient test was conducted, and results showed that there was no significant difference between age and parental stress levels ($p > .001$), which suggests that there was no relationship between age and stress levels, with young and older adults both showing high levels of parental stress. Therefore, data collected did not support this hypothesis.

Although, Glenn & McLanahan (1981)'s previously mentioned study did back up current findings by not finding any meaningful relationship between age and parents' well-being, it was contradicted by newer research findings such as Hansen (2011), which showed that parents' psychological well-being is significantly affected in younger adults. It is important to note though, that these research studies are mainly focused on depression and anxiety levels and not on parental stress levels. Studies that focused on parental stress levels did not mention age and so it was important and novel to raise this question in the current study.

Hypothesis 2 was then tested by having an independent samples t-test conducted and results showed that, once again, there was no significant difference in scores between parental stress and marital status (single or divorced vs married or in a long-term relationship) (sig. value > .05; $p = .72$). This suggests that there was no significant relationship between parental stress levels and marital status as both groups reported high levels of parental stress. Therefore, hypothesis 2 was not supported.

Past research has looked at marital status as a possible stressor for parents (e.g. Webster-Sttraton, 1990). Findings showed that divorce does affect parental stress immensely creating a negative parent-child cycle because of it. Although, the current study did not support these findings, it was once again important to raise this question and results may have differed due to various reasons, including the fact that Webster-Sttraton (1990)'s study only focused on divorce as a stressor and did not look at a comparison between divorced parents and single parents' stress levels.

Finally, for **hypothesis 3**, a Pearson product-moment correlation coefficient test was conducted in order to test the hypothesis. Results showed that there was a small, negative correlation between number of children and parental stress ($p < .001$) with approximately 3%

of variance between the two variables. This suggests that number of children and parental stress levels have a small, significant relationship but unlike the hypothesis suggested, its relationship is a negative one, which means that higher numbers of children are associated with lower levels of parental stress. These findings are novel and contradicted the proposed hypothesis in the current study but because no past literature has ever looked at parental stress levels across different sized families, this is a good start point.

Perceived stress levels were also investigated in the current study, but they did not seem to play any major roles in any of the hypotheses as most participants scored low levels of perceived stress as measured by the Perceived Stress Scale.

4.2. Implications

Implications of the current findings may help readers understand better the reason why they are important. Although results did not show any statistical significance for some of the hypotheses, showing that there was a statistical significance, even if small, between parental stress levels and number of children may play a big role in modern literature. Past literature showed that there was no previous research done in this area specifically, and so, moving forward it would be important to investigate this relationship further and possible factors that may affect or help improve this relationship. Understanding parental stress and how it comes about has been investigated before, however, the current study being the first one that investigated this area, may not have been able to investigate these factors with a lot of depth and so these findings are an important reference for future research.

4.3. Strengths of the current study

The methodology used in the current study showed to be one of the most reliable methodologies as many past research studies used self-report scales as a method of data collection, and both scales (Perceived Stress Scale (PSS); Cohen, Kamarck, & Mermelstein,

1983, and the Parental Stress Scale; Berry & Jones, 1995) used in the current study showed high internal consistency as measured by the Cronbach's Alpha coefficient (*See results, Table 1*).

Findings of the current study are also another strength. Finding that there was a statistical significance on the focus of the current study as it has never been done before, is innovating and novel, as it shows that it is worth investigating this area further. There are many other research studies done on parental stress but how the number of children parents have affect parental stress was never investigated, and so these findings add a significant knowledge to the literature and may also raise other research questions for future research.

4.4. Limitations and future recommendations

There were a few limitations in the current study which may have affected the results and therefore preventing some of the hypotheses from being supported. Future recommendations as to what could have been done differently to avoid these limitations will also be discussed here.

Originally, there were four hypotheses in the current study; one of the hypotheses was meant to investigate the difference between parental stress levels in males and females. However, once data collection was completed, 93.4% (n = 182) of participants were females, and only 6.6% (n = 11) were males and so comparing parental stress levels between the two groups would not be possible as the difference in numbers between each was extremely high and so data from all male participants was removed before any statistical tests were conducted as well as removing the proposed hypothesis from the study. To avoid this happening in future research, researchers should try and control this by either conducting the study in person so they can approach the right number of participants for each group or by

trying to collect data from different online groups as well as making sure that the data being collected is appropriate, on a regular basis.

This brings us to the limitations of the hypotheses that were investigated in the current study. **Hypothesis 1** investigated the relationship between age and parental stress levels and results showed that there was no relationship between them. However, results may have been affected due to the way the question on age was phrased in the questionnaire. Participants were asked what age they are and they were able to write any numbers as their response which may have been affected the test run for the investigation and that may have been why results showed no relationship between age and parental stress levels, even though past research did show that there was a relationship between them. Future research should try and rephrase this question by giving participants age blocks as options, for example: 18-25, 26-35 and so on, and so that will enable the researcher to run tests on each age block and see if there is a statistical significance or not.

Hypothesis 2 investigated the relationship between marital status and parental stress levels. Once again, the number of participants for each group was uneven; 14.3% ($n = 26$) were single or divorced and 85.7% ($n = 156$) were married or in a long-term relationship. As this may have affected results, future research should try and collect the same number of participants for each group and so comparison between them may be more accurate and show statistical significance as it has been shown in previous research.

Finally, **hypothesis 3** investigated the relationship between number of children and parental stress levels. For the purpose of investigating parental stress levels across all different family sizes, outliers and extreme values were not removed, although future research could remove them and investigate if they affected results as data normality may have been affected. Findings showed that there was a 3% of variance between variables and

so by removing outliers, this variance may get higher and show a stronger relationship between them.

A final future recommendation is the use of the Perceived Stress Scale. This scale has been used in many research studies before and has a high internal consistency but it did not seem to play any major or helpful role in the current study as it was focused on parental stress levels and not perceived stress levels and so future research may try and conduct a study using the Parental Stress Scale on its own and see if results are affected in any way.

4.5. Conclusion

In conclusion, this study enhanced modern knowledge of how parental stress levels may be affected by the number of children in a household. Further research on the area is required and it should investigate possible factors that may influence parental stress levels and the number of children they have, such as gender which was not included in the current study. Although, the current study had limitations and weaknesses, it should be noted, once again, that it was one of its kind and should work as a start point for research on this area. Current limitations should also be addressed in order to obtain more accurate results in the future. As becoming a parent is known to be a difficult life change and even nowadays research seems to focus more on the children than on the parents, this shows that research on parental stress should be continuous as more different areas of study may be available, such as this one.

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Appendices

Appendix A – Information sheet

My name is Amandha da Costa and I'm conducting a supervised research study as a part of my Psychology undergraduate course in National College of Ireland. Supervisor: Dr. Matthew Hudson.

INVITATION:

I would like to invite you to participate in this research study. Before deciding, please take a moment to read the following information carefully to understand the purpose of this study and what is being involved for you.

PURPOSE OF THE STUDY:

This study will be investigating the difference in parental stress across families of different sizes (e.g. parents with one, two or more children).

YOUR PARTICIPATION:

Your participation is completely anonymous and voluntary. Participants must be 18 or over and you will be asked to give consent to participate in the study and you are also completely free to withdraw your participation at any time, without giving a reason.

If you decide to participate in the study, you will first be asked a few simple questions such as age, gender and the number of children you have. You will then be asked to answer questions from two different questionnaires related to stress and parental stress. The data collected will be safely stored by the researcher (myself) and my supervisor and will not be shared with any third parties. The questionnaire should take up 10-15 minutes of your time and that is all that you will be asked to do.

The data collected from this research study will have to be submitted to the NCI Moodle page for examination and grading purposes, but it will still remain completely anonymous at all times.

POSSIBLE DISADVANTAGES/RISKS OF TAKING PART:

The questions involved in this survey may be of sensitive nature and cause participants some distress or discomfort while answering them.

POSSIBLE ADVANTAGES/BENEFITS OF TAKING PART:

We cannot promise that the study will help you but the information we collect from this survey may help improve our understanding of parental stress and the effects that family size may have on it.

CONTACT INFORMATION:

If you have any queries regarding this study, please feel free to contact me or my supervisor:

Researcher: Amandha da Costa

Email: x15484138@student.ncirl.ie

Supervisor: Dr. Matthew Hudson

Parental stress across different sized families

Email: matthew.hudson@ncirl.ie

Address: National College of Ireland, Mayor Street Lower, IFSC, Dublin, Ireland.

Appendix B – Consent form

Informed consent: Before you begin, please indicate that you have read and understood the conditions and requirements of the study.

1. I agree that I have read the information sheet provided and understand the conditions and requirements of the study.
2. I agree to take part in this research study investigating parental stress across different sized families.

Appendix C – Demographic questions**Identifying Information**

Welcome to this online questionnaire. This survey will investigate the difference in parental stress across families of different sizes. We appreciate you taking part in the study and it should only take about 10-15 minutes.

1. Age?
2. Gender?
 - Male
 - Female
3. How many children do you have?
4. What age are they?
5. Are you?
 - Single
 - Married
 - In a long-term relationship
 - Other
6. Have you ever been diagnosed with clinical conditions such as anxiety or depression?
 - Yes
 - No
 - Maybe

Appendix D – Perceived Stress Scale

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name _____ Date _____

Age _____ Gender (Circle): **M** **F** Other _____

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

- | | | | | | |
|--|---|---|---|---|---|
| 1. In the last month, how often have you been upset because of something that happened unexpectedly? | 0 | 1 | 2 | 3 | 4 |
| 2. In the last month, how often have you felt that you were unable to control the important things in your life? | 0 | 1 | 2 | 3 | 4 |
| 3. In the last month, how often have you felt nervous and "stressed"? | 0 | 1 | 2 | 3 | 4 |
| 4. In the last month, how often have you felt confident about your ability to handle your personal problems? | 0 | 1 | 2 | 3 | 4 |
| 5. In the last month, how often have you felt that things were going your way? | 0 | 1 | 2 | 3 | 4 |
| | | | | | |
| 6. In the last month, how often have you found that you could not cope with all the things that you had to do? | 0 | 1 | 2 | 3 | 4 |
| 7. In the last month, how often have you been able to control irritations in your life? | 0 | 1 | 2 | 3 | 4 |
| 8. In the last month, how often have you felt that you were on top of things? | 0 | 1 | 2 | 3 | 4 |
| 9. In the last month, how often have you been angered because of things that were outside of your control? | 0 | 1 | 2 | 3 | 4 |
| 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? | 0 | 1 | 2 | 3 | 4 |

Appendix E – Parental Stress Scale**Parental Stress Scale**

The following statements describe feelings and perceptions about the experience of being a parent. Think of each of the items in terms of how your relationship with your child or children typically is. Please indicate the degree to which you agree or disagree with the following items by placing the appropriate number in the space provided.

1 = Strongly disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly agree

1	I am happy in my role as a parent
2	There is little or nothing I wouldn't do for my child(ren) if it was necessary.
3	Caring for my child(ren) sometimes takes more time and energy than I have to give.
4	I sometimes worry whether I am doing enough for my child(ren).
5	I feel close to my child(ren).
6	I enjoy spending time with my child(ren).
7	My child(ren) is an important source of affection for me.
8	Having child(ren) gives me a more certain and optimistic view for the future.
9	The major source of stress in my life is my child(ren).
10	Having child(ren) leaves little time and flexibility in my life.
11	Having child(ren) has been a financial burden.
12	It is difficult to balance different responsibilities because of my child(ren).

Parental stress across different sized families

13	The behaviour of my child(ren) is often embarrassing or stressful to me.
14	If I had it to do over again, I might decide not to have child(ren).
15	I feel overwhelmed by the responsibility of being a parent.
16	Having child(ren) has meant having too few choices and too little control over my life.
17	I am satisfied as a parent
18	I find my child(ren) enjoyable

Appendix F – Debriefing sheet

Thank you for participating in this study. You have participated in a research study conducted by Amandha da Costa, undergraduate Psychology student in National College of Ireland, Dublin – Ireland.

The purpose of this study is to investigate the difference in parental stress across families of different sizes.

As you know, your participation is completely anonymous and voluntary. If you wish, you may withdraw after reading this debriefing form by closing this google docs form tab, at which point all records of your participation will be destroyed. You will not be penalized if you withdraw.

Once again, if you have any questions about the study, please do not hesitate to contact me or my supervisor:

Researcher: Amandha da Costa

Email: x15484138@student.ncirl.ie

Supervisor: Dr. Matthew Hudson

Email: matthew.hudson@ncirl.ie

If, as a result of your participation in this study, you have experienced any kind of emotional distress or mental health related issue please do not hesitate to contact myself, my supervisor or alternatively, the Samaritans which are there to offer support if things are getting to you, at any time – free contact no.: 116 123 or email jo@samaritans.ie.