

Examining the effects of birth order on personality, self-esteem, and perfectionism

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Declaration

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.’

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Abstract

The aim of this study was to examine the effects of birth order on personality traits, self-esteem scores and levels of perfectionism. Participants (n = 198) completed an online survey which used the following measures, the Big Five Inventory – short version, the Rosenberg Self-Esteem Scale, and the Big Three Perfectionism – short form, as well as three demographic questions surrounding gender, age, and birth order. For the purpose of analysis, the participants were split into four birth orders, eldest, middle, youngest, and only. All three hypotheses were analysed using a Kruskal Wallis test, as none of them met the assumption of normality. The results of this study found no significant differences between any of the psychological variables and the different birth orders, therefore, all the null hypotheses were accepted.

Chapter 1: Introduction

Introduction

Introduction

Birth order and its effects on different elements of human nature and make up has been a long-researched topic in the world of psychology. The idea that birth order could have an effect on an individual was first introduced in 1964 by psychotherapist Alfred Adler (Adler, 1964), who proposed that there was a correlation between birth order and personality traits, with his proposition leading to the creation of the birth order theory. Adler believed that due to the high levels of pressure and expectations parents place on their first-born child that these children would in general become more responsible, whereas as parents became more lenient with later born children, these children would be more independent and rebellious. This study, similar to the multitude of other studies examining the effects of birth order on different variables conducted since 1964, aims to examine whether birth order has any influence or effect on an individual's personality traits, their levels of self-esteem and their drive for perfection. The following chapter will discuss previous research undertaken to examine these variables and considering birth order.

1.1 Personality

It is a commonly held belief within the psychology field that there are five fundamental elements of personality: namely extraversion; agreeableness; openness; conscientiousness; and neuroticism. Consequently these traits are often the most examined elements of personality and they are most commonly examined applying the Big Five Inventory Scale (BFI) (John & Srivastava, 1999). The specific study set out in this paper utilises a shorter version of the BFI (Rammstedt & John, 2007) to examine the five core aspects of personality. The initial birth order theory was primarily concerned with the impact of birth order on personality traits, and

since this initial theory many other researchers have attempted to examine the effects of birth order on personality traits. One such study was conducted in 2017 by Gupta (Gupta, 2017), which examined the relationship between birth order and personality traits in 77 young adults and adolescents. The results of Gupta's study found that first born children expressed higher levels of neuroticism than any of the other birth orders, however despite this finding Gupta found no other significant differences between the birth order in regard to personality traits. Although this finding allowed Gupta's hypothesis to be partially accepted, the main findings of the study would lead us to believe that birth order has no major effect on personality traits. However, Gupta's findings regarding first born children exhibiting higher levels of neuroticism are similar to Adler's initial birth order theory which states that due to high levels of burdening responsibility felt by many first-born individuals they became more prone to higher neuroticism scores.

A separate study conducted by Saroglou and Fiasse (Saroglou & Fiasse, 2003) produced much clearer results that aligned more closely with the views of the birth order theory. Saroglou and Fiasse's study also examined the effects of birth order on personality traits and included 122 young adults with the mean age of 22.3. In contrast to Gupta's study, Saroglou and Fiasse found significant differences in conscientiousness scores between middle born children and the other birth orders. Their results showed that middle born children on average reported the lowest levels of conscientiousness amongst the birth orders. Consistent with Adler's belief about the personality traits of middle born children, Saroglou and Fiasse also found that middle born individuals reported the highest levels of rebellious nature. When looking at the youngest born children in a family, the results of Saroglou and Fiasse's study showed that they had the highest levels of agreeableness and warmth compared to the other birth orders, which would align with the beliefs of the birth order theory.

Due to the difference in results between the two studies discussed above it is important to look at the potential causes for these differences. My assessment of the two studies has highlighted the possibility that the differences found between the two studies may be driven by the variance in sample size between the studies. The study conducted by Saroglou and Fiasse involved in excess of forty more participants than Gupta's research. It is commonly known that a larger sample size is preferable as it allows for more accurate and reliable results to be found. Consequently, it is possible that the difference in results between the two studies may be the result of the difference in sample size. Analysis of a further study, conducted by MacDonald (MacDonald, 1971) which consisted of a very large sample size of 1,262 participants, the study found a significant difference in personality traits between the different birth orders, unlike the results of Gupta's study which had a significantly smaller sample size. MacDonald found that first born individuals were on average more rigid than the individuals from other birth orders. The study also determined that first born and only children scored higher on social responsibility than later born children. As demonstrated in the study conducted by MacDonald it could be assumed that large sample sizes are needed when conducting studies on personality traits among the birth orders to produce accurate and differentiated results. Not only is this issue important to understand in regard to the differing results found between the three previously discussed studies but also to consider this when seeking to understand the results of this current study.

It is also possible that culture could play a role in the differences between Gupta's study and the study conducted by Saroglou and Fiasse. The two studies were conducted in different areas of the world which may have had an effect on the results of the studies. For example, a study conducted in Taiwan (Parish & Willis, 1993) found that parents are more likely to invest

their time and energy into their sons over their daughters, which in turn could have effect on an individual's personality. The differences in culture between the two separate studies could alter an individual's personality and therefore cause individuals who are both part of the same birth order to produce different results. It would be important for future studies to examine both culture and birth order and their relationship with each other to better understand both their individual and joint effects on personality. However, even allowing for these potential causes of the differing results found between the two discussed studies the difference in results creates a strong rationale for the current study to be conducted as it will add more knowledge and understanding into the area of birth order and its possible effects on personality, as the results of multiple studies on this topic are still unclear.

1.2 Self Esteem

The second variable being examined in this study is self-esteem which according to the American Psychological Association's dictionary is defined as 'the degree to which the qualities and characteristics contained in one's self-concept are perceived to be positive' (*APA Dictionary of Psychology*, n.d.). Although Adler's initial birth order theory did not examine the effects of birth order on self-esteem, several studies have been conducted since looking at the potential impact of birth order on an individual's self-esteem. One such study was conducted by Gates et al. in 1988 (Gates et al., 1988). Gates and his colleagues conducted their study on 404 students within the age range of 7 to 12 years old. The participants of the study were asked to fill out and complete the Piers-Harris Self Concept Scale. The results of their study found that first born children reported the highest levels of self-esteem among all the birth orders. However, from the results table in Gates et al. study we can clearly see that all other birth orders reported very similar results to each other on self-esteem scores, apart from first borns.

A separate study conducted by Falbo in 1981 (Falbo, 1981) produced similar results to Gates et al. despite the two studies being conducted on different age groups. Unlike the Gates et al. study which focused on younger children, Falbo's study involved 1,785 undergraduate students. Consistent with the results of the Gates et al. study, eldest children on average reported the highest levels of self-esteem. It was also noted in Falbo's study that out of all the birth orders, middle born children reported the lowest levels of self-esteem.

Additionally, another study conducted by Schwab and Lundgren (Schwab & Lundgren, 1978) also found similar results to the two previously discussed studies. Their research was broken down into two smaller studies which when combined involved 472 college students. The results of both their studies suggest that first born individuals have higher levels of self-esteem than later born children, consistent with the results of the previously discussed research. Their study also highlighted that the trends found in regard to self-esteem were more common in females than males.

Despite the similar results found in all three studies there is a shared limitation among all the discussed studies. The biggest limitation of these studies is the fact that they were conducted at least 35 years ago, which could cause the results to no longer be accurate, relevant, or used as a generalisation for the current population. The culture of the 1970's and 80's is vastly different to our current culture which in turn could have an effect on the results of the current study as it is being conducted in a different decade. The passage of time and the potential changes in culture since the earlier studies creates a strong rationale for the current study to be conducted in order to determine whether the results of the previously discussed and conducted studies continue to be accurate and applicable with respect to the current generation.

A more recent study was conducted by Cullen (Cullen, 2015) which also examined the effects of birth order on an individual's levels of self-esteem. Cullen's study involved 206 participants and similar to the current study it applied the Rosenberg Self-Esteem Scale to measure the participants self-esteem levels. However, unlike the other studies discussed previously Cullen's results found no significant differences in self-esteem scores among the different birth orders. Despite there being no significant differences in self-esteem scores Cullen notes in the paper that the birth order with the lowest self-esteem scores was the 'other' category. These results are interesting as they differ from other research such as the study conducted by Falbo that found that middle born children were found to have the lowest self-esteem scores out of all the birth order, whereas in Cullens study middle born individuals reported the second highest levels of self-esteem results. An assumption could be made that given both that Cullen's study is more recent than previous studies discussed above, and that Cullen's study has a similar sample size to the current study, which is much smaller than the other discussed studies which may have an effect on the results, that the results of the current study could be similar to the results of the Cullen study. However, given the differing results found in Cullen's study and the other discussed studies, there is a strong rationale for the current study to be conducted in order to add more knowledge and information to the area of birth order and its possible effects on variables such as self-esteem.

1.3 Perfectionism

The final variable being examined in this study is perfectionism, which was also examined in a 2008 study conducted by Fizel (Fizel, 2008). Fizel's study included 279 undergraduate students who were asked to complete the Almost Perfect Scale-Revised (Slaney et al., 2011). The results of her study found a positive correlation between middle born individual's and maladaptive perfectionism within multiple different ethnic groups. Maladaptive perfectionism

refers to perfectionism which gets in the way of everyday life as a result of setting unrealistic and unobtainable goals and standards. Although the Fazel study also looks at the effects of birth order on perfectionism levels, the scale used in her study measures different aspects of perfectionism than the current study which may lead to differing results being highlighted. However, it is important to note that the Fazel study was conducted relatively recently and included individuals from many different ethnic backgrounds which allows us to make better predictions about the outcomes of the current study as the results of Fazel's study can be more accurately applied to the general public.

Similar results were found in an even more recent study conducted by Louis and Kumar (Louis & Kumar, 2016). Their study included 320 undergraduate engineering students and used the same scale as the Fazel study i.e., the Almost Perfect Scale-Revised. Consistent with the results from in the Fazel study, Louis and Kumar also found that maladaptive perfectionism was more prevalent in middle born individuals. Interestingly, their study also found a link between adaptive perfectionism and first-born children. Adaptive perfectionism refers to an individual's ability to adjust and change their standard to a given situation, in general individuals with high levels of adaptive perfectionism do not take themselves too seriously. Once again, the results of this study allow for the current study to make predictions about the results it may find as the study discussed can allow an assumption to be made that birth order does have some level of influence on an individual's perfectionism levels, however there is still a strong rationale for the current study to be conducted as it examines three different types of perfectionism, rigid, self-critical and narcissistic.

An older study conducted by Parker (Parker, 1998) found only minor differences between perfectionism levels and types and birth orders. Parker's study included a large sample size of

828 students and the results indicated that both youngest born children and only children were on average more likely to be non-perfectionists than the other birth order groups. Unlike the other two discussed studies Parker's study used the multidimensional perfectionism scale (Frost & Marten, 1990), which measures four different subcategories of perfectionism. Apart from the differences in non-perfectionism score, no other significant differences were found between the birth order groups and perfectionism levels. It could be assumed that the lack of results found in Parker's study compared to the two previously discussed studies could be a result of the different time periods in which the studies were conducted. There is a 10-year gap between Parker's study and the Fazel study, and an 18-year gap between the Louis and Kumar study. The differences in results seen between the studies could be due to a change in culture between the 1990's and the 2000's. However, due to the differing results found between the studies a stronger rationale for the current study to be conducted has been created in order to examine which results are more accurate and add more information and knowledge into the area all of the studies are examining.

1.4 Hypotheses

Within this study there are three hypotheses, which will all attempt to examine the effects birth order may have on them. They are:

Hypothesis 1: There will be a significant difference in personality traits between the different birth order groups.

Hypothesis 2: There will be a significant difference in self-esteem scores between the different birth order groups; and

Hypothesis 3: There will be a significant difference in perfectionism scores between the different birth order groups.

1.5 Conclusion

From the research discussed in this paper, it is clear that birth order has on some level been found to have an effect on the variables this current study is examining. However, it is also apparent from the results of previous research that the effect birth order may have on these variables can differ between the different studies, therefore it is obvious that further research into this area is necessary in order to determine the exact influence of birth order on the variables, personality, self-esteem, and perfectionism. As discussed previously the aim of the current study is to add more information to this area by further investigating the possible effects of birth order on personality traits, self-esteem, and levels of perfectionism.

Chapter 2: Methodology

Methodology

2.1 Participants

For the purposes of this study anyone aged 18 years or older could participate if they were able to make informed consent. Convenient sampling was used to collect data in this study as the survey was spread online using the researcher's social media platforms. The study included 198 participants of which 137 were female and 61 were male. The mean age for this survey is 44 with the age range being 55 and the standard deviation is 12.85. With respect to the 198 participants, 61 were eldest children, 79 were middle children, 48 were youngest and the remaining 10 were only children. Every participant in this study completed the same survey and all participants were unpaid volunteers.

2.2 Materials

All the data in this study was collected through an online survey. Within the survey and in advance of the commencement of the questionnaire, participants were presented with information outlining the aims and objectives of the study. The information sheet (Appendix 1) also discussed the confidentiality element of the study as well as how the data would be stored. Having assessed all this information participants were then asked to consent to the study. The survey included 3 demographic questions, namely: gender; age; and birth order position (Appendix 3). The survey also included 3 psychological questionnaires; the Big Five Inventory – short version (BFI-10) (Rammstedt & John, 2007), the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Big Three Perfectionism Scale – short form (BTPS-SF) (Feher et al., 2019).

The Big Five Inventory – short version is a 10-item measure which looks at five elements of personality: extraversion; agreeableness; conscientiousness; neuroticism; and openness, see Appendix 4. The BFI-10 uses a 5-point Likert Scale, 1= disagree strongly and 5= agree strongly. Within the original study the BFI-10 was found to have an internal reliability range of 0.79 to 0.87. Questions 1,3,4,5, and 7 in the survey are reverse coded. The lowest possible score is 10 and the highest score is 50. An example of a question is Q1 ‘I see myself as someone who is reserved’.

The Rosenberg Self-Esteem Scale measures how positively an individual views themselves through a list of 10 questions, see Appendix 5. It uses a 4-point Likert Scale ranging from 1= Strongly Disagree to 4= Strongly Agree. Questions 2, 5, 6, 8, and 9 in the survey are reverse coded. The higher an individual scores on the Rosenberg Self-Esteem Scale indicates a higher self-esteem. An example of a question in the self-esteem section of the survey is Q9. ‘All in all, I am inclined to feel that I am a failure’. The lowest scores a participant can receive is 10 and the highest is 50. Previous studies have found the Rosenberg Self-Esteem Scale to have an internal reliability of .709 (Park & Park, 2019).

The final psychological scale used in this study is the Big Three Perfectionism Scale – Short Form (BTPS-SF), see Appendix 6. The BTPS-SF is a 16-item scale which measures three types of perfectionism, rigid perfectionism, self-critical perfectionism, and narcissistic perfectionism. Participants are asked to indicate how much they relate to the question by using a 5-point Likert Scale. The higher you score in a particular area the higher you are in that specific form of perfectionism. The overall highest score a participant can get is 80 and the lowest is 16. An example of the questions used in this element of the study is Q8. ‘I judge myself harshly when I don’t do something perfectly’. Previous studies have found the BTPS-

SF to have an internal reliability range of 0.79 to 0.90 (Neshat et al., 2023). However, during the coding process on this study an error was found within the survey. Question number 10 ‘people are disappointed in me whenever I don’t do something perfectly’ of the BTPS-SF was inadvertently omitted from the survey., Recognising this omission a Cronbach alpha reliability test was run on the survey with the omitted question which resulted in a reliability score of 0.911, indicating that the scale is still considered very reliable despite the missing question.

At the end of the survey the participants were shown a debrief sheet (Appendix 7) which reminded the participants of the aims of the study as well as providing contact information for mental health services the participants could avail of if any of the questions caused them upset.

2.3 Design

This study is a between group design, as all participants are shown the same survey. This research would be considered a correlational study. The independent variable in this study is birth order which was measured using a demographic question with four options, eldest, middle, youngest, and only. The dependent variables in this study were the Big Five Inventory – short version scores, the Rosenberg Self-Esteem Scale scores, and the Big Three Perfectionism Scale – short form scores. The hypotheses for this study are ‘there will be a significant difference between the birth orders and personality score’, ‘there will be a significant difference between the birth orders and self-esteem scores’ and finally ‘there will be a significant difference between the birth orders and perfectionism scores’.

2.4 Procedure

The survey was conducted online using Microsoft forms and was made available to participants through a link. Participants were initially presented with an information sheet which outlined the aims of the survey as well as the rights of the participants. Participants were

informed that the aim of the study was to examine the effects of birth order on personality, self-esteem, and perfectionism. Participants were then asked to answer 6 simple questions in order to gain consent to partake in the survey. Once participants consented to the survey, they were presented with the demographic questions and the three psychological questionnaires. Once the participant completed the survey, they were shown a debrief sheet which thanked them for their participation and reminded them of the aims of the survey. The debrief sheet also included contact details to mental health resources in case the participants experienced any negative reaction to any of the questions asked in the survey. On average it took participants 8 minutes to complete the survey. The data was then collected and inputted into SPSS for analysis.

2.5 Ethics

This study follows the rules and guidelines from the Psychological Society of Ireland's (PSI) codes of ethics, as well as the Dublin Business School (DBS) ethical guidelines. A research proposal was initially designed for this study which allowed the study to be approved by the DBS filter ethics board with minor changes needed. After being ethically approved it was decided that the variable life satisfaction would be removed from the study in order to allow for a more in-depth focus on a smaller number of variables. This study is completely confidential meaning participants were not asked for any identifying information while participating in the questionnaire. Participants were informed about their right to withdraw at any point during the survey but due to the confidential nature of the study, withdrawal post survey completion was not possible, and participants were made aware of this prior to submitting the questionnaire. Information sheets and debrief sheets were used in order to ensure participants understood the survey and their rights fully. Informed consent was also collected using a consent sheet. The data for this study has been stored on a password protected computer and in accordance with the DBS data protection policy it will continue to be stored in this

manner for the next five years. After this five-year period the data will be deleted. The manner in which the data is being stored was highlighted in the information sheet for the participants.

2.6 Data Analysis

All data within this study was analysed using SPSS version 28. Frequency tables and descriptive statistics were run for the demographic variables gender and birth order to get a breakdown of the different subsections. For all three hypotheses a Kruskal-Wallis test was run in order to analyse the data. The decision to utilise a Kruskal-Wallis test was as opposed to a one-way between group ANOVA test was taken as none of the variables met the normality assumption needed to run a one-way between group ANOVA test.

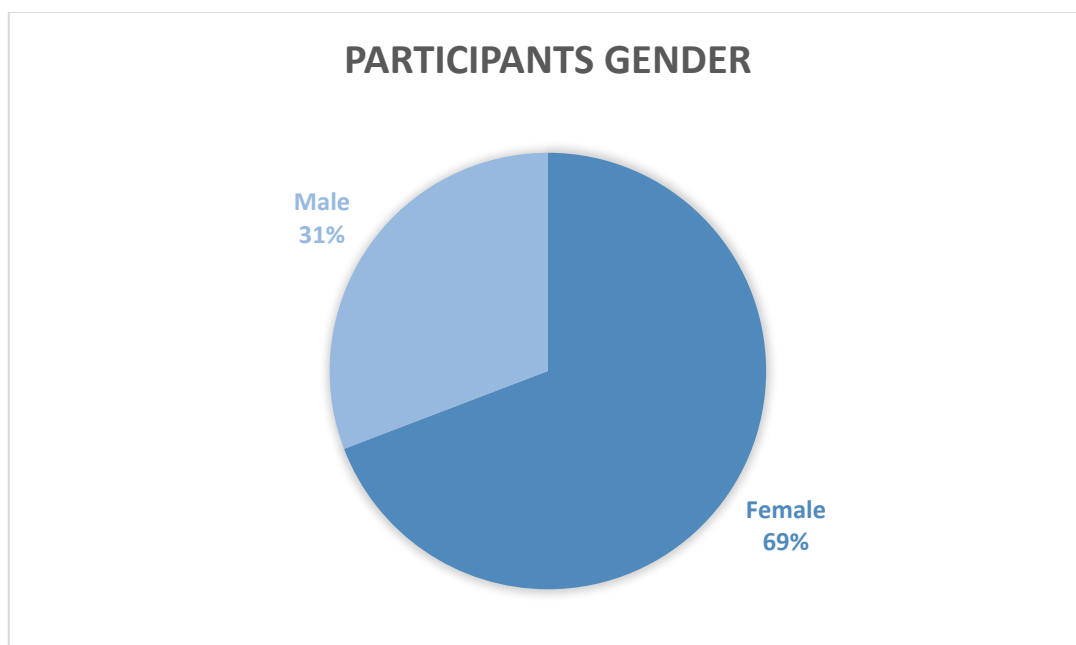
Chapter 3: Results

Results

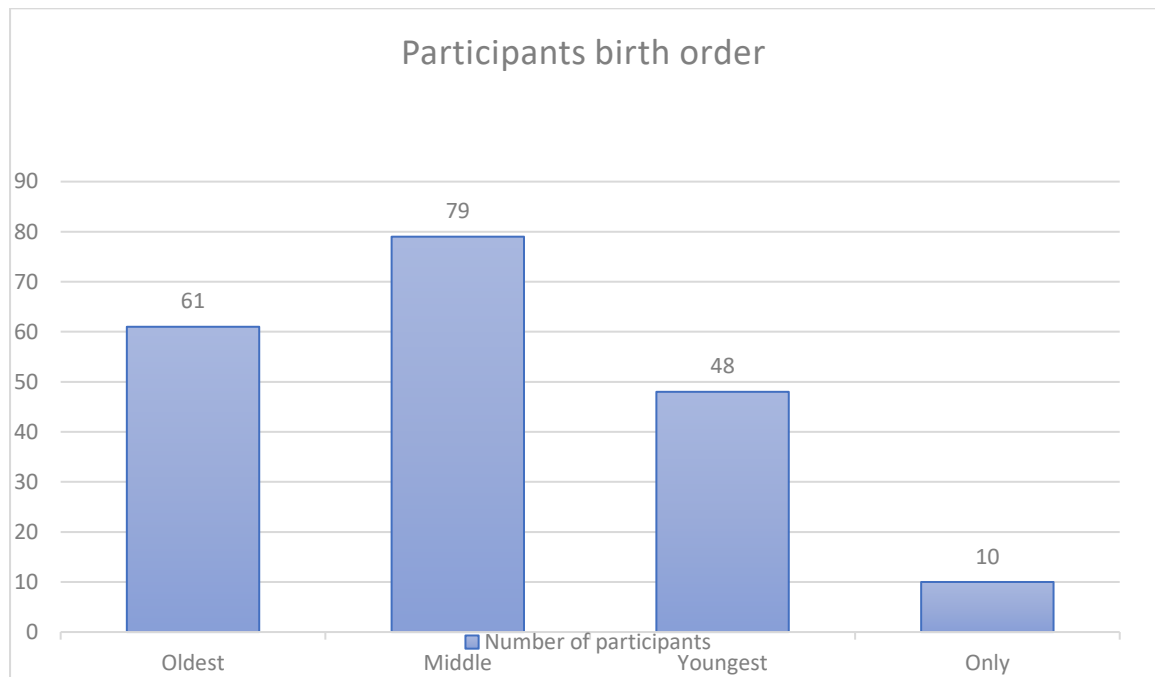
3.1 Descriptive Statistics

This study included 198 participants of which 137 (69.2%) were women and 61 (30.8%) were male.

Figure 1: The number of participants in each gender group



The participants involved in this research were also asked their birth order position and were given four options, oldest, middle, youngest, and only. Within in the 198 participants, eldest children accounted for 61 (30.8%) individuals, 79 (39.9%) individuals were middle children, 48 (24.2%) were youngest and only children had 10 (5.1%) participants.

Figure 2: The number of participants in each birth order group.

Several descriptive statistics were conducted before running the hypothesis analysis in order to discover any trends within the data. The mean (M) and standard deviation (SD) of the psychological variables were found and are displayed in Table 1 below.

Table 1: Descriptive Statistics for Psychological Variables

Variable	N	M	SD
Extraversion	198	7.03	2.21
Agreeableness	198	7.41	1.71
Conscientiousness	198	5.68	1.96
Neuroticism	198	5.83	2.21
Openness	198	6.86	1.82
Self-Esteem	198	31.34	5.47
Perfectionism	198	36.01	11.06

The Rosenberg Self-Esteem Scale has a score range of 10-40, with a score of 25 indicating a neutral position. Scores of 10-15 would indicate a low self-esteem whereas scores of 35-40 would indicate high levels of self-esteem. The mean self-esteem score for this study is 31.34 which would be considered on the higher end of self-esteem scores. The Big Three Perfectionism Scale used in this study has a range of 15-75, with a score of 45 being a neutral position. Scores of 15-20 would be considered a low score whereas score between 70-75 would indicate high levels of perfectionism. The mean perfectionism score for this study is 36.10 which is under the neutral position for this scale which means that on average the individuals participating in this study had lower than neutral levels of perfectionism.

A Cronbach Alpha test was also run on all the psychological variables which allowed the researcher to check if the scales being used were reliable, specifically the Big Three Perfectionism Scale as a question was inadvertently left out of the survey. The results of the Cronbach Alpha results are set out in Table 2 below. The results of the reliability analysis vary across the different psychological scales, the results for the Rosenberg Self-Esteem Scale and the Big Three Perfectionism Scale are relatively high whereas the reliability of the subscales of the Big Five Personality Inventory are on the middle to lower side which could be a limitation of the study or may be a result of the low number of questions in each subscale.

Table 2: Cronbach Alpha Results for Psychological Scales

Variable	Cronbach's Alpha
Extraversion	.613
Agreeableness	.270
Conscientiousness	.471

Neuroticism	.579
Openness	.136
Self-Esteem	.894
Perfectionism	.910

3.2 Inferential Statistics

Hypothesis 1:

Hypothesis 1 examines five areas within personality and assumes that there will be a significant difference in personality traits between the different birth orders.

Extraversion:

A Kruskal-Wallis test showed that extraversion scores did not differ significantly between the different birth orders ($\chi^2 (3) = 1.47, p = 0.689$). Therefore, the null hypothesis is accepted.

Table 3: Kruskal-Wallis for Extraversion

Kruskal-Wallis H	1.47
df	3
Asymp. Sig.	0.689

Agreeableness

A Kruskal-Wallis test showed that agreeableness scores did not differ significantly between the different birth orders ($\chi^2 (3) = 4.79, p = 0.188$). Therefore, the null hypothesis is accepted.

Table 4: Kruskal-Wallis for Agreeableness

Kruskal-Wallis H	4.79
df	3
Asymp. Sig	0.188

Conscientiousness:

A Kruskal-Wallis test was run and showed that conscientiousness scores did not differ significantly between the different birth orders ($\chi^2(3) = 0.867, p = 0.833$). Therefore, the null hypothesis is accepted.

Table 5: Kruskal-Wallis for Conscientiousness

Kruskal-Wallis H	0.867
df	3
Asymp. Sig	0.833

Neuroticism:

A Kruskal-Wallis showed that neuroticism scores did not differ significantly between the different birth orders ($\chi^2(3) = 5.184, p = .159$). Therefore, the null hypothesis is accepted.

Table 5: Kruskal-Wallis for Neuroticism

Kruskal-Wallis H	5.184
Df	3
Asymp. Sig	0.159

Openness

A Kruskal-Wallis test showed that openness scores did not differ significantly between the different birth orders ($\chi^2 (3) = 0.966, p = 0.809$). Therefore, the null hypothesis is accepted.

Table 6: Kruskal Wallis for Openness

Kruskal-Wallis H	0.966
Df	3
Asymp. Sig.	0.809

Hypothesis 2:

Hypothesis 2 examines whether there will be a significant difference in self-esteem scores between the different birth orders. A Kruskal-Wallis test was run and showed that the self-esteem scores did not differ significantly between the different birth orders ($\chi^2 (3) = 2.05, p = 0.562$). Therefore, the null hypothesis is accepted.

Table 7: Kruskal-Wallis for Self-Esteem

Kruskal Wallis H	2.050
df	3
Asymp. Sig.	0.562

Hypothesis 3:

Hypothesis 3 looks at the potential differences between perfectionism scores and birth order. A Kruskal-Wallis test was run and found no significant differences between

perfectionism scores and the different birth orders ($\chi^2(3) = 5.57, p = 0.134$). Therefore, the null hypothesis is accepted.

Table 8: Kruskal-Wallis for Perfectionism

Kruskal-Wallis H	5.57
df	3
Asymp. Sig.	0.134

Chapter 4: Discussion

Discussion

4.1 Overview

The aim of this study was to examine the potential effects of birth order on personality traits, self-esteem scores, and levels of perfectionism. Throughout the years there has been a number of studies which have sought to examine the effects of birth order on different psychological variables, the results have been inconsistent. Therefore, the rationale for undertaking this study in this particular area was to add more understanding and knowledge into this area and to provide up to date analysis as the effects of changing culture over time may affect the results of such a study. The idea that birth order may have an effect on elements of individualism was first introduced by Alfred Adler in 1964 (Adler, 1964). Adler's birth order theory believed that individual's personality traits were influenced by their birth position within their family. Since Adler's creation of the birth order theory numerous other studies have expanded on the theory and applied it to other areas of human existence such as self-esteem and perfectionism. A study conducted by Schwab and Lundgren (Schwab & Lundgren, 1978) found that first born individuals presented higher levels of self-esteem than the other birth orders and Fazel (Fazel, 2008) examined the role of birth order on different types of perfectionism. The Fazel study found that middle children reported the highest levels of maladaptive perfectionism compared to the other birth order positions.

Within this section the main findings of this study will be discussed using the initial hypotheses as set out earlier. The results will then be discussed in relation to previous research and how they contribute to the already available information. Strengths and limitations of this study will also be outlined within this section, as well as potential suggestions for future research.

4.2 Summary of Results

Hypothesis 1:

Multiple studies have looked at the effects of birth order on personality over the last number of decades. Researchers such as Gupta (Gupta, 2017) found that first born individuals were the highest birth order position in neuroticism. Additional research within this area found that middle born children had the lowest levels of conscientiousness when compared to the other birth orders (Saroglou & Fiasse, 2003). When looking at middle born children their study also found that they had the highest levels of rebellious nature. These results are in line with the beliefs of the initial birth order theory.

The first hypothesis in this study suggested that there would be a significant difference in personality traits between the different birth orders. However, after analysing the data using a Kruskal-Wallis test the null hypothesis was accepted as no significant differences were found within any of the personality trait subscales and birth order.

Hypothesis 2:

After the initial birth order which examined the effects of birth order on personality, many researchers reapplied the theory to other psychological variables, for example self-esteem. Studies such as the one conducted by Gates et al. (Gates et al., 1988) found that first born individuals reported the highest levels of self-esteem than the other birth orders. The same results were found in two other studies one conducted by Falbo (Falbo, 1981) and the other by Schwab and Lundgren (Schwab & Lundgren, 1978). All three of these studies found that first born children on average had the highest levels of self-esteem when compared to the other birth orders.

The second hypothesis for this study suggested that there would be a significant difference in self-esteem scores between the different birth orders. Using the results of the previous research it was assumed that first born children would report the highest levels of self-esteem among the birth orders. However, after analysis no significant differences in self-esteem scores were found between the different birth orders.

Hypothesis 3:

The final psychological variable examined in this study was perfectionism, which has also previously been examined in relation to birth order and the potential relationship. A study conducted by Louis and Kumar (Louis & Kumar, 2016) found that maladaptive perfectionism was highest in middle born individuals, as well as finding a relationship between adaptive perfectionism and first born individuals. In regards to middle children, similar findings were found in a study conducted by Fazel in 2008 (Fazel, 2008) who also found that middle born individuals reported higher levels of maladaptive perfectionism than any other birth order. When looking at youngest and only children, a study by Parker (Parker, 1998) found that they were least likely to have perfectionism traits.

The final hypothesis for this study proposed that there would be a significant difference in perfectionism scores between the different birth orders, however similar to the other two hypotheses no significant differences or results were found.

4.3 Strengths and Weaknesses

Unlike the majority of the other research previously discussed this study found no significant differences within any of the hypotheses, however despite these findings this study exhibits a number of strengths. Firstly, is the diverse age range of the participants being one of the strengths of this current study. As mentioned previously, this study had an age range of 55, with the youngest participant being 18 and the oldest being 73. Due to the large age range the results of this study can be better applied to the wider public as it includes data from many different individuals of different ages.

Secondly, the high reliability of the Rosenberg Self-Esteem Scale and The Big Three Perfectionism Scale – short form are strengths of the current study. Both of the scales resulted in a Cronbach Alpha score of over 0.8 which is generally considered an excellent reliability score. The results of these reliability tests allow us to know that these scales have an excellent internal consistency, making the results of our study more reliable.

Finally, the fact that the only inclusion criteria of the study was being 18 or older, allowed for individuals from all backgrounds and ethnicities to participate in this study is a significant strength of this study. This is considered a strength as the very limited entrance criteria potentially means the data better reflects the general public, than a similar study with more onerous criteria, and therefore can be applied to a wider range of individuals. For example, if the study only focused on only one ethnic group the results could not be applied to the general public. However, as this study allowed for the inclusion of any individual aged 18 or over it allows for the results to be generalised better.

Although this study had a number of strengths as set out above, it does also have a number of weaknesses or limitations. These weaknesses or limitations may be explanatory factors in the differing results found in this study compared to the previously discussed studies. A potentially significant limitation or weakness of this study is the sample size of the study. This study only involves 198 participants which would generally be considered a small sample size for such a study. The smaller sample size could be a possible reason for the differing results found in this study compared to the other studies. As set out earlier the study conducted by Gupta (Gupta, 2017) found significantly less results than the similar but larger scale study conducted by MacDonald (MacDonald, 1971). Therefore, the difference seen between the current study and these two studies may be driven by the very different sample sizes involved in the different studies. Considering this potential factor, it could be suggested that future research being conducted in this area should employ a large sample size in order to truly test for possible differences within the psychological variables and the different birth orders.

One of the recognised weaknesses or limitations of this study is the missing question in the Big Three Perfectionism Scale – short form. As discussed in the methods section, question 10 ‘People are disappointed in me whenever I don’t do something perfectly’ was in error left out of the online questionnaire. Although a Cronbach Alpha test found the scale still very reliable ($\alpha = 0.910$) despite the missing question, the absence of this question could have been a contributory factor to the results of the study differing from the other research conducted in this area. It could be advised that if this study was to be conducted again, question 10 from the Big Three Perfectionism Scale – short form should be included in order to test for any varying results.

As discussed earlier in this section, the Rosenberg Self-Esteem Scale, and the Big Three Perfectionism Scale – short form were both found to have high levels of internal consistency

according to the Cronbach Alpha test. However, these high levels of internal consistency were not found for all the scales used in this study, which would be considered a weakness of the study. The subscales of the Big Five Inventory – short version, agreeableness, conscientiousness, and openness all had reliabilities under 0.5 which for subscales with 10 or less questions is considered low reliability. The low levels of reliability could be due to the fact that each of these subscales only have two questions, however, this would still be considered a limitation of the current study as the results of the scales are less reliable. Although the low results could be due to the number of questions within the subscale it could also be due to a poor correlation between the items. A suggestion for further research would be to conduct the study again and see if the low reliability is still present. If the subscales are still low in reliability, it could be suggested that a new measure should be used in order to obtain more reliable results.

It is also important to note that the number of participants within each birth order group is not even. There is a difference of 69 participants between the middle child birth order group and the only child birth order group. This imbalance in participants may be a factor influencing the difference in results found between this study and the previously discussed research, as this study may not have enough data from all the different birth order groups to find any significant differences. Taking this into consideration it could be suggested that future research should try to ensure that each birth order group has a similar number of participants and furthermore that each birth order group has a large enough sample size in order to possibly obtain better results.

The final limitation being highlighted in this section is the uneven gender distribution found in this study. Out of the 198 participants within this study, women made up 69% of the total participation number. Due to the uneven split of men and women within this study the

results have less of an ability to be applied to the general public as it is not representative of the general public distribution of males and females. This uneven distribution of gender also has the potential to be causing the difference of results seen in this study compared to previous literature.

4.4 Future Research

As discussed, this study includes a number of strengths as well as weaknesses that could be factored into any future research in the area. Using this knowledge future replication of this study could be more beneficial if certain aspects and factors of the current study were adjusted to recognise the learnings from this study. If this study was to be redone it is suggested that a larger sample size should be employed, while also ensuring that both the demographic variables, gender and birth order have even and large groups of participants. This change in number of participants as well as their distribution may result in differing outcomes to this study. Another suggestion for future research would be ensure the reliability of the subscales being used as well as the potential for new personality scales to be implemented if the reliability of current scales remains low. The final suggestion would be to ensure all questions are included in the scales to ensure all aspects are being examined.

4.5 Conclusion

The aim of this study was to examine the effects of birth order on personality, self-esteem, and perfectionism, and included 198 participants. Within this study personality was examined using the Big Five Personality Scale – short version (Rammstedt & John, 2007), the Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to measure self-esteem and finally the Big Three Perfectionism Scale – short form (Feher et al., 2019) measured perfectionism.

The survey also included three demographic questions in relation to gender, age, and birth order position.

Although the results of this study found no significant differences between any of the test psychological variables and the different birth order groups, they still provide new knowledge to this area of psychology. The results of this study differ from the results of other similar studies; however, these differences create a strong rationale for future research to be conducted in order to obtain a clearer understanding of the true effects of birth order. The differences between the results of this study and other research could be due to a list of limitations found within this study, for example, the small sample size or the low reliability of some of the subscales used. In conclusion, although this study found that birth order had no effect on any of the psychological variables being examined, it would not be accurate to say that they do not have any effect or influence. Rather, it would be suggested that further research should be conducted in order to investigate the potential effects of birth order more deeply on certain personality traits.

References

References

- Adler, A. (1964). *PROBLEMS OF NEUROSIS: A BOOK OF CASE HISTORIES*.
- APA Dictionary of Psychology. (n.d.). Retrieved 1 March 2024, from <https://dictionary.apa.org/>
- Cullen, E. (2015). *Investigating the effects of birth order on conscientiousness, openness and self-esteem*. <http://hdl.handle.net/10788/2794>
- Falbo, T. (1981). Relationships between birth category, achievement, and interpersonal orientation. *Journal of Personality and Social Psychology*, *41*(1), 121–131. <https://doi.org/10.1037/0022-3514.41.1.121>
- Feher, A., Smith, M., Saklofske, D., Plouffe, R., Wilson, C., & Sherry, S. (2019). The big three perfectionism scale–short form (BTPS-SF): Development of a brief self-report measure of multidimensional perfectionism. *Journal of Psychoeducational Assessment*, *38*, 37–52. <https://doi.org/10.1177/0734282919878553>
- Fizel, L. (2008). The relationship of birth order to perfectionism. *ETD Collection for Pace University*, 1–81.
- Frost, R. O., & Marten, P. A. (1990). Perfectionism and evaluative threat. *Cognitive Therapy and Research*, *14*(6), 559–572. <https://doi.org/10.1007/BF01173364>
- Gates, L., Lineberger, M. R., Crockett, J., & Hubbard, J. (1988). Birth order and its relationship to depression, anxiety, and self-concept test scores in children. *The Journal of Genetic Psychology*, *149*(1), 29–34. <https://doi.org/10.1080/00221325.1988.10532136>
- Gupta, T. (2017). Birth Order and Personality. *International Journal of Indian Psychology*, *5*(1). <https://doi.org/10.25215/0501.014>

- John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In *Handbook of personality: Theory and research, 2nd ed* (pp. 102–138). Guilford Press.
- Louis, P. T., & Kumar, N. (2016). Does Birth Order and Academic Proficiency Influence Perfectionistic Self-presentation Among Undergraduate Engineering Students? A Descriptive Analysis. *Indian Journal of Psychological Medicine, 38*(5), 424–430. <https://doi.org/10.4103/0253-7176.191388>
- MacDonald, A. P. (1971). Birth order and personality. *Journal of Consulting and Clinical Psychology, 36*(2), 171–176. <https://doi.org/10.1037/h0030717>
- Neshat, Z., Bijari, A. F., & Dehshiri, G. (2023). Psychometric properties of the Big Three Perfectionism Scale-Short Form (BTPS-SF) among Iranian University students. *Brain and Behavior, 13*(11), e3227. <https://doi.org/10.1002/brb3.3227>
- Parish, W. L., & Willis, R. (1993). Daughters, Education, and Family Budgets Taiwan Experiences. *Journal of Human Resources, 28*(4), 863–898.
- Park, J.-Y., & Park, E.-Y. (2019). The Rasch Analysis of Rosenberg Self-Esteem Scale in Individuals With Intellectual Disabilities. *Frontiers in Psychology, 10*, 1992. <https://doi.org/10.3389/fpsyg.2019.01992>
- Parker, W. D. (1998). Birth-Order Effects in the Academically Talented. *Gifted Child Quarterly, 42*(1), 29–38. <https://doi.org/10.1177/001698629804200104>
- Rammstedt, B., & John, O. (2007). Measuring Personality in One Minute or Less: A 10-Item Short Version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*, 203–212. <https://doi.org/10.1016/j.jrp.2006.02.001>
- Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton University Press. <https://www.jstor.org/stable/j.ctt183pjhh>

- Saroglou, V., & Fiasse, L. (2003). Birth order, personality, and religion: A study among young adults from a three-sibling family. *Personality and Individual Differences*, 35(1), 19–29. [https://doi.org/10.1016/S0191-8869\(02\)00137-X](https://doi.org/10.1016/S0191-8869(02)00137-X)
- Schwab, M. R., & Lundgren, D. C. (1978). Birth Order, Perceived Appraisals by Significant Others, and Self-Esteem. *Psychological Reports*, 43(2), 443–454. <https://doi.org/10.2466/pr0.1978.43.2.443>
- Slaney, R. B., Mobley, M., Trippi, J., Ashby, J. S., & Johnson, D. (2011). *Almost Perfect Scale—Revised* [dataset]. <https://doi.org/10.1037/t02161-000>

Appendices

Appendices

Appendix 1: Information Sheet:

Please read the following information sheet before deciding to participate.

Research Aims:

My name is Katie Hannafin, and I am conducting research in the Department of Psychology of Dublin Business School. This research explores the effects of birth order on an individual's personality, self-esteem, and perfectionism. This research is being conducted as part of my studies and will be submitted for examination, and has been ethically approved by the Research Ethics Committee at Dublin Business School. You are invited to participate in a research study that will form the basis for an undergraduate thesis.

Participants:

You are invited to take part in this study and participation involves completing an anonymous survey. While the survey asks some questions that might cause some minor negative feelings, they have all been widely used in research. If any of the questions do raise difficult feelings for you, contact information for support services will be included at the start and end of the survey. Participation is completely voluntary, so you are not obliged to take part.

Participants must be:

- Over 18 years of age.
- Be capable of consenting.

Benefits:

While there will be no direct benefit from participation, studies like this can make an important contribution to our understanding of the relationship between birth order and certain psychological variables. As such, the findings from this study may be presented at national and international conferences and will be submitted for publication in peer-reviewed journals. Interim and final reports will be prepared. However, no individual participant will be identified in any publication or presentation. Individuals will not be offered any monetary or other rewards for their participation.

Risks:

There are no known risks associated with participation. Any inconvenience involved in taking part will be limited. Any questions prior to participation can be asked following the review of this sheet. After participation, a debriefing stage will be offered where any further questions will be answered, or any questions can be emailed to my email address provided.

Confidentiality:

All individual information collected as part of the study will be used solely for research purposes. The questionnaires will be securely stored on a password-protected computer. They will be stored safely and will not be publicly displayed or published without prior consent. Data collected is stored in the EU, for five years, and will be used for research purposes to generate research content such as publications and presentations. Please note that this research has been ethically approved by the DBS College Human Research Ethics Committee.

Right to Withdraw:

Participants have the right to withdraw from the research at any time during the survey for whatever reason. Participation is anonymous and confidential. Thus, responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

It is important to know that by completing and submitting this questionnaire you are consenting to your answers being used in this research.

Contact Details

Should you require any further information about the research, please contact me via email at 10598367@mydbs.ie. My supervisor, Jan O'Leary can be contacted at jan.oleary@dbs.ie.

Thank you for taking the time to complete my survey.

Appendix 2: Consent Form:

1. I have read and understood the information sheet provided *

Yes

No

2. I understand that I am free to withdraw from the study before submitting my responses, without giving a reason or it affecting me. *

Yes

No

3. I agree to take part in this study, the results of which will be published.

Yes

No

4. I agree to have my data relating to this study to be stored confidentially, as described in the information sheet.

Yes

No

5. I am 18 years old or older.

Yes

No

6. I consent to participating in this study.

Yes

No

Appendix 3: Demographic Questions:

7. What is your gender?

- Woman
- Man
- Non-binary
- Prefer not to say

8. What age are you

Please enter a number greater than or equal to 18

9. What position are you in your family? *

- Eldest
- Middle
- Youngest
- Only

Appendix 4: The Big Five Inventory – Short Version

The Big Five Inventory - short version (BFI-10)

The following questions are from the BFI-10, please indicate your feeling towards each statement by selecting the appropriate option.

10. I see myself as someone who.... *

	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree Strongly
is reserved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is generally trusting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tends to be lazy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is relaxed, handles stress well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has few artistic interests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is outgoing, sociable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tends to find fault with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
does a thorough job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gets nervous easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has an active imagination.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 5: The Roseburg Self-Esteem Scale:

Rosenburg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

11. On the whole, I am satisfied with myself. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. At times I think I am no good at all. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I feel I have a number of good qualities. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. I am able to do things as well as most other people. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. I feel I do not have much to be proud of. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. I certainly feel useless at times. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. I feel that I'm a person of worth, at least on an equal plane with others. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. I wish I could have more respect for myself. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. All in all, I am inclined to feel that I am a failure. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. I take a positive attitude toward myself. *

	Strongly Disagree	Disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 6: The Big Three Perfectionism Scale – Short Form

The Big Three Perfectionism Scale - Short Form (BTPS-SF)

Please indicate your feelings towards the statements below by selecting the appropriate option.

21. I have a strong need to be perfect. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. It is important to me to be perfect in everything I attempt. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Striving to be as perfect as possible makes me feel worthwhile. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. My opinion of myself is tied to being perfect. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. The idea of making a mistake frightens me. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. When I notice that I have made a mistake, I feel ashamed. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. I have doubts about everything I do. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. I judge myself harshly when I don't do something perfectly. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. I feel disappointed with myself, when I don't do something perfectly. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. I expect those close to me to be perfect. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. I am highly critical of other people's imperfections. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. I feel dissatisfied with other people, even when I know they are trying their best. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. It bothers me when people don't notice how perfect I am. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. I deserve to always have things go my way. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. I know that I am perfect. *

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Do you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix 7: Debrief Sheet:

The survey is now finished. Please read the following debrief sheet.

Thank you for participating in my survey. Your response has been anonymously recorded.

The measures in this study are widely used in research however if you feel that answering this survey has raised any issues for you, please consider contacting some of the support services listed below, or speak to a friend, family member, or professional.

Aware:

The Aware Support Line 1890 303 302

Available Monday – Sunday, 10 am to 10 pm.

Email for support at: supportmail@aware.ie

Samaritans

Call on: 116 123

Available 24hrs a day, 365 days a year. Free to call.

Email: jo@samaritans.org

You can also contact me at 10598367@mydbs.ie or my supervisor at jan.oleary@dbs.ie with any queries.

Thank you for taking the time to participant in my research!