An investigation into the relationship between female body esteem, single-sex versus mixed-sex school and social media usage.

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Abstract

Aims: The current study aims to investigate the relationship between female body esteem, single-sex versus mixed-sex school and social media usage. It was hypothesized that H1: there will be a difference between females who went to single-sex vs mixed-sex schools on measures of body esteem. H2: daily use of social media will have an impact on the body esteem scores of females from single-sex and mixed-sex schools. H3: daily use of social media and school type will predict scores of females on measures of body esteem. **Methods:** Participants were recruited through non-probability convenience sampling. The study targeted females, who were post-secondary school 5 years or less, in order to compare one gender across two different school types. A quantitative cross-sectional study was conducted, using scales to measure body esteem and social media use across females from single-sex schools and mixed-sex schools. **Results:** Results supported hypothesis 1 and 3. Contrary to what was predicted, hypothesis 2 was not supported. **Conclusion:** Findings provide a greater understanding of the impact school type and social media have on female body esteem. Findings have important implications for the minister of education and the school education unions in order to prevent future decreasing of body esteem levels.

Literature Review

Definition and nature of body-esteem

Body-esteem is a term that relates to the respect and admiration of one's body and has been the subject of empirical and theoretical research for many years, being described as a complex construct (Davis, et al., 1996). A person's body-esteem levels can range from high to low, causing positive or negative emotions toward their bodies (Baumeister et al., 2003). In today's culture, Quittkat et al. (2019) reveal that body esteem is a construct that many people struggle with and there are many factors that contribute to this struggle. Body esteem is known to be an evaluation of one's appearance and this evaluation is a sensitive concept because of the many factors influencing women from an early age, such as social media, peers, family and past experiences (Franzoi & Shields, 1984). Factors such as peer comparison and popularity were seen to have an impact on an individual's body esteem and satisfaction. Graham, et al. (2000) concur that peer comparison has a negative impact on body esteem, hence, being a high predictor of low body esteem levels. Regarding popularity being a possible factor of low body scores, popular students reported having high levels of body satisfaction and positive body esteem. This suggests that popularity is another factor influencing body esteem (Graham, et al., 2000).

The relationship between social media use and body-esteem

According to Twenge et al. (2018) media is arguably one of the strongest factors that impacts a female's body esteem and satisfaction, as it is full of unrealistic images and ideals. The 'social norm' that is created online does not correspond to what one observes in the real world of people's everyday lives. Therefore, people using social media daily feel that they need to look a certain way (e.g., 'I have to be thinner'), and if one achieves that look, one will be happier and more satisfied. Comparing bodies and trying to become like someone else

causes one to undergo extreme diets, weight loss programs, and in severe cases, it causes eating disorders (Chang, et al., 2019). For example, Tiggemann, et al. (2000) conducted an interesting study where they investigated adolescent women's motivations to be thin, and results showed that media exerted a strong influence on women to become thinner. The findings revealed that while peer pressure, family and environmental factors were strong pressures of females to become thinner, social media was the strongest. Quittkat et al.'s (2019) study found that the general consensus seems to be that females are the gender that have higher levels of body dissatisfaction and negative body esteem. Futhermore, a meta-analysis found that males are more satisfied with their body image than females and males consider themselves to be very attractive, whereas females do not reciprocate this about themselves. Participants had to self-rate their bodies alongside their believed attractiveness, and the results revealed that females had poorer body images than males, this remained consistent from adolescents to adulthood (Feingold & Mazzella, 1998). This may be one contributing factor for the consistently higher levels of anxiety and depression found among females when compared to their male counterparts (Bahrami, & Yousefi, 2011; Albert, 2015). Another factor of low levels of body esteem may be the belief that being thinner means one is more attractive and, therefore, receives more attention (Brierley, et al., 2016). However, Tiggemann, et al. (2000) study has revealed that males did not care about the size of a woman's body, they didn't necessarily want to date extremely thin women, thus conveying that being thinner does not mean you are more attractive and will experience more attention. Yet females continue to strive for this as they believe it is a necessity for social and personal success, in order to fit into the social construct that women who are the thinnest are most attractive - a social construct created by other women, peers, and social media's 'cultural norm' of flawless and unrealistic supermodels. With regards to body esteem and satisfaction, recent studies agree that the use of social media has a negative impact on a person's

perception of their body (Aparicio-Martinez, 2019). Yang et al. (2020) measured the impact that smartphone screen time, excluding the use of social media, had on a female's body. This was examined through the use of a cognitive internalization framework in order to compare body ideals and anxiety of appearances. The results indicated screen time had a negative impact on a female's body esteem, therefore, we cannot eliminate this as a contributing factor to pessimistic body views (Yang, et al., 2020). Pepin and Endresz (2015) did a study predicting that high social media usage would cause low body esteem scores, with their findings supporting their initial prediction. However, Ormsby, et al. (2019) recently conducted a conceptual replication study and were unable to find a causal relationship between high levels of social media and lower levels of esteem. Their results suggest that from social media use, gender and body esteem, only gender was predictive of lower levels of body esteem. These inconsistent findings suggest a need for more research on the topic.

School type and body-esteem

The research is still divided on whether the type of school you go to has an effect on your body esteem levels. The results from Granleese and Joseph's (1993) study implies that girls from single-sex schools were less happy than girls from mixed-sex schools, in relation to their physical appearance. Equally important, physical appearance was the greatest predictor of self-esteem for girls from a mixed-sex school. Dyer and Tiggemann's (1996) study revealed that girls at private single-sex schools favoured a thinner ideal figure and presented more eating disorder patterns. It is possible that this is related to social comparison between peers in a single-sex school. A study conducted by Spencer et al. (2013) found different results from previous research (Spencer, et al., 2013). It demonstrated the effects that going to same-sex schools and colleges has on young women, however, there were no significant results to suggest that a school itself had an impact on self-objectification, physical appearance or social comparing of ideal bodies. The findings supported the idea that

other characteristics of a single-sex or mixed-school cause self-objectification, such as the presence of a man, cliques etc. Although this study was conducted with a sufficient sample size, all participants were college students who have more maturity and less social challenges than that of secondary students (Spencer, et al., 2013). These results are inconsistent with a more recent study that revealed a relationship between intrasexual competition, bullying victimization and body-esteem in single-sex secondary schools and mixed-sex secondary schools (Lereya, et al., 2014). Females in single-sex schools reported lower levels of body-esteem than males and females in mixed-sex schools. But females in single-sex schools also reported higher levels of intrasexual competition than females and males in mixed-sex schools. Females in single-sex schools were also more likely to be victimized among peers in order for competitors to feel more powerful and have potential access to romantic partners (Lereya, et al., 2014). However, there are many studies both for and against the negative impacts school type has on body esteem, results are still inconclusive.

Prior research has been predominantly focused on assessing the relationship of body esteem, social media and the school type of both males and females (Franzoi & Shields, 1984; Feingold & Mazzella, 1998; Ivie, et al., 2020; Fardouly, et al., 2018). Therefore, there is a gap in the literature to comprehensively examine whether body esteem scores of females increase or decrease depending on their school type, (single-sex versus mixed-sex), and their social media usage.

The current study

The current study seeks to investigate the relationship between female body esteem, type of school (single-sex versus mixed-sex school) and social media usage. There is a gap in the literature when it comes to understanding the nature of the relationship between school type when it comes to gender, and the impact school type has on a female's confidence in

their body esteem later in life. The current study is focused on females who have left secondary school, males are not being examined in this current study as the majority of body esteem scales are aimed towards women and are not as suitable for men, for example, The Satisfaction with Life Scale (Diener, et al., 1985). It is also worth noting that according to recent studies males tend to have a lot more confidence than women and they are not as stigmatized in the media, or compared against peers and therefore, conducting the study on women will hopefully be more informative for future educational institutes (Feingold & Mazzella, 1998; Manzoor & Shahed, 2015). This is an important study as it will provide information for the educational board and parents when choosing on the optimal school environment, that will allow females to thrive mentally and emotionally. This study will seek to answer whether sending female children to single-sex schools or mixed-sex schools impacts their body esteem, and whether this has a lasting impact on them once they have left secondary school. The females in the study will be post-secondary school by five years or less, as this will provide more accurate and reliable results. Studies have shown that memory starts to fade and become less reliable as more time goes by, affecting the reliability and quantity of data gathered (Gibbons, et al., 2011). The study will also review the daily use of social media combined with school-type as predictors of body esteem scores. This study is relevant in advancing preliminary data to decide whether an intervention is needed at a young age to deter low body esteem levels in women.

Research question 1: does the type of school, same sex or mixed, have an impact on a woman's body esteem? H1: there will be a difference between females who went to single-sex vs mixed-sex schools on measures of body esteem.

Research question 2: Does social media have an impact on body esteem scores? H2: daily use of social media will have an impact on the body esteem scores of females from single-sex and mixed schools.

Research Question 3: Are school-type and daily use of social media predictors of female body esteem scores? H3: daily use of social media and school-type will predict scores of females on measures of body esteem.

This study aims at documenting the lasting impact single-sex schools and mixed sex schools may have on female body image after leaving secondary school, and provide information with positive implications for future education and to enable parents to make an informed decision when choosing a secondary school for their children. This study also intends to further understand the use of social media and school type as predictors of body esteem scores, and answer the question: Is there a relationship between female body esteem, single-sex versus mixed-sex school and social media usage?

Methodology

Participants

The research sample within the current study consisted of 71 participants (n=71), all of whom were female. The recommended sample size for this study was n=66, this was calculated using Tabachnick and Fidell's (2013) sample size formula (N>50+8(k)), where N= the sample size and k= number of independent PVs. Participants were recruited through non-probability convenience sampling using the researcher's social media account (Instagram) and five friend's social media accounts (Instagram). This ensured the sample consisted of participants from all different school types and similar age groups to the researcher and therefore, this could provide a varied and more accurate sample of participants who have not been out of secondary school for long, which is consistent with the sample required. In line with ethical consideration, participants were required to be a minimum of 18 years old to participate. Participants ages ranged from 18 to 25 years old, with a mean age of 21(20.96) years old (SD=2.45). Participants also had to be females who were post-secondary school no more than 5 years. Of the participants recruited, 43(60.6%) females went to single-sex schools and 28 (39.4%) females went to mixed-sex schools. No other demographic information was required from participants, as the aim of the current study was to perform an exploratory analysis, which sought to examine the relationship between female body esteem, single-sex versus mixed-sex school and social media usage.

Design and Analyses

The research design was quantitative research in the form of a cross sectional study as the researcher used scales to measure body esteem (Dependent Variable), body satisfaction (Dependent Variable) and social media use (Independent Variable) across females from single-sex schools and mixed sex schools (Independent Variable). All quantitative data was

compiled into an excel spreadsheet and descriptive statistics were run. Inferential statistics were run on SPSS software. H1: An Independent Samples T-Test was run - Categorical IV (single-sex schools vs. mixed sex schools) and Continuous DV (body esteem). H2: A Two-Way Between Groups ANOVA was conducted - 2 Categorical IVs (school type and use of social media) and Continuous DV (body esteem). H3: A Standard Multiple Regression was performed -2 Categorical PVs (use of social media and school type) and Continuous CV (scores of body esteem).

Measures/ Materials

The Body Esteem Scale-Revised

The Body Esteem Scale-Revised (Frost, et al., 2018) was used in order to assess the difference in body-esteem scores across two different school types and the relationship between body-esteem scores and social media. There are 28 body parts and participants must go down through the dropdown box and put a number beside each body part based on the 5-point Likert scale, which ranges from 1- “have strong positive feelings” to 5- “have strong negative feelings” (See Appendix C). Individuals scored will be added up for each subscale, there is no established cut-off score, although the highest score possible is 140, hence the scale is used as a continuous measure. Therefore, higher scores indicate negative levels of body-esteem, and lower scores indicate positive levels body-esteem. The 28 body parts are categorized and totalled up under three subscales; sexual attractiveness (body scent, chest or breasts, appearance of eyes, sex drive, sex organs, sex activities, head hair, skin condition, face), weight concern (weight, appearance of stomach, figure/physique, legs, hips, buttocks, body build, thighs, arms, waist) and physical condition (physical condition, health, agility, physical co-ordination, biceps, energy level, muscular strength, reflexes, physical stamina). It should be noted that the author of the scale suggests that the three subscales combined

produce an overall body esteem score (Frost, et al., 2018). Frost, et al. (2018) strongly evaluated the body esteem scale for its used in studies and have revealed it caused no distress to participants and helped provide accurate results, therefore, due to its validity, it was chosen as the optimum scale for this study (Frost, et al., 2018). 1984

The Bergen Social Media Addiction Scale-Adapted

The Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012) was adapted for the purpose of this study in order to assess the impact social media has on the body esteem scores across females of two different school types. The adaption involves the rewording of the statement 'how often during the last year' to 'how often during the last day' to provide more accurate daily usage data. It consists of 6 questions and for each question participants had to tick the box that best describes themselves, there were 5 box options to choose from; 1- 'Very Rarely,' 2- 'Rarely,' 3- 'Sometimes,' 4- 'Often,' 5- 'Very Often' (See Appendix C). The scale is scored out of 30 and all answers are added up. Higher scores suggest high addiction rates, whereas lower scores suggest low addiction rates. And according to researchers, when you score more than 3 for 4 out of 6 items, it is said to be an indicator of addiction (Twenge, et al., 2018).

Procedures

All of the participants in this study were recruited through social media platforms (Instagram). The questionnaire was uploaded onto the researcher's Instagram account and five friends of the researcher's Instagram accounts. The survey was split into 4 sections.

Section 1 - Informed consent was obtained through an information form that was presented at the being of the survey (See Appendix A), where the participant was given an outline of the study, it's aims and the time it would take to complete the survey, which was

approximately 5-10 minutes. Participants were informed of their right to withdraw their data from the survey up until the point that they click submit. After this, their participation would be complete and their data would be fully anonymized, therefore, it would not be possible to withdraw from the survey after they click submit. By clicking agree participants were confirming that they understood the terms. They also had to click agree to verify that they were a female, over the age of 18 years old, who has left secondary school no longer than 5 years (See Appendix A). After clicking agree participants were then asked their age, how long it had been since they had left school and what type of school they attended. Participants pressed next to continue to the next section. Section 2- Participants were required to complete The Body Esteem Scale-Revised (Frost, et al., 2017). Participants pressed next to continue to the next section (See Appendix C for survey). Section 3 – Participants were required to compete The Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012) which was adapted for the current study. Participants pressed next to continue to the next section (See Appendix C for survey). Section 4 – Once sections 1-3 were complete participants were reminded that when they press submit their data would be fully anonymized and they would be unable to withdraw from the study. Once participants pressed submit, they were provided with a debriefing sheet, this included the researcher's contact details, the supervisor's contact details and 3 different national helpline numbers were also provided in case participants experienced any distress (See Appendix B).

Ethical Considerations

All data was collected in accordance with the NCI ethical guidelines. There was no incentive to take part in this study, all participation was willing and completely anonymous. Participants had to provide informed consent before beginning the survey, and the ability to withdraw from the study at any time before submission was clearly stated at the beginning of the survey and before submission of the survey.

Results

Descriptive Statistics

Descriptive statistics for demographic variables are presented in Table 1. The data is taken from a sample size of 71 females (n=71). Of this sample, 60.6% of females went to single-sex schools and 39.4% of females went to mixed-sex school. The highest number of participants (n=27) were in the age group 21. The frequency of school type and age is shown in table 1.

Table 1

Frequencies for the current sample on school types and age (n=71).

Variable	N	Valid Percentage %
School Type		
Single-Sex School	43	60.6
Mixed Sex School	28	39.4
Age		
18 years old	5	7
19 years old	5	7
20 years old	18	25.4
21 years old	27	38
22 years old	5	7
23 years old	3	4.2
24 years old	3	4.2
25 years old	5	7

Descriptive statistics were performed for all variables including body esteem overall total, social media total and age. Preliminary analysis was performed on the data set and this indicated that continuous variables did not follow the assumptions of normality, as sig. values were less than .05 ($p<.05$) on the Kolmogorov-Smirnov statistic. Histograms and boxplots were also obtained and indicate data is non-normally distributed. Mean (M), 95% confidence interval, standard deviation (SD) and range were calculated (see table 2). Participants had a

mean age of 20.96 years old, ranging from 18 to 25, and standard deviation is 1.71 (SD=1.71).

Table 2

Table for descriptive statistics – continuous variables

Variable	***M* [95% CI]**	***SD***	**Range**
Body Esteem Overall Total	83.39[77.81, 88.97]	23.58	36-139
Social Media Total	17.03[15.95, 18.10]	4.54	7-25
Age	20.96[20.55, 21.36]	1.71	18-25

Inferential Statistics

H1

As the data from our descriptive statistics was non-normally distributed, it only made sense to conduct a non-parametric test, therefore the Mann-Whitney U Test was conducted instead of an independent samples t-test.

A Mann-Whitney U Test revealed a significant difference between body esteem scores and the two levels of school type; single-sex (M=78.05, Md=80, N=43) and mixed-sex (M=91.61, Md=88, N=28), U= 768, Z=1.954, p=.051, r=.23.

H2

A two-way between groups ANOVA was conducted to explore the impact of daily social media usage and type of school (single-sex vs mixed-sex) on body esteem scores.

Participants were divided into two groups according to their school type (single-sex school and mixed-sex school).

The interaction effect between daily social media usage and type of school was not significant (F (11, 41), p = .405). There was no statistically significant interaction effect for social media usage on body esteem scores, F (17, 41), p=.289. Body esteem scores were higher among mixed-sex school types (M = 91.61, SD = 26.98) compared to single-sex school types (M = 78.05, SD = 19.60), however the main effect for school type did not reach statistical significance, F (1, 41), p=.122.

Post hoc test was not needed as our categorical IV's (social media usage and school type) did not have 3 or more levels.

H3

Multiple regression analysis was performed to determine how well body esteem scores could be explained by two variables; social media and school type.

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. The correlations between the predictor variables and the criterion variable included in the study were examined (see Table 3 for full details). One of the two predictor variables were significantly correlated with the criterion variable, and the significant effect was .34. The correlations between the predictor variables were also assessed with r values ranging from .28 to .34. Tests for multicollinearity also indicated that all Tolerance and VIF values were in an acceptable range. These results indicate that there was no violation of the assumption of multicollinearity and that the data was suitable for examination through multiple linear regression analysis.

Table 3

Correlations between variables included in the model

Variable	1.	2.	3.
1. Body Esteem Overall Total	-	-.344*	.283
2. Social Media Total	-.344*	-	-.306
3. School Type	.283	-.306	-

*Note: p.005**

Since no a priori hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the analysis. The two predictor variables explained 15.3% of variance in body esteem scores ($F (2, 68) = 6.15$, $p < .005$ ($p= .004$)). One of the two variables were found to uniquely predict body esteem scores to a statistically significantly level: social media ($\beta = -.28$, $p = .018$) (see Table 4 for full details).

Table 4

Multiple regression model predicting Body Esteem scores

Variable	R^2	B	SE	B	*t*	*p*
Model	**.15***					
Social Media Total		-1.48	.61	-.28	-2.42	.018
School Type		9.41	5.62	.20	1.68	.099

*Note: p.005**

Discussion

In the current study, the relationship between female body esteem, single-sex versus mixed-sex school and social media usage was examined. Prior research has shown that body esteem scores differ depending on the type of school a person attends (Granleese & Joseph, 1993; Lereya et al., 2014; Dyer & Tiggemann, 1996). Previous research revealed that social media is one of the strongest influencers that can cause a negative impact on a person's body esteem, as unrealistic body ideals are strong motivators of females to become thinner (Twenge et al., 2018; Tiggemann et al., 2000; Yang et al., 2020). From this research, three hypotheses were composed to address the aims for this study.

The first hypothesis objective was to identify if there will be a difference between females who went to single-sex vs mixed-sex schools on measures of body esteem. This was explored using a Man Whitney U test as the sample data was non-normally distributed. Consistent with previous literature, the results from the current study showed that there was a significant difference between body esteem scores on females who went to different school types. The results concluded that females from mixed-sex schools had higher body esteem scores than females from single-sex schools, therefore this hypothesis was supported. In considering explanations for these results Granleese and Joseph (1993) concluded females in single-sex schools were less critical of how they conducted themselves, whereas females who attended mixed-sex schools were more aware of how they behaved perhaps due to the presence of males and hence, were more self-contentious about their body and looks. However, upon examination, it was suggested that these results could have been influenced by other uncontrollable variables associated with each individual school type. It is worth noting that Spencer et al. (2013) argued, after mixed results, that the relationships between school type and body esteem may be complex. For example, results from their study suggest that within schools, social comparisons do not influence body ideals, taking researchers to

hypothesise that other environmental factors inside both types of schools (single-sex and mixed-sex) may influence body ideals and body esteem levels. Lereya et al. (2014) suggest that the age difference in participants may have influenced their results, as participant's ages ranged from 18-29 years old and previous research indicates that memory does decrease in accuracy with age (Gibbons, et al., 2011). The age difference of participants could impact the validity of the results in the current study too. Additionally, females from mixed-sex schools revealed higher body esteem scores which shows a higher level of negativity towards their body. This may be due to the desire to have an "ideal thin" figure, which is consistent with numerous studies (Chang et al., 2019; Tiggemann et al., 2000). Two studies suggest females attending a single-sex school experience higher levels of intrasexual competition compared to mixed-sex schools (Lereya et al., 2014; Gardiner and Slater, 2000). It is possible that this level of competition causes more body scrutinization as females compete for the attraction of a romantic partner. Future research should conduct longitudinal studies, with a controlled number of participants for each age group and school type to ensure an even balance across all factors, this was consistent with another study (Lereya et al., 2014).

The second hypothesis aim was to determine if daily use of social media will have an impact on the body esteem scores of females from both single-sex and mixed schools. This was investigated using a two way between groups ANOVA. The results conveyed that daily social media use did not have a statistically significant interaction with the body esteem scores of females from single-sex versus mixed-sex. Hence, the hypothesis was not supported as the p values for social media and type of school interaction was not valid. The p value for interaction between social media and body esteem, and school type and body esteem were also not significant. This implies that daily use of social media does not have an effect on scores of females from different school types. This is not consistent with multiple studies (Pepin and Endresz, 2015; Yang et al., 2020; Quittkat et al.,2019) but interestingly this result

is consistent with Puglia's (2017) prior study. Puglia (2017) suggests that studies should be constantly examining the validity of social media platforms, as social media is constantly changing and this could have impacted findings. The results of a study conducted on school type and attitudes found that their results were influenced by an uneven number of participants from single-sex and mixed-sex schools (Pahlke, et al., 2014). Therefore, it is possible that the results of this current study could change if replicated with a better balance of single-sex versus mixed sex participants. Future studies could remediate the findings of this study by investigating the validity of different social media platforms and by obtaining a greater sample size with a more equal single-sex vs mixed-sex school ratio.

The third hypothesis goal was to discover if daily use of social media and school-type will predict scores of females on measures of body esteem. This was analysed through standard multiple regression. The results reveal that the social media and school type explained 15.3% of variance in body esteem. Social media was a significant predictor of body esteem scores but school type was not. Thus, it was clear the hypothesis was supported but only one variable (daily social media usage) was in fact a statistically significant predictor for body esteem scores. This indicated that social media predicts body esteem scores, which is highly consistent with previous literature as social media is a platform that contains unrealistic body images and unfavourable implications that if one is thin one is more attractive and happier (Pepin and Endresz, 2015; Yang et al., 2020; Tiggemann et al., 2000; Chang et al., 2019). Future studies should conduct longitudimal research, this is consistent with another study that remarked the time participants took the survey could have affcted their answers and therefore, not accuractely reflect their daily social media usage (Zhong, et al., 2021). For example, if it was around an exam time or durng a personal crisis, participants are more likely to be stressed and not use social media as much as usual.

Implications

As this current study does support the hypothesis that body esteem is impacted by the type of school one attends and social media is a predictor of unfavorable body esteem scores, it is apparent that females are those who are directly affected. From a societal level, parents may benefit from being informed about the implications of choosing a certain type of school. It is possible that stricter regulations on social media could help reduce dissatisfaction with body esteem and change motivations or attitudes towards diet and becoming thinner. From a policy point of view, the government, the minister of education and the secondary school unions need to take action in order to prevent the continuation of depleting body esteem levels. Implementing a policy outlining the harmful effect that social media and school type is having on body esteem and implementing a prevention program in schools could greatly decrease the rising body esteem levels, alongside the number of health concerns that come from extreme dieting. Niide, et al. (2013) study showed positive changes in body esteem and students need to engage in risky dieting. Perhaps more research is also needed to assess the psychological, behavioral and social outcomes on females.

Strengths and Limitations

A limitation of this study was the adapted Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012), while this is a valid and recognised scale, it was adapted for the purpose of this study as the objective was to measure social media usage daily as opposed to yearly, therefore, the scale was tailored to the current studies survey. This adaption, although minor, could have compromised the integrity of the scale and unfortunately, there is no way to truly know that it hasn't already done that. Although the results did coincide with previous research, there is the small possibility that the adaptation affected the accuracy of the results. However, a strength of this study was the use of The

Body Esteem Scale-Revised (Frost, et al., 2017), this scale did not need any altering, as it was already a valid and tested scale for body esteem measurement and hence, was accepted in its original form. This was the optimum scale for the current study as it was tailored to females. The 28-item scale assessed components of perceived sexual attractiveness, weight concern and physical condition.

Unfortunately, another limit encountered in the current study was females who attended single-sex schools accounted for the majority of the sample size. The ratio of females from single-sex (n=43) versus mixed-sex schools (n=28) was uneven. This was a weakness as this could have caused inaccuracies in the results. Perhaps if the two groups were relatively balanced in the number of participants from each school type the results might have been different.

The inclusion of only female participants was both a weakness and a strength of the study. The use of only one gender limits the studies sample size and it limits the possibility of generalizability to the population, however, it is also considered a strength of this study because the effects of school type across females is now apparent, not to mention our body esteem scale is customized for females. Additionally, there was copious amounts of literature on body esteem, school type differences and social media usage.

Another limitation was the time in which the study took place - during the Covid-19 global pandemic. Unfortunately, the pandemic impacted the distribution of the surveys as no in person surveys were allowed, due to safety measures and government restrictions, therefore, obtaining participants was restricted to social media platforms. According to Tabachnick and Fidell's (2013) sample size recommendation, the study needed to acquire a minimum of 66 participants. The study exceeded this number by obtaining 71 participants, however, a larger sample size could have been obtained if in person surveys were allowed.

Also, the data from participants could have been influenced by the time of covid, as many people are struggling to stay positive during these unexpected and challenging times (Mirahmadizadeh, et al., 2020).

Conclusion

Overall, there is consistent evidence that female body esteem levels differ by school type (single-sex versus mixed-sex school) and that social media usage is a predictor of body esteem scores. Our study strengthens previous literature as the current results are consistent with prior findings. Future studies could conduct longitudinal research in order to further examine the long-lasting impact school type and social media could have on female body esteem. Additionally, future studies could also benefit from having an even number of participants from single-sex and mixed-sex schools for more accurate and reliable results. Implications of this study involve a policy outlining the effects of school type and social media on female body esteem and a prevention programme that the minister of education and the school education unions could implement, in order to prevent future decreasing of body esteem levels.

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Appendix A

Information Sheet

Hello, my name is Chloe McGrath and I'm currently a psychology student at the National College of Ireland. I'm inviting female participants to take part in a survey for my final year thesis. The study aims to investigate the relationship between female body esteem, single-sex versus mixed-sex school and social media usage. In this study, you will be asked 2 demographic questions (age and school type) and you will be required to complete the Body Esteem Scale-Revised (Frost, Franzoi, Oswald, & Shields, 2017) and the Adapted Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012). The survey will take approximately 5/10 minutes to complete and you may take breaks if you wish.

The survey will be completely anonymous, no personal data will be stored or collected. Your privacy and confidentiality will be respected at all times. Participation in this study is completely voluntary. You have the right to withdraw your data from the survey up until the point that you click submit. After this, your participation will be complete and fully anonymized. It will not be possible to withdraw your data after you click submit. All data will be stored anonymously in an encrypted file on a password protected laptop. The data obtained from this survey will be used in my final year thesis submission.

Please only take part in the survey if you meet the following criteria;

- You are over the age of 18

-You are female

- You have left secondary school no longer than 5 years

By clicking “agree” down in the bottom left-hand corner, you are agreeing that you want to participate in the survey and have read and understand these terms.

There are no known or foreseeable risks associated with taking part in this survey, however, in the event that you feel distress as a consequence of this study, there will be a list of helplines and support services that you can contact for help.

You will receive no direct benefits from this study but your responses may contribute to our understanding of the relationship between body esteem, school type, and social media usage. In addition to this you would be helping a final year student complete her thesis.

Thank you.

Any questions or queries please email me (Chloe McGrath) at: x18327461@student.ncirl.ie

Project Supervisor: Michele Kehoe

Email: michele.kehoe@ncirl.ie

By clicking agree, you are agreeing you have read and understood the terms and conditions above, you understand that you can withdraw from the study at any point up until you click submit and are willingly participating in this study.

O Agree

Appendix B

Debriefing Sheet

A sincere thank you for participating in this study. Your data is now completely confidential and anonymous, and will only be used for the purpose of this study. The aim of this study is to investigate the relationship between female body esteem, single-sex versus mixed-sex school and social media usage.

If you need additional information or have any questions relating to the study, please use the contact details below:

Myself (Chloe McGrath): x18327461@student.ncirl.ie

My supervisor: michele.kehoe@ncirl.ie

If you require any additional support, please see the helplines below:

OWH (Office on Women's Health) Helpline

Call: 1-800-994-9662

24/7 Crisis National Text line for Ireland

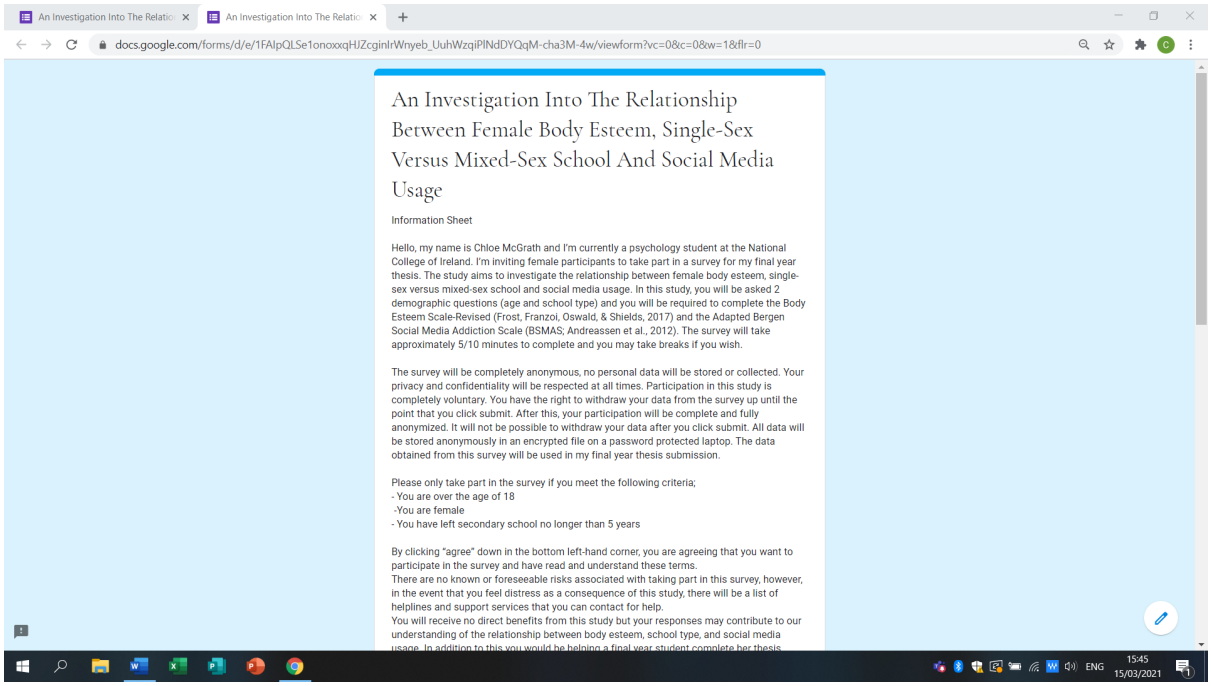
Text: 50808

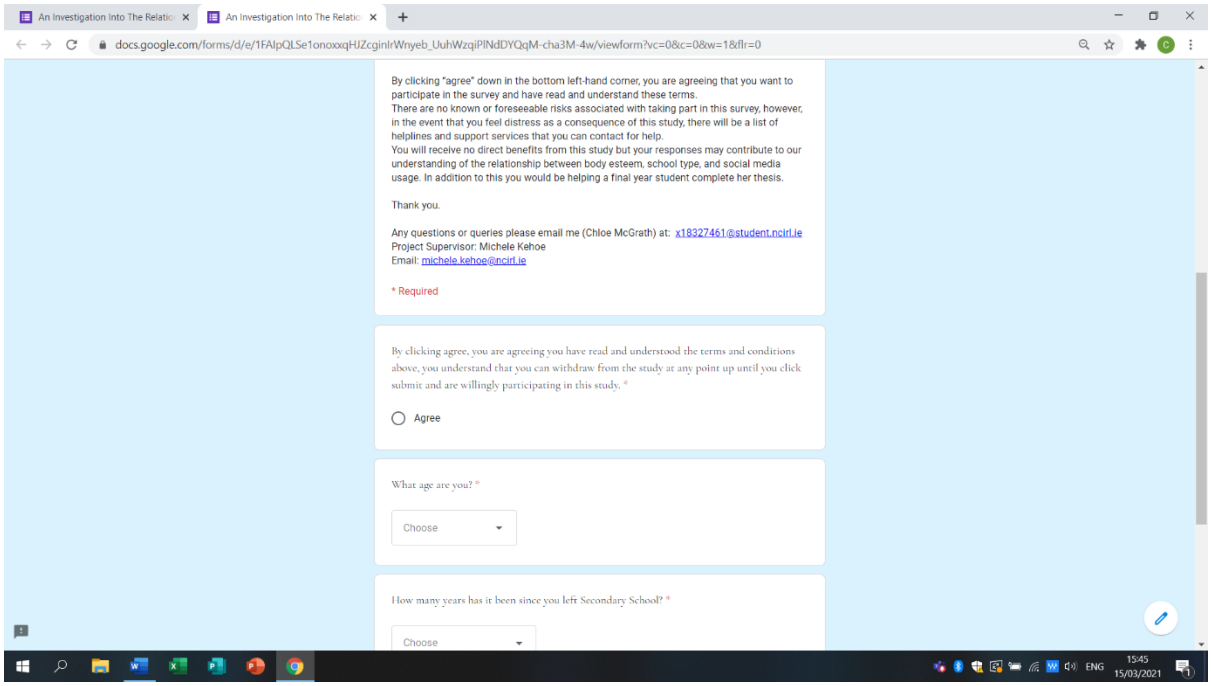
Samaritans

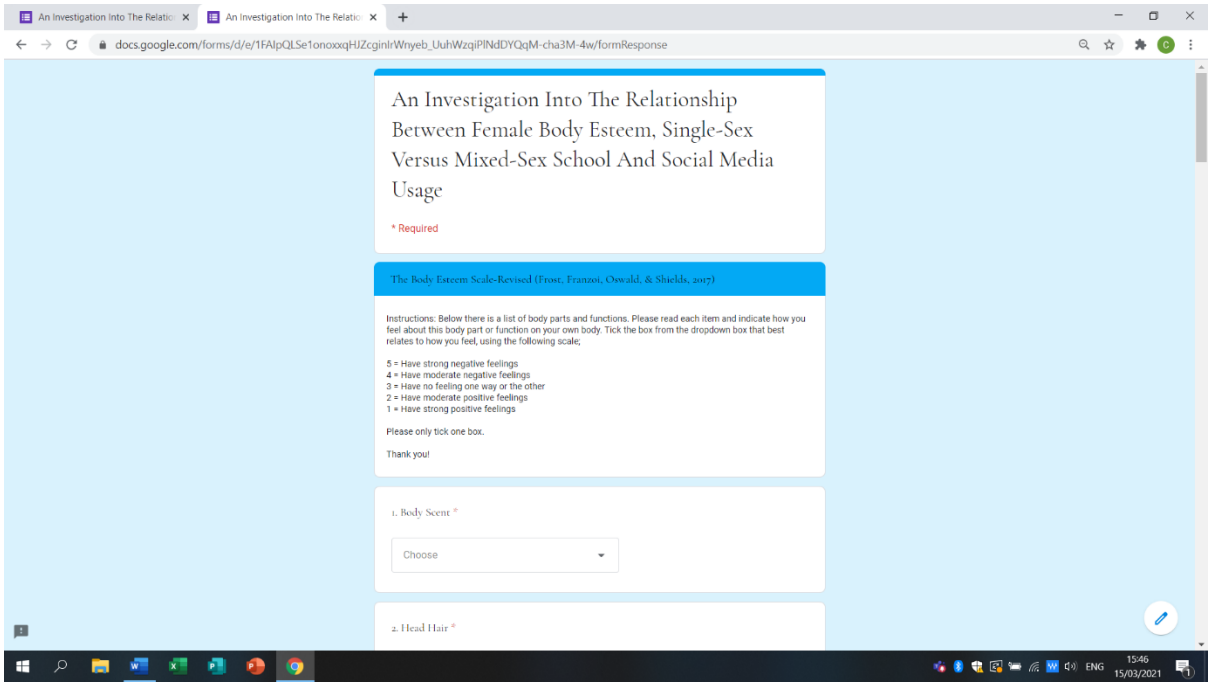
Call: 116 123

Appendix C

The Survey



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An Investigation Into The Relationship Between Female Body Esteem, Single-Sex Versus Mixed-Sex School And Social Media Usage
* Required
The Body Esteem Scale-Revised (Frost, Franzoi, Oswald, & Shields, 2017)
Instructions: Below there is a list of body parts and functions. Please read each item and indicate how you feel about this body part or function on your own body. Tick the box from the dropdown box that best relates to how you feel, using the following scale;
5 = Have strong negative feelings
4 = Have moderate negative feelings
3 = Have no feeling one way or the other
2 = Have moderate positive feelings
1 = Have strong positive feelings
Please only tick one box.
Thank you!
1. Body Scent *
Choose
2. Head Hair *
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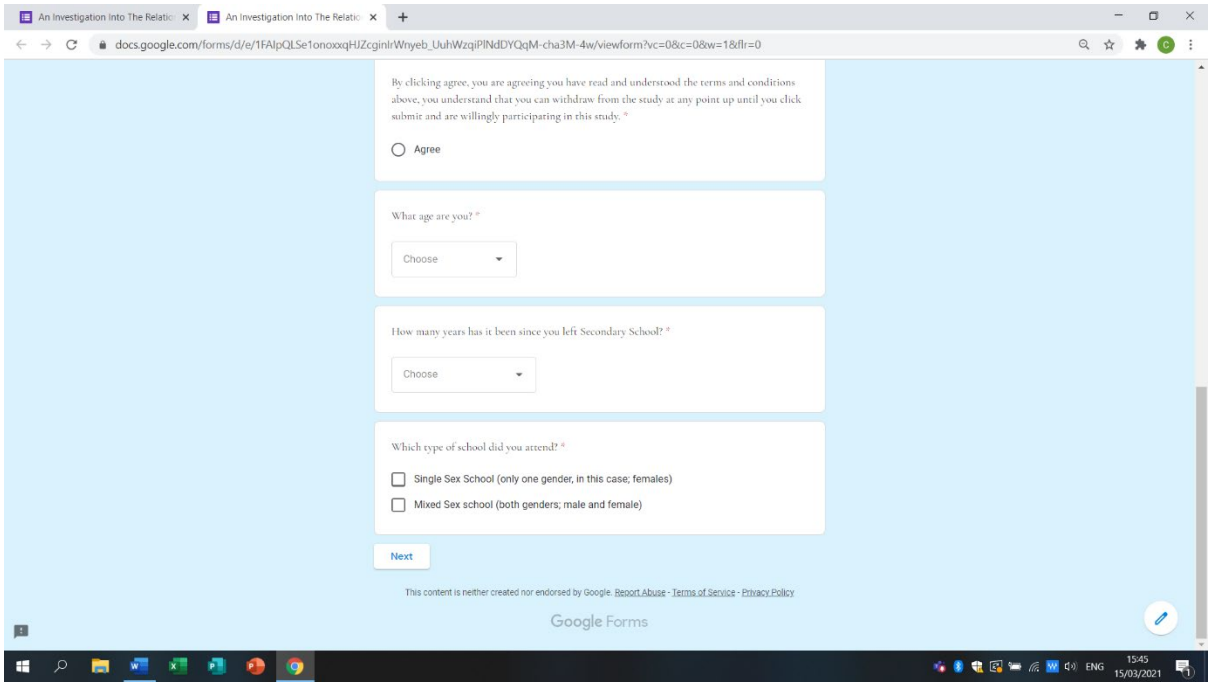
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By clicking agree, you are agreeing you have read and understood the terms and conditions above, you understand that you can withdraw from the study at any point up until you click submit and are willingly participating in this study. *
Agree
What age are you? *
Choose
How many years has it been since you left Secondary School? *
Choose
Which type of school did you attend? *
Single Sex School (only one gender, in this case; females)
Mixed Sex school (both genders; male and female)
Next
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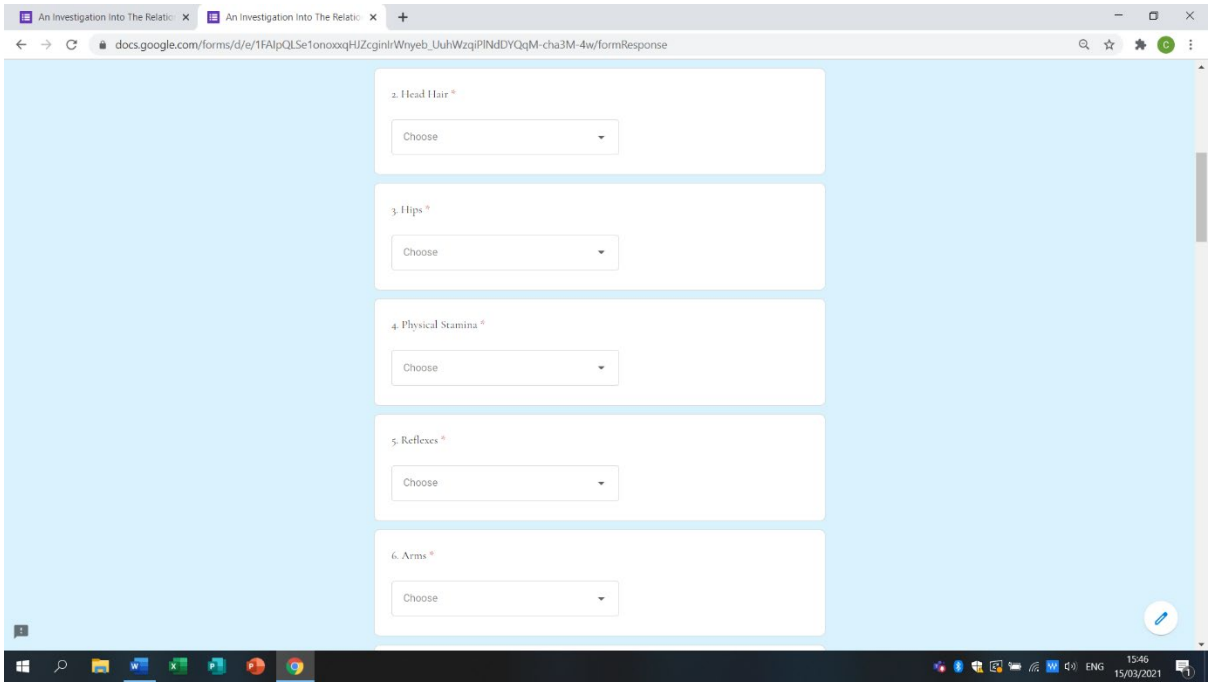
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2. Head Hair *
Choose
3. Hips *
Choose
4. Physical Stamina *
Choose
5. Reflexes *
Choose
6. Arms *
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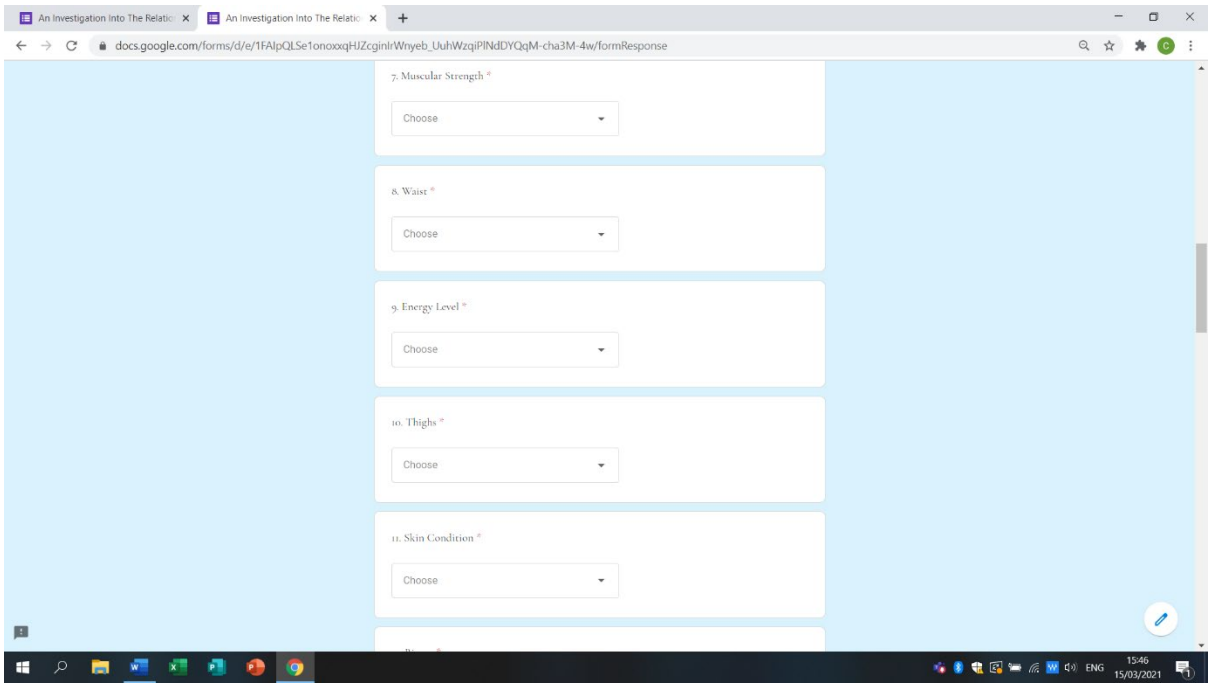
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7. Muscular Strength *
Choose
8. Waist *
Choose
9. Energy Level *
Choose
10. Thighs *
Choose
11. Skin Condition *
Choose
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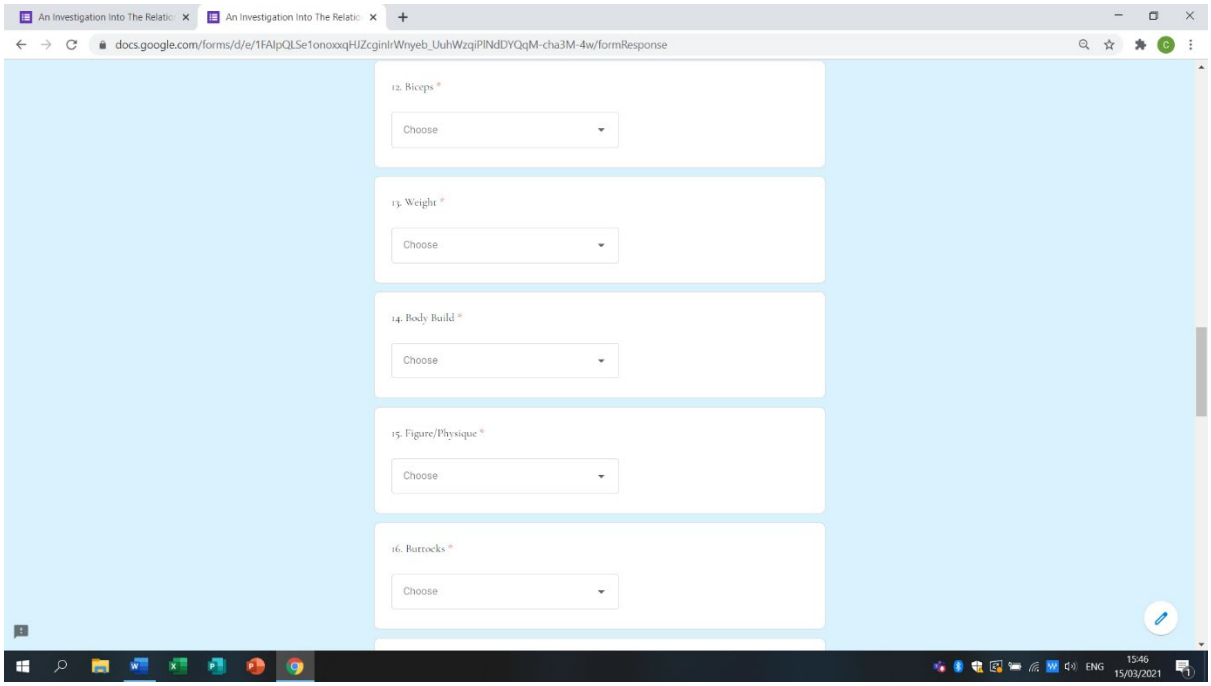
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12. Biceps *
Choose
13. Weight *
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14. Body Build *
Choose
15. Figure/Physique *
Choose
16. Buttocks *
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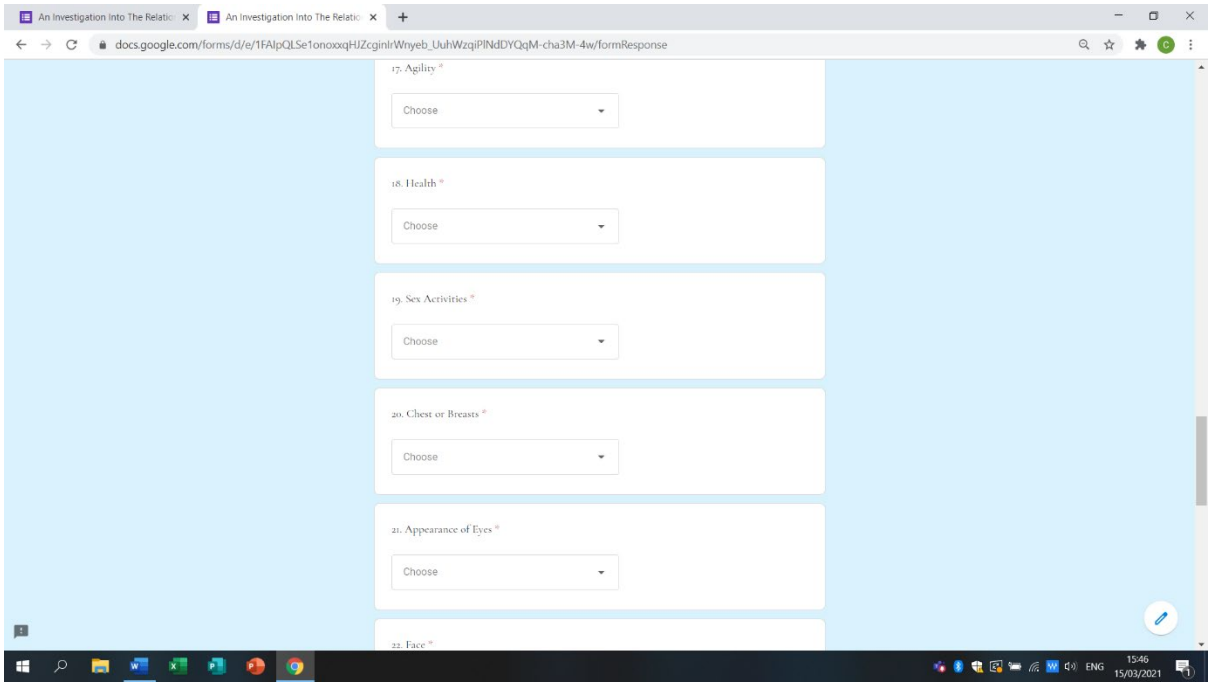
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17. Agility *
Choose
18. Health *
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19. Sex Activities *
Choose
20. Chest or Breasts *
Choose
21. Appearance of Eyes *
Choose
22. Face *
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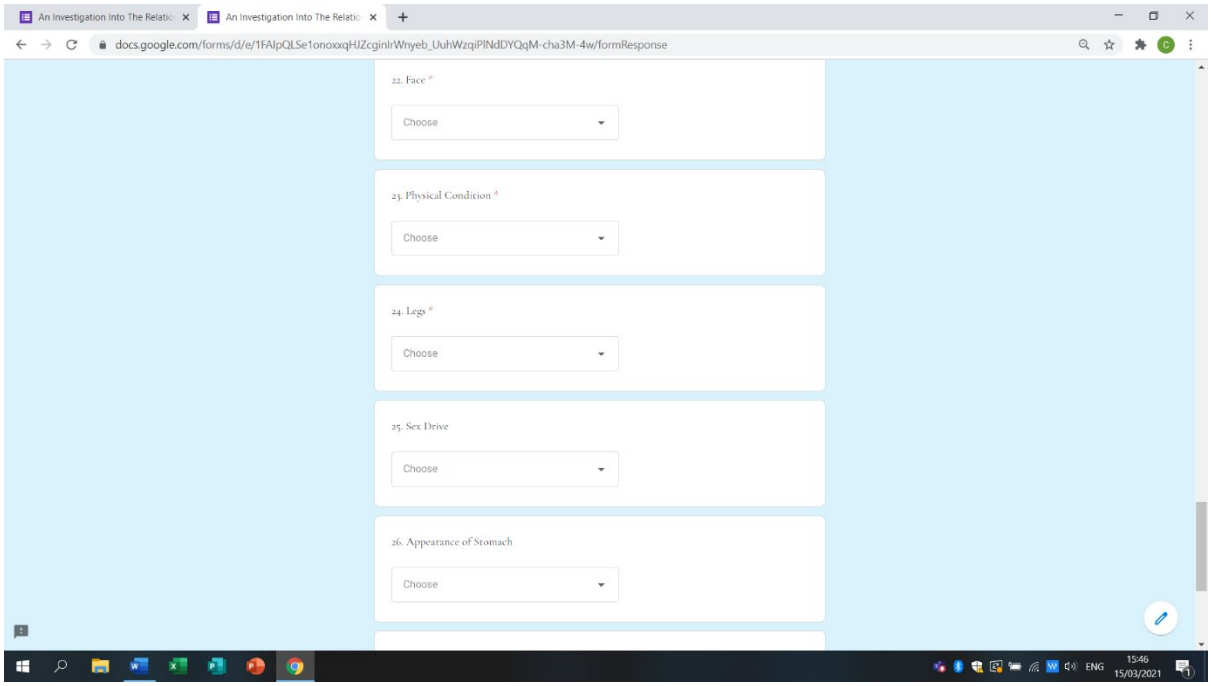
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22. Face *
Choose
23. Physical Condition *
Choose
24. Legs *
Choose
25. Sex Drive
Choose
26. Appearance of Stomach
Choose
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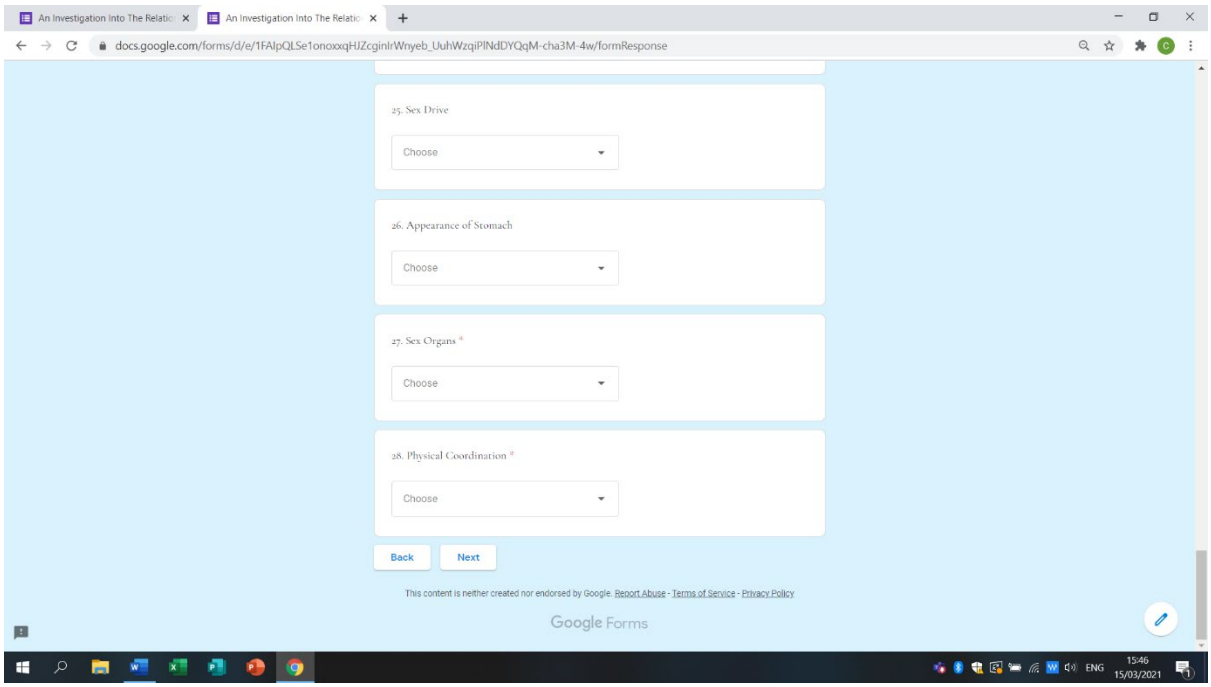
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25. Sex Drive
Choose
26. Appearance of Stomach
Choose
27. Sex Organs *
Choose
28. Physical Coordination *
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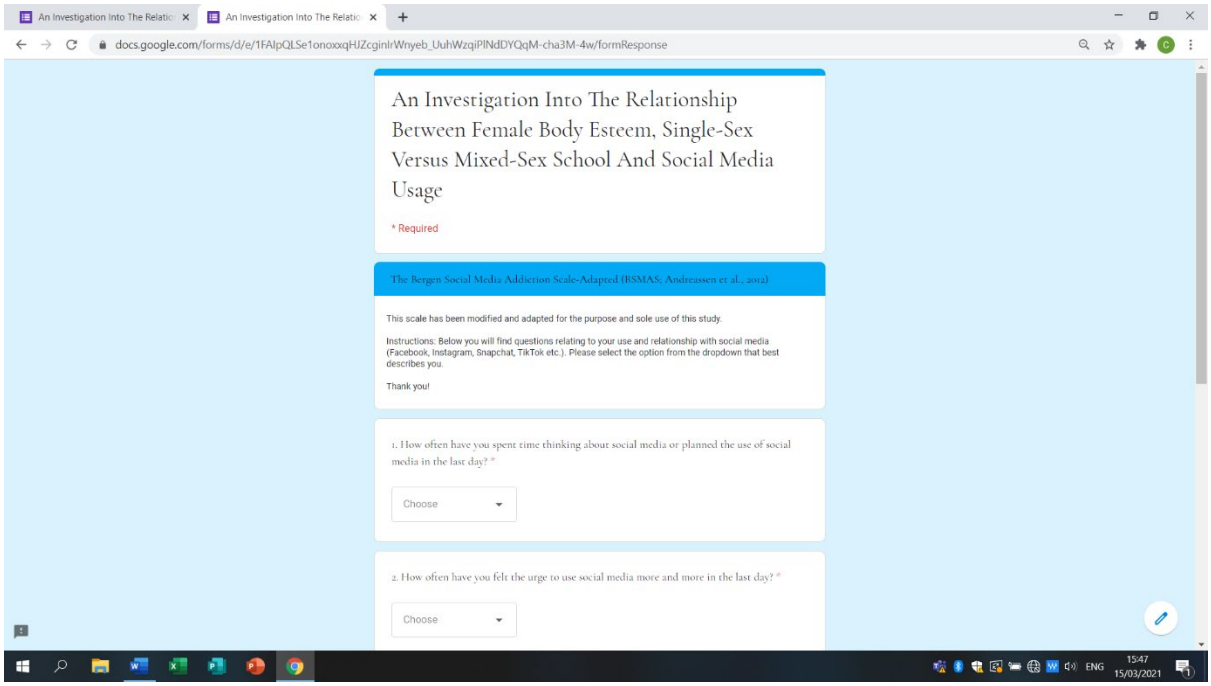
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An Investigation Into The Relationship Between Female Body Esteem, Single-Sex Versus Mixed-Sex School And Social Media Usage
* Required
The Bergen Social Media Addiction Scale-Adapted (BSMAS; Andreassen et al., 2012)
This scale has been modified and adapted for the purpose and sole use of this study.
Instructions: Below you will find questions relating to your use and relationship with social media (Facebook, Instagram, Snapchat, TikTok etc.). Please select the option from the dropdown that best describes you.
Thank you!
1. How often have you spent time thinking about social media or planned the use of social media in the last day? *
Choose
2. How often have you felt the urge to use social media more and more in the last day? *
Choose
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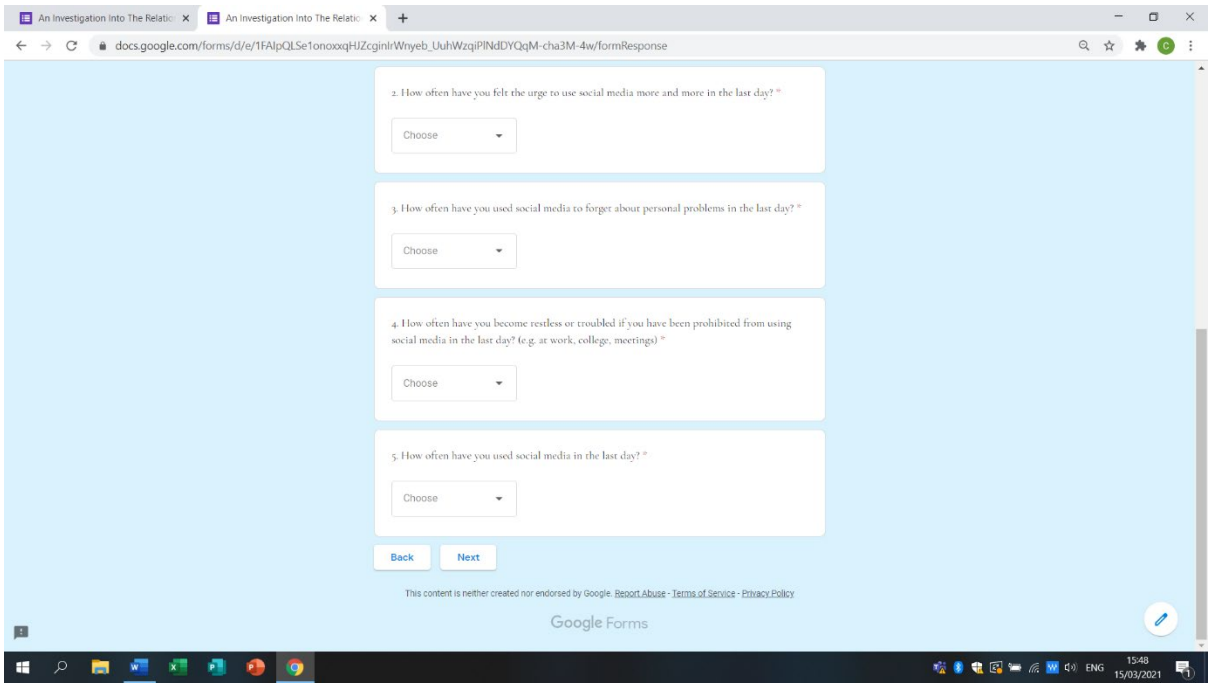
15/03/2021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2. How often have you felt the urge to use social media more and more in the last day? *
Choose
3. How often have you used social media to forget about personal problems in the last day? *
Choose
4. How often have you become restless or troubled if you have been prohibited from using social media in the last day? (e.g. at work, college, meetings) *
Choose
5. How often have you used social media in the last day? *
Choose
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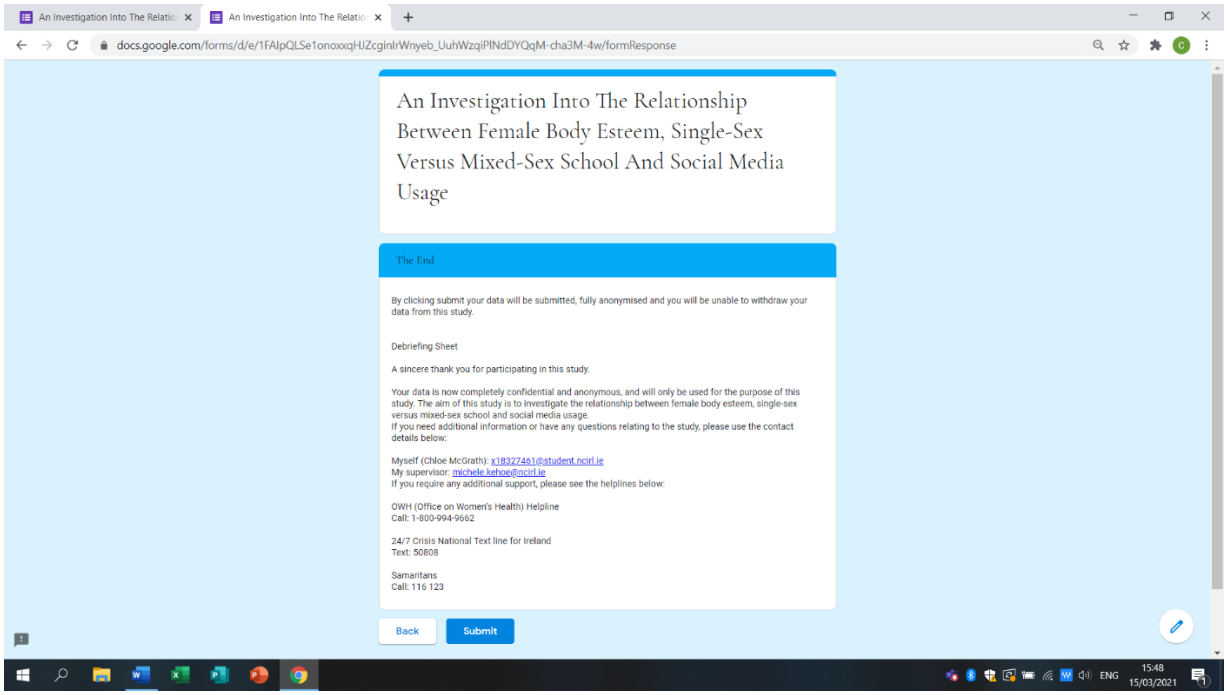
An Investigation Into The Relationship Between Female Body Esteem, Single-Sex Versus Mixed-Sex School And Social Media Usage
The End
By clicking submit your data will be submitted, fully anonymised and you will be unable to withdraw your data from this study.
Debriefing Sheet
A sincere thank you for participating in this study.
Your data is now completely confidential and anonymous, and will only be used for the purpose of this study. The aim of this study is to investigate the relationship between female body esteem, single-sex versus mixed-sex school and social media usage.
If you need additional information or have any questions relating to the study, please use the contact details below:
Myself (Chloe McGrath): x18327461@student.ncirl.ie
My supervisor: michele.kehoe@ncirl.ie
If you require any additional support, please see the helplines below:
OWH (Office on Women's Health) Helpline
Call: 1-800-994-9662
24/7 Crisis National Text line for Ireland
Text: 50808
Samaritans
Call: 116 123
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Appendix D

Proof of statistical analysis and data