Exploring the Relationship Between Social Media Usage Social Comparison and Self Objectification on Appearance Anxiety: Gender differences

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Abstract

This study examined the relationship between social media engagement, social comparison tendencies and self-objectification on appearance anxiety in young adults within an Irish context, while we also explored for gender differences within these variables. The literature content to date has emphasized that higher social media usage higher self-objectification and upward social comparison, contribute to negative general well-being outcomes, including social appearance anxiety. To date it has been indicated that these negative outcomes are more likely to be associated to females. The current study urged to expand on these findings and contribute to broaden the existing knowledge within an Irish context by investigating the young adult population aged 18-29. A total of 168 participants completed an online survey with questionnaires measuring their levels of social media usage, social comparison tendencies self-objectification and social appearance anxiety. Findings from a multiple regression analysis revealed that unfavourable social comparison tendencies and increased self-objectification but not social media engagement was predictive of social appearance anxiety. Follow up t-tests showed that females exhibit higher levels of social appearance anxiety. Implications and future directions with regards to social media usage, social comparison, self-objectification and social appearance anxiety are further discussed.

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Introduction

Social appearance anxiety is defined as "the fear that one will be negatively evaluated because of one's appearance". (Hart et al., 2008) There are various types of social anxiety fears such as: the fear of social interaction, fear of scrutiny and fear of negative evaluation. (Levinson & Rodebaugh, 2012) Social appearance anxiety represents a more recent construct of social anxiety and has been found to be positively correlated with social interaction anxiety, fear of scrutiny and measures of negative body-image. Social appearance anxiety is considered different to body image concerns as it focuses on fears evoked by others on one's appearance rather than a general dissatisfaction in one's body image. (Hart et al., 2008; Levinson & Rodebaugh, 2012) Social appearance anxiety stems from physical characteristics such as weight, height, muscle structure, facial structure, skin tone and other physical features. (Ayar et al., 2018) Today physical characteristics play a prominent role in societies view as the physical attractiveness ideal in the western culture encourages women to pursue a "slim" or "thin" figure (Groesz, et al., 2001; Thompson & Stice, 2001); This stereotypical ideal is highly illustrated via TV advertisements, movies, magazines and most recently social media platforms such as Facebook or Instagram. (Fardouly & Vartanian, 2016) Social appearance anxiety has been found to particularly influence the frequency of social media usage through the desire of privacy and studies show that young people who encounter face-to-face communication anxiety tend to use social media more frequently than their counterparts. (Ayar et al., 2018) This could be explained by the possibility that individuals who are relatively more anxious about their appearance tend to use social media platforms more frequently or because higher usage of social media sites directly increases the likelihood of social appearance anxiety. With regards to the traditional mass media exposure, studies suggest that they are among the highest strongest communicators of appearance ideals. (Tiggemann, 2011) For example in one experimental study it was found that young

women who were presented with advertisements featuring idealized images reported higher appearance anxiety than the control group who viewed non-idealized images. (Monro & Huon, 2005) Furthermore, a six-month longitudinal study examining the association between appearance anxiety and appearance-focused magazine exposure resulted in portraying that magazine exposure was positively correlated with the internalization of appearance ideals and attribution of social rewards to physical attractiveness which further related to social appearance anxiety. (Trekels, & Eggermont, 2017) Such findings highlight the vulnerability of individuals that are constantly being presented with unrealistic and unattainable physical characteristics for both men and women as they tend to begin to worry that their own appearance does not comply with the "ideal standard" and ultimately fear being judged negatively by others leading to the establishment of a new form of social anxiety which researchers now label as social appearance anxiety. (Hart et al., 2008) Such concerns in one's appearance is sought to affect both self-image and overall well-being. (Levinson & Rodebaugh, 2011) Despite the negative consequences related to excessive magazine exposure, research to date has shown that both males and females are actively seeking magazines due to the information about appearance-related topics which can in turn be implemented to their own physical appearance later. (Levine, et al., 1994) This conveys magazines to be rather voluntary consumption of information in comparison with Tv advertisements and other entertainment-oriented media experiences which is encountered rather coincidentally. (Harrison & Cantor, 1997) A high amount of mass media advertisements continuously urges to promote the idea that body shape and size is flexible and that achieving the thin ideal is easily attainable. (Brownell, 1991) However it is an important factor to acknowledge that these media advertisements are typically portrayed by celebrities who are emulated through clothing, make up and expensive beauty products. (Duke, 2002) Typically, it is now acknowledged that magazines focus on "external beauty"

which mainly aims to be promoted through models that are being highly feminine and exhibiting, sexual and thin ideals for women, whilst male models are characterized by highly muscular physique. This leads to a diminished emphasis on "internal beauty" which relates to on one's personality traits, and cognitive abilities. (Leit, et al., 2001; Yan & Bissell, 2014) Furthermore content analyses has shown that magazines and general mass media contain a disproportionate amount of content solely based on appearance. (Willis & Knobloch-Westerwick, 2014) The overall main disadvantages of social appearance anxiety are body-dissatisfaction, eating behaviour disorders such as anorexia and bulimia nervosa, depression and eating anxiety such as orthorexia nervosa which is described as an "abnormal obsession with healthy food." (Donini et al., 2005; White & Warren, 2014) It is important to state that orthorexia nervosa is not defined in the DSM-V criteria, although researchers have accentuated that it is a real syndrome which requires more attention. (Bundros et al., 2014) Additionally we should consider that not all information aimed at improving physical appearance is to be perceived negatively, nutritional information can be highly beneficial by improving healthy lifestyle behaviours, encouraging regular physical activity, healthy dietary habits and adequate sleep while discouraging use of cigarette and alcohol. (Eguchi et al., 2014) A balanced and effectively healthy nutrition can decrease the risks of diseases such as cancer and cardiovascular disease and is associated with improved life satisfaction, increased optimism and enhanced self-respect. (Oberle, et al, 2017) Today, evidence suggests that anxiety disorders and eating disorders are often comorbid with 83 % of individuals with an eating disorder also eligible to meet the criteria for an anxiety disorder, with obese individuals exhibiting the highest rate in comparison to the general population. (Brosof & Levinson, 2017; Levinson & Rodebaugh, 2012) Findings, on the failure to meet the ideal standard of beauty is associated with negative outcomes such as body-dissatisfaction and lower self-esteem which in turn indicates a highly concerning societal factor to be reviewed

and assessed. (Becker, et al., 2004) To date the literature has unveiled the influence of appearance-focused magazines on people's body-image (Slater & Tiggemann, 2014) and body dissatisfaction (Clark & Tiggemann, 2006; Tiggemann et al., 2013) whilst studies investigating the association between magazine exposure and social appearance anxiety is currently limited. (Trekels & Eggermont, 2017) Given that findings are limited and due to the unique contribution associated with distorted eating, social appearance anxiety should be assessed further. (Levinson et al., 2013) Researchers are arguing that one's physical perception is inherently social, and that body image research shall be keener on acknowledging the complexity of the ways which people perceive and evaluate themselves in different contexts and situations. (Tiggemann, 2011) With many studies conducted to determine the association between media exposure and willingness to pursue the appearance ideal of a thin figure indicating a consistent strong positive correlation it is becoming more apparent that one should minimize their levels of exposure to reduce some preventable negative outcomes. (Utter et al., 2003) Research suggests that higher levels of female ideal portrayal consumed through mass media higher the tendency to conform with the ideal standard of a thin figure, although not all females are affected to the same degree relating increased vulnerability to individuals who focus their attention on the appearance aspect of things. (Monro & Huon, 2005) A common theme apparent through the literature states that women are more affected than men in relation to their physical characteristics and exhibit more negative outcomes, one reason that might influence this might be explained by the self-objectification theory developed by Fredrickson and Roberts in 1997. (Szymanski & Henning, 2006) The theory speculates that females are subjected to pervasive cultural practices such as gazing, commentary, and evaluation that sexually objectify the female body and virtually treats it as an object that exists for the pleasure and use of others. (Szymanski & Henning, 2006) The theory further suggests that sexual objectification of women can

contribute to negative mental outcomes via two central routes; The first route being insidious and indirect and includes women's internalization of objectifying experiences or self-objectification. The second route is highly more extreme and direct and includes direct actual sexual victimization such as sexual harassment. (Fredrickson & Roberts, 1997) Initially the theory suggests that females as a direct result of objectification experiences internalize the outsider perception of themselves and begin to self-objectify by treating themselves as an object to be evaluated by others based on their appearance which similarly to social appearance anxiety takes self-evaluation to the perspective of a third person. (Szymanski & Henning, 2006) Respectively self-objectification is also associated with restrictive eating, and depressive symptoms. (Calogero, 2004) One potential factor which may explain this phenomenon is because some females highly desire the thin ideal appearance, but there are many preventing uncontrollable characteristics such as genetics. (Polivy & Herman, 1999) Perceived flaws in appearance is suggested by researchers to be one of the core contributors to explain this phenomenon. (Hart et al., 2008) Clinical and epidemiological studies have consistently illustrated that majority of people with anorexia and bulimia nervosa suffer one or more anxiety disorders with evidence continuingly determining social anxiety disorder as being the highest form of anxiety to be associated with individuals suffering from an eating disorder. (Godart, et al., 2000; Godart et al., 2003) Further research suggests that overweight women experience various forms of discrimination potentially contributing to higher social appearance anxiety and self-objectification. (Crandall, 1994; Rothblum, 1992) In an experimental study measuring experimentally induced self-objectification (Fredrickson et al., 1998) conducted a study where he surveyed participants degree of body shame and measured the amount of food participants left following an eating task. Participants who scored higher on measures of self-objectification reported higher levels of body-shame which in turn predicted restrained eating. (Muehlenkamp & Saris-Baglama, 2002) It is also supported that

eelings of fear, shame and disgust is often experienced by females during the transition from girlhood to womanhood as they sense they are becoming more visible to society as mere sexual objects. (Lee, 1994) Due to such concerning factors it has been widely stated that women are at a disproportionate risk for a variety of mental health problems. (American Psychiatric Association, 1994) Self-objectification theory literature focused primarily on females although researchers are now attempting to expand on the theory by encompassing males as well. With females compiling a large rate of occurrence of self-objectification incidents, it is important to acknowledge that males can also become victims of this trend of objectification. (Moradi & Huang, 2008) Research has found that self-objectification is uniquely related to body image concerns surrounding muscularity. (Dahl, 2014) Grieve and Helmick (2008) found that males who have a higher tendency of self-objectification are more likely to report symptoms of muscular dysmorphia, a disorder where individuals become fixated on one's level of perceived muscle with authors theorizing that this could be the equivalent of eating disorder for females. (Grieve & Helmick, 2008) Ultimately with such findings regarding self-objectification and men it has been concluded that the theory is applicable for both males and females with exposure to self-objectification resulting in internalized perception of oneself which simultaneously applies for both genders. (Moradi & Huang, 2008)

One recognised mediating factor relating to self-objectification is social comparison. (Fredrickson et al., 1997) Social comparison theory was first originated by Festinger (1954), and allocates the idea that individuals have a complete drive to evaluate themselves in comparison to others. The literature suggests that individuals develop an urge to compare themselves with others with regards to certain aspects of their lives and to boost certain aspects of themselves. (Festinger, 1954; Suls & Wheeler, 2013) The theory consists of two forms of social comparisons individuals make, one being social comparison of ability and

second being social comparison of opinion. (Festinger, 1954). The social comparison of ability is typically competitive in nature with focus around achievements of performance. (Festinger, 1954; Suls et al., 2002) In contrast social comparison of opinion amplifies it's focus on attitudes and beliefs and thus unlike social comparison of ability is not competitive in nature. (Gibbons & Buunk, 1999; Festinger, 1954) To expand on the theory of social comparison developed by (Festinger, 1954), researchers have developed a single featured construct of social comparison and the theory of upward and downward social comparison was initiated. (Wills, 1981; Wood, 1989) The expansion of the theory focuses on the direction of the comparison, with (upward comparison) regarding individuals who compare themselves with others who are "better" off than them, and (downward comparison) regarding individuals they perceive as "worse" off than themselves. (Wills, 1981; Wood, 1989) Upward comparison is found to motivate individuals to adopt habits and ultimately become like their comparison targets. (Lockwood & Kunda, 1999) This sort of comparison, however, often results in individuals developing negative outcomes such as poor self-evaluation. (Collins, 1996; Taylor & Lobel 1989) Downward social comparison contrary to upward comparison often results in improvements in self-evaluation as it presents the perception of how things could potentially be worse. (Aspinwall & Tayl asor, 1997) Previous research on social comparison theory has linked a strong association between an individual's tendency to compare one's appearance to others and development of negative outcomes such as increased anxiety and self-objectification. (Beopple & Thompson, 2016; Keery, et al., 2005) One study for example explored the relationship between frequent Instagram usage and following fitspiration images (a word amalgamation of fitness and inspiration), with body-image concerns and self-objectification among women aged 18-25. Results explained that Instagram has a negative influence on women's body image, with findings indicating higher Instagram usage and following fitspiration pages to be associated with internalization of the

thin-ideal and increased self-objectification. (Beopple & Thompson, 2016) This association was mediated by internalization of overall appearance comparison tendencies. (Fardouly et al., 2018). With the growing influence of technology and particularly the development of social networking sites such as Facebook and Instagram it is becoming increasingly important that research should be conducted in order to analyse the impact of social media usage on social comparison tendencies self-objectification and social appearance anxiety. To date there has been a vast amount of research aimed at investigating the relationship of mass media effects on body-image, but little research aimed at investigating the mass media effects on social appearance anxiety (Tiggemann & Slater, 2014; Trekels & Eggermont, 2017) Furthermore, a high volume of research has solely focused on traditional media effects on negative body-image concerns and only in recent years that it has become more suggestive that studies should investigate the impact of social media platforms and the effects these platforms have on its active users. (Fardouly & Vartanian, 2016) In the broadest term social media is defined as any online service through which users can create and share a variety of personalised content. (Bolton et al., 2013) Social media has been around since the birth of Gen Y (1981) although it was not until after 2003 that it became widely adopted, (Boyd & Ellison, 2007) and only over the last decade that it has become increasingly prevalent in society. (Andreassen, et al., 2017) Today it is estimated that around a third of the global population has been a member of at least one social networking site. (Hawi and Samaha, 2016) With such increasing influence around the world, it is not surprising sing that figures show an increase in prevalence also within an Irish context. As of 2019 research figures explained that over 40 % of the entire Irish population has an Instagram account and that over 60% of the population has a Facebook account. On both platforms it has been represented that over half of the platform's users access the platforms daily. (Porter, 2020) As social networking sites are highly influential today research is extremely valuable by highlighting

negative and positive outcomes and to further support a healthy online environment. To date the literature has indicated a positive correlation between depression and usage of Facebook and Instagram. (Lup et al., 2015; Tandoc et al., 2015) However, debate to date is still ongoing aimed at determining weather depressed people are more inclined to use social media platforms or does use of social media platforms generally contributes to depression in individuals. This makes depression and social media usage a current hot topic with aims to establish the viable causes of effect between the two variables. Some of the studies on social media usage have also found a positive correlation with body-image concerns, lower self-esteem and higher levels of loneliness. (Hunt, et al., 2018; Woods & Scott, 2016) Although research appears to explain that social media usage can negatively impact one's general well-being and overall life satisfaction it is extremely important that future research is not only aimed at determining relationships of social media use and psychological variables but more generally to be focused on determining the causes which determine these positive correlational relationships. Such types of existing studies indicates that social comparison is a mediating factor between social media usage and depression. (Tandoc, et al., 2015) Ultimately as the prevalence of social media in society has been continuously growing, there has also been an increased trajectory of social anxiety and depression, which in turn leads to substance use, mental health problems and suicide. (Keles, et al., 2019)

Overview of the Findings

Overall, there is generally far less research done on social appearance anxiety in comparison to research aimed on negative body image and other types of social anxieties. Traditionally, the vast majority of previous research focused mainly on the effects of mass media, such as Tv advertisements and only more recently that studies have been aimed to determine the effects of social media and particularly on social appearance anxiety (Tiggemann & Slater, 2014) Furthermore, to date very little research however evaluates the

effect of self-objectification to both males and females with much of the literature examining the internal factors in contrast to the external factors that influence individual's tendency of self-objectification. (Fredrickson et al., 1998) Future research is therefore required to focus on more recent subcomponents of mass media by investigating social appearance anxiety and social media usage but also to analyse to what extend self-objectification plays a role in the development of social appearance anxiety for females in comparison to males. Lastly, there is also little research on comparison tendencies focused on males compared to females and is therefore an important aspect to be considered in our study in order to find out how these tendencies influence social appearance anxiety which is yet very little understood thoroughly.

The Current Study

The aim of the current study is to examine the complex relationships between weather social appearance anxiety can be aided either positively or negatively by social media usage, self-objectification and a tendency towards social comparison, while also accounting for gender differences between these factors. The sample age 18-29 was preferred as it was concluded that this age range is most active on social media. (Cohen et al, 2017) Furthermore, the young adult population appears throughout the literature as being more susceptible to poor outcomes regarding social anxiety. (Hart et al., 2008) This study is of important significance as it will aid to identify the impact of social media engagement, social comparison tendencies, and self-objectification can have on social appearance anxiety which in turn is linked to binge eating, depression and other negative health outcomes. (Levinson & Rodebaugh, 2011) Precisely, the research questions for this study are; is there a relationship between social media engagement, social comparison tendencies, self-objectification and social appearance anxiety, can social media usage and social comparison tendencies and self-objectification predict social appearance anxiety in young adults and finally, do females and males differ in social media engagement, social comparison tendencies self-objectification

and social appearance anxiety. Based on previous findings provided throughout the literature, we hypothesize; that there will be an existing relationship between the predictor variables (PVs) social media, social comparison and self-objectification, and the criterion variable (CV) social appearance anxiety. Hypothesis two is that higher social media engagement, negative social comparison tendencies (downward social comparison) and higher self-objectification will predict social appearance anxiety. The final and third hypothesis is that females will score higher in social appearance anxiety, negative social comparison and will score significantly higher on self-objectification compared to males.

Methods

The current study sample consisted of a total of 174 participants of which 6 were excluded due to incompletion of surveyed questionnaires summing our study to 168 participants. The study consisted of 60.7 % females (n=102) and 38.7 % males (n=65) and 1 non-binary participant which was also untimely excluded from our analysis. Age ranged between 18-29 with the highest response rate received by 22-year-olds.

. The minimum number of necessary participants **w**as calculated by using Tebachnick and Fidell (2013) formula for calculating sample size for multiple regression analysis ($N > 50 + 8m$). All participants were recruited via convenience sampling through use of the researcher's social media platforms (Facebook & Instagram). To ensure that all ethical considerations were met, all participants partaking in the current study must not have been under the age of 18 and no older than 29 and consent was obtained after participants were presented an information sheet.

Materials

The current study was composed of demographic questions regarding gender and age and an additional four distinct scales of measure incorporated on "Google Forms" which is an accessible and reliable survey builder.

Social Media Engagement Questionnaire: (SMEQ): (a=.82 - .89) this is a 5-item Likert scale developed by (Przybylski, Murayama, DeHaan & Gladwell, 2013) designed to measure individuals extend of social media use. The highest score is 35 and lowest is 0 (See appendix: II) The total score is computed by adding up the total scores of all five questions. The measured response anchors ranged from 0 = *Not one day* to 7 = *Every day.* The Cronbach alpha for the current study was (a= .84) indicating a very good reliability and internal consistency.

Social Comparison Scale: (SCS): (a= .91- .90) This is a scale developed by (Allan and Gilbert, 1995). It is a scale which measures an individual's self-perceptions and covers judgement in relation to how one feels in comparison to others. The social comparison scale is an 11-item bipolar construct that for example goes from 0 = Inferior to 10 = superior. Participants are required to analyse themselves in relation to others, scoring is achieved by adding up all the numbers with lower scores indicating feelings of inferiority and general negative self-perception. (See Appendix III for full details) The Cronbach Alpha for the current study was (a= .88) this suggests a very good level of internal consistency.

Self-Objectification Scale: (SOS) – (a=.79 - .89) This is a 10- item measure developed by (Fredrickson et al., 1998) and is interested in how people think about their bodies. The questions identify 10 different body attributes. (See Appendix IV) Participants are asked to rank order these body attributes from that which has the greatest impact on your physical self-concept (rank this a "9"), to that which has the least impact on your physical self-concept

(rank this a "0"). It is important that participants do not rank the same rank to more than one attribute with 9 = greatest impact, 8 = next greatest impact, 1 = next to least impact, 0 = least impact

Scores are obtained by separately summing the ranks for appearance-based items (3, 5, 6, 8 and 10) and competence-based items (1, 2, 4, 7 and 9), and then subtracting the sum of competence ranks from the sum of appearance ranks. Scores may range from -25 to 25, with higher scores indicating a greater emphasis on appearance, interpreted as higher trait self-objectification. The Cronbach Alpha for the current study was (a=,77) suggesting a good acceptable level of internal consistency.

Social Appearance Anxiety Scale: (SAAS**) -** (a=.90) This is a 16- item measure developed by (Hart et al., 2008) to assess anxiety about being negatively evaluated by others because of one's overall appearance, including body shape. Psychometric properties research has demonstrated high test reliability, good internal consistency, good factor validity, incremental validity (represents a unique predictor of social anxiety above and beyond negative body image indicators.) The Cronbach Alpha for the current study was (a=.93) suggesting a reliable level of internal consistency.

Design

This study implemented an experimental cross-sectional research design and was quantitative in nature. There were 3 predictor variables (PV's) labelled as followed: social media engagement, social comparison tendencies and self-objectification. The criterion variable (CV) was social appearance anxiety.

Procedure

All participants in the current study were recruited through social media platforms via Facebook and Instagram. The participants were all approached through text message and

supplied with a link to "Google Forms". Once accessing the link participants were provided an information and consent form with details about the nature of the study and a request to consent voluntarily if they would like to be forwarded the questionnaires which the study is based on. (See appendix VI) Participants were informed that they have the right to withdraw at any given time, although due to data collection being anonymous, participants were also informed that they can no longer remove their data once they have submitted their answers. All participants were requested to be between 18-29 years old to be able to participate as this study focused on young adults. Participants were firstly required to complete, the social appearance anxiety questionnaire followed by social media engagement questionnaire, social comparison scale and lastly self-objectification scale. Once all questionnaires were completed participants were presented a debriefing form with my research email and helpline numbers in case of apparent distress due to participating in the current study. (See appendix VII)

Ethical Considerations

All data was gathered in line with the ethical guidelines of NCI. All participants were informed about all the risks and benefits assessed for participating in the study prior to participating in the study. Participants were provided with an open page via Google Forms and guidelines were to be thoroughly understood before obtaining consent. Initially participants were made aware that all data was to be obtained anonymously and once submitted the responses could not be retracted. Participants were thus made fully aware about the nature of the study and requirements such as the one for age restricting the study to young adults ranging from 18-29 years were clearly stated. Once completing the form participants were provided with a debriefing form thanking them for their participation and were offered with the researchers email and helplines if any distress was caused in relation to their participation in the study.

Results

Descriptive Statistics

The current data is taken from a sample of 174 participants of which 168 completed the study and were included in the study. The study consisted of (n=102) females and (n=65) males, and 1 non-binary participant which was untimely excluded from our result findings. Age ranged between 18-29 with the highest response rate received by 22-year-olds.

There are four continuous variables including social appearance anxiety, self-objectification, social comparison and social media engagement. Mean, standard deviation, maximum and minimum scores are illustrated in Table1 below.

Table 1

Table template for descriptive statistics – continuous variables

	Mean	Median	SD	Skewness	Kurtosis	*Minimum*	*Maximum*
Social Media	24.88	25	7.67	-.328	-.722	5	35
Social Comparison	66.26	67	14.92	-.466	.832	17	105
Social Appearance	43.59	41	14.22	.523	-.626	21	81
Self-objectification	-1.35	-1.7	.158		1.618	-21	22
Age	22.24	22	2.416	.682	.640	18	29

Inferential Statistics

Preliminary analysis was performed to ensure no violation of the assumptions of normality and multicollinearity; All variables were normally distributed and problems with multicollinearity were not indicated with total values for Tolerance being (.985) for social media, (983) for social comparison, (.978) for self-objectification and VIF values being,

(1.016) for social media, (1.018) for social comparison and (1.023) for self-objectification respectively. We applied an analyses of Pearson correlation coefficient to assess the relationship between social media engagement, social comparison, self-objectification and social appearance anxiety. There was a strong negative correlation between the two variables social comparison and social appearance anxiety ($r = -.528$, n 168, $p < .01$). This indicates that these two variables share approximately 28% of variance. Results indicate that higher levels of negative social comparison tendencies are associated with an increase in social appearance anxiety. There was a non-significant correlation between the other variables self-objectification and social media on social appearance anxiety, see table 2 below.

Table 2

Correlations between all continuous variables.

Variable	1.	2.	3.	4.
1. Social Media	-			
2. Social Comparison	.066	-		
3. Social Appearance	.051	-.528**	-	
4. Self – Objectification	.097	-.107	.220**	-

Note: Statistical significance. *p < .05; **p <.01; ***p <.001

A standard multiple regression analysis was performed to determine how well social appearance anxiety levels could be explained by the three predictor variables which includes social media engagement, social comparison and self-objectification. Since a no priori hypothesis has been made to determine the order of entry of the predictor variables, a direct method was used for the analysis. The results from table 3 show that the model explained a total of 31 % in variance in social appearance anxiety ($F (3, 164) = 24.61$, $p < .001$). Two of the three predictor variables, social comparison, ($\beta = -.51$, $p < .001$) and self-objectification (β

= .16, p <.017). was found to uniquely predict social appearance anxiety to a statistically significant level (See table 3 below)

Table 3

Standard multiple regression model predicting social appearance anxiety total score

Variable	R	R^2	*B*	*B*	*SE*	*P*
Model	.557	.310				
Social Media			. 13	.07	.12	.28
Social comparison			-.49	.52	.06	<.001***
Self-objectification			.32	.16	.13	.017**

Note: $R^{2\ = R\text{ -Squared;}}$ *β = Standardized beta value; B= unstandardized beta value; SE= Standard errors of B; N=168; Statistical significance: *p<.05; **p<.01; ***p <.001*

Levene's test for equality of variance was non-significant for all variables social appearance anxiety (p=. 07), self-objectification (p= .29), social comparison (p=.06) and social media engagement (p= .51), and therefore the data does not violate the assumption of homogeneity of variance. Tests for normality revealed that all variables were normally distributed. An independent samples t-test was conducted to compare social appearance anxiety between males and females. Results revealed there was a significant difference in scores, with males (M = 38.60, SD = 12.50) scoring significantly lower than females (M = 46.64, SD = 14.41), t (165) = -3.69, p = <.001, two tailed. The magnitude of the differences in the means (mean difference = -8.04, 95% CI: -12.33 -3.74) was moderate (Cohen's d = -0.9)

An additional independents sample t-test was conducted to compare group differences between males and females and self-objectification. There was no significant difference in scores for males (M = -2.61, SD = 6.49) and females (M = -.61, SD = 7.50; t (165) = -1.77, p

= 0.78, two tailed. The magnitude of the differences in the means (mean difference = -2.00, 95% CI: -4.24 to .23) was small (Cohen's d = -0.02)

Another independent sample t-test was conducted to compare group differences between males and females and social comparison. There was a significant difference in scores for males (M = 69.44, SD = 11.88) and females (M = 64.42, SD = 16.29; t (165) = 2.15, p = 0.33, two tailed. The magnitude of the differences in the means (mean difference = 5.02, 95% CI: -.41to 9.6) was small (Cohen's d = -0.03)

Ultimately, we conducted an independent sample t-test to compare group differences between males and females and social media usage. There was no significant difference in scores for males (M = 25.35, SD = 8.02) and females (M = 24.55, SD = 7.50; t (165) = .65, p = .52, two tailed. The magnitude of the differences in the means (mean difference = .79, 95% CI: -1.62 to 3.21) was large (Cohen's d = 2.55)

To summarise, there is a significant correlation between social comparison and social appearance anxiety and non-significant correlations between self-objectification and additionally social media usage and social appearance anxiety. The amount of time one spends on social media sites does not predict social appearance anxiety, although negative social comparison and self-objectification has predicted social appearance anxiety to a statistically significant level. Differences in gender with regards to self-objectification was relatively small and non-significant, however there was a significant difference in social appearance anxiety and levels of social comparison tendencies with males scoring significantly lower. Overall results demonstrate that social comparison is the highest mediating factor leading to increased social appearance anxiety.

Discussion

The present study aimed to investigate the relationship between social media usage, social comparison and self-objectification on social appearance anxiety. The study also aimed to investigate the differences in gender within each of the presented variables. Previous research has indicated that social media usage of platforms such as Instagram and Facebook, to be associated with poor outcomes of mental health and self-evaluation. Findings include and relate to depression, distorted eating, increased anxiety, lower self-esteem and increased body-dissatisfaction. (Donnelly, 2017; Keles, et al., 2019) Research on social appearance anxiety and gender differences regarding self-objectification is quite limited in comparison to research regarding body-image and social comparison tendencies. (Lindner, et al., 2012) The literature to date on social comparison tendencies for example, has been largely linked with body image concerns with upward social comparison being the leading factor for these findings. (Jones, 2001; Morrison, 2004) With regards to findings on gender difference, research has shown that females are typically more inclined to indulge in negative social comparison tendencies compared to males. (Guimond et al., 2006) It is presently encouraged that social comparison tendencies should be investigated further with relation to social appearance anxiety and self-objectification. (Tylka & Sabik, 2010) The present research, formulated three hypotheses to address the aims of the study.

Based on prior literature, it was hypothesized that (H1) there would be a relationship between social media engagement, social comparison tendencies, self-objectification and social appearance anxiety. This was explored by using a correlation analysis: results found that there was a strong negative correlation between the two variables social comparison and social appearance anxiety. These findings suggests that higher rates of negative social comparison tendencies was associated with higher levels of social appearance anxiety. Considering the consistent similar findings found on body-image concerns we can speculate

that upwards social comparison to be a leading mediating factor contributing to social appearance anxiety, body-dissatisfaction and body-image concerns. (Morrison et al., 2004; Thompson et al., 1999) Surprisingly however, a non-significant correlation was found between social media engagement and social appearance anxiety. This finding conflicts with recent research which found social media usage to contribute to increased social appearance anxiety (Ayar et al., 2018; Ghaznave & Taylor, 2015) Furthermore, there was a non-significant correlation outcome between self-objectification and social appearance anxiety which is inconsistent with prior research findings. (Adams et al., 2017; Choma et al., 2010)

For (H2), we applied a multiple regression analysis to investigate weather social media engagement, social comparison and self-objectification predicted social appearance anxiety. The overall model was significant and explained 31% of variance in social appearance anxiety. Moreover, social comparison and self-objectification was found to uniquely predict social appearance anxiety to a statistically significant level. Findings are consistent with previous research implying that high rates of social comparison and self-objectification are associated with negative outcomes such as body-image concerns which is found to mediate levels of social appearance anxiety (Collins, 1996; Moradi & Huang, 2008; Trekels, & Eggermont, 2017)

Ultimately, (H3) stated that females will score higher in social appearance anxiety, negative social comparison and will score higher on self-objectification compared to males. Differences in gender were investigated with relation to the extend that each group socially compared themselves to others, engaged into social media, self- objectification and social appearance anxiety. Results from t-test analysis suggests that females scored significantly higher than males on overall levels of social appearance anxiety. This is consistent with previous findings. (Feingold & Mazzella, 1998; Szymanski & Henning, 2006)

Additionally, there was no significant levels of self-objectification compared to males, these findings are not consistent with previous research (Oehlhof et al.,2009; Roberts & Gettman, 2004) Our study therefore may indicate that self-objectification can affect both males and females similarly or that women are becoming more susceptible to being objectified and therefore diminishing their levels of self-objectification in this study. Furthermore, there was no significant levels of social media usage between genders. This is also inconsistent with previous studies which found that women use platforms such as Facebook more frequently than men whilst making it an integral part of their lives. (Biernatowska et al., 2017; Brell et al., 2016) Our results could potentially be explained by cultural differences or because the distribution of social media usage is more evenly distributed presently due to the ongoing circumstance of being in a global pandemic. Lastly, males scored significantly lower on levels of social comparison compared to females.

Based on the above findings hypotheses 1 and 3 are partly rejected and hypothesis 2 can be accepted.

The study revealed that social comparison is a predictive element of social appearance anxiety and that women are more likely to indulge in social comparison tendencies. These findings make it a concerning societal factor to be addressed as women are more susceptible than men to desire the proposed body-image image ideal and therefore affecting their personal self-image and overall well-being. (Levinson & Rodelaugh, 2011) Our findings could be explained because women are developing feelings of fear, shame and disgust as they make the transition from girlhood to womanhood whilst ultimately developing a sense that they are constantly being objectified and evaluated. (Lee, 1994) Another factor that could potentially add to our findings is that women are bombarded with a disproportionate amount of content solely based on appearance further developing a sense of social comparison and social appearance anxiety due to fear of being judged by others in contrast to the ideal based

norm of being thin. (Willis & Knobloch-Westerwick, 2014) With the growing influence of social media platforms we can see that appearance-based influence is highly relevant in our society. Female influencers such as, Ariana Grande, placing third on most followed Instagram users with a following of 252.82 million followers, whilst being a musician and actress, Kylie Jenner placing fourth with 249.69 million followers whilst being a Television personality, model and businesswomen, followed by Selena Gomez in fifth place 245.49 whilst being a musician and actress, all exhibit the thin portrayal ideal to whom many of their followers ultimately end up comparing themselves to due to the nature of Instagram being an image focused platform, unlike Twitter which is thought based. (Statista, 2021)

Additionally, Dwayne (The Rock) Johnson, who is an extremely muscular male actor and wrestler is the third most followed person on Instagram with a total of 254.72 million followers. (Statista, 2021) Findings from our current study support that social comparison is predictive of social appearance anxiety, makes it a concerning factor as previous research indicated that males exposed to muscular types of physiques on social networking sites can develop negative outcomes such as body image concerns which in turn can mediate social appearance anxiety. (Peng et al., 2019) Such studies suggest that it is important to be mindful of who we choose to follow and compare ourselves to as it can ultimately influence our general well-being and social appearance anxiety.

Today there appears to be an emerging trend for a minority of females on platforms such as Instagram implying in promoting one's body in a sexualized manner and therefore relating directly to self-objectification theory (Fredrickson & Roberts, 1997). As Instagram is known for banning nudity, users direct their following to platforms such as Only fans which contrary urges to run on nakedness. This platform typically involves women selling sexualized material to their paid monthly subscribers. (Ryan, 2019) To date research on the topic is niche although it would be encouraging for future research not to neglect such rapidly

growing online trend and to evaluate to what extend this can lead to negative outcomes once a model would terminate their existing profile. For example, such emerging trend could potentially explain our non-significant findings on self-objectification and gender differences suggesting that the self-objectification theory outcomes are becoming relatively outdated with more young female adults which was our target population in our study, normalizing being objectified by others and thus diminishing negative outcomes and perhaps increasing one's confidence and body-satisfaction. However, it is important to acknowledge that our findings did suggest that self-objectification was a unique significant predictor in social appearance anxiety which was consistent with prior research findings suggesting that it is presently a societal issue to be further addressed and explored as self-objectification can contribute to depressive symptoms, distorted eating and sexual dysfunction. (Oehlhof et al.,2009)

Strengths and Limitations

The entirety of the scaled applied in this study relied solely on self-report measures which was a partial limitation of the study. Furthermore, some participants may not have responded entirely truthfully on their perceived levels of social media engagement self-objectification social appearance anxiety and social comparison despite data being collected anonymously. With all data collected dependent on self-report scales the data becomes prone to self-selecting bias, resulting on answers being evoked on feelings apparent in the moment. It is therefore necessary that experimental and longitudinal studies are conducted in the future. Furthermore, it is important to acknowledge that our data conducted is correlational in nature and therefore constraining casual inferences. An additional limitation is that the study included limited demographic information: excluding race, employability and sociocultural background for any of our observed results.

An acknowledgeable strength of the study was the age sample which focused on young adults aged 18-29. This allowed for more participants to be recruited as this population of young adults represents the most active age group of social media users. This makes our findings valuable and practical. Moreover, all scales in the present study presented good internal reliability with good results for Cronbach's Alpha. Additionally, our study exceeded the minimum number of participants from the suggested sample size formula by Tebachnick & Fidell (2013), quite substantially.

Implications

To date there is a large amount of research that strongly indicates that social comparison can predict negative outcomes such as body-dissatisfaction and body image concerns. Our study has added to these findings by findings suggesting that social comparison is a significant predictor of increased social appearance anxiety which evokes on fears of being judged by others based on one's appearance. Furthermore, self-objectification which is based on sexualization of women was also found to statistically predict social appearance anxiety, Hence, the practical implications of the current study are social comparison and self-objectification should be assessed in attempt to reduce the negative outcomes associated with social media use and social appearance anxiety. Based on our current findings regarding the young adult population in Ireland it would be recommended that the minister of health (Stephen Donnelly, TD) should consider implementing a newly formed policy outlining the negative impact which social comparison and self-objectification can have on social appearance in the 'Corporate Legislation, Mental Health, Drugs Policy and Food Safety Division'. Furthermore, the Health Executive Service (HSE), should consider writing public health guidelines with regards to the negative effects of self-objectification and social comparison, which could potentially decrease the detrimental outcomes relating to mental health which is associated with social appearance anxiety. Furthermore, the minister of

education (Norma Foley, TD) could consider the addition of social comparison and self-objectification findings to the SPHE curriculum thought in secondary schools. The implementation of such recommendations could decrease negative outcomes and educate future generations on the importance of these aspects which are highly predictive of depression and eating disorders. (Calogero, 2004; Levinson & Rodelaugh, 2011)

Conclusion

This study sought to expand on the current understanding of social appearance anxiety which is relatively limited. Findings showed that social comparison is negatively associated with increased social appearance anxiety, which adds to the strength of the existing findings. Self-objectification was also a direct contributor to social appearance anxiety although there were no significant gender differences which further emphasizes the relative importance of the inclusion of males in studies regarding self-objectification. To further understand these findings future studies should consider a longitudinal approach in order to find out how outcomes of social appearance anxiety, self-objectification social media usage social comparison and are affected overtime. Research committed to these topics are extremely valuable due to the negative outcomes associated, such as eating disorders and depression. (Fardouly et al., 2018; Fredrickson & Roberts, 1997; Hart et al., 2008) Therefore the implied implications of the current study are potentially firm recommendations of how different government departments could adopt and update their present policies.

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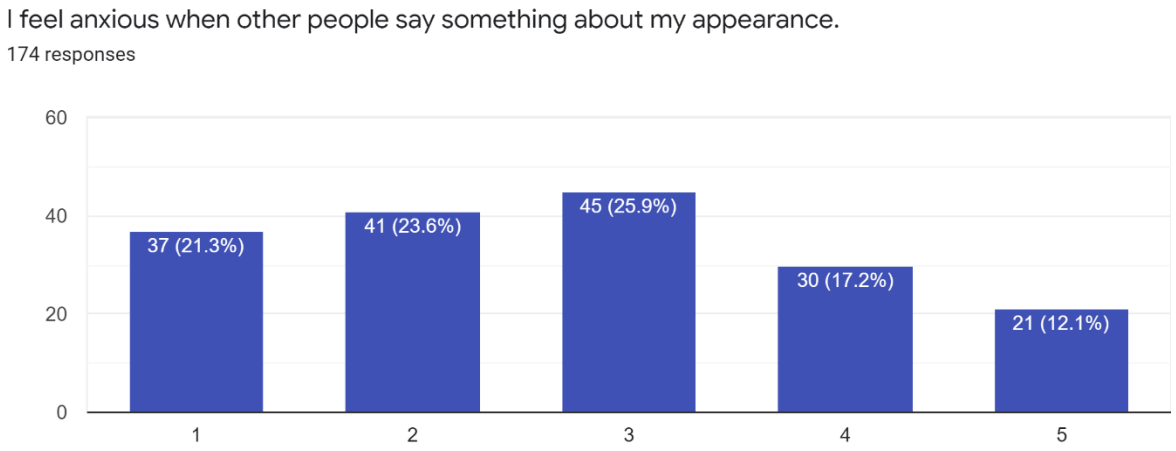
Appendices

Appendix I



Appendix II

Social Media Engagement Questionnaire: SMEQ

Przybylski, Murayama, DeHaan, & Gladwell (2013)

Participant Instructions

Response Anchors

Not one day | 0

One day | 1

Two days | 2

Three days | 3

Four days | 4

Five days | 5

Six days | 6

Every day | 7

Items

1. How often did you use social media in the 15 minutes before you go to sleep?

2. How often did you use social media in the 15 minutes after you wake up?

3. How often did you use social media when eating breakfast?

4. How often did you use social media when eating lunch?

5. How often did you use social media when eating supper?

Calculating Individual Scores

Individual scores can be computed by summing responses to all five items and forms a reliable composite measure (α = .82 to .89).

Appendix III

SOCIAL COMPARISON SCALE

Please circle a number at a point which best describes the way in which you see yourself in **comparison to others.**

For example:

Short 1 2 3 4 5 6 7 8 9 10 Tall

If you put a mark at 3 this means you see yourself as shorter than others; if you put a mark at 5 (middle) about average; and a mark at 7 somewhat taller.

If you understand the above instructions, please proceed. Circle one number on each line according to how you see yourself in relationship to others.

In relationship to others I feel:

Inferior 1 2 3 4 5 6 7 8 9 10 Superior

Incompetent 1 2 3 4 5 6 7 8 9 10 More competent

Unlikeable 1 2 3 4 5 6 7 8 9 10 More likeable

Left out 1 2 3 4 5 6 7 8 9 10 Accepted

Different 1 2 3 4 5 6 7 8 9 10 Same

Untalented 1 2 3 4 5 6 7 8 9 10 More talented

Weaker 1 2 3 4 5 6 7 8 9 10 Stronger

Unconfident 1 2 3 4 5 6 7 8 9 10 More confident

Undesirable 1 2 3 4 5 6 7 8 9 10 More desirable

Unattractive 1 2 3 4 5 6 7 8 9 10 More attractive

An outsider 1 2 3 4 5 6 7 8 9 10 An insider

SCORING

Scoring, add up all items.

Sometimes it is useful to look at the 3 items of feeling left out, different and an outsider as a measure of group fit or belongingness.

DESCRIPTION

Social Comparison Scale

This scale was developed by Allan and Gilbert (1995) to measure self-perceptions of social rank and relative social standing. This scale uses a semantic differential methodology and consists of 11 bipolar constructs. Participants are required to make a global comparison of themselves in relation to other people and to rate themselves along a ten-point scale. For example, the scale asks:

In relationship to others I feel:

Incompetent 1 2 3 4 5 6 7 8 9 10 More competent

The 11-items cover judgements concerned with rank, attractiveness and how well the person thinks they 'fit in' with others in society. Low scores point to feelings of inferiority and general low rank self-perceptions.

The scale has been found to have good reliability, with Cronbach alphas of .88 and .96 with clinical populations and .91 and .90 with student populations (Allan and Gilbert, 1995,1997).

Appendix IV

The Self-Objectification Questionnaire

We are interested in how people think about their bodies. The questions below identify 10 different body attributes. We would like you to rank order these body attributes from that which has the greatest impact on your physical self-concept (rank this a "9"), to that which has the least impact on your physical self-concept (rank this a "0").

Note: It does not matter how you describe yourself in terms of each attribute. For example, fitness level can have a great impact on your physical self-concept regardless of whether you consider yourself to be physically fit, not physically fit, or any level in-between.

Please first consider all attributes simultaneously and record your rank ordering by writing the ranks in the rightmost column.

IMPORTANT: Do Not Assign The Same Rank To More Than One Attribute!

9 = greatest impact

8 = next greatest impact

1 = next to least impact

0 = least impact

When considering your physical self-concept . . .

1.. . .what rank do you assign to physical coordination?

2. . . .what rank do you assign to health?

3. . . .what rank do you assign to weight?

4. . . .what rank do you assign to strength?

5. . . .what rank do you assign to sex appeal?

6. . . .what rank do you assign to physical attractiveness?

7. . . .what rank do you assign to energy level (e.g., stamina)?

8. . . .what rank do you assign to firm/sculpted muscles?

9. . . .what rank do you assign to physical fitness level?

10. . . .what rank do you assign to measurements (e.g., chest, waist, hips)?

In administering the measure, the title is not included. Scores are obtained by separately summing the ranks for appearance-based items (3, 5, 6, 8 and 10) and competence-based items (1, 2, 4, 7 and 9), and then subtracting the sum of competence ranks from the sum of appearance ranks. Scores may range from -25 to 25, with higher scores indicating a greater emphasis on appearance, interpreted as higher trait self-objectification.

Appendix V

Social Appearance Anxiety Scale

The SAAS consists of 16 items assessing patients' self-reported anxiety about appearance-based evaluation.

I feel comfortable with the way I appear to others.

not at all 1 2 3 4 5 extremely

I feel nervous when having my picture taken.

not at all 1 2 3 4 5 extremely

I get tense when it is obvious people are looking at me.

not at all 1 2 3 4 5 extremely

I am concerned people would not like me because of the way I look.

not at all 1 2 3 4 5 extremely

I worry that others talk about flaws in my appearance when I am not around.

not at all 1 2 3 4 5 extremely

I am concerned people will find me unappealing because of my appearance.

not at all 1 2 3 4 5 extremely

I am afraid that people find me unattractive.

not at all 1 2 3 4 5 extremely

I worry that my appearance will make life more difficult for me.

not at all 1 2 3 4 5 extremely

I am concerned that I have missed out on opportunities because of my appearance.

not at all 1 2 3 4 5 extremely

I get nervous when talking to people because of the way I look.

not at all 1 2 3 4 5 extremely

I feel anxious when other people say something about my appearance.

not at all 1 2 3 4 5 extremely

I am frequently afraid I would not meet others' standards of how I should look.

not at all 1 2 3 4 5 extremely

I worry people will judge the way I look negatively.

not at all 1 2 3 4 5 extremely

I am uncomfortable when I think others are noticing flaws in my appearance.

not at all 1 2 3 4 5 extremely

I worry that a romantic partner will/would leave me because of my appearance.

not at all 1 2 3 4 5 extremely

I am concerned that people think I am not good looking.

not at all 1 2 3 4 5 extremely

Item responses are recorded on a five- point scale (1=not at all, 5=extremely). Item 1 ('I feel comfortable with the way I appear to others') is reverse coded before summing across items to produce a total score ranging from 16 to 80. Higher scores indicate higher levels of appearance anxiety.

Appendix VI

Consent and Information form

You are invited to take part in a research study. Before you decide to take part in the current study please ensure that you take the time to read and understand the information provided about the study and what this will involve for you before consenting to participate. If unsure about anything about the study, please do not hesitate to contact the researcher at alex.p.research@gmail.com.

Who am I and what this study is about?

I am currently in my final year of a BA Hons in Psychology provided by National College of Ireland. As part of completion of my degree I am required to conduct a research study thesis. This study will explore the relationship between Social Media Usage, Social Comparison and Self Objectification on Appearance Anxiety in a study of female young adults within an Irish Context.

What will taking part involve?

If you decide to take part in this study, you will first be required to provide consent by ticking the consent box. You will then be asked to anonymously provide answers to questions on Social Media Usage Social Comparison Self Objectification and Appearance Anxiety: There is no time limit on submission once you begin, and participants can choose to withdraw at any given time by simply exiting the page. Should feelings of distress arouse participants are encouraged to contact the helplines provided at the bottom of this page.

Do you have to take part?

Participation is voluntary and you have the right to withdraw at any time without consequence by exiting the questionnaire. Data cannot be withdrawn at a later stage after submission due to anonymity.

What are the possible risks involved in taking part?

Distress may be caused to participants due to the nature of the questions on appearance anxiety and self-objectification.

What are the benefits of taking part?

You can provide anonymous information that may help in understanding the behaviours associated with appearance anxiety for females in an Irish context.

How will information provided be recorded, stored, and protected?

Answers will be given through the website 'Google Forms' then stored on the researcher's computer.

Who should I contact for further information?

If you have any further questions or concerns relating to the use of this data or the questions involved, please do not hesitate to contact the researcher at alexandru.p.research.gmail.com

Appendix VII

Debriefing Form

Thank you for choosing to participate in this study concerning appearance anxiety, social media usage, self-objectification and social comparison.

If you have any further questions regarding any aspect of this study, please contact the researcher at alexandru.p.research@gmail.com.

In the event that you feel distressed by participation in this study due to the sensitive topics covered in some of the survey questions, you are encouraged to contact the following support services:

Please take note of the following support services,
Support Services:

The Samaritans: (01) 872 7700

Pieta House: (01) 623 5606

Aware Support Line: +35316766166