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A Brief Report on the Associations Among Social Media Use, Gender, and Body  
Esteem in a UK student sample

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## **Abstract**

Research into the effects of social media on personal wellbeing have been controversial in recent years, with recent research highlighting links between social media use and body esteem. This conceptual replication study aimed to explore relationships amongst social media use, body esteem and gender amongst UK university students (n=100). Participants completed measures of social media use and body image esteem. It was hypothesised that social media intensity and usage would negatively predict body esteem, with high social media intensity relating to lower body esteem. We find that gender was the only significant predictor of body esteem, with women having lower body esteem compared to men. We were unable to replicate previous findings, as our findings show no relationships amongst social media intensity, use, and body esteem.

*Keywords:* body image; social media use; cyberpsychology, health psychology, social media

## **Introduction**

Ellison (2007) defines social networking sites as semi-public profiles within a bounded system which can vary within each individual site and individual user's privacy settings. Research into the benefits of social media sites suggest strong perceptions of social support lead to a reduction in stress and increased perceived well-being (Lin and Lu 2011; Nabi et al 2013). In contrast, there are researchers who suggest social media use can lead to potential mental health problems (Kuss and Griffiths 2011; Pempek et al 2009).

### *Body image*

Grogan (2008) defines body image as an individuals' personal perceptions, thoughts, and feelings towards their own body. The term body dissatisfaction is commonly used when individuals have strong negative thoughts about their bodies. Grogan (2008) highlights the importance of encouraging positive body image perceptions to help improve physical or mental health issues. Being dissatisfied with one's body has both positive and negative consequences on physical health, as individuals either become motivated to change and exercise or prevent themselves exercising due to being ashamed and not wanting to exercise in public (Grogan, 2006). Research has suggested that women thrive for a slim body shape due to their perception of ideal body image in the media and advertisements leading to greater body dissatisfaction (Johansson et al. 2005). There are also evolutionary reasons for this preference, as men place greater importance on physical attractiveness compared to women in mate choice contexts (Bhogal, Galbraith & Manktelow, in press).

El Ansari, Dibba and Stock (2014) found that women were more likely than men to report being concerned with their body image. However, research has highlighted the importance of looking at body image esteem among men too, as in contrast to women thriving for thinness, men thrive to be

muscular with low body mass, often causing low body esteem (Thompson and Cafri 2007). Cordes, Vocks, Düsing, Bauer and Waldorf (2016) conducted research into body-directed visual attention and found that parts of the male body which appeared to be more muscular received the most attention.

A meta-analysis by Furnham, Badmin and Sneade (2002) suggested a relationship between social comparison and body dissatisfaction in men and women, although the link was stronger in women. It was further suggested that the more individuals compared themselves to others, the more they experience dissatisfaction with their bodies (Myers and Crowther 2009). Strong links have been found between body esteem and self-esteem, highlighting the fact that body esteem and ideal body images are strong predictors of low self-esteem (Heider et al 2015; Szabó, 2015).

Reel, Voelker and Greenleaf (2015) argue that adolescence is a vital stage for individuals developing a positive or negative body image. Influences that may contribute to this development include peers and media. Reel et al (2015) also argued that developing negative body image perception of oneself is linked to the development of eating disorders or dysfunctional exercise. Further research into the consequences of body dissatisfaction found that dissatisfaction was a clear predictor of increased depressive moods and decreased self-esteem at vital stages of adolescence (Bucchianeri et al 2013; Paxton et al 2006).

### *Current study*

Cohen and Blaszczynski (2015) found that participants who were exposed to Facebook reported low body dissatisfaction and higher incidences of eating disorders, thus showing the importance of social media platforms in body image research. Bair, Kelly, Serdar and Mazzeo (2012) argue that

few studies have been conducted to explore social media and body image perceptions, thus providing a rationale for conducting this study.

Recent qualitative work by Owen and Griffiths (2018) looked at body image in a group of young females. The authors found that overall, participants reported having positive body image and feeling positively about their bodies, however they also identified areas that made them feel more negatively about their appearance, a major one being social media, for example in terms of comparing their bodies against those of people they look at online.

Pepin and Endresz (2015) found a link between exposure to a variety of social media platforms and weight dissatisfaction in both men and women. Findings showed that individuals that used appearance related media websites specifically felt pressure to lose weight. Similar research by Holland and Tiggemann (2016) found links between mass media and the effects on body image and disordered eating. However, Ferguson (2018) carried out a review and concluded that the media appears to have little influence on most women's body image. For example, Whyte, Newman and Voss (2016) found that the effect of media ideals on participants' body image were small, signifying the inconsistent findings prevalent in the field. Additionally, Ferguson, Munoz, Garza and Galindo (2012) carried out a longitudinal study and found that overall, neither television exposure to thin ideal media nor social media predicted negative outcomes in their sample.

More research needs to be conducted focusing on body esteem in men *and* women, as opposed to focusing on women alone. Veldhuis, Konijn and Seidell (2012) explored how attaching weight labels to media images reduces body dissatisfaction in girls, finding mixed evidence that media

images influence body dissatisfaction in girls. The inconsistent findings outlined above provide a rationale for further research to be conducted in the field.

It is therefore hypothesised that social media intensity, and social media use would negatively predict body esteem (hypothesis 1). We further hypothesised that women would have lower self-body image perceptions compared to men (hypothesis 2).

## **Method**

### *Design and participants*

A cross-sectional correlational design was adopted to explore whether gender, social media intensity, and social media use predicted our participants' body esteem. The sample comprised of 100 students, recruited at Staffordshire University (UK), via the department's research participation scheme (69 women, 31 men, *Mage* = 19.01 years old, *SD* = 2.05).

### *Materials*

#### *Social media intensity*

We modified the Facebook intensity scale by Ellison, Steinfield and Lampe (2007) to assess individuals' social media use (rather than solely focusing on Facebook use) which reports the intensity of social media use and the number of hours individuals spent on social media per day (hours). We modified the scale by replacing 'Facebook' with 'Social media'. The scale included statements such as 'social media is a part of my everyday activity', measured on a 1 (strongly disagree) to 5 (strongly agree) Likert scale. High scores on this scale suggest high social media usage. This scale was reliable in our sample ( $\alpha = .81$ ).

The original scale consists of eight items (6 Likert scale items, one specific to the number of Facebook friends the participant has, and one item related to number of hours spent using Facebook). For our study, we included the 6 Likert-type items and the number of hours spent using social media (per day). We did not include the item related to the number of Facebook friends, as this was irrelevant to our hypotheses.

The 14-item body-esteem scale for adolescents and adults (Mendelson et al. 2001) was used to measure individuals' body esteem, which included statements such as 'I am proud of my body'. The scale consisted of a five-point Likert scale (0 = never to 5 = always). High scores on this scale suggest high self-body-esteem. This scale was reliable in our sample ( $\alpha = .77$ ).

### *Procedure*

All data were gathered online using Qualtrics and advertised using the departmental research website. This link was also shared on social media sites, such as Facebook and LinkedIn. After providing informed consent, participants completed the measures outlined above. Once all measures were completed, participants were fully debriefed (online).

To guide our anticipated sample size, an a-priori power analysis was conducted using G\*Power (Faul, Erdfelder, Buchner & Lang, 2009). To achieve 80% power (small effect size of .15 with 3 predictors, and an alpha level of .05 – all for multiple regression), G\*Power recommended 77 participants, which we surpassed.

## Results

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. Standard multiple regression was conducted to assess whether gender, social media intensity, and social media use predicted body esteem. The total variance ( $r^2$ ) explained by the model was 4.5%,  $F(3, 96) = 1.51$ ,  $p = .22$ , Cohen's  $f^2 = .045$ . The model non-significantly predicted body esteem. Table 1 provides descriptive statistics and Table 3 provides beta values for all variables. See Table 2 for correlations amongst all variables. There was a small, positive correlation between body-esteem and social media intensity. Gender was the only significant predictor of body esteem. To follow up this association, we conducted an independent samples t-test to compare men and women's body esteem,  $t(98) = 2.11$ ,  $p < .05$ , Cohen's  $d = .46$ , showing women had lower body esteem (Mean = 2.58, SD = .61) compared to men (Mean = 2.33, SD = .52).

Table 1: Descriptive statistics relating to all key variables

Variable	Mean (SD)
Body esteem	2.40 (.56)
Social media use (hours)	3.65 (1.93)
Social media intensity	3.98 (.70)

Table 2: Bivariate correlations between body esteem, social media intensity, and social media use.

	1	2	3
1. Body esteem	-	-	-
2. Social media intensity	<b>.20*</b>	-	-
3. Social media use	.01	-.06	-

\*  $p < .05$

Table 3: Results of the multiple regression model predicting body esteem, from gender, social media intensity and social media use.

Variable	$\beta$	$t$	CI (95%)		$p$	Tolerance	VIF
Social media use	.03	.27	-.05	.07	.79	.96	1.04
Social media intensity	-.04	-.36	-.19	.13	.72	.94	1.06
Gender	-.21	-2.03	-.49	-.01	.05	.98	1.02

## **Discussion**

The aims of this study were to investigate whether body esteem were predicted by social media use, social media intensity, and gender. The findings show that the only significant predictor was gender, whereby men had higher body esteem compared to women, thus supporting hypothesis 2. However, social media use and intensity were not predictive of body esteem, thus not supporting hypothesis 1. There was a small, significant, positive relationship between body-esteem and intensity of using social media.

Our findings are inconsistent with previous research, where findings have suggested positive correlations between social media and body esteem, body shame, and perceived pressure to look thin (Pepin and Endresz, 2015). This inconsistency may be due to methodology. For example, Pepin and Endresz (2015) explored body esteem and participants' use of Facebook, Instagram, and Pinterest, finding differences between these social media platforms. However, we focused solely on social media use in general, meaning we were unable to pinpoint which specific social media sites could be associated with body esteem. It is possible that our findings could have differed if we had focused on specific social media platforms.

One potential reason as to why social media use did not predict body image perceptions, is that research suggests that 85% of students use social media sites to largely keep in contact with family and friends who are both on and off campus (Pempek et al 2009), thus suggesting communication is the focus of some social media sites, as opposed to self-comparisons with others (although social-comparison can be seen as an informal type of social communication, for example Corcoran, Crusius and Mussweiler, 2011, suggest this is the case). This suggests that the type of social media site individuals use, could impact the way they responded in our study. Each social media platform

focuses on different facets of communication, typically being used to communicate with others. For example, Instagram is typically used to share images, Facebook is used to post status updates and images, whereas Snapchat is used to share short videos. It would be useful, therefore, for future research to explore the associations between each of these platforms and body esteem. In sum, as we found no significant relationship between social media use and body esteem, it could be suggested that the type of social media participants used was primarily for communication and not self-comparisons to thin ideals.

Studies have explored the area of body image esteem, finding strong links between social comparison and greater body dissatisfaction among both men and women, although the association has been found to be stronger in women (Furnham et al 2002; Myers and Crowther 2009). Heider, Spruyt and De Houwer (2015) explored links between body dissatisfaction and ideal body image among women. It was found that the desire to be thin was stronger in individuals who reported higher body dissatisfaction, showing that internalisation of the thin ideal can influence body dissatisfaction (Szabó, 2015). Research conducted by El Ansari, Dibba and Stock (2014) suggests that women are significantly more likely than men to report greater body dissatisfaction and body image concerns. As expected, we found that women scored lower on body esteem compared to men, thus suggesting they had greater concerns with their bodies.

Body image and social media have been researched closely in recent years due to the increasing popularity of social media platforms, Pepin and Endresz (2015) found links between participants exposure to a variety of social media platforms and their perceived weight dissatisfaction in both men and women. In a study conducted with female students by Cohen and Blaszczynski (2015), it was reported that participants exposed to Facebook as a social media site reported more negative

body dissatisfaction compared to individuals that were exposed to conventional media. This could explain why women scored lower on body esteem in this study, but higher on social media intensity, due to the exposure and types of exposure they have on social media networking sites compared to men. In contrast, however, Holland and Tiggemann (2016) conducted research into the effects of mass media and its effects on body image and disordered eating. Through a systematic review, it was argued that gender did not factor into the association between social media use and body image ideals. This suggests that it is unclear as to whether social media use was the reason for women rating their body image esteem lower than men, thus suggesting the findings are inconsistent in the field.

#### *Limitations and Future Research*

There are several limitations which must be considered. Due to the possible sensitivity of the topic area, participants may have answered questions with the aim of giving socially desirable answers or given false answers due to feeling uncomfortable. Although this was addressed by collecting data anonymously participants may still not have answered truthfully due to the self-reporting nature of the study. Further, our sample included a narrow demographic, in that we only surveyed undergraduate students. Finally, we may have limited the applicability of our study by generalising the term 'social media' – we did not ask specifically which social media platforms participants were referring to when responding to the questions. Perhaps focusing on how intensely participants used a variety of social media platforms would provide us with a richer data set whereby we could have made more associations and delved further into the use of social media and its relation to body esteem.

Grogan (2008) argues how encouraging positive body image perceptions is vital to help individuals improve physical or mental health that may be related to negative body image perceptions. Therefore, future research elaborating on this area could be beneficial in order to develop psychological interventions for individuals to improve their body esteem and psychological well-being. Furthermore, it is important to be able to replicate previous research, as conceptual replication is crucial in the advancement of psychology (Earp and Trafimow 2015).

### **Compliance with Ethical Standards**

On behalf of all authors, the corresponding author states that there is no conflict of interest. This research involved collecting data from human participants. Informed consent was taken from all participants who took part in this study. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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