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Selfie-Objectification: Self-Objectification and Positive Feedback ("Likes") are

Associated with Frequency of Posting Objectifying Self-Images on Social Media

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Abstract

The present study is the first to examine the extent to which young adult women post objectifying self-images on social media, and whether the frequency of posting such content can be predicted by self-objectification and positive feedback (likes). Eighty-six young adult women from the UK (Age $M = 19.88$; $SD = 1.34$, $Range = 18\text{-}24$) completed self-report measures of self-objectification and social media use. The 20 most recent images they had posted on their personal Instagram accounts were downloaded (Image $N = 1720$) and content analysed for self-objectifying content. The analysis found that 29.77% of participants' Instagram images were objectified, though there were individual differences. Higher frequency of posting objectified self-images was associated with trait self-objectification and receiving more likes on this type of self-image, relative to non-objectified self-images. The implications of the novel findings for objectification theory are discussed within.

Introduction

In Western consumer culture, women are routinely objectified, that is, their value is reduced to the appearance of their body parts and/or their sexual function (Calogero, Tantleff-Dunn, & Thompson, 2011; Fredrickson & Roberts, 1997). However, little is known about how young adult women, socialised in this culture to self-objectify and adopt an external viewer's perspective of their own body, present themselves to others (Fredrickson & Roberts, 1997; Moradi & Huang, 2008). Social media (i.e., web and mobile based applications used to communicate with others through user-generated content) provide a novel opportunity for understanding how women who self-objectify present themselves to others and how objectified self-presentations are received (Kapidzic, 2015). Self-presentation through images are particularly popular: Instagram, the most popular image-focused social media platform, reports 300 million daily users (Instagram, 2016). Through Instagram, users can create and share self-images for immediate feedback (e.g., likes and comments) from others (Chua & Chang, 2016). The present study aims to examine the extent to which women present themselves in self-objectifying ways on social media, and whether frequency of posting self-objectifying images are associated with trait levels of self-objectification and typically receiving more positive audience feedback in comparison to other types of self-images.

Objectification Theory and Self-Objectification

Objectification theory provides a useful framework for understanding the psychological and behavioural consequences of growing up in a culture that routinely objectifies the female body (Fredrickson & Roberts, 1997; Moradi & Huang, 2008). Objectification occurs when a person is deprived of their personhood to the extent that they are perceived as or behave in an object-like way relative to a human (Haslam, 2006; Heflick & Goldenberg, 2014). Sexual objectification, a specific form of objectification, occurs when

58   individuals are reduced to, and valued for, their body parts or sexual function over their

59   internal attributes and human worth (Calogero et al., 2011; Fredrickson & Roberts, 1997).

60   According to objectification theory, girls and young women who are repeatedly

61   exposed to sexually objectifying cultural messages are socialised into adopting an external

62   viewer's perspective of their own bodies and perceive themselves as objects—known as self-

63   objectification (Calogero et al., 2011; Fredrickson & Roberts, 1997). In turn, this tendency to

64   habitually self-objectify (i.e., trait self-objectification) has been linked to a variety of

65   deleterious psychological and behavioural consequences including low self-esteem and life

66   satisfaction (Mercurio & Landry, 2008), negative body image (Calogero & Thompson, 2009;

67   Steer & Tiggemann, 2008) and disordered eating behaviour (Noll & Fredrickson, 1998;

68   Tiggemann & Williams, 2012). Furthermore, objectification can also be temporally activated

69   (i.e., state self-objectification) by a contextual factor, leading to more object-like behaviour in

70   the short-term, such as talking less and reduced cognitive performance (Gay & Castano,

71   2010; Saguy, Quinn, Dovidio, & Pratto, 2010).

Media, Social Media and Self-objectification

73   The mass media play an important role in the objectification of women (Aubrey &

74   Frisby, 2011; Fredrickson & Roberts, 1997). Content analyses of media imagery consistently

75   show that women are depicted in ways that over-emphasise and over-value their body parts

76   and sexual function: this is achieved by depicting women, relative to men, as body parts

77   dismembered from the body, with their faces omitted, wearing revealing clothes, exposing

78   more flesh/body parts, or adopting seductive, sexy, and suggestive poses (e.g., Aubrey &

79   Frisby, 2011; Coltrane & Messineo, 2000). Recent content analyses demonstrate that a high

80   proportion of women featured in social media imagery are similarly objectified (Carrotte,

81   Prichard, & Lim, 2017; Deighton-Smith & Bell, 2017; Ghaznavi & Taylor, 2015; Tiggemann

82   & Zaccardo, 2016).

83   In contrast to traditional media, images found on social media are user-generated.

84   Many of these images are self-images (or "*selfies*"), created by social media users as a form

85   of self-presentation: a way of showing who they are to others (Chua & Chang, 2016;

86   Manago, Graham, Greenfield, & Salimkhan, 2008; Mascheroni, Vincent, & Jimenez, 2015).

87   Thus, many of the objectified images found on social media are likely to be self-

88   presentations, posted by the users themselves. The extent to which young women present

89   themselves in objectified ways on social media remains unclear, largely because content

90   analyses have typically focused on images labelled with specific hashtags (i.e., metadata

91   labels that add images to an online searchable repository of other images with that label),

92   such as #fitspiration, #selfie, or #thinspiration (Deighton-Smith & Bell, 2017; Doring, Reif,

93   & Poeschl, 2016; Ghaznavi & Taylor, 2015; Tiggemann & Zaccardo, 2016). Furthermore,

94   many of the images found with these hashtags are commercially produced. A small number

95   of studies have specifically focused on identifying objectified self-presentations (Hall, West,

96   & McIntyre, 2012; Kapidzic & Herring, 2015), but these studies have focused on publicly

97   searchable profile pictures only, thus missing private and non-profile self-images.

98   Engaging in objectified self-presentations may have unintended negative interpersonal

99   consequences. Laboratory studies have found that when young women are presented in a

100   sexualised way (e.g., wearing a bikini) as opposed to a non-sexualised way (e.g., wearing

101   jeans and t-shirt), men perceive them as being less agentic and less competent (Cikara,

102   Eberhardt, & Fiske, 2011). Daniels and Zurbriggen (2016) replicated these findings in a

103   social media environment and found female participants rated the same female Facebook user

104   as less socially and physically attractive and less competent when she was depicted wearing a

105   low-cut dress and a visible garter belt (i.e., objectified), compared to when depicted wearing a

106   t-shirt, jeans, and a scarf covering her chest (i.e., non-objectified). Therefore, not only is it

107   important to understand the extent to which young women present themselves in objectifying

108   ways on social media, but it is also important to identify factors associated with these self-

109   presentations.

110   **Self-Objectification, Self-Presentations, and Audience Reactions**

111   Self-objectification may be one factor associated with posting sexually objectified

112   self-presentations on social media. Current research has demonstrated links between an

113   increased likelihood of engaging in sexualised self-presentations on social media and factors

114   typically associated with self-objectification. Vandenbosch, van Oosten, and Peter (2015)

115   found that engagement with sexually-objectifying media (e.g., sexual reality TV like MTV's

116   Geordie Shore) predicted online sexualised self-presentation among young men and women.

117   Research has also found that the endorsement of gender stereotypes predicts male and female

118   adolescents' sexy self-presentations and exposure to sexy self-presentations of others (van

119   Oosten, Vandenbosch, & Peter, 2017). While these studies demonstrate links between self-

120   objectification-related factors and sexualised online self-presentations, little research has

121   shown how young women who habitually self-objectify present themselves visually to others.

122   Self-presentation theory (SPT) is typically used to explain the factors motivating

123   online self-presentations (Chua & Chang, 2016; Mascheroni et al., 2015). SPT argues that

124   individuals are motivated to engage in self-presentation by desires to convey their ideal self

125   and to please their audience (Baumeister, 1982). For young women who self-objectify,

126   portraying the self in objectified ways on social media is likely to fulfil both motives.

127   Alternatively, research has also shown that using sexualised avatars in online environments

128   can increase state self-objectification in young women (Fox, Ralston, Cooper, & Jones, 2015;

129   Vandenbosch, Driesmans, Trekels, & Eggermont, 2017). Thus, self-objectification may be a

130   consequence as well as a cause of posting objectified self-presentations on social media.

131   A further factor that may be associated with presenting the self in objectified ways on

132   social media is the audience response to them. The *like* feature of some forms of social media

133   (e.g., Instagram and Facebook), wherein users effortlessly provide positive feedback on the

134   content of others at the click of a button, is of interest here since it offers easily quantifiable

135   and ostensibly unambiguous measure of positive audience feedback (Sherman et al., 2016).

136   Social reward is a potent motivator of behaviour among young people (Foulkes &

137   Blakemore, 2016). Therefore, receiving more likes on objectified self-images, relative to non-

138   objectified self-images, may serve as positive reinforcement for an objectified self-image,

139   increasing their posting frequency. Such a prediction would also be consistent with SPT,

140   since receiving more likes on a specific self-presentation would be indicative of having

141   pleased the audience, thus motivating future similar self-presentations.

142   **The Present Study**

143   The aims of the present study are twofold. First, the present study aims to use content

144   analysis to examine the extent to which young adult women engage in self-objectification in

145   the images they share on their personal social media profiles (RQ_1). Second, the present study

146   aims to examine the individual and social factors that may contribute to the frequency of

147   posting self-objectifying images. It is hypothesised that young women who report high levels

148   of trait self-objectification will present themselves in objectified ways more frequently on

149   social media (H_1). It is also hypothesised that receiving more positive feedback on images

150   (i.e., more likes) will predict the frequency with which girls present themselves in self-

151   objectified ways on social media (H_2).

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<div align="center">**Method**</div>

Participants

A convenience sample of 86 young adult women (*Age M* = 19.88; *SD* = 1.34, *Range* = 18-24) were recruited via adverts placed on social media and on a university campus. Participants were Caucasian (*N* = 86) undergraduate students at a UK university. All participants had an Instagram account: approximately half of the sample had a private Instagram account (48.8%; *n* = 42) and half had a public account (51.2%; *n* = 44). Each participant provided the researchers with access to their 20 most recent Instagram posts, resulting in an overall sample of 1720 Instagram images for the content analysis.

Coding of Instagram Posts

A coding book was created by the first and second authors detailing how to code for self-images, objectified self-images and audience reaction to images. Coding was initially performed by the second author, and then a 75% subsample was coded by the third author. Cohen's kappa showed high inter-rater reliability between the two coders (*K* = .81-.96; See Table 1). The frequency of each coding category within the sample is shown in Table 1.

Self-images. Images were coded as to whether the participant was present in the image or not (1 = Present, 0 = Absent). To do this, the researcher checked the image against the profile picture for the account and also utilised any clues within the set of images that could assist with this judgement (e.g., images labelled as "selfie").

Objectified self-images. Images were coded across four different facets of objectification derived from existing content analyses of mainstream and social media. Images were coded as objectified if one or more feature of objectification was present (1 = Present, 0 = Absent).

176   *Face obscured/absent.* Media images of models wherein their faces have been

177   deliberately obfuscated are believed to denigrate the personhood of the models, and is one of

178   the key ways in which bodies are objectified by mainstream media (Aubrey & Frisen, 2011;

179   Deighton-Smith & Bell, 2017; Fredrickson & Roberts, 1997). Images were coded (0 =

180   Present, 1 = Absent) as to whether the participant's face was visible or not.

181   *Body part main focus.* Objectification involves emphasising the separate body parts

182   of individuals, rather than focusing on them as holistic humans (Fredrickson & Roberts,

183   1997). Thus, images can be considered to contain objectified female representations by

184   focusing on a woman's body parts rather than her face or a more holistic representation of the

185   women (Tiggemann & Zaccardo, 2018). This was coded as 1 = Yes, 0 = No.

186   *Body parts exposed.* Four body parts (arms, cleavage, abdomen, legs) were coded

187   according to whether the skin was exposed or not (1 = Present, 0 = Absent). Objectification

188   was believed to be present when three or more body parts were exposed, since revealing 75%

189   of the body would be consistent with Fredrickson and Roberts' (1997) observation that

190   objectified women typically show a high proportion of skin. The coded body parts were

191   chosen on the basis of previous research (e.g., Aubrey & Frisen, 2011; Deighton-Smith &

192   Bell, 2017; Ghaznavi & Taylor, 2015)

193   *Sexually suggestive pose.* Previous content analyses have coded sexual

194   objectification in multiple ways, including: alluring gaze; winking; flirting; posing sexually

195   (e.g., arching back); sexual teasing; wearing unbuttoned, ripped or partially open clothing;

196   wearing lingerie; and pouting while tilting the head suggestively to the camera (Coltrane &

197   Messineo, 2000; Ghaznavi & Taylor, 2015; Tiggemann & Zaccardo, 2018). In the present

198   study, images were coded as being sexually suggestive if one or more of these features was

199   present (1 = Present, 0 = Absent).

200   **Likes.** The number of likes achieved on each image was extracted by the coders and

201   recorded as continuous data.

Measures

203   Participants completed a questionnaire containing measures of demographic

204   information (i.e., age, gender, and ethnicity), Instagram use, and self-objectification.

205   *Instagram usage.* Participants completed four questions about their typical Instagram

206   use. To assess daily Instagram use, participants were asked two open-ended questions: how

207   often they check Instagram every day and how long (in minutes) they spend checking

208   Instagram each time. Responses were multiplied together to create an estimate of minutes

209   spent using Instagram on a daily basis. Next, participants were asked to estimate of how often

210   they post images to Instagram. Again, participants were provided with an open-ended

211   response format for this question. Responses were then coded by the researchers as 1 = *Daily,*

212   2 = *Less than daily but more than weekly*, 3 = *Weekly*, 4 = *Less than weekly but more than*

213   *monthly*, 5 = *Monthly*, and 6 = *Less than monthly*. Lastly, participants were asked whether

214   their Instagram accounts were set to public or private.

215   *Self-objectification.* The Self-objectification Questionnaire (Noll & Fredrickson,

216   1998) requires participants to rank a selection of 10 body attributes according to how

217   important they are to their self-concept (1 = *Not at all important to me*, 10 = *Very important*

218   *to me*). Five of the attributes are appearance-based (e.g., sex appeal and physical

219   attractiveness) and five are competence-based (e.g., health and stamina). Scores are

220   calculated by subtracting the sum of the competence attributes from the sum of the

221   appearance attributes (Range = -25 to 25). High scores reflect a greater emphasis on the

222   importance of appearance-based physical attributes over competency-based attributes,

223   indicating high levels of self-objectification. The measure has good construct validity (Noll &

224   Fredrickson, 1998) and is widely used in young female samples (e.g., Gay & Costano, 2010;

225   Tiggemann & Williams, 2012).

226   ***Positive feedback.*** To calculate participants' mean positive audience feedback for (1)

227   all images, (2) objectified self-images and (3) non-objectified self-images, the likes accrued

228   on all images coded as fitting within that category were summed and then divided by the

229   corresponding number of images to create mean positive feedback scores for each participant.

230   **Procedure**

231   Having responded to the study advertisement, participants were sent a link to an

232   online questionnaire, which included measures of self-objectification and Instagram use, via

233   email. Participants were also asked to supply the username of their personal Instagram

234   account and informed that the researchers would access their account with the next five days

235   to retrieve, and subsequently, code their 20 most recent posts. To extract Instagram data, the

236   research assistant searched for the participants' Instagram user name. They then "followed"

237   the participant for the period of data collection and "unfollowed" once retrieval of images

238   was complete. The researchers used screen-capture software to store a duplicate of the image

239   and information about the number of likes it had received. Images were stored on a password

240   protected computer accessible only by the research team. The study adhered to BPS ethical

241   guidelines and received ethics approval from the University Ethics Committee.

242   **Results**

243   **Content Analysis of Instagram Posts**

244   First, the frequency with which young women presented themselves in objectifying

245   ways on social media (RQ_1) was examined. This analysis was conducted on an overarching

246   sample level to calculate the frequency/percentage of image types within the entire sample of

247   images (see Table 1). More than half of participants' Instagram posts included a self-image (*n*

248   = 1013; 58.90%), and over a quarter of Instagram posts contained at least one element of

249   objectification (*n* = 512; 29.77%). Adopting a sexually suggestive pose was the most

250   common form of self-objectification (*n* = 432; 25.12%). Other forms of objectification were

251   less common. Very few posts exposed three body parts simultaneously in order to meet the

252   criteria for objectification is this way (*n* = 58; 3.37%). Arms were most frequently exposed

253   body part (*n* = 277; 16.10%), followed by cleavage (*n* = 196; 11.40%), legs (*n* = 138; 8.02%)

254   and abs (*n* = 64; 3.72%). Participants posted few images of the self with their face absent /

255   obscured from view (*n* = 71; 4.13%) or where a body part other than the face was the central

256   focus (*n* = 24; 1.40%). Although significantly more self-images were found in private

257   Instagram profiles as opposed to public profiles, $\chi^2 = 18.98$, $p < .001$, there were no

258   significant differences in the frequency of occurrence of each category of objectifying self-

259   image or the frequency of occurrence of objectifying self-images overall (see Table 1 for

260   frequencies; all $\chi^2 = 0.01\text{-}0.39$, all $p > .53$).

261   **Descriptive Statistics**

262   On average, participants reported using Instagram for 62 minutes every day;

263   however, there was substantial variation in this amount (*SD* = 48.29; range = 9-200),

264   suggesting the median (50.00 minutes) may be a more accurate representation (see Table 2

265   for descriptive statistics). Despite using Instagram daily, very few participants reported

266   posting images to Instagram on a daily basis (3.5%; *n* = 3). Instead, most posted images on a

267   weekly (47.5%; *n* = 41) or less than weekly but not daily (24.5%; *n* = 21) basis. Some posted

268   on a more than weekly but not monthly basis (17.4%; *n* = 15), and very few posted monthly

269   (4.7%; *n* = 4) or less frequently than monthly (1.2%; *n* = 1). This suggests that the sample of

270   Instagram images used in our study represent around 20 weeks of Instagram content for the

271 majority of women in our sample. The mean positive audience reaction for participants'

272 general Instagram posts was ($M = 26.21$, $SD = 29.49$), however there was substantial

273 variation in this (range = 2.95-178.30), again suggesting the median may be a better

274 representation of this ($Mn = 16.90$). Participants received a significantly more positive

275 audience reaction for objectified self-images ($M = 28.96$, $SD = 34.00$, $Mn = 17.72$) than non-

276 objectified self-images ($M = 25.39$, $SD = 31.08$, $Mn = 16.75$), $z = -3.31$, $p < .001$, $n = 86$.

277   Daily time spent using Instagram and frequency of posting images were not

278 correlated, $r_s (83) = -.10$, $p = .39$. Furthermore, neither of the self-reported Instagram use

279 measures were correlated with trait self-objectification (daily Instagram use $r_s [84] = .14$, $p = $

280 .20; frequency of posting images $r_s [85] = -.08$, $p = .49$). Positive audience reaction for

281 general Instagram posts was not correlated with self-objectification or overall Instagram use,

282 $r_s (85) = .01$, $p = .93$ and $r_s (84) = -.03$, $p = .81$, respectively. However, it was positively

283 correlated with Instagram posting frequency, $r_s (85) = -.25$, $p < .05$. Thus, individuals who

284 received more positive feedback on their images reported posting images to Instagram more

285 frequently. There were no significant differences between participants with public and private

286 Instagram accounts in terms of self-reported Instagram use (daily use $U = 796.50$, $p = .45$, $n = $

287 84; frequency of posting images $U = 862.58$, $p =.71$, $n = 85$), self-objectification ($U = 777$, p

288 $= .20$, $n = 86$), and mean positive feedback for all images ($U = 775.50$, $p = .20$, $n = 86$),

289 objectified self-images ($U = 760.50$, $p = .16$, $n = 86$) and non-objectified self-images ($U = $

290 827.50, $p = .40$, $n = 86$).

291 **Predictors of Posting Objectified Self-Images**

292   Lastly, we sought to assess whether frequency of posting objectified self-images

293 could be predicted by participants' trait level of self-objectification and typically receiving

294 more positive feedback for objectified self-images, compared to non-objectified self-images.

295 To do this, frequency of posting objectified self-images was calculated for each participant by

296 summing the number of images that met the criteria for self-objectification ($M = 5.95$, $SD =$

297 3.97, $Mn = 5.50$). Then, a hierarchical multiple regression analysis was performed, with

298 frequency of posting objectified self-images as the criterion variable. Predictor variables were

299 added in four steps. Trait self-objectification was entered in Step 1 (H_1). Participants' mean

300 positive feedback for non-objectified self-images was added in Step 2 in order to control for

301 the large individual differences in positive feedback typically received by participants, then

302 their mean positive feedback for objectified self-images was added in Step 3 (H_2). The

303 interaction between self-objectification and positive feedback for objectified self-images was

304 entered in Step 4.

305   Step 1 of the regression analysis was found to be significant, $R^2 = .08$, $F(1, 84) = 6.78$,

306 $p < .05$. Self-objectification significantly predicted the frequency with which young women

307 posted objectified self-images to social media, $\beta = .26$, $p < .05$, $sr = .27$, accounting for 8% of

308 the variance. The inclusion of mean positive feedback for non-objectified self-images in Step

309 2 did not significantly improve the model, $\Delta R^2 = .01$, $F(1, 83) = 0.58$, $p = .45$, $\beta = .08$, $p =$

310 $.45$, $sr = .08$. However, the inclusion of mean positive feedback for objectified self-images

311 did improve the model, $\Delta R^2 = .05$, $F(1, 82) = 5.07$, $p < .05$. Typically receiving more positive

312 feedback on objectified self-images, while controlling for mean positive feedback on non-

313 objectified self-images, significantly predicted the frequency with which young women

314 posted objectified self-images, $\beta = .51$, $p < .05$, $sr = .23$, accounting for an additional 5% of

315 the variance. Lastly, the inclusion of the interaction term did not improve the model, $\Delta R^2 =$

316 $.00$, $F(1, 81) = 0.26$, $p = .61$; interaction $\beta = .12$, $p = .33$, $sr = .05$. Therefore, in the present

317 study, the frequency of posting objectified self-images was found to be associated with trait-

318 levels of self-objectification and typically receiving more likes on this type of self-image

319 relative to other self-images.

Discussion

320

321   First, the present study examined the extent to which young women share objectified

322   self-images on social media. Around a third of the young women's Instagram posts featured

323   objectified self-images, with sexually suggestive poses being the most frequent form of self-

324   objectification. Second, the study examined whether the frequency of posting objectified self-

325   images can be predicted by self-objectification, positive audience reaction (as indicated by

326   likes achieved on objectified self-images relative to non-objectified self-images), and the

327   interaction between the two. As predicted, the frequency of posting self-objectifying images

328   was associated with their trait levels of self-objectification (H_1) and whether their self-

329   objectifying images typically received more positive audience feedback in comparison to

330   other self-images (H_2). However, no significant interaction effect was found.

331   The findings are consistent with previous content analyses that have found a high

332   proportion of social media imagery featuring young sexually objectified women (Deighton-

333   Smith & Bell, 2017; Doring et al., 2016; Ghaznavi & Taylor, 2015; Hall et al., 2012;

334   Kapidzic & Herring, 2015; Tiggemann & Zaccardo, 2016). Sexually-suggestive poses were

335   the most common form of objectified self-presentation. Other forms of self-objectification,

336   including faceless bodies, bodies with a high proportion of the skin exposed, and a focus on a

337   body part other than the face, were less common than has been found in mainstream media

338   (e.g., Aubrey & Frisby, 2011; Fredrickson & Roberts, 1997) or hashtag-labelled publicly

339   available social media content (e.g., Deighton-Smith & Bell, 2017). The high frequency of

340   sexually suggestive images within the sample may reflect the developmental stage of the

341   participants. Though relationship status was not controlled for, as part of their normative

342   sexuality development, many young adult women wish to be seen as sexually attractive to

343   others (Tolman & McClelland, 2011) and be more likely to engage in sexy displays on social

344   media.

345   There were individual differences in the extent to which young women presented

346   themselves in objectified ways, and, as expected, trait self-objectification accounted for some

347   of the variance in this. This finding is a significant contribution to the objectification theory

348   research literature: though research has shown that young women primed with self-

349   objectification are more likely to behave in object-like ways in the presence of others (e.g.,

350   Saguy et al., 2010), scant research has considered how young women with high levels of trait

351   self-objectification present themselves visually to others. This finding is also consistent with

352   existing research that has similarly linked factors associated with self-objectification (i.e.,

353   engagement with sexually objectifying media and endorsement of gender stereotypes) with

354   sexually objectified self-presentations (van Oosten et al., 2017; Vandenbosch et al., 2015).

355   Receiving more likes on objectified self-images relative to non-objectified self-

356   images also was associated with the frequency of posting objectified self-images. According

357   to SPT, individuals engage in self-presentations to please the audience (Baumeister, 1982).

358   Receiving more positive feedback on objectified self-images relative to non-objectified self-

359   images indicates that such self-presentations will please the audience, thus providing

360   motivation for presenting the self in similar ways in the future. This novel finding is

361   consistent with existing qualitative research suggesting that the desire for receiving more

362   likes is a motivator of posting objectified self-images among young women (Chua & Chang,

363   2016; Mascheroni et al., 2015) and experimental work demonstrating the social reinforcing

364   properties of positive social media feedback (Sherman et al., 2016). Furthermore, given that

365   women typically received more likes on their objectified self-images than their non-

366   objectified images, and research highlighting the socially reinforcing properties of likes, our

367 findings may also help shed light on why young women engage in objectified self-

368 presentations, despite the potentially deleterious consequences for themselves and others

369 (e.g., Daniels & Zubriggen, 2016).

370   In the present study, we have conceptualised self-objectification and audience

371 reaction as predictors of objectifying self-presentations. However, all measures were taken at

372 the same time point, so causality cannot be assumed. Existing research (e.g., Halpern,

373 Valenzuela, & Katz, 2016) has found that personality traits not only predict increases in

374 sharing self-images over time, but also that the frequency of posting self-images also

375 predicted personality traits. Therefore, longitudinal research is needed to disentangle and

376 clarify associations between trait self-objectification, audience reactions, and sharing self-

377 objectifying images over time. Alternatively, future research could focus on identifying the

378 immediate situational factors that contribute to posting objectified self-images on social

379 media, as well as the self-related consequences of posting these, using experience sampling

380 techniques (e.g., app-based diary studies).

381   Though our findings cannot attest to the consequences of engaging in objectifying

382 self-presentations on social media, previous research has suggested that women presented in

383 sexually objectifying ways on social media are rated more negatively than their non-

384 objectified counterparts (Daniels & Zubriggen, 2016). Past research has also shown that

385 viewing sexually objectified images can cause self-objectification and negative body image

386 among those who view them (Tiggemann & Holland, 2016; Vandenbosch, & Eggermont,

387 2012). Given the widespread use of sexually objectifying self-images, considerations for

388 social media literacy programmes should be made. Recent research has shown that greater

389 media literacy among can mediate reduced body satisfaction after viewing magazine images

390 of thin-ideal models (McLean, Paxton, & Wertheim, 2016). Further, a recent pilot evaluation

391   of a social media literacy intervention was found to reduce risk factors for eating disorders

392   among female adolescents (McLean, Wertheim, Masters, & Paxton, 2017). These studies

393   suggest that media literacy programmes may be effective in reducing the impact of engaging

394   with problematic traditional and social media imagery linked to negative body image.

395   Typically, previous studies have relied on self-report to capture image-sharing

396   practices, which is prone to subjectivity and bias. The present study used a more objective

397   measure created through content analysis to overcome this. However, the content analysis

398   focused on participants' 20 most recent Instagram posts only, and it is unclear how

399   representative this dataset is of their typical image-sharing. Future research may benefit from

400   using a more stratified sample of social media images (i.e., collected at several different time

401   points) to determine representativeness. Furthermore, the present study involved a small and

402   relatively homogenous sample of young Caucasian female students from the same

403   geographical region in the UK. Given cultural variations in self-objectification (Moradi &

404   Huang, 2008), more research is needed to understand the generalisability of the findings.

405   Finally, the variables examined in the present study explained only 13% of the variance in

406   objectified self-image posting frequency. Future research should consider the contribution of

407   other factors, including marital/relationship status, sexuality, and body image.

Conclusion

409   The present study is the first to examine the extent to which young women present

410   themselves in self-objectifying ways on social media, and the factors associated with

411   frequency of engaging in such self-presentations. Approximately one third of young women's

412   Instagram self-images met criteria for self-objectification, and adopting a sexually suggestive

413   pose was by far the most common form of objectification within the sample. Variation in the

414   frequency with which young women post objectified self-presentations was associated with

415   their trait levels of self-objectification and receiving more positive feedback on those images.

416   Future research should aim to disentangle causality in these relationships.

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556 **Table 1.** Frequency and percentage of each Instagram coding category within the sample,
557 along with inter-rater reliability

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	Private (n = 840)		Public (n = 880)		Overall (N = 1720)		
	n	%	*n*	%	*n*	%	*K*
Participant present	531	63.21%	465	52.84%	1013	58.90%	.90
Face obscured	35	4.17%	36	4.09%	71	4.13%	.88
Body part other than face main focus	12	1.42%	12	1.36%	24	1.40%	.81
3 or more body parts exposed	26	3.09%	32	3.63%	58	3.37%	n/a
Arms	154	18.33%	123	13.98%	277	16.10%	.82
Cleavage	94	11.19%	102	11.59%	196	11.40%	.82
Abs	37	4.40%	27	3.68%	64	3.72%	.88
Legs	70	8.33%	68	7.72%	138	8.02%	.83
Sexually suggestive pose	213	25.36%	219	24.89%	432	25.12%	.85
Contains one or more element of objectification	251	29.88%	261	29.66%	512	29.77%	n/a
Likes (Mean)	-	-	-	-	-	-	.96

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561   Table 2. Mean (standard deviation) and median of self-reported Instagram use (daily

562   Instagram use and frequency of image posting), trait self-objectification, and positive

563   audience feedback on all images, objectified self-images, and non-objectified self-images

	Private		Public		Overall	
	M (*SD*)	*Mn*	*M* (*SD*)	*Mn*	*M* (*SD*)	*Mn*
Daily Instagram Use (minutes)	70.32 (54.99)	50.00	55.96 (40.72)	46.25	62.80 (48.29)	50.00
Frequency of Image Posting	3.05 (0.97)	3.00	2.93 (0.90)	3.00	2.99 (0.93)	3.00
Self-objectification	-1.67 (8.73)	-2.00	1.11 (10.10)	0.00	-0.24 (9.50)	0.00
Positive audience reaction						
- All images	22.62 (23.70)	15.40	28.69 (34.21)	18.00	26.21 (29.49)	16.90
- Objectified self-images	25.06 (26.56)	15.47	32.68 (39.80)	20.75	28.96 (34.00)	17.72
- Non-objectified self-images	23.78 (26.23)	14.83	26.93 (35.34)	17.00	25.39 (31.08)	16.75

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