

## WHICH ARE THE EFFECTS OF BODY-OBJECTIFICATION AND INSTAGRAM-RELATED PRACTICES ON MALE BODY ESTEEM? A CROSS-SECTIONAL STUDY

Valentina Boursier and Francesca Gioia

OPEN ACCESS

## Abstract

**Objective:** According to the objectification framework, media pressure toward body models promotes the internalization of beauty ideals that negatively influence individuals' body image and self-esteem. Historically, women have been the main target of sociocultural pressures. However, research has recently suggested that self-objectification is a male phenomenon as well, which can be inscribed in men's body experiences. Nevertheless, fewer studies have specifically focused on the male experience and general consequences of body-objectification are yet to be extensively analyzed regarding males' body image features. The current cross-sectional study explores the consequences of body-objectification on male body esteem, specifically testing the predictive role of exercising/dietary habits, body-objectification features, and SNS-related practices on male body esteem.

**Method:** A total of 238 male participants (mean age = 24.28 years, SD = 4.32) have been involved in an online survey. Three hierarchical analyses were performed to test the influence of objectified body consciousness and social networking-related experiences (i.e. Instagram intensity use, photo manipulation, selfie feedback investment) on young men's body esteem with specific reference to the weight, appearance, and attribution features of the Body Esteem Scale.

**Results:** Findings highlighted that body shame played an interesting key role, influencing negatively all the body esteem dimensions, thus highlighting that attention needs to be deserved on this feature of OBC regarding males' experience. On the contrary, appearance control-related dimensions positively influenced body esteem. Overall, findings confirmed that objectification theory can adequately mark a pathway by which media imagery is internalized also by men and may negatively affect their body esteem.

**Conclusions:** Despite some limitations, this study may contribute to enlarging our knowledge on male body image and self-objectification experience and support literature shattering the stereotype that body dissatisfaction is a "female-exclusive" issue. Likewise, beyond some questioning positions, these findings also encourage further exploration of a healthier "control dimension", including body appearance-related activities and beliefs.

**Key words:** body-objectification, male body-esteem, body shame, instagram intensity use, photo manipulation

Valentina Boursier and Francesca Gioia  
Department of Humanities, University of Naples "Federico II"  
via Porta di Massa, 1 – 80133 Naples, Italy

## Introduction

The *objectification theory* (Fredrickson & Roberts, 1997) posits that Western culture led individuals (particularly women) to accept socio-cultural standards of beauty and body appearance, internalizing an outside observer's perspective on their physical selves that typically encourages self-body surveillance and shame (Aubrey, 2006; Meier & Gray, 2014). Accordingly, McKinley and Hyde (1996) defined *objectified body consciousness* (OBC) the tendency to experience and consider the body as an object. They operationalized it including three main components:

*body surveillance* (persistent thinking and constant self-monitoring assuming an outside observer's perspective to comply with cultural body standards and avoid negative judgements); *body shame* (the feeling due to the perceived failure to meet cultural standards of beauty), and *appearance control beliefs* (the belief that, with enough effort, one's bodily appearance can be controlled) (McKinley & Hyde, 1996).

Historically, women have been the main target of sociocultural pressures (Strahan et al., 2006). Nevertheless, men also face great body-related sociocultural demands and are directly influenced by them (Blond, 2008; Stanford & McCabe, 2002). Indeed,

**Citation:** Boursier, V., Gioia, F. (2022). Which are the effects of body-objectification and Instagram-related practices on male body esteem? A cross-sectional study. *Clinical Neuropsychiatry*, 19(1), 6-17.

doi.org/10.36131/cnforitieditore20220102

© 2022 Giovanni Fioriti Editore s.r.l. This is an open access article. Distribution and reproduction are permitted in any medium, provided the original author(s) and source are credited.

**Funding:** ??.

**Competing interests:** ??.

**Corresponding author**

Dr. Valentina Boursier  
E-mail: valentina.boursier@unina.it

an increasing number of studies have highlighted that self-objectification is also experienced by males (Boursier et al., 2020a; Carrotte et al., 2017; Daniel & Bridges, 2010; Daniel et al., 2014; Dakanalis et al., 2012a, b, 2015; Gioia et al., 2020; Holland & Tiggemann, 2016; Karsay et al., 2018; Manago et al., 2015; Moradi, 2010; Moradi & Huang, 2008; Morrison et al., 2003; Murashka et al., 2020; Knauss et al., 2008; Vandenbosch & Eggermont, 2013). Moreover, evidence shows that men are becoming increasingly and specifically concerned about their own body appearance (Parks & Read, 1997; Pope et al., 2000; Ridgeway & Tylka, 2005; Strelan & Hargreaves, 2005a).

Indeed, in modern Western societies the representation of the ideal male physical appearance has become more pervasive, being focused on a lean-muscular and physically fit body, sharply defined (Cafri & Thompson, 2004; McCreary & Sasse, 2000; Morrison et al., 2003; Morry & Staska, 2001; Pope et al., 1999, 2000). Although the opportunity to assess males' objectification through measures specifically constructed within a feminine perspective has been questioned (Daniel & Bridges, 2010; Daniel, et al., 2014), recent literature extended previous studies conducted with women by further showing the risks that body-objectification bears in promoting men's body dissatisfaction (Harrison & Cantor, 1997; Lavine et al., 1999), body shame and control over body image via SNS use (Gioia et al., 2020).

In fact, it has been stated that those experiences in which the male body is objectified (i.e. monitored and evaluated from an outside observer's perspective) may decrease men's well-being (Rollero, 2013), enhancing negative affect (Grabe et al., 2007; Miner-Rubino et al., 2002) and self-worth (Duarte & Pinto-Gouveia, 2017; Grieve, 2007), appearance-related concerns, body image-focused shame and body surveillance, especially when physical attendance fails to fit with such an unrealistic body ideal (Burlaw & Shurts, 2013). In this regard, the relevance of addressing males' shame experiences when working with body image-related difficulties and body attitudes has been more recently highlighted (Gioia et al., 2020; Oliveira et al., 2018). This experience may lead to pathological attempts to control physical appearance (Calogero & Thompson, 2010; Dakanalis & Riva, 2013) and an improved compensatory drive for muscularity (Agliata & Tantleff-Dunn, 2004; Choma et al., 2010; Grieve & Helmick, 2008; Lorenzen et al., 2004).

Literature overall supported mass media pressure as significantly related to men's worse feelings about their own bodies, with specific reference to body esteem and self-esteem (Barlett et al., 2008), potentially leading to negative outcomes and unhealthy behaviors (e.g., depression, over-exercising) (Blouin & Goldfield, 1995; Ricciardelli & McCabe, 2004). Therefore, exposure to images of idealized male bodies had statistically a significant negative impact on men's body satisfaction and self-evaluations (see Blond, 2008 for a review). Accordingly, men who feel media pressure toward a body ideal have lower self-esteem (Muris et al., 2005) and body-esteem, especially after being exposed to muscular figures (Barlett et al., 2005). However, mixed and scarce findings in male samples suggest the need to undertake further research in this field (Bardone-Cone et al., 2007; Johnson et al., 2007; van den Berg et al., 2007).

Moreover, body esteem seems a complex and multifaceted construct (Mendelson et al., 2001), which also needs to consider the degree of attention that individuals pay to the views of others (e.g. social

comparison and feedback from others) to build up their own body esteem. Accordingly, Mendelson et al. (2001) identified three different components of body esteem: *weight*, that means the individual's weight satisfaction; *appearance*, that includes general feelings about self-appearance and, finally, *attribution*, that refers to the evaluation attributed to others about one's own body appearance (Confalonieri et al., 2008; Mendelson et al., 2001). The latter concept is particularly interesting, as the attributional aspects of body esteem imply how individuals assume they look to others. Moreover, attribution sounds very similar to objectified body consciousness as they both seem related to the internalization of an observer's perspective together with sociocultural models, likely a component of self-esteem which depends on an external point of view (Bianchi et al., 2017). Accordingly, negative association between mass media influence and body image evaluation has been already stated (Wiseman et al., 2005), especially in girls (Fardouly et al., 2017; Lawler & Nixon, 2011; Musetti et al., 2020).

Actually, the pervasive use of online platforms (including creation and sharing self-focused visual content on social media) seems to provide a novel and highly accessible medium for men's and women's socializing with social pressure and self-objectification experiences (Bell et al., 2018; Caso et al., 2019; Cohen et al., 2018; de Vries & Peter, 2013; Fardouly et al., 2015; Manago et al., 2015). Indeed, objectification cues in the media guide viewers' attention to a strategic posing/posturing, emphasize visual presentation, close-ups of a specific body part, highlighting externally perceivable traits such as body appearance and sexualizing bodies (Carrotte et al., 2017; Rohlinger, 2002; Tiggemann & Zaccardo, 2018). Moreover, social media use is particularly interesting due to the known influence of peers on social comparison. In fact, current social networking sites use (SNS) appears increasingly based upon visual content sharing that may increase physical appearance comparison (Fardouly & Vartanian, 2015; Hummel & Smith, 2015; Clerkin et al., 2013), with greater attentiveness to evaluation cues and photo comments/sharing (Mabe et al., 2014). Indeed, SNS users are more likely to engage in increased appearance-based comparisons and self-objectification (Cohen et al., 2017), which are consequently associated with body shame and lower self-esteem (Hanna et al., 2017). In this regard, SNSs may be a source of comparison and information to improve physical appearance (Franchina & Lo Coco, 2018; Rousseau et al., 2017), self-esteem, social confidence (Boursier & Manna, 2019; Pelosi et al., 2014; Rodgers et al., 2013), and wellbeing related to positive feedback from peers (Bianchi et al., 2017). On the other hand, recent studies have suggested that, at least for some individuals, greater engagement with social networking sites may have harmful effects on body image and wellbeing as such activities might engender appearance-related concerns and a potentially problematic monitoring of body image (Boursier et al., 2020a, 2020b; Fox & Vendemia, 2016; Gioia et al., 2020; Perloff, 2014). Moreover, this great visual attention directed towards body appearance might trigger behaviors such as body image control and monitoring, potentially related, in turn, to self-objectification and body dissatisfaction (Butkowski et al. 2019; de Vries & Peter, 2013; Fardouly & Vartanian, 2016; Fox & Vendemia, 2016; Vandenbosch & Eggermont, 2012).

Indeed, the literature suggested that the nature of engagement and the features of SNS use may be associated in the development and maintenance of body image dissatisfaction (Ryding & Kuss, 2020) and self-

objectification (Boursier et al., 2020b; Gioia et al., 2020). In recent years, research focusing on the relationship between SNS use and body-objectification evidenced that greater body-objectification can be associated with the amount of time spent on SNS (Andrew et al., 2016; Barzoki et al., 2017; Deighton-Smith & Bell, 2018; Graff & Czarnomska, 2019; Melioli et al., 2015; Slater & Tiggemann, 2015; Vandenbosch & Eggermont, 2012, 2015). Moreover, high exposure to pictures and appearance-related conversations on SNS is related to appearance concerns, body dissatisfaction and self-objectification (Arroyo & Brunner, 2016; Fardouly et al., 2015; Fardouly & Vartanian, 2015; Manago et al., 2015; Meier & Gray, 2014; Murashka et al., 2020; Santarossa et al., 2019; Tiggemann & Barbato, 2018; Trekels et al., 2018; Wang et al., 2019b).

In the context of body image, especially Instagram use deserves attention due to the highly visual nature of its posted and shared content (above all, photos and images) and the opportunity to use filters to retouch and enhance photos, while individuals may interact with others through a comment and “liking” system, thus encouraging comparison via online feedback.

Therefore, research conducted into body image has recently focused on individuals’ Instagram intensity and quality of use (Fardouly et al., 2018; Feltman & Szymanski, 2018; Murashka et al., 2020). In this regard, Instagram use has been found to be positively correlated with body anxiety (Adams et al., 2017), self-objectification and body dissatisfaction (Fardouly et al., 2018); moreover, it seems to specifically encourage upward social comparisons when self-evaluating (Bue, 2020). Recently, Sherlock and Wagstaff (2019) showed that greater Instagram use was positively correlated with lower self-esteem, body image disturbance, and physical appearance anxiety, with the mediation of peer social comparison via SNSs, that represents a strong factor in body image concerns (Ridolfi et al., 2011), negatively related to self-worth (Stapleton et al., 2017). Indeed, as Ryding and Kuss (2020) highlighted in their recent review, online social comparison is a core mediator across various dimensions of wellbeing, including self-esteem and body image dissatisfaction. Furthermore, the specific asynchronous nature of SNS use may promote individuals’ body image management, allowing people to take care of personal images, constructing and sharing online the best version of themselves by means of photo-editing and photo-manipulation (Boursier & Manna, 2018; Casale & Fioravanti, 2017; Cohen et al., 2018; Fox & Rooney, 2015; Lonergan et al., 2019; Manago et al., 2015; McLean et al., 2016). Indeed, it has been suggested that young women in particular may be more likely to engage in photo-based activities on SNSs, which may consequently heighten their body image concerns (Perloff, 2014), even though an Italian recent study found that boys are particularly engaged in appearance management and control on SNSs via selfie-manipulation and photo-editing, before sharing personal images online (Gioia et al., 2021).

Moreover, recent research has indicated the pivotal role of social media in shaping body perception and fitspiration content as a positive male alternative to female images based on thinspiration (Raggatt et al., 2018; Tiggemann & Zaccardo, 2015, 2018). However, objectified fitspiration media content has also been deemed an unhealthy, risky trend (Easton et al., 2018) negatively influencing viewers’ perspective on body appearance (Tiggemann & Zaccardo, 2018). This trend may reinforce misleading messages that promote physical exercising to attain an attractive rather than a healthy body (Deighton-Smith & Bell, 2018; Fatt et al.,

2019), thus inspiring men to shed weight and promoting eating disorders and/or excessive exercising (Alberga et al., 2018; Lewis & Arbutnott, 2012). Accordingly, body objectification may be sensibly applied to men who use exercising for appearance-related reasons, thus responding to perceived sociocultural pressures, and consequently exacerbating the negative impact that self-objectification has on their body-esteem (Strelan & Hargreaves, 2005a).

## The present study

The literature highlights that media pressure and comparison via SNSs may affect individuals’ body image and promote body-objectification in females’ experience as well as - currently - in males’ experience. In this regard, the evolution of the “male ideal” created and shared within the social media arena has been related to growing investment and concerns that males are turning to their bodies, leading to negative consequences on men’s body image and self-esteem (Barlett et al., 2005, 2008; Muris et al., 2005). Consequently, the more individuals are engaged in SNS use and related practices in their everyday-life the more they could be exposed to social pressures on body ideals or they may actively spread self-objectification models via visual content sharing. However, the general consequences of body-objectification, in terms of body shame, body surveillance and body control beliefs still lack extensive analysis regarding body image features (Moradi & Huang, 2008). Moreover, despite the spate of research focusing on female body objectification and body image, fewer studies have specifically focused on the male experience. Additionally, controversial and limited findings concerning the effects of media use and pressure on men’s body-esteem suggest that this issue should be explored more in-depth. Indeed, although initial findings did not observe a direct association between Instagram use and self-esteem, the intensity of Instagram use could well be influential, particularly when individuals’ self-worth is dependent upon approval from others online (Stapleton et al., 2017).

Therefore, the present study aimed to explore the consequences of specific appearance-related issues within the use of visual content social media on males’ body esteem. More precisely, the aim was to explore the predictive role of the objectified body consciousness, importance given to online feedback from others, photo manipulation practice, and intensity of Instagram use on the three main dimensions of body esteem, in a sample of young male adults.

## Method

### *Participants and procedure*

A total of 238 male participants (mean age = 24.28 years, SD = 4.32) were enrolled in an online survey to test the influence of objectified body consciousness and social networking-related experiences on young men’s body esteem. Adopting opportunity and snowball sampling methods, participant recruitment was conducted through advertisements in the Internet communities of Italian University students and other online groups, and they were asked for dissemination in their turn. The website link contained in the shared advertisements redirected participants to the online questionnaire. Before filling out the survey, the participants were informed about the aims and goals of the research and the measures to be used in generating

the data. Thus, the inclusion criteria for the voluntary participation in the study were being male and giving informed consent. Confidentiality, anonymity, and possible withdrawal from the study at any time were assured. No course credits or remunerative rewards were given. The study was approved by the University of Naples Federico II Research Ethics Committee and was conducted according to the ethical guidelines for psychological research laid down by the Italian Psychological Association (AIP).

## Measures

*Sociodemographic information and social media use.* In this section, information was collected about gender, age, sexual orientation, marital status, Instagram use, and exercising/dietary habits. Specifically, the item “Do you regularly (i.e. at least three times a week) exercise and adopt dietary restrictions to improve your bodily appearance?”, responding *Yes* or *No*, has been used to explore exercising/dietary habits.

*Body-Esteem Scale (BES).* The 14-item Italian version of BES (Confalonieri et al., 2008; original English version by Mendelson et al., 2001) was used. On a five-point Likert scale ranging from 0 (*never*) to 4 (*always*), the scale measures three factors: weight that is the satisfaction with own weight (“I am satisfied with my weight”), attribution meaning the evaluation attributed to others about own bodily appearance (“Other people consider me good looking”), and appearance that refers to general feeling about own appearance (“I worry about the way I look”). Appropriate items were reverse-coded. Cronbach’s  $\alpha$  values were .85 for weight, .66 for attribution, and .80 for appearance.

*Objectified Body Consciousness Scale (OBCS).* The Italian version of the OBCS (Dakanalis et al., 2015; original English version by McKinley & Hyde, 1996) was used. This 24-item scale comprises three 8-item subscales that assess body surveillance (e.g., “I often worry about whether the clothes I am wearing make me look good”), body shame (e.g., “I feel ashamed of myself when I haven’t made the effort to look my best”), and appearance control beliefs (e.g., “I think a person can look pretty much how they want to if they are willing to work at it”), on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Appropriate items were reverse-coded. In the present study, Cronbach’s  $\alpha$  values were .72 for body surveillance, .82 for body shame, and .79 for appearance control beliefs.

*Photo Manipulation Scale-Revised (PMS-R).* A preliminarily validated and revised Italian version of the PMS, (Gioia et al., 2021; original English version, McLean et al., 2015) to assess the frequency of photo manipulation. The PMS-R consists of 8 items rated on a 5-point-Likert scale, from 1 (*Never*) to 5 (*Always*) and evaluates participants’ strategies of photo-editing through photo filter use (e.g., “How often do you adjust the light/darkness of the photo?”), body image manipulation (e.g., “How often do you make yourself look skinnier?”), and facial image manipulation (e.g., “How often do you edit or use apps to smoothen your skin?”). Higher scores indicate higher engagement in photo manipulation strategies. Cronbach’s  $\alpha$  in the current study was .75.

*Selfie Feedback Investment (SFI).* A four-item measure was used (Butkowski et al., 2019) to assess participants’ investment in feedback received on their own Instagram selfies or the degree to which they value Instagram feedback on selfies. On 7-point semantic differential scales, participants evaluated the other

people’s feedback (comments and likes) to Instagram selfies as unimportant/important, useless/useful, uninteresting/interesting, and boring/entertaining. A mean score was computed across the four items with a higher score indicating greater investment with Instagram selfie feedback. The measure demonstrated good internal reliability ( $\alpha = .70$ ) and the Spearman-Brown coefficient for the scale was .63.

*Instagram Intensity Scale (IIS).* A preliminary Italian version of Stapleton et al.’s (2017) 8-item measure has been used to assess participants’ Instagram usage, integrating social capital and frequency of use with emotional connectedness and its assimilation into the individual’s day-to-day life. More specifically, two items explored the number of followers (“About how many Instagram followers do you have in total?”), ranged on an 8-point Likert scale from 1 (*less than 100*) and 8 (*more than 5000*), and the frequency of Instagram use (“In the past week, on average, approximately how many minutes per day have you spent on Instagram?”), ranged on a 6-point Likert scale from 1 (*less than 10 minutes*) to 6 (*more than 3 hours*). Six items evaluated the emotional connectedness and the assimilation of Instagram in the everyday life (e.g., “I would be sorry if Instagram shut down”; “Instagram is part of my everyday activity”; “I feel I am part of the Instagram community”) on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items were first standardized before taking an average to create scale due to differing item scale ranges. Cronbach’s  $\alpha$  value was .83 and the Spearman-Brown coefficient for the scale was .85.

The Italian versions of the SFI and IIS were obtained using a back-translation method. That is to say, one translator translated the tests from the source language (English) to the target language (Italian). A second translator, without having seen the original test, translated the new versions of the tests back to the source language. The original and the back-translated versions of the tests were then compared, and judgments were made about their equivalence.

## Statistical analyses

Means and standard deviation of the variables were assessed using the Statistical Package for Social Sciences SPSS (Version 23 for Windows). Pearson’s correlations between the study variables were performed. Three hierarchical regression models were performed to explore the predictive effect of appearance-related healthy habits, objectified body consciousness, selfie feedback investment, photo manipulation, and Instagram intensity on BES weight, attribution, and appearance factors. In the first step of each regression, we included marital status, sexual orientation, and appearance-related healthy habits as covariates. In the second step, we regressed the criterion on objectified body consciousness and, in the third step, on selfie feedback investment, photo manipulation, and Instagram intensity.

## Results

### Descriptive statistics and bivariate correlations

Among the participants, 100% belonged to male gender, 45.4% was single, 84.5% was heterosexual, 8.4% homosexual, and 7.1% bisexual. Moreover, 59.2% of the sample regularly exercise and adopt food

restrictions to improve their own bodily appearance. All participants were Instagram users and reported spending between 30 minutes and 2 hours on average using Instagram each day (mean=3.24; SD=1.222) and reported having between 200 and 500 followers listed on their profile (mean=3.53; SD=1.308). Means, standard deviations, and bivariate correlations among variables are shown in **table 1**. Significant co-occurrence has been found especially between body esteem and objectified body consciousness factors.

final model accounted for 31% of the variance of BES weight ( $F_{(3,227)}=3.456; p<.05$ ).

Concerning the second hierarchical regression analysis, only the exercising/dietary habits were significant in the first step. In the second step, after adding OBCS, body shame and appearance control beliefs appeared as significant negative and positive predictors, respectively, while exercising/dietary habits remained a significant predictor. In the third step, both photo manipulation and Instagram intensity appeared to be significant predictors. Exercising/dietary habits,

**Table 1.** Means, standard deviations and bivariate correlations between all variables

	Ob- served range	Mean(SD)	1	2	3	4	5	6	7	8	9	10
1 Exercising/ dietary habits	0 - 1		-									
2 BES weight	0 - 4	2.126(1.149)	.192**	-								
3 BES attribution	0 - 4	2.273(.88)	.427***	.390***	-							
4 BES appear- ance	0 - 4	2.124(.870)	.286***	.425***	.451***	-						
5 OBCS body surveillance	1 - 6.25	4(.976)	-.137*	-.136*	-.065	-.542***	-					
6 OBCS body shame	1 - 6.38	3.089(1.21)	-.161*	-.466***	-.235***	-.634***	.531***	-				
7 OBCS appear- ance control beliefs	1.75 - 7	5.121(1.000)	.088	.237***	.248***	.236***	-.019	-.251***	-			
8 Selfie feedback investment	1 - 5	2.804(.795)	-.009	.034	.052	-.135*	.118	.149*	-.050	-		
9 Photo manipulation	1 - 5	1.637(.582)	.069	.059	.206**	-.168*	.193**	.226***	-.104	.288***	-	
10 Instagram intensity	-1.58 - 1.58	-.114(.666)	.084	.139*	.270***	-.025	.194**	.031	.118	.412***	.373***	-

Note. BES: Body Esteem Scale; OBCS: Objectified Body Consciousness Scale.

\*\*\*  $p<.001$ ; \*\*  $p<.01$ ; \*  $p<.05$

### Hierarchical regression analyses

Before running the hierarchical regressions, multicollinearity was checked. There was no indication of multicollinearity as tolerance statistics were above .20 and variance influence factors were well below 10 (Bowerman & O'Connell, 1990). Three hierarchical regressions have been tested to determine whether objectified body consciousness, selfie feedback investment, photo manipulation, and Instagram intensity predict BES weight, attribution, and appearance factors—controlling for marital status, sexual orientation, and appearance-related healthy habits (**table 2**). Regarding the first hierarchical regression analysis, only the exercising/dietary habits were significant in the first step. After adding OBCS, body surveillance and body shame appeared to be significant predictors of BES weight and exercising/dietary habits remained a significant predictor. In the third step, adding selfie feedback investment, photo manipulation, and Instagram intensity, only photo manipulation was a significant predictor. Exercising/dietary habits and body shame remained predictors, body surveillance did not remain a significant predictor and appearance control beliefs became significant. The

body shame, and appearance control beliefs remained significant. The final model accounted for 32.7% of the variance of BES attribution ( $F_{(3,227)}=8.652; p<.001$ ).

Finally, regarding the third hierarchical regression analysis, heterosexuality, homosexuality, and exercising/dietary habits were significant in the first step. After adding OBCS, only exercising/dietary habits remained significant, body surveillance and body shame negatively predicted BES appearance while the appearance control beliefs dimension was a significant positive predictor. In the third step, selfie feedback investment, photo manipulation, and Instagram intensity did not appear as significant predictors. Exercising/dietary habits, body surveillance, body shame, and appearance control beliefs remained significant. The final model accounted for 51.5% of the variance of BES appearance ( $F_{(3,227)}=8.652; p = .701, ns$ ).

### Discussion

The literature has recently shattered the stereotype that body dissatisfaction is a “female-exclusive” issue (Primus, 2014); likewise, beyond some questioning positions (Daniel & Bridges, 2010; Daniel et al., 2014), research has recently suggested that self-objectification

Table 2. Hierarchical regression analyses on BES factors

Predictors	Weight			Attribution			Appearance					
	R <sup>2</sup>	B	SE	β	R <sup>2</sup>	B	SE	β	R <sup>2</sup>	B	SE	β
<b>Step 1</b>												
Marital status	.048*	-.224	.149	-.097	.183***	.035	.106	.020	.130***	.171	.108	.098
Heterosexuality		-.055	.267	-.017		.074	.186	.031		.607**	.192	.253
Omosexuality		.081	.266	.020		-.033	.188	-.010		-.581**	.192	-.186
Bisexuality		-.228	.287	-.051		-.034	.203	-.010		-.294	.208	-.087
Exercising/dietary habits		.480*	.151	.206		.757***	.107	.424		.473***	.109	.268
<b>Step 2</b>												
Marital status	.279***	-.188	.132	-.082	.250***	.067	.104	.038	.512***	.103	.083	.059
Heterosexuality		-.339	.238	-.107		-.030	.183	-.012		.262	.147	.109
Omosexuality		.351	.237	.085		.070	.185	.022		-.245	.147	-.078
Bisexuality		-.335	.255	-.075		-.102	.199	-.030		-.175	.159	-.052
Exercising/dietary habits		.311*	.134	.133		.698***	.105	.390		.285**	.083	.162
OBCS body surveillance		.168*	.081	.142		.086	.063	.096		-.236***	.050	-.265
OBCS body shame		-.482***	.066	-.508		-.132*	.052	-.181		-.308***	.041	-.429
OBCS appearance control beliefs		.127	.068	.110		.155**	.053	.176		.091*	.042	.105
<b>Step 3</b>												
Marital status	.310*	-.191	.131	-.083	.327***	.088	.099	.050	.515	.113	.083	.065
Heterosexuality		-.283	.238	-.089		.049	.177	.020		.270	.150	.113
Omosexuality		.294	.237	.071		-.016	.179	-.005		-.255	.150	-.081
Bisexuality		-.480	.256	-.108		-.252	.193	-.074		-.169	.162	-.050
Exercising/dietary habits		.263*	.133	.113		.625***	.101	.350		.278**	.085	.157
OBCS body surveillance		.143	.081	.121		.042	.061	.047		-.243***	.051	-.272
OBCS body shame		-.512***	.066	-.539		-.148**	.050	-.204		-.301***	.042	-.419
OBCS appearance control beliefs		.135*	.067	.118		.150**	.051	.171		.086*	.043	.098
Selfie feedback investment		.097	.090	.067		-.037	.068	-.033		-.060	.057	-.055
Photo manipulation		.273*	.126	.139		.298**	.095	.197		-.004	.080	-.002
Instagram intensity		.057	.114	.033		.226**	.086	.171		.065	.072	.050

Note. BES: Body Esteem Scale; OBCS: Objectified Body Consciousness Scale. \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

is a male phenomenon as well, which can be inscribed in men's body experience. Indeed, in line with Strelan and Hargreaves (2005a) we assumed that body objectification may be sensibly applied to men. However, the general consequences of body-objectification still lack to be extensively analyzed especially regarding male body image features. Therefore, according to Mendelson et al.'s (2001) perspective on the triple composition of the body esteem construct, the current

study explored the influence of exercising/dietary habits, body objectification, and SNS-related practices (i.e. Instagram intensity use, photo manipulation, selfie feedback investment) on men's body esteem, with specific reference to the weight, appearance, and attribution features of BES. Moreover, as suggested by Massey and colleagues (2020), we considered participant's sexual orientation in this examination, however, no differences emerged in our sample among

heterosexual, homosexual and bisexual men, thus concurring with controversial literature findings on this issue (Greentree & Lewis, 2011).

Results showed the direct influence of body-objectification and SNSs features on the participants' body esteem, highlighting the role that particularly body shame, as well as the body control beliefs and the appearance-related habits (exercising/dietary) and practices (photo-manipulation), concretely play on males' body esteem. In particular, body shame was a significant negative predictor of BES *weight*; on the contrary, individuals' beliefs concerning the opportunity to change how their body looks, by means of reported practices of exercising and dietary, may positively impact body-esteem weight. Particular attention should be addressed to the practice of photo manipulation, which impacts how body appearance might be profitably managed, in order to achieve better self-esteem, albeit by virtually mystifying it. Not surprisingly, the core dimensions of OBC (i.e. body shame and surveillance) persist in their negative influence on body esteem, specifically regarding the *appearance*, thus strengthening the interrelation between body-objectification (the body as an object to be put on show and looked at) and individuals' feelings about how to appear. On the contrary, exercising/dietary habits, as well as body appearance control beliefs, positively influence the body esteem related to one's own appearance, highlighting once again the encouraging role of control attitudes. Instagram use and related practices do not seem to play a significant role regarding the appearance feature of body esteem, unlike what specifically concerns the BES *attribution*. In this case, the evaluation attributed to others about one's own body appearance resulted to be negatively influenced by body shame, while it was positively predicted by the appearance-control individuals believe they may have, in reality (by exercising/dietary habits) or virtually (by the use of photo manipulation). The intensity of Instagram use positively affects BES attribution, as a practice that reinforces the value Instagrammers specifically give to the attribution feature of body esteem. Accordingly, social media seem to encourage individuals to scrutinize their own body comparing it with other body images and ideals, thereby influencing the construction of body esteem. Surprisingly, in this context, the selfie feedback investment never appeared as a significant variable.

Overall, according to the literature (Choma et al., 2010; Duarte & Pinto-Gouveia, 2017; Grieve, 2007; Lowery et al., 2005), our findings confirm that body shame negatively influences self-esteem. However, within the objectified body consciousness framework (McKinley & Hyde, 1996), a small number of studies have focused on body shame in general samples, or among females (Gioia et al., 2020; Manago et al., 2015; Slater & Tiggemann, 2015; Tiggemann & Slater, 2013, 2015; Wang et al., 2019a). Nonetheless, body shame is a risky, key component of body image and satisfaction (Noll & Fredrickson, 1998) that increasingly affects male adolescents (Gioia et al., 2020). This issue also appears true for the young men involved in our survey, thus reinforcing the need to explore more in-depth males' vulnerability to experiencing body objectification and shame (Oliveira et al., 2018).

Furthermore, it has been stated that men who self-objectify are more likely to exercise for appearance enhancement reasons and to report lower body esteem (Strelan & Hargreaves, 2005a). In our experience, just over half of the sample declared they habitually exercised and adopted dietary restrictions to improve their bodily appearance and this attitude seems to

positively influence body-esteem showing its helpful role. In this regard, interestingly, current findings have evidenced the encouraging feature - likely protective/healthy - of a "control dimension" that participants seem to play when they believe in - or implement - the possibility to change how their body looks. This result confirmed previous research that related stronger beliefs in personal control over body appearance to higher self-esteem, positive healthy behaviors and body satisfaction (Boursier et al., 2020b; Lowery et al., 2005; McKinley, 1998; Noser & Zeigler-Hill, 2014; Sinclair & Myers, 2004; Sinclair, 2010). Future research is needed to explore this suggestion more deeply, also taking into account the specifically unclear position held by body appearance control beliefs within the OBC field (Knauss et al., 2008; Moradi & Varnes, 2017).

Finally, according to the body of research on OBC, the more individuals use visual content social media, the more they are exposed to social pressures on body ideals, or they may create and share body images as social media active users. Therefore, the influence that specific SNS-related practices may have on men's body esteem was here tested. Indeed, the literature posited that media pressure toward an ideal masculine body may negatively influence men's body image and self-esteem (Barlett et al., 2005, 2008; Muris et al., 2005). In our sample, all the participants reported they were regular Instagram users and confirmed the centrality that Instagram has in their day-to-day life and relationships. It has been previously stated that Instagram use not directly affects self-esteem, but it is influential when individuals' self-worth is contingent on social comparison and approval (Stapleton et al., 2017). In our sample, Instagram intensity use significantly and positively predicted BES attribution. These findings boosted the link between this specific feature of body esteem, body objectification and social media pressure/comparison via Instagram connectiveness. Furthermore, the active role of Instagram users who themselves spread social pressure toward body ideals by creating, sharing and judging visual content, such as body images and selfies, should not be overlooked. In our sample, photo manipulation before sharing own pictures positively predicted BES attribution and weight, thus highlighting the role of an encouraging - although risky and mystifying - control dimension on how the body could look to the others, in order to gain their (supposed) approval. In this regard, health professionals and clinicians should take into account the risky role that the practice of photo manipulation and body image control in photos may play in the relationship between selfie expectancies, selfie posting and body shame/body dissatisfaction in men and male adolescents, also by combining it with excessive or problematic use of SNSs (Gioia et al., 2020; Gioia et al., 2021; Meier & Gray, 2014; Modica, 2020). Future research should investigate these risks on larger samples, also analyzing if a more problematic use of visual content social media may more heavily influence body esteem construction in male (and female) adolescents and emerging adults.

Surprisingly, our results did not reveal the influence of the others' feedback on the body esteem features, unlike previous findings regarding the key value that social comparison and approval generally have on individuals' self-esteem (Bue, 2020; Fardouly & Vartanian, 2016; Fardouly et al., 2018; Franchina & Lo Coco, 2018; Ridolfi et al., 2011; Rousseau et al., 2017; Rodgers et al., 2013; Stapleton et al., 2017; van den Berg et al., 2007). However, the measure here used was specifically limited to what participants declared about the importance they attribute to the

others' feedback on Instagram, and biases due to self-report measures are well-known. Moreover, it could be that selfie feedback investment does not represent a variable that effectively feeds body esteem in emerging adults, unlike what participants seem to attribute to the centrality of the other's gaze, supposed and imagined as well as internalized. Furthermore, although this scale demonstrated internal consistency and validity in measuring feedback investment among Instagram users in our as well in other samples (Butkowski et al., 2019; Lee & Sung, 2016), a more consistent and large measure for social comparison could well have been used. These are some of the limits we recognize in our study, together with the limited sample size and the cross-sectional nature of our survey. Moreover, specific body measures such as the participants' body mass index were not considered in the current study. Additionally, participants' dietary restrictions and exercising habits, whether excessive or healthy, should have been investigated in greater depth. Indeed, we are unable to estimate whether our participants "control" their body appearance in such a healthy or unhealthy way. Certainly, individual differences make specific people particularly vulnerable to body-esteem and related concerns. This vulnerability should have been investigated through personality dimensions, mood, and affect measures. Further research could explore more complex models, taking into account different variables, as well as risky rather than protective factors currently affecting men's body esteem.

Despite these limitations, the current study highlights the role that body-objectification has in young men's lives and body-esteem validation, thus confirming that the objectification theory can adequately explain how media imagery is internalized by men and may negatively affect their body image. In this regard, the objectification theory provides an interesting framework for understanding and improving research on male body experience. Moreover, objectification usually leads to a vicious risky circle of objectification: higher self-objectification is related to increasing objectification of other women and men (Strelan & Hargreaves, 2005b). Thus, the risk of perpetrating objectifying models and behaviors currently needs to be worthy of particular attention. This issue has been particularly investigated in our socio-cultural context that sexually objectifies the female body, therefore, the role of sexual objectification perpetration has been particularly associated with sexual violence (Gervais et al., 2014). However, the specific (and eventually widespread) role of body-objectification in male body/identity construction has not been yet explored enough. This matter could be mainly interesting for the new generations – e.g. adolescents and young adults – engaged in the creation of a personal sense of self and body identity, and particularly subjected to body ideals and models via social media content sharing.

The current study highlighted that objectified body shame plays an interesting key role also in males' experience, influencing negatively all the body esteem dimensions, and highlighting that attention needs to be deserved on this feature. Accordingly, body-objectification risks to be increasingly a function of the construction of body-image and personal identity, potentially leading to objectification perpetration and negative behaviors towards themselves and others. Further research should broadly explore the role of OBC features as mediators between individuals' characteristics and behaviors, specifically among boys and men.

Moreover, these findings supported the exploration of a healthier "control dimension", included in body-

appearance related activities as well as in the body control beliefs feature of OBC. Nevertheless, this "control dimension" warrants attention and should be questioned. Indeed, providing for control over how the body appears, in order to compensate for body shame, may lead men to potentially risky - along with healthy - behaviors. Accordingly, as already mentioned, it is important to point out that health professionals and clinicians should take into account the risky role that the practice of photo manipulation and body-image control in photos may have, also by combining it with excessive or problematic use of SNSs (Gioia et al., 2020; Gioia et al., 2021). Moreover, such findings support the need for further exploration in potential body image and media literacy interventions to inform and educate individuals, especially adolescents and emerging adults, about the potential effects of body objectification and comparisons via SNSs on the wellbeing.

## References

- Adams, K. E., Tyler, J. M., Calogero, R., & Lee, J. (2017). Exploring the relationship between appearance-contingent self-worth and self-esteem: The roles of self-objectification and appearance anxiety. *Body Image*, 23, 176-182. <https://doi.org/10.1016/j.bodyim.2017.10.004>
- Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure on males' body image. *Journal of Social and Clinical Psychology*, 23(1), 7-22. <https://doi.org/10.1521/jscp.23.1.7.26988>
- Alberga, A. S., Withnell, S. J., & von Ranson, K. M. (2018). Fittspiration and thinspiration: a comparison across three social networking sites. *Journal of Eating Disorders*, 6(1), 39. <https://doi.org/10.1186/s40337-018-0227-x>
- Andrew, R., Tiggemann, M., & Clark, L. (2016). Predicting body appreciation in young women: An integrated model of positive body image. *Body Image*, 18, 34-42. <https://doi.org/10.1016/j.bodyim.2016.04.003>
- Arroyo, A., & Brunner, S. R. (2016). Negative body talk as an outcome of friends' fitness posts on social networking sites: Body surveillance and social comparison as potential moderators. *Journal of Applied Communication Research*, 44(3), 216-235. <https://doi.org/10.1080/00909882.2016.1192293>
- Aubrey, J. S. (2006). Exposure to sexually objectifying media and body self-perceptions among college women: An examination of the selective exposure hypothesis and the role of moderating variables. *Sex Roles*, 55(3-4), 159-172. DOI 10.1007/s11199-006-9070-7
- Bardone-Cone, A. M., Wonderlich, S. A., Frost, R. O., Bulik, C. M., Mitchell, J. E., Uppala, S., & Simonich, H. (2007). Perfectionism and eating disorders: Current status and future directions. *Clinical Psychology Review*, 27(3), 384-405. <https://doi.org/10.1016/j.cpr.2006.12.005>
- Barlett, C., Harris, R., Smith, S., & Bonds-Raacke, J. (2005). Action figures and men. *Sex Roles*, 53(11-12), 877-885. <https://doi.org/10.1007/s11199-005-8304-4>
- Barlett, C. P., Vowels, C. L., & Saucier, D. A. (2008). Meta-analyses of the effects of media images on men's body-image concerns. *Journal of social and clinical psychology*, 27(3), 279-310. <https://doi.org/10.1521/jscp.2008.27.3.279>
- Barzoki, M. H., Mohtasham, L., Shahidi, M., & Tavakol, M. (2017). Self-objectification and self-sexualization behavior within consumer culture. *Applied Research in Quality of Life*, 12(2), 425-438. <https://doi.org/10.1007/s11482-016-9468-5>
- Bell, B. T., Cassarly, J. A., & Dunbar, L. (2018). Selfie-objectification: Self-objectification and positive feedback ("likes") are associated with frequency of posting sexually objectifying self-images on social media. *Body Image*, 26, 83-89. <https://doi.org/10.1016/j.bodyim.2018.06.005>

- Bianchi, D., Morelli, M., Baiocco, R., & Chirumbolo, A. (2017). Sexting as the mirror on the wall: body-esteem attribution, media models, and objectified-body consciousness. *Journal of Adolescence*, *61*, 164-172. <https://doi.org/10.1016/j.adolescence.2017.10.006>
- Blond, A. (2008). Impact of exposure to images of ideal bodies on male body dissatisfaction: a review. *Body Image* *5*(3):244–250. <https://doi.org/10.1016/j.bodyim.2008.02.003>
- Blouin, A. G., & Goldfield, G. S. (1995). Body image and steroid use in male bodybuilders. *International Journal of Eating Disorders*, *18*(2), 159-165. [https://doi.org/10.1002/1098-108X\(199509\)18:2<159::AID-EAT2260180208>3.0.CO;2-3](https://doi.org/10.1002/1098-108X(199509)18:2<159::AID-EAT2260180208>3.0.CO;2-3)
- Boursier, V., & Manna, V. (2018). Selfie expectancies among adolescents. Construction and validation of an instrument to assess expectancies toward selfies among boys and girls. *Frontiers in Psychology*, *9*, 839. <https://doi.org/10.3389/fpsyg.2018.00839>
- Boursier, V., & Manna, V. (2019). Relational body identities: Body image control through self-portraits –A revision of the Body Image Control in Photos Questionnaire. In *Intimacy and developing personal relationships in the virtual world* (pp. 40-63). Hershey, PA: IGI Global. doi: 10.4018/978-1-5225-4047-2.ch003
- Boursier, V., Gioia, F., & Griffiths, M. D. (2020a). Objectified body consciousness, body image control in photos, and problematic social networking: The role of appearance control beliefs. *Frontiers in Psychology*, *11*(147), 1–11. doi: 10.3389/fpsyg.2020.00147
- Boursier, V., Gioia, F., & Griffiths, M. D. (2020b). Do selfie-expectancies and social appearance anxiety predict adolescents' problematic social media use? *Computers in Human Behavior*, *110*, 106395. <https://doi.org/10.1016/j.chb.2020.106395>
- Bowerman, B. L., & O'Connell, R. T. (1990). *Linear statistical models: An applied approach*. Brooks/Cole.
- Bue, A. C. C. (2020). The looking glass selfie: Instagram use frequency predicts visual attention to high-anxiety body regions in young women. *Computers in Human Behavior*, *106*329. <https://doi.org/10.1016/j.chb.2020.106329>
- Burlew, L. D., & Shurts, W. M. (2013). Men and body image: Current issues and counseling implications. *Journal of Counseling & Development*, *91*(4), 428-435. <https://doi.org/10.1002/j.1556-6676.2013.00114.x>
- Butkowski, C. P., Dixon, T. L., & Weeks, K. (2019). Body surveillance on Instagram: examining the role of selfie feedback investment in young adult women's body image concerns. *Sex Roles*, *81*(5-6), 385-397. <https://doi.org/10.1007/s11199-018-0993-6>
- Cafri, G., & Thompson, J. K. (2004). Measuring male body image: a review of the current methodology. *Psychology of Men & Masculinity*, *5*(1), 18. <https://doi.org/10.1037/1524-9220.5.1.18>
- Calogero, R. M., & Thompson, J. K. (2010). Gender and body image, vol 2. In: Chrisler JC, McCreary DM (eds) *Handbook of gender research in psychology*, 1st edn. Springer, New York, pp 153–184. [https://doi.org/10.1007/978-1-4419-1467-5\\_8](https://doi.org/10.1007/978-1-4419-1467-5_8)
- Carrotte, E. R., Prichard, I., & Lim, M. S. C. (2017). "Fitspiration" on social media: A content analysis of gendered images. *Journal of Medical Internet Research*, *19*(3), e95. doi:10.2196/jmir.6368
- Casale, S., & Fioravanti, G. (2017). Shame experiences and problematic social networking sites use: An unexplored association. *Clinical Neuropsychiatry*, *14*(1), 44-48. Advance online publication. [https://flore.unifi.it/retrieve/handle/2158/1074075/212427/2017\\_shame\\_PIU\\_Clin\\_Neur.pdf](https://flore.unifi.it/retrieve/handle/2158/1074075/212427/2017_shame_PIU_Clin_Neur.pdf)
- Caso, D., Fabbriatore, R., Muti, F., & Starace, C. (2019). Sessualizzazione e oggettivazione femminile su Instagram: il ruolo delle influencer [Female sexualization and objectification on Instagram: The role of the influencers]. *Psicologia Sociale*, *3*, 441-463. Advance online publication. <https://www.rivisteweb.it/doi/10.1482/94944>
- Choma, B. L., Visser, B. A., Pozzebon, J. A., Bogaert, A. F., Busseri, M. A., & Sadava, S. W. (2010). Self-objectification, self-esteem, and gender: Testing a moderated mediation model. *Sex Roles*, *63*(9), 645-656. <https://doi.org/10.1007/s11199-010-9829-8>
- Clerkin, E. M., Smith, A. R., & Hames, J. L. (2013). The interpersonal effects of Facebook reassurance seeking. *Journal of Affective Disorders*, *151*(2), 525-530. <https://doi.org/10.1016/j.jad.2013.06.038>
- Cohen, R., Newton-John, T., & Slater, A. (2017). The relationship between Facebook and Instagram appearance-focused activities and body image concerns in young women. *Body Image*, *23*, 183-187. <https://doi.org/10.1016/j.bodyim.2017.10.002>
- Cohen, R., Newton-John, T., & Slater, A. (2018). 'Selfie'-objectification: The role of selfies in self-objectification and disordered eating in young women. *Computers in Human Behavior*, *79*, 68-74. <https://doi.org/10.1016/j.chb.2017.10.027>
- Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D. (2008). Body Esteem Scale: a validation on Italian adolescents. *Psychometrics: Methodology in Applied Psychology*, *15*(3), 153-165. <http://hdl.handle.net/10807/86788>
- Dakanalis, A., Di Mattei, V. E., Prunas, A., Riva, G., Sarno, L., Volpato, C., & Zanetti, M. A. (2012a). Il corpo oggettivato: media, benessere psicofisico e differenze di genere. *Psicologia sociale*, *7*(2), 261-284.
- Dakanalis, A., Di Mattei, V. E., Bagliacca, E. P., Prunas, A., Sarno, L., Riva, G., & Zanetti, M. A. (2012b). Disordered eating behaviors among Italian men: Objectifying media and sexual orientation differences. *Eating Disorders*, *20*(5), 356-367. <https://doi.org/10.1080/10640266.2012.715514>
- Dakanalis A., Riva, G. (2013) Mass media, body image and eating disturbances: the underlying mechanism through the lens of the objectification theory. In: Sams LB, Keels JA (eds) *Body image: gender differences, sociocultural influences and health implications*, 1st edn. Nova Science Publishers, New York, pp 217–236.
- Dakanalis, A., Carrà, G., Calogero, R., Fida, R., Clerici, M., Zanetti, M. A., & Riva, G. (2015). The developmental effects of media-ideal internalization and self-objectification processes on adolescents' negative body-feelings, dietary restraint, and binge eating. *European Child & Adolescent Psychiatry*, *24*(8), 997-1010. <https://doi.org/10.1007/s00787-014-0649-1>
- Daniel, S., & Bridges, S. K. (2010). The drive for muscularity in men: Media influences and objectification theory. *Body Image*, *7*(1), 32-38. <https://doi.org/10.1016/j.bodyim.2009.08.003>
- Daniel, S., Bridges, S. K., & Martens, M. P. (2014). The development and validation of the Male Assessment of Self-Objectification (MASO). *Psychology of Men & Masculinity*, *15*(1), 78-89. <https://doi.org/10.1037/a0031518>
- de Vries, D. A., & Peter, J. (2013). Women on display: The effect of portraying the self online on women's self-objectification. *Computers in Human Behavior*, *29*(4), 1483-1489. <https://doi.org/10.1016/j.chb.2013.01.015>
- Deighton-Smith, N., & Bell, B. T. (2018). Objectifying fitness: A content and thematic analysis of #fitspiration images on social media. *Psychology of Popular Media Culture*, *7*(4), 467–483. <https://doi.org/10.1037/ppm0000143>
- Duarte, C., & Pinto-Gouveia, J. (2017). Self-defining memories of body image shame and binge eating in men and women: Body image shame and self-criticism in adulthood as mediating mechanisms. *Sex Roles*. <https://doi.org/10.1007/s11199-016-0728-5>
- Easton, S., Morton, K., Tappy, Z., Francis, D., & Dennison, L. (2018). Young People's experiences of viewing the Fitspiration Social media trend: qualitative study. *Journal*

- of *Medical Internet Research*, 20(6), e219. doi:10.2196/jmir.9156
- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). The mediating role of appearance comparisons in the relationship between media usage and self-objectification in young women. *Psychology of Women Quarterly*, 39(4), 447-457. <https://doi.org/10.1177/0361684315581841>
- Fardouly, J., & Vartanian, L. R. (2015). Negative comparisons about one's appearance mediate the relationship between Facebook usage and body image concerns. *Body Image*, 12, 82-88. <https://doi.org/10.1016/j.bodyim.2014.10.004>
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current opinion in psychology*, 9, 1-5 <https://doi.org/10.1016/j.copsyc.2015.09.005>
- Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives. *Body Image*, 20, 31-39. <https://doi.org/10.1016/j.bodyim.2016.11.002>
- Fardouly, J., Willburger, B. K., & Vartanian, L. R. (2018). Instagram use and young women's body image concerns and self-objectification: Testing mediational pathways. *New Media & Society*, 20(4), 1380-1395. <https://doi.org/10.1177/1461444817694499>
- Fatt, S. J., Fardouly, J., & Rapee, R. M. (2019). # malefitspo: Links between viewing fitspiration posts, muscular-ideal internalisation, appearance comparisons, body satisfaction, and exercise motivation in men. *New Media & Society*, 21(6), 1311-1325. <https://doi.org/10.1177/1461444818821064>
- Feltman, C. E., & Szymanski, D. M. (2018). Instagram use and self-objectification: The roles of internalization, comparison, appearance commentary, and feminism. *Sex Roles*, 78(5-6), 311-324. <https://doi.org/10.1007/s11199-017-0796-1>
- Fox, J., & Rooney, M. C. (2015). The Dark Triad and trait self-objectification as predictors of men's use and self-presentation behaviors on social networking sites. *Personality and Individual Differences*, 76, 161-165. <https://doi.org/10.1016/j.paid.2014.12.017>
- Fox, J., & Vendemia, M. A. (2016). Selective self-presentation and social comparison through photographs on social networking sites. *Cyberpsychology, Behavior, and Social Networking*, 19(10), 593-600. <https://doi.org/10.1089/cyber.2016.0248>
- Franchina, V., & Lo Coco, G. (2018). The influence of social media use on body image concerns. *International Journal of Psychoanalysis and Education*, 10(1), 5-14. <http://www.psychedu.org/index.php/IJPE/article/view/218/207>
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21(2), 173-206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>
- Gervais, S. J., DiLillo, D., & McChargue, D. (2014). Understanding the link between men's alcohol use and sexual violence perpetration: The mediating role of sexual objectification. *Psychology of Violence*, 4(2), 156-169. <https://doi.org/10.1037/a0033840>
- Gioia, F., Griffiths, M. D., & Boursier, V. (2020) Adolescents' body shame and social networking sites: The mediating effect of body image control in photos. *Sex Roles: A Journal of Research*, 83(11-12), 773-785. <http://doi.org/10.1007/s11199-020-01142-0>.
- Gioia, F., McLeans, S., Griffiths, M. D., & Boursier, V. (2021). Adolescents' selfie-taking and selfie-editing: A revision of the photo manipulation scale and a moderated mediation model. *Current Psychology*. <https://doi.org/10.1007/s12144-021-01702-x>
- Grabe, S., Hyde, J. S., & Lindberg, S. M. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly*, 31(2), 164-175. <https://doi.org/10.1111/j.1471-6402.2007.00350.x>
- Graff, M., & Czarnomska, O. (2019). Can time spent on social media affect thin-ideal internalisation, objectified body consciousness and exercise motivation in women? *Psychreg Journal of Psychology*, 3(3), 28-39. <https://doi.org/10.5281/zenodo.3558900>
- Greentree, S., & Lewis, V. (2011). Male body image and its relationship to sexual preference and homophobia. *Pakistan Journal of Psychological Research*, 26(2), 105-126.
- Grieve, F. G. (2007). A conceptual model of factors contributing to the development of muscle dysmorphia. *Eating Disorders*, 15(1), 63-80. <https://doi.org/10.1080/10640260601044535>
- Grieve, R., & Helmick, A. (2008). The influence of men's self-objectification on the drive for muscularity: Self-esteem, body satisfaction and muscle dysmorphia. *International Journal of Men's Health*, 7(3), 288. DOI: 10.3149/jmh.0703.288
- Hanna, E., Ward, L. M., Seabrook, R. C., Jerald, M., Reed, L., Giaccardi, S., & Lippman, J. R. (2017). Contributions of social comparison and self-objectification in mediating associations between Facebook use and emergent adults' psychological well-being. *Cyberpsychology, Behavior, and Social Networking*, 20(3), 172-179. <https://doi.org/10.1089/cyber.2016.0247>
- Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication*, 47(1), 40-67. <https://doi.org/10.1111/j.1460-2466.1997.tb02692.x>
- Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. *Body Image*, 17, 100-110. <https://doi.org/10.1016/j.bodyim.2016.02.008>
- Hummel, A. C., & Smith, A. R. (2015). Ask and you shall receive: Desire and receipt of feedback via Facebook predicts disordered eating concerns. *International Journal of Eating Disorders*, 48(4), 436-442. <https://doi.org/10.1002/eat.22336>
- Johnson, P. J., McCreary, D. R., & Mills, J. S. (2007). Effects of exposure to objectified male and female media images on men's psychological well-being. *Psychology of Men & Masculinity*, 8(2), 95. <https://doi.org/10.1037/1524-9220.8.2.95>
- Karsay, K., Knoll, J., & Matthes, J. (2018). Sexualizing media use and self-objectification: A meta-analysis. *Psychology of women quarterly*, 42(1), 9-28. <https://doi.org/10.1177/0361684317743019>
- Knauss, C., Paxton, S. J., & Alsaker, F. D. (2008). Body dissatisfaction in adolescent boys and girls: Objectified body consciousness, internalization of the media body ideal and perceived pressure from media. *Sex Roles*, 59(9-10), 633-643. <https://doi.org/10.1007/s11199-008-9474-7>
- Lavine, H., Sweeney, D., & Wagner, S. H. (1999). Depicting women as sex objects in television advertising: Effects on body dissatisfaction. *Personality and Social Psychology Bulletin*, 25(8), 1049-1058. <https://doi.org/10.1177/01461672992511012>
- Lawler, M., & Nixon, E. (2011). Body dissatisfaction among adolescent boys and girls: the effects of body mass, peer appearance culture and internalization of appearance ideals. *Journal of Youth and Adolescence*, 40(1), 59-71. DOI 10.1007/s10964-009-9500-2
- Lee, J. A., & Sung, Y. (2016). Hide-and-seek: Narcissism and "selfie"-related behavior. *Cyberpsychology, Behavior, and Social Networking*, 19(5), 347-351.
- Lewis, S. P., & Arbuthnott, A. E. (2012). Searching for thinspiration: the nature of internet searches for pro-eating disorder websites. *Cyberpsychology, Behavior, and Social Networking*, 15(4), 200-204. <https://doi.org/10.1089/cyber.2011.0453>
- Lonergan, A. R., Bussey, K., Mond, J., Brown, O., Giffiths, S., Murray, S. B. & Mitchison, D. (2019). Me, my selfie, and I: The relationship between editing and posting selfies and body dissatisfaction in men and women. *Body Image*, 28, 39-43.

- <https://doi.org/10.1016/j.bodyim.2018.12.001>.
- Lorenzen, L. A., Grieve, F. G., & Thomas, A. (2004). Exposure to muscular male models decreases men's body satisfaction. *Sex Roles*, 51, 743–748. DOI: 10.1007/s11199-004-0723-0
- Lowery, S. E., Kurpius, S. E. R., Befort, C., Blanks, E. H., Sollenberger, S., Nicpon, M. F., & Huser, L. (2005). Body image, self-esteem, and health-related behaviors among male and female first year college students. *Journal of College Student Development*, 46(6), 612-623. 10.1353/csd.2005.0062
- Mabe, A. G., Forney, K. J., & Keel, P. K. (2014). Do you "like" my photo? Facebook use maintains eating disorder risk. *International Journal of Eating Disorders*, 47(5), 516-523. <https://doi.org/10.1002/eat.22254>
- Manago, A. M., Ward, L. M., Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles*, 72(1-2), 1-14. <https://doi.org/10.1007/s11199-014-0441-1>
- Massey, C. J., Keener, E., & McGraw, J. S. (2020). The Role of Masculinity and Femininity in Body Objectification: Comparison of Heterosexual and Gay Communities. *Gender Issues*, 1-20. <https://doi.org/10.1007/s12147-020-09263-2>
- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health*, 48(6), 297-304. <https://doi.org/10.1080/07448480009596271>
- McKinley, N. M. (1998). Gender differences in undergraduates' body esteem: The mediating effect of objectified body consciousness and actual/ideal weight discrepancy. *Sex Roles*, 39(1-2), 113-123. <https://doi.org/10.1023/A:1018834001203>
- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly*, 20(2), 181-215. <https://doi.org/10.1111/j.1471-6402.1996.tb00467.x>
- McLean, S. A., Paxton, S. J., Wertheim, E. H., & Masters, J. (2015). Photoshopping the selfie: Self photo editing and photo investment are associated with body dissatisfaction in adolescent girls. *International Journal of Eating Disorders*, 48(8), 1132-1140. <https://doi.org/10.1002/eat.22449>
- McLean, S. A., Paxton, S. J., & Wertheim, E. H. (2016). Does media literacy mitigate risk for reduced body satisfaction following exposure to thin-ideal media? *Journal of Youth and Adolescence*, 45(8), 1678-1695. <https://doi.org/10.1007/s10964-016-0440-3>
- Meier, E. P., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. *Cyberpsychology, Behavior, and Social Networking*, 17(4), 199-206. <https://doi.org/10.1089/cyber.2013.0305>
- Melioli, T., Rodgers, R. F., Rodrigues, M., & Chabrol, H. (2015). The role of body image in the relationship between internet use and bulimic symptoms: three theoretical frameworks. *Cyberpsychology, Behavior, and Social Networking*, 18(11), 682-686. <https://doi.org/10.1089/cyber.2015.0154>
- Mendelson, B. K., Mendelson, M. J., & White, D. R. (2001). Body-esteem scale for adolescents and adults. *Journal of Personality Assessment*, 76(1), 90-106. [https://doi.org/10.1207/S15327752JPA7601\\_6](https://doi.org/10.1207/S15327752JPA7601_6)
- Miner-Rubino, K., Twenge, J. M., & Fredrickson, B. L. (2002). Trait self-objectification in women: Affective and personality correlates. *Journal of Research in Personality*, 36(2), 147-172. <https://doi.org/10.1006/jrpe.2001.2343>
- Modica, C. A. (2020). The associations between Instagram use, selfie activities, appearance comparison, and body dissatisfaction in adult men. *Cyberpsychology, Behavior, and Social Networking*, 23(2), 90-99. <https://doi.org/10.1089/cyber.2019.0434>
- Moradi, B. (2010). Addressing gender and cultural diversity in body image: Objectification theory as a framework for integrating theories and grounding research. *Sex Roles*, 63(1-2), 138-148. <https://doi.org/10.1007/s11199-010-9824-0>
- Moradi, B., & Huang, Y. P. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, 32(4), 377-398. <https://doi.org/10.1111/j.1471-6402.2008.00452.x>
- Moradi, B., & Varnes, J. R. (2017). Structure of the Objectified Body Consciousness Scale: Reevaluated 20 years later. *Sex Roles*, 77(5-6), 325-337. <https://doi.org/10.1007/s11199-016-0731-x>
- Morrison, T. G., Morrison, M. A., & Hopkins, C. (2003). Striving for bodily perfection? An exploration of the drive for muscularity in Canadian men. *Psychology of Men & Masculinity*, 4(2), 111. <https://doi.org/10.1037/1524-9220.4.2.111>
- Morry, M. M., & Staska, S. L. (2001). Magazine exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 33(4), 269. <https://doi.org/10.1037/h0087148>
- Murashka, V., Liu, J., & Peng, Y. (2020). Fitspiration on Instagram: Identifying Topic Clusters in User Comments to Posts with Objectification Features. *Health Communication*, 1-12. <https://doi.org/10.1080/10410236.2020.1773702>
- Muris, P., Meesters, C., van de Blom, W., & Mayer, B. (2005). Biological, psychological, and sociocultural correlates of body change strategies and eating problems in adolescent boys and girls. *Eating Behaviors*, 6(1), 11-22. <https://doi.org/10.1016/j.eatbeh.2004.03.002>
- Musetti, A., Schimmenti, A., & Corsano, P. (2020). Mass media influences on body image and body esteem in female adolescents: the mediating role of hopeful future expectations. *Atlantic Journal of Communication*, 1-13. <https://doi.org/10.1080/15456870.2020.1742716>
- Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly*, 22(4), 623-636. <https://doi.org/10.1111/j.1471-6402.1998.tb00181.x>
- Noser, A., & Zeigler-Hill, V. (2014). Investing in the ideal: Does objectified body consciousness mediate the association between appearance contingent self-worth and appearance self-esteem in women? *Body Image*, 11(2), 119-125. <https://doi.org/10.1016/j.bodyim.2013.11.006>
- Oliveira, S., Trindade, I., & Ferreira, C. (2018). Explaining male body attitudes: the role of early peer emotional experiences and shame. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, 23(6), 807-815. <https://doi.org/10.1007/s40519-018-0569-z>
- Parks, P. S. M., & Read, M. H. (1997). Adolescent male athletes: Body image, diet, and exercise. *Adolescence*, 32(127), 593.
- Pelosi, A., Zorzi, G., & Corsano, P. (2014). The "Body Image Control in Photos Questionnaire" (BICP). *BPA-Applied Psychology Bulletin (Bollettino di Psicologia Applicata)*, 62(269), 42-52.
- Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71(11-12), 363-377. <https://doi.org/10.1007/s11199-014-0384-6>
- Pope, H., Pope, H. G., Phillips, K. A., & Olivardia, R. (2000). *The Adonis complex: The secret crisis of male body obsession*. Simon and Schuster.
- Pope, H. G., Olivardia, R., Gruber, A., & Borowiecki, J. (1999). Evolving ideals of male body image as seen through action toys. *International journal of eating disorders*, 26(1), 65-72. [https://doi.org/10.1002/\(SICI\)1098-108X\(199907\)26:1<65::AID-EAT8>3.0.CO;2-D](https://doi.org/10.1002/(SICI)1098-108X(199907)26:1<65::AID-EAT8>3.0.CO;2-D)
- Primus, M. (2014). Body dissatisfaction and males: A conceptual model. *Scholarly Horizons: University of Minnesota, Morris Undergraduate Journal*, 1(1), 6. <https://digitalcommons.morris.umn.edu/horizons/vol1/iss1/6>
- Raggatt, M., Wright, C. J., Carrotte, E., Jenkinson, R., Mulgrew, K., Prichard, I., & Lim, M. S. (2018). "I aspire to look and

- feel healthy like the posts convey”: engagement with fitness inspiration on social media and perceptions of its influence on health and wellbeing. *BMC Public Health*, 18(1), 1002. <https://doi.org/10.1186/s12889-018-5930-7>
- Ricciardelli, L. A., & McCabe, M. P. (2004). A biopsychosocial model of disordered eating and the pursuit of muscularity in adolescent boys. *Psychological Bulletin*, 130(2), 179-205. <https://doi.org/10.1037/0033-2909.130.2.179>
- Ridgeway, R. T., & Tylka, T. L. (2005). College Men's Perceptions of Ideal Body Composition and Shape. *Psychology of Men & Masculinity*, 6(3), 209-220. <https://doi.org/10.1037/1524-9220.6.3.209>
- Ridolfi, D. R., Myers, T. A., Crowther, J. H., & Ciesla, J. A. (2011). Do appearance focused cognitive distortions moderate the relationship between social comparisons to peers and media images and body image disturbance?. *Sex Roles*, 65(7-8), 491. DOI 10.1007/s11199-011-9961-0
- Rodgers, R. F., Melioli, T., Laconi, S., Bui, E., & Chabrol, H. (2013). Internet addiction symptoms, disordered eating, and body image avoidance. *Cyberpsychology, Behavior, and Social Networking*, 16(1), 56-60. <https://doi.org/10.1089/cyber.2012.1570>
- Rohlinger, D. A. (2002). Eroticizing men: Cultural influences on advertising and male objectification. *Sex roles*, 46(3-4), 61-74. <https://doi.org/10.1023/A:1016575909173>
- Rollero, C. (2013). Men and women facing objectification: The effects of media models on well-being, self-esteem and ambivalent sexism. *Revista de Psicología Social*, 28(3), 373-382. <https://doi.org/10.1174/021347413807719166>
- Rousseau, A., Eggermont, S., & Frison, E. (2017). The reciprocal and indirect relationships between passive Facebook use, comparison on Facebook, and adolescents' body dissatisfaction. *Computers in Human Behavior*, 73, 336-344. <https://doi.org/10.1016/j.chb.2017.03.056>
- Ryding, F. C., & Kuss, D. J. (2020). Passive objective measures in the assessment of problematic smartphone use: A systematic review. *Addictive Behaviors Reports*, 11, 100257. <https://doi.org/10.1016/j.abrep.2020.100257>
- Santarossa, S., Coyne, P., Lisinski, C., & Woodruff, S. J. (2019). #fitspo on Instagram: A mixed-methods approach using Netlytic and photo analysis, uncovering the online discussion and author/image characteristics. *Journal of health psychology*, 24(3), 376-385. <https://doi.org/10.1177/1359105316676334>
- Sherlock, M., & Wagstaff, D. L. (2019). Exploring the relationship between frequency of Instagram use, exposure to idealized images, and psychological well-being in women. *Psychology of Popular Media Culture*, 8(4), 482. <https://doi.org/10.1037/ppm0000182>
- Sinclair, K. R. (2010). Objectified body consciousness, depression, and eating disorders: The importance of control beliefs. *Yale Review of Undergraduate Research in Psychology*, 1, 68-77.
- Sinclair, S. L., & Myers, J. E. (2004). The relationship between objectified body consciousness and wellness in a group of college women. *Journal of College Counseling*, 7(2), 150-161. <https://doi.org/10.1002/j.2161-1882.2004.tb00246.x>
- Slater, A., & Tiggemann, M. (2015). Media exposure, extracurricular activities, and appearance-related comments as predictors of female adolescents' self-objectification. *Psychology of Women Quarterly*, 39(3), 375-389. <https://doi.org/10.1177/0361684314554606>
- Stanford, J. N., & McCabe, M. P. (2002). Body image ideal among males and females: Sociocultural influences and focus on different body parts. *Journal of Health Psychology*, 7(6), 675-684. <https://doi.org/10.1177/1359105302007006871>
- Stapleton, P., Luiz, G., & Chatwin, H. (2017). Generation validation: The role of social comparison in use of Instagram among emerging adults. *Cyberpsychology, Behavior, and Social Networking*, 20(3), 142-149. <https://doi.org/10.1089/cyber.2016.0444>
- Strahan, E. J., Wilson, A. E., Cressman, K. E., & Buote, V. M. (2006). Comparing to perfection: How cultural norms for appearance affect social comparisons and self-image. *Body Image*, 3(3), 211-227. <https://doi.org/10.1016/j.bodyim.2006.07.004>
- Strelan, P., & Hargreaves, D. (2005a). Reasons for exercise and body esteem: Men's responses to self-objectification. *Sex Roles*, 53(7-8), 495-503. <https://doi.org/10.1007/s11199-005-7137-5>
- Strelan, P., & Hargreaves, D. (2005b). Women who objectify other women: The vicious circle of objectification?. *Sex Roles*, 52(9-10), 707-712. DOI: 10.1007/s11199-005-3737-3
- Tiggemann, M., & Barbato, I. (2018). “You look great!”: The effect of viewing appearance-related Instagram comments on women's body image. *Body Image*, 27, 61-66. <https://doi.org/10.1016/j.bodyim.2018.08.009>
- Tiggemann, M., & Slater, A. (2013). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, 46(6), 630-633. <https://doi.org/10.1002/eat.22141>
- Tiggemann, M., & Slater, A. (2015). The role of self-objectification in the mental health of early adolescent girls: Predictors and consequences. *Journal of Pediatric Psychology*, 40(7), 704-711. <https://doi.org/10.1093/jpepsy/jsv021>
- Tiggemann, M., & Zaccardo, M. (2015). “Exercise to be fit, not skinny”: The effect of fitness imagery on women's body image. *Body image*, 15, 61-67. <https://doi.org/10.1016/j.bodyim.2015.06.003>
- Tiggemann, M., & Zaccardo, M. (2018). ‘Strong is the new skinny’: A content analysis of# fitnesspiration images on Instagram. *Journal of Health Psychology*, 23(8), 1003-1011. <https://doi.org/10.1177/1359105316639436>
- Trekels, J., Ward, L. M., & Eggermont, S. (2018). I “like” the way you look: How appearance-focused and overall Facebook use contribute to adolescents' self-sexualization. *Computers in Human Behavior*, 81, 198-208. <https://doi.org/10.1016/j.chb.2017.12.020>
- van den Berg, P., Paxton, S. J., Keery, H., Wall, M., Guo, J., & Neumark-Sztainer, D. (2007). Body dissatisfaction and body comparison with media images in males and females. *Body Image*, 4(3), 257-268. <https://doi.org/10.1016/j.bodyim.2007.04.003>
- Vandenbosch, L., & Eggermont, S. (2012). Understanding sexual objectification: A comprehensive approach toward media exposure and girls' internalization of beauty ideals, self-objectification, and body surveillance. *Journal of Communication*, 62(5), 869-887. <https://doi.org/10.1111/j.1460-2466.2012.01667.x>
- Vandenbosch, L., & Eggermont, S. (2013). Sexualization of adolescent boys: Media exposure and boys' internalization of appearance ideals, self-objectification, and body surveillance. *Men and Masculinities*, 16(3), 283-306. <https://doi.org/10.1177/1097184X13477866>
- Vandenbosch, L., & Eggermont, S. (2015). The role of mass media in adolescents' sexual behaviors: Exploring the explanatory value of the three-step self-objectification process. *Archives of Sexual Behavior*, 44(3), 729-742. <https://doi.org/10.1007/s10508-014-0292-4>
- Wang, Y., Wang, X., Yang, J., Zeng, P., & Lei, L. (2019a). Body talk on social networking sites, body surveillance, and body shame among young adults: The role of self-compassion and gender. *Sex Roles*, 1-12. Advance online publication. <https://doi.org/10.1007/s11199-019-01084-2>
- Wang, Y., Xie, X., Fardouly, J., Vartanian, L. R., & Lei, L. (2019b). The longitudinal and reciprocal relationships between selfie-related behaviors and self-objectification and appearance concerns among adolescents. *New Media & Society*, 1-22. Advance online publication. <https://doi.org/10.1177/1461444819894346>
- Wiseman, C. V., Sunday, S. R., & Becker, A. E. (2005). Impact of the media on adolescent body image. *Child and Adolescent Psychiatric Clinics*, 14(3), 453-471. DOI:<https://doi.org/10.1016/j.chc.2005.02.008>