

The influence of social media use on body image concerns

Vittoria Franchina¹, Gianluca Lo Coco²

Abstract

Internet-based media and especially social networking sites differ from traditional media in that they allow individuals to interact with their friends in their networks. Moreover, Internet-based media are easily available on devices such as smartphones or tablets. Previous research has demonstrated that mass media contribute powerfully to an individual's body dissatisfaction. To date, research on the effects related to exposure to 'newer' forms of media, in particular social media on the Internet, is scarce. The purpose of the current study is to review the extant body of research dealing with the influence of social media on body image concerns, especially among adolescents. Adolescents, via the Internet, get access to different kinds of Internet-based media, such as social media (including social networking sites). Our results document the importance of idealized social media models—especially thin-ideal models for girls and muscular-ideal models for boys—in shaping the body perceptions of adolescents. However, the effects of pressure from social media on body image concerns in men need to be further investigated both in clinical and community samples.

Key words: *Body image dissatisfaction; Social media; Social networking; Adolescents*

¹ University of Palermo, Italy.

² University of Palermo, Italy.

Introduction

Nowadays people spend a huge amount of time on the Internet, especially through the smartphone use, which offers a multitude of other functions, beyond calling, sending and receiving messages. For example, the Internet use on such devices is very widespread. In particular, in everyday life it can be experienced that teenagers are the ones who spend the highest amount of time with their smartphones surfing on the Internet. Moreover, given the availability on smartphones, the time they spend on Internet is increasing quickly. For this reason, in spite of its advantages, many studies have been conducted on Internet problematic use (e.g., Shapira et al., 2000).

The extended exposure to social media as well as a problematic internet use have been found to be associated with a variety of mental health problems. Among others, emotional disorders, such as depression or anxiety, sleep disturbance and obsessive-compulsive symptoms (Dalbudak et al., 2013). In particular, recent studies have examined the relationship between the Internet use and the body perception (e.g., Carter, Forrest, & Kaida, 2017; Bair, Kelly, Serdar, & Mazzeo, 2012). For example, the internet use has been found associated with body concerns, such as an overweight preoccupation (Hetzl-Riggin, & Pritchard, 2011) or a body image avoidance (Rodgers, Melioli, Laconi, Bui, & Chabrol, 2013). Among adolescents, concerns about the body shape are very common (Confalonieri, Gatti, Ionio, & Traficante 2008). That is because physical changes during puberty tend to increase body dissatisfaction (Arim, Shapka, & Dahinten, 2006). Therefore, especially among adolescents, problematic internet use may have a stronger negative effect on body satisfaction or body esteem.

The purpose of the current study is to review the extant body of research dealing with the influence of social media on body image concerns, especially among adolescents. Adolescents connect on Internet to get access to different kind of Internet-based media

such as social media (among which social networking sites, a particular type of social media). Scholars (e.g., Carter et al., 2017; Bair, Kelly, Serdar, & Mazzeo, 2012) suggested that the internet use has a negative effect on body image. Therefore, this study explores whether teenagers who spend more time on the Internet have greater concerns in negative self-image. Negative self-images are defined as “a way of thinking and feeling about one’s body that negatively influences the person’s self-esteem, body esteem, and body satisfaction” (Barlett, Vowels, & Saucier, 2008). The body satisfaction is defined as how one thinks about his/her body; whereas body esteem is defined as how one feels about his/her own body. Body esteem can be understood as a global construct that refers to self perceptions of one’s own body (Mendelson, Mendelson, & Andrews 2000). Even though body esteem is significantly correlated to self-esteem, they can be addressed as two different constructs. Self-esteem is defined as an overall evaluation of the self (Rosenberg, 1965): although self-esteem may be affected by evaluation of the body, this construct is more global while body esteem only focuses on the body. In the current paper, we will address the different aspects of negative self-image, including studies on body image concerns, body dissatisfaction and body esteem.

Traditional media and Internet-based media

Media keep on evolving. Traditional media such as television, films and magazines are losing their popularity out to the internet-based media. Internet-based media and especially social networking sites differ from traditional media in that they allow individuals to interact with their friends in their networks. Moreover, Internet-based media are easily available on devices such as smartphones or tablets. Therefore, the amount of time that people are spending into social media is increasing quickly. Especially among teenagers, watching films and tv series online as well as connecting on

social media has never been as easy as now. To date, an average person spends over 10 hours per day by using social media (Nielsen, 2016). That is because Internet-based media are easily available on smartphones or tablets. Media content does not mirror the reality, nevertheless the promulgated content becomes the standard against which the self and the others are judged.

Previous research has demonstrated that the mass media are a powerful contributor to individual's body dissatisfaction, especially among women. Meta-analytic studies suggested that exposure to thin ideal image portrayed in magazines and on television is associated with body dissatisfaction among women (Grabe, Ward, & Shibley, 2008). More recently, research has supported similar effects related to exposure to 'newer' forms of media, in particular the Internet social media. Time spent on the Internet, and particularly on social networking sites such as Facebook, has been related to poorer body image outcomes for both adult women and adolescent girls (Fardouly & Vartanian, 2016; Tiggemann, & Slater, 2013). This association can be due to the media promotion of ideal, and therefore unrealistic, standards of beauty. Even if the promoted body shape and weight are unachievable for the average person, viewers end up perceiving those ideal pictures as "reality" (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). This leads them to consider the proposed ideal standard as the social definition of attractiveness and feel dissatisfied with themselves (O' Brien, 2015). Especially during adolescence, teenagers often engage in social comparisons in order to increase their body esteem (Carlson Jones, 2001). Social comparison refers to the judgment that people make about their own body compared to others. Comparing their own body to those ideal standards of beauty, promoted by media, may lead adolescents to feel dissatisfied with themselves (Vartanian, & Dey, 2013). That is because those ideal pictures are perceived as real but are felt unattainable (Carlson

Jones, 2001). Recent research is attempting to identify specific factors that can mediate the relationship between media exposure and appearance dissatisfaction. Media internalization has been shown to be one of the most fundamental mechanisms (Lawler, & Nixon, 2011). Media internalization entails the endorsement of media-promoted appearance ideals, as well as the adoption of these ideals as a personal goal and standard, and is reflected by individuals' pursuit of the ideals depicted and their tendency toward appearance comparisons with idealized media models. Media internalization is hypothesized to foster appearance dissatisfaction because the personal endorsement of media-promoted ideals highlights the gap between the unattainable media-ideal and one's own physical appearance, leading to feelings of dissatisfaction (Rodgers, McLean, & Paxton, 2015). Moreover, adolescents might use media content as a source of information on how to improve their physical appearance, and may compare with media models in order to set a standard to live up to (Rousseau, Eggermont, & Rodgers, 2017). Thus, media internalization and comparison might serve as a maintenance factor of body image concerns.

Finally, recent research on this topic highlighted the importance of tackle the limited evidence of the correlational nature of data by determining the direction of causality among variables. While the sociocultural model would predict that engagement with social media can lead to body image concerns, the converse causal direction is equally possible. That is, those individuals who are most dissatisfied with their appearance may turn to the Internet in order to seek information or reassurance. This longitudinal research is primarily focused on individuals' social networking, as explained below.

Social Networking activities and Body Image

Nowadays, the majority of people use their smartphone to connect Internet. In particular

teenagers often spend their time with their smartphones on Social Networking Sites (SNSs), which are a particular type of social media. SNSs as Facebook, Snapchat, and Instagram, are Internet-based sites that allow users to create public or private profiles, form a network of 'friends' or 'followers'. On these social profiles, people can share their own content, view others' profiles and give them or receive different sort of feedback (e.g., likes or comments; Perloff, 2014). Facebook is the most popular social networking site, with over two billion monthly users worldwide in 2017, and around 98% of western college/university students in 2016 reported having a Facebook account (Lo Coco et al., 2018). Instagram (a social networking service solely for photo and video sharing) has dramatically risen in popularity, with over 600 million active users sharing over 95 million photos per day and it is actually the second most used SNS in the Western countries after Facebook.

Recently, researchers have found that also a brief exposure to Facebook is related to poorer body image outcomes (e.g., Fardouly; Diedrichs, Vartanian, & Halliwell, 2015; Tiggemann, & Slater, 2013).

SNSs are being used primarily for sharing photos of oneself and viewing other's (Ahadzadeh, Sharif, & Ong, 2016). Moreover, photo-based activities such as commenting on images of oneself and others, can play an important role (Holland & Tiggemann, 2016). Although SNSs may be less likely to show idealized images of models and celebrities than media do, unrealistic pictures can appear also on social media networks. That is because users when sharing pictures of themselves tend to enhance their appearance on social media profiles by using filters and editing their images (Manago, Graham, Greenfield, & Salimkhan, 2008). Therefore, the pictures of one's own friends on social network profiles may be unrealistic and idealized as well as the images of models and celebrities. Following this perspective, it is likely to think that the more adolescents connect on platforms such as Facebook or Instagram the more this exposure may effect neg-

atively their body esteem. That is because viewing edited and unrealistic pictures of peers on their friends' profiles may lead to body dissatisfaction as well as idealized images of famous people may do. Interestingly, adolescent girls who regularly share 'selfies', and who are more invested in, and more likely to manipulate (edit) their self-images, reported poorer body image (McLean, Paxton, Wertheim, & Masters, 2015).

As mentioned above, teenagers use SNSs on their devices above all for sharing pictures of themselves and liking or commenting others'. The current evidence indicates that feedback or verbal messages, both negative and positive, made about an individual's body appearance had a detrimental impact on people's body esteem (e.g., Herbozo & Thompson, 2006; Barker & Galambos, 2003; Ricciardelli, McCabe, & Banfield, 2000). Research also suggests (Herbozo & Thompson, 2006) that even positive comments may remind us that other people are judging our appearance and body image. Furthermore, positive comments may reinforce one's concern on body image (Herbozo & Thompson, 2006). As a consequence, it is likely to hypothesize that receiving feedback and comments on pictures of one's own body on platforms such as Facebook or Instagram may have negative effects on body concerns, although friends may comment positively on us.

As previously mentioned, there is evidence that social networking and Internet use are associated with body image concerns and disordered eating in women and adolescent girls (Holland & Tiggemann, 2016). However, this small amount of evidence is largely correlational in design, and the direction of causality between social networking and body dissatisfaction cannot be highlighted yet. To our knowledge, only one study examined the relationship across time between Facebook use and body image concern in adolescents (Tiggemann, & Slater, 2017). It was found that engagement with Facebook (as measured by the number of friends) is temporally antecedent to drive for thinness,

consistent with its postulated causal role. Interestingly, only number of Facebook friends, but not time spent, prospectively predicted girls' body image concerns, by supporting the importance of multiple social comparisons in adolescence and their link with body image concerns.

Gender differences in Body dissatisfaction

An extensive body of research has documented the importance of idealized media models—especially thin-ideal models for girls and muscular-ideal models for boys—in shaping the perceptions of adolescents. As mentioned above, a central contributor to low body esteem and body image's dissatisfaction is engaging in social comparison (Jones, 2001) which is easily done on the Internet-based media by looking at idealized pictures of models or peers. In other words, the cognitive process of social comparison in relation to one's physical body is crucial in the self-evaluation and self-esteem (Wood, 1989). That is because the body image is a fundamental aspect of self-evaluation, especially during adolescence, and teens judge their own body comparing their physics to others'. The body image embraces different aspects of the physical self (e.g., size, shape, weight and general appearance) and is defined as the degree of satisfaction with one's physical body (Cash, & Deagle, 1997). The body dissatisfaction occurs when one has lower degree of satisfaction because of a subjectively negative view of one's own physical body (Carter, Forrest, & Kaida, 2017). Researchers showed that the more women report appearance-related social comparison the more they are likely to be dissatisfied with their body image (e.g., Faith, Leone, & Allison, 1997). Although there are not as many studies on body dissatisfaction in men as in women, Jones (2001) found that social comparisons for physical attributes is correlated for both girls and boys to body dissatisfaction. Therefore it is likely to think that the more both women and men use the internet the more they may engage in social comparisons and this may lead them to

a lower body-esteem. That is because on smartphones people usually have access to Internet where they may compare their own 'realistic' physical body to unrealistic and idealized (but perceived as realistic) pictures of models and peers (e.g., on SNSs such as Facebook or Instagram).

Over the years the body dissatisfaction among men has been understudied by researchers. Although there are already an increasing number of studies showing that body dissatisfaction is common among men (e.g., Rash, 2004), as far as we can tell there aren't any studies on the negative effect of the Internet use on the body image in men. Among men, body dissatisfaction is associated with unhealthy weight-control behaviors, eating disorders, and lower self-esteem (e.g., Neumark-Sztainer, Wall, Story, & Pery, 2003; Cohane & Pope, 2001). However, more is known about the consequences of body dissatisfaction among men than about the factors influencing the development of a negative body image (Bearman, Presnell, Martinez, & Stice, 2006). One of the factors contributing to a negative body image is media exposure. Societal pressure on men's appearance is increasing as more and more images of muscular male bodies appear in movies, music videos, commercials, and magazines. The review by Blond (2008) suggested that young men's body satisfaction can be negatively affected by exposure to images of ideal male bodies. Pressure from the mass media can be detected by either showing male participants stimuli consisting of muscular men or being asked questions about how much pressure they felt from the mass media to increase their muscles (or decrease their weight). These ideal images have been presented through magazines, television commercials and action figures. The meta-analysis by Barlett et al. (2008) also suggested that the exposure to muscular ideals were associated with lower levels of body esteem and body satisfaction and with increased levels of negative behavioral and psychological outcomes. It is also worth noting that some inconsistencies exist regarding the effects of

pressure from the mass media on body image concerns in men. For example, McCabe and Ricciardelli (2003) found that the pressure from the mass media was negatively correlated with strategies to increase muscles, suggesting that the number of hours spent viewing the mass media did not make boys want to increase their muscles.

Moreover, only limited insight into the moderation of men's individual characteristics on impacts of ideal body exposure was found, and more research is needed to examine what traits might increase the vulnerability to body dissatisfaction in connection with exposure to images of ideal bodies. Most of these studies on body dissatisfaction in men focused on traditional media exposure (e.g., Bardone-Cone, Cass, & Ford, 2007; Arbour, & Ginis, 2006). Nowadays magazines and advertising use an increasing number of more muscular male models than in the past (Leit, Pope, & Gray, 2001). That means that on a hand the discrepancy perceived from one's own body and the ideal projected by media is greater than before and this may be a cause of body dissatisfaction. On the other hand, the ideal male body depicted by media is becoming increasingly unachievable which also leads to an increase in men's body dissatisfaction (Agliata, & Tantleff-Dunn, 2004). However, men are aware of this ideal as they select these male body images as their ideal physical bodies as well as what they believe to be women's ideal of men's body (Jacobi, & Cash, 1994). Studies that have exposed men to these ideal pictures of male bodies have shown the negative effect of media exposure on men's body image. For example, Leit et al. (2002) discovered that men exposed to images of muscular male in magazine advertisements reported a greater dissatisfaction with their body afterwards. In another study, young men who were exposed to photos of muscular men's body then showed a greater body dissatisfaction, while this negative effect wasn't found among men who were shown images of normal or fat male bodies (Lorenzen, Grieve, & Thomas, 2004). Furthermore, men had an increase in body dissatisfaction when ex-

posed to these male ideal bodies from the media in a laboratory setting (Agliata, & Tantleff-Dunn, 2004).

Taken together, these studies suggest that the media have a strong influence on body dissatisfaction and low body-esteem among men. Therefore, it seems relevant to explore whether the Internet-media consumption is related to low body esteem among men as well as general traditional media. That is because, especially in these days, the exposure to the Internet-based media is greater than in the past as people spend more and more time with their smartphones connected on the Internet. Although there are already studies among women, to date there aren't any studies about the relationship between the Internet use and the body dissatisfaction among men.

The current evidence showed that, these days, a great percentage of men is dissatisfied with their bodies (Frederick, Forbes, Grigorian, & Jarcho, 2007). Among others, scholars discovered two main reasons for this to happen. As mentioned, one reason is that nowadays media show off ideal pictures of male bodies more than they have ever done in the past (Leit et al., 2001). The second one is that the ideal male body is becoming more and more muscular and therefore unattainable (Agliata, & Tantleff-Dunn, 2004). Moreover, men may be experiencing an even greater exposure to these ideal body images than researchers believe they are. That is not just because of an increase in the frequency of male body images on media but also because of an increase in the time that men are exposed to these images on the Internet-based media. Following this line of thoughts, another reason of why the percentage of men dissatisfied with their body is increasing may be that they spend more and more time on the Internet-based media with their smartphones. For example, on social platforms such as Facebook both men and women tend to comment or like on others' pictures as well as receiving comments and likes on their own pictures. Nowell and Ricciardelli (2008) discovered that both frequent

negative and positive commentary are associated with body dissatisfaction and higher drive for muscularity among young males. It is likely then that the more men spend time on their smartphones on SNSs the more they may receive comments and feedback on shared pictures of their own bodies and this may lead them to feel dissatisfied with their bodies.

As mentioned, although researchers haven't explored yet the relationship between the Internet use and the body dissatisfaction among men, recent studies discovered that the Internet consumption is positively correlated with body dissatisfaction in women (e.g., Carter, Forrest, & Kaida, 2017; Bair, Kelly, Serdar, & Mazzeo, 2012). For example, Bair, Kelly, Serdar, and Mazzeo (2012) investigated the association among ideal women body exposure on media and internet and body dissatisfaction. The exposure to these ideal images both on traditional media and internet were associated to a greater body dissatisfaction (Bair et al., 2012). It seems relevant to dig more in depth the negative effects of Internet on women's body image, that is because the digital culture is a big challenge for women who want to achieve and maintain a realistic and healthy body image. This objective may become an even greater challenge in the future. After all, these days young women spend significantly more time viewing appearance focused images online than on traditional media (for example on traditional media such as television and magazines; Bair et al., 2012). Therefore, it is likely to think that the advertisements for young women targets are now more common on the Internet with an increase in the frequency of women ideal body's images on websites, social media and SNSs. Already, many websites accessed by teens and young women present pop-up advertisements of different products using aspects of idealized female beauty (e.g., health, fitness, clothing, models so on and so forth; Bedford, & Johnson, 2006). Although women use the Internet for different purposes they end up anyway with being exposed to these pictures of ideal bodies. However, the

ideal female body is very different from the male one. While male desire a muscular body (the muscularity especially associated with the upper torso; Hoyt, & Kogan, 2001; Stanford, & McCabe, 2005), women desire a thinner though tonic body (Tiggemann, 2006). Recent campaigns such as The Dove Campaign for Real Beauty (2016) and Vancouver Raw Beauty Talks (2016) attempted to modify the ideal standard of female beauty. These campaigns presented a more realistic and achievable standard of beauty hiring women without makeup or filters and with different sizes and shapes of bodies (Carter, Forrest, & Kaida, 2017). Nevertheless the popular thin ideal of female beauty is still very common on SNSs and has found to be associated with body dissatisfaction and eating disorders among women (Mingoa, Hutchinson, Wilson, & Gleaves, 2017).

The widespread of thin-ideal body images across social media is referred to as thinspiration (e.g., Lewis, & Arbuthnot, 2012). Thinspiration on social media is related to thin ideal content that intentionally promotes thinness and weight loss (e.g., Ghaznavi, & Taylor, 2014; Lewis, & Arbuthnot, 2012). However the thin ideal is not the only female ideal standard of beauty, as Boepple, Ata, Rum, and Thompson (2016, p.132) state <<strong is the new skinny>>. Fittspiration websites are related to athletic ideal content that intentionally motivates people to live healthy and fit lifestyles (Boepple et al., 2016). The athletic ideal body results to be detrimental for female viewers as much as the thin one. Both these ideals lead women to feel dissatisfied with their body and motivate them to excessive exercise and dieting habits (Boepple et al., 2016).

Interestingly, a similar pattern of media internalization can be detected for males. In men, the desire for a muscular body is referred to as 'Drive for Muscularity', and is described as a preoccupation with attaining large muscles concentrated on one's upper body. However, Smolak, and Murnen (2008) defined another component that has been termed 'Drive for Leanness', which is described as a desire for a lean body with well-

defined muscles and low body fat. The male's desire in Drive for Leanness is for a body shape that is specifically lean and similar to looking 'athletic'.

In line with these findings, it could be expected that those young women (and men) who spend more time on their smartphones may report a lower body satisfaction. That is because on smartphones people usually connect on Internet websites, social media and SNSs platforms where they easily end up with being exposed to thin and athletic inspiring contents.

To conclude, and on the basis of the review presented in this article, further studies

should investigate the influence of social media on body image concerns, especially among both female and male adolescents. That is because the increasing time teens are exposed to idealized pictures of peers on SNSs represents a big challenge for them to develop a realistic and healthy body image. Moreover, as both the time and the frequency of people exposure to unrealistic body images are increasing, the issue of developing a poorer body image may become an even greater risk in the future.

References

- Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure on male body image. *Journal of Social and Clinical Psychology, 23*, 7–22.
- Ahadzadeh, A. S., Sharif, S. P., & Ong F. S. (2016). Self-schema and self-discrepancy mediate the influence of Instagram usage on body image satisfaction among youth. *Computers in Human Behavior, 68*, 8-16.
- Arbour, K. P., & Ginis, K. A. M., (2006). Effects of exposure to muscular and hypermuscular media images on young men's muscularity dissatisfaction and body dissatisfaction. *Body Image, 3*, 153-161.
- Arim, R. G., Shapka, J. D., & Dahinten, V. S. (2006). The developmental trajectories of psychopathology in adolescence: An investigation of the effects of gender and pubertal timing. Paper presented at the 10th Conference of the European Association for Research on Adolescence (EARA), Antalya, Turkey.
- Bair, C. E., Kelly, N. R., Serdar, K. L., & Mazzeo, S. E., (2012). Does the Internet function like magazines? An exploration of image-focused media, eating pathology, and body dissatisfaction. *Eating Behaviors, 13*, 398-401.
- Bardone-Cone, A. M., Cass, K. M., & Ford, J. A., (2007). Examining body dissatisfaction in young men within a biopsychosocial framework. *Body Image, 5*, 183-194.
- Barker, E. T., & Galambos, N.L., (2003). Body dissatisfaction of adolescent girls and boys: Risk and resource factors. *The Journal of Early Adolescence, 23*, 141-165.
- 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*, 279-310.
- Bearman, S. K., Presnell, K., Martinez, E., & Stice, E. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence, 35*, 229–241.
- Bedford, J. L., & Johnson, C.S., (2006). Societal influences on body image dissatisfaction in younger and older women. *Journal of Women Aging, 18*, 41-55
- Boepple, L., Ata, R. N., Rum, R., & Thompson, J. K., (2015). Strong is the new skinny: A content analysis of fitspiration websites. *Body Image, 17*, 132-135.
- Blond, A. (2008). Impacts of exposure to images of ideal bodies on male body dissatisfaction: A review. *Body Image, 5*, 244-250.
- Carter, A., Forrest, J. I., & Kaida, A., (2017). Association Between Internet Use and Body Dissatisfaction Among Young Females: Cross-Sectional Analysis of the Canadian Community Health Survey. *Journal of Medical Internet Research, 19*, 2-11.

- Cash, T. F., & Deagle, E. A. (1997). The nature and extent of body-image disturbances in anorexia nervosa and bulimia nervosa: A meta-analysis. *International Journal of Eating Disorders*, 22, 107–125.
- Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders*, 29, 373–379.
- Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D. (2008). Body esteem scale: a validation on Italian adolescents. *Tpm*, 15 (3), 153-165.
- Dalbudack, E., Evren, C., Aldemir, S., Coskun, K.S., Ugurlu, H., & Yildirim, F.G., (2013). Relationship of internet addiction severity with depression, anxiety, and alexithymia, temperament and character in university students. *Cyberpsychology, Behavior, and Social Networking*, 16, 272-8.
- Dove. The Dove Campaign for Real Beauty. London, UK: Unilever; 2016. URL: <http://www.dove.us/Social-Mission/campaign-for-real-beauty.aspx> [accessed 2016-02-11] [WebCite Cache ID 6fEBdls8D]
- Faith, M. S., Leon, M. A., & Allison, D. B. (1997). The effects of self-generated comparison targets, BMI, and social comparison tendencies on body image appraisal. *Eating Disorders*, 5, 128–140.
- 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, 447–457.
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, 9, 1–5.
- Frederick, D. A., Buchanan, G. M., Sadehgi-Azar, L., Peplau, L. A., Haselton, M. G., Berezovskaya, A., et al. (2007). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana. *Psychology of Men & Masculinity*, 8, 103–117.
- Gerbner, G., Gross, L., Morgan, M., Signorielli, N., & Shanahan, J. (2002). Growing up with television: Cultivation processes. In J. Bryant, & D. Zillman (Eds.), *Media effects: Advances in theory and research (2nd edition)* (pp. 43-67). Hillsdale, NJ: Lawrence Erlbaum.
- Ghaznavi, J., & Taylor, L. D., (2015). Bones, body parts, and sex appeal: An analysis of #thinspirationimages on popular social media. *Body Image*, 14, 54-61.
- Grabe, S., Ward, L., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134, 460–476.
- Herbozo, S., & Thompson, K. J., (2006). Appearance-related commentary, body image, and self-esteem: Does the distress associated with the commentary matter? *Body Image*, 3, 255-262.
- Hetzel-Riggin, M.D., Pritchard, J.R., 2011. Predicting problematic Internet use in men and women: the contributions of psychological distress, coping style, and body esteem. *Cyberpsychology, Behavior, and Social Networking*, 14, 519–525.
- 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.
- Hoyt, W. D., & Kogan, L. R. (2001). Satisfaction with body image and peer relationships for males and females in a college environment. *Sex Roles*, 45, 199–215
- Jacobi, L., & Cash, T. F. (1994). In pursuit of the perfect appearance: Discrepancies among self- and ideal-percepts of multiple physical attributes. *Journal of Applied Social Psychology*, 24, 379–396.
- Jones, D. C., (2001). Social Comparison and Body Image: Attractiveness Comparisons to Models and Peers Among Adolescent Girls and Boys. *Sex Roles*, 45, 645-663.
- Lawler, M., & Nixon, E. (2011). Appearance 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, 59-71.
- Leit, R. A., Gray, J. L., & Pope, H. G., Jr. (2002). The media's representation of the ideal male body: A cause for muscle dysmorphia? *International Journal of Eating Disorders*, 31, 34–338.
- Leit, R. A., Pope, H. G., & Gray, J. J. (2001). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders*, 29, 90–93.
- 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, 200–204.

- Lorenzen, L. A., Grieve, F. G., & Thomas, A. (2004). Exposure to muscular male models decreases men's body satisfaction. *Sex Roles*, 51, 743–748.
- Manago, A. M., Graham, M. B., Greenfield, P. M., & Salimkhan, G. (2008). Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology*, 29, 446–458.
- Mendelson, M. J., Mendelson, B. K & Andrews, J. (2000). Self-esteem, body-esteem, and body-mass in late adolescence: Is a competence X importance model needed? *Journal of Applied Developmental Psychology*, 21, 249–266.
- Mingoia, J., Hutchinson, A. D., Wilson, C., & Gleaves, D. H., (2017). The Relationship between Social Networking Site Use and the Internalization of a Thin Ideal in Females: A Meta-Analytic Review. *Frontiers In Psychology*, 8, 1-10.
- Neumark-Sztainer, D., Wall, M. M., Story, M., & Perry, C. L. (2003). Correlates of unhealthy weight-control behaviors among adolescents: Implications for prevention programs. *Health Psychology*, 22, 88–98.
- Nielsen. (2016). The Total Audience Report: Q1 2016. *New York, NY: Nielsen*. Retrieved June 1, 2018, from <http://www.nielsen.com/us/en/insights/reports/2016/the-total-audience-report-q1-2016.html>
- Nowell, C., & Ricciardelli, L. A., (2008). Appearance-based comments, body dissatisfaction and drive for muscularity in males. *Body Image*, 5, 337–345.
- O'Brien, K. (2015). *The Cultivation of Eating Disorders Through Instagram*. Unpublished master's thesis, University of South Florida, Tampa FL.
- Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. *Sex Roles*, 71, 363–377.
- Rash, P. (2004). Male body satisfaction, physical self-concept and the use of nutritional supplements, anabolic steroids, and compulsive exercise. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 65, 3139.
- RAW. Raw Beauty Talks. 2016. URL: <http://www.rawbeautytalks.com/> [accessed 2016-02-11] [WebCite Cache ID 6fEC3Sv4j]
- Ricciardelli, L. A., McCabe, M. P., & Banfield, S., (2000). Body image and body change methods in adolescent boys. Role of parents, friends and the media. *Journal of Psychosomatic Research*, 49, 189–97.
- 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, 56–60.
- Rosenberg, M. (1965). *Society and the adolescence self-image*. Princetown: Princetown University Press.
- Shea, M. E., & Pritchard, M. E. (2007). Is self-esteem the primary predictor of disordered eating? *Personality and Individual Differences*, 42, 1527–1537.
- Rousseau, A., Rodgers, R., & Eggermont S. (2017). A Biopsychosocial Model for Understanding Media Internalization and Appearance Dissatisfaction Among Preadolescent Boys and Girls. *Communication Research*. Doi: 10.1177/0093650217739996
- Shapira N. A., Goldsmith, T.D., Keck, P. E., Khosla, U. M., & McElroy, S. L., (2000). Psychiatric features of individuals with problematic internet use. *Journal of Affective Disorders*, 57 (1/3), 267–72.
- Smolak, L., & Murnen, S. K. (2008). Drive for leanness: Assessment and relationship to gender, gender role and objectification. *Body Image*, 5, 251–260.
- Stanford, J. N., & McCabe, M. P., (2005). Sociocultural influences on adolescent boys' body image and body change strategies. *Body Image*, 2, 105–113.
- Tiggemann, M. (2006). The role of media exposure in adolescent girls' body dissatisfaction and drive for thinness: Prospective results. *Journal of Social and Clinical Psychology*, 25, 523–541.
- Tiggemann, M., & Slater, A. (2013). NetGirls: The Internet, Facebook, and Body Image Concern in Adolescent Girls. *International Journal of Eating Disorders*, 46, 630–633
- Tiggemann, M., & Slater, A. (2017). Facebook and Body Image Concern in Adolescent Girls: A Prospective Study. *International Journal of Eating Disorders*, 50, 80–83.
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106, 231–248.