Body Appreciation as a Means to Protect Social Media Users from Body Dissatisfaction

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Abstract

When young adult women and men are exposed to idealized images in traditional media outlets, they often experience body dissatisfaction. As the use of social media increases, so do the opportunities for appearance-based comparisons. Individuals who are heavy users of social networking sites also tend to exhibit body dissatisfaction. Body appreciation is a personal characteristic that seems to counteract the negative influence traditional media exposure, and it may have a similar effect for social media exposure. The purpose of our research was to investigate the impact of body appreciation on the relationship between social network sites usage and body dissatisfaction with young adult women and men. An online survey method was employed to collect the data. Participants, who were recruited using Amazon Mechanical Turk,

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completed a questionnaire featuring previously developed scales.
The multi-item scales featured seven-point, Likert-type items. The data
were analyzed using the two-step approach to structural equation
modeling. The structural model was used to test the hypotheses. All of
the hypotheses were supported. Social networking sites usage was
positively related to body dissatisfaction. Fortunately, though, body
appreciation did reduce body dissatisfaction as a moderating variable.
Because usage of social networking sites is ubiquitous in today's
society, understanding the impact that these sites have on users is
important. Our findings indicate that negative outcomes, such as body
dissatisfaction, can occur as a result of social networking sites usage.
Uncovering ways to limit these negative outcomes, including increasing
body appreciation, is vital for young adults' mental health.

Keywords: Body Appreciation, Social Media, Body Dissatisfaction, Social Appearance
Comparison

Introduction

Exposure to idealized images of individuals featured in traditional
media outlets (e.g., fashion magazines) has been credited with
contributing to body dissatisfaction (BD) among men and women (Agliata
& Tantleff-Dunn, 2004; Groesz, Levine, & Murnen, 2002; Tiggemann &
McGill, 2004). When people experience BD, they possess a negative
attitude about their physical body (Heider, Spruyt, & De Houwer, 2018).
Theoretical explanations for such effects have been frequently credited
to social comparison processes (Festinger, 1954) wherein individuals not
only view media images but actively compare themselves to the people
depicted in those images. Comparison processes can result in negative
outcomes (e.g., BD, lowered self-esteem) for the viewer (see Blond, 2008;

Grabe, Ward, & Hyde, 2008 for reviews) when viewers believe the positive attributes of the media images surpass their own attributes. Additionally, idealized images can serve as "thinspiration," encouraging viewers to be slender regardless of body type (Knobloch-Westerwick, 2015). Comparing one's appearance to these images can lead to disordered eating (e.g. anorexia, bulimia) (Spettigue & Henderson, 2004).

Due to their content, social networking sites (SNS) provide unlimited opportunities for appearance-based comparison with peers as well as with family members and other persons (Stronge et al., 2015). The development of SNS has enabled users to interact with media in ways not previously possible. SNS allow users to create electronic profiles for themselves, share their lives, post pictures, comment on others' lives, meet new people, fulfill belongingness needs, and share their knowledge and opinions (Tosun, 2012). SNS are used by more than 70% of adults between the ages of 18 and 29 (Pew Research Center, 2019). For individuals aged 12 to 34 years, Facebook is the most frequently used site (Kangur, 2021). A GlobalWebIndex study found that the average amount of time spent on social media daily was 2 hours and 25 minutes (Chaffey, 2021), with individuals reporting greater usage of SNS during the COVID-19 pandemic than before the pandemic (Gioia, Fioravanti, Casale, & Boursier, 2021). Although popular with both genders, more young women than men use social media and SNS (Duggan & Brenner, 2013; Pew Research Center, 2021). Peer interactions on social media center on posting and viewing photos (Junco, 2012). Social media are unique in that they enable secondary socialization and reinforcement of certain appearances and ideals as participants indicate whether they "like" certain images or make both positive and negative comments about them.

Given the heavy engagement of young adults within SNS and that such participation provides ample opportunities for making appearance-based comparisons, it is important to understand to what extent SNS usage is an influence on self-perceptions (e.g., body image, body satisfaction) (Perloff, 2014). Researchers interested in studying how participation in SNS influences individuals have documented significant positive relationships between SNS usage and BD (Ryding & Kuss, 2020; Smith, James, & Joiner, 2013; Stronge et al., 2015; Tiggemann & Slater, 2013). Furthermore, researchers have found that SNS usage promotes negative moods (Sagioglou & Greitemeyer, 2014) and that it places people at risk for developing eating disorders (Aparicio-Martinez, et al., 2019; Mabe, Forney, & Keel, 2014). For example, Smith et al. (2013) in research with undergraduate women reported that, for women low in body satisfaction, a tendency to participate in social comparison and/or seek negative social evaluations online predicted an increase in bulimic symptoms and in BD. Stronge et al. (2015) found Facebook users reported higher levels of BD than did non-users or infrequent users. This relationship was true for both men and women (Tiggemann & Slater, 2013).

Though documenting negative outcomes tied to social media usage is important, equally important are investigations that document factors and experiences that might reduce such negative outcomes. One personal characteristic that seems to counteract the negative influence of traditional media exposure on BD for women is body appreciation (BA) (Andrew, Tiggemann, & Clark, 2015; Halliwell, 2013). Individuals that have strong BA demonstrate "(a) favorable opinions of the body (regardless of actual physical appearance), (b) acceptance of the body in spite of weight, body shape, and imperfections, (c) respect of the body by attending to its needs and engaging in healthy behaviors, and (d) protection of the body by rejecting unrealistic body images

portrayed in the media" (Avalos, Tylka, & Wood-Barcalow, 2005, p. 286).
While similar, BA is not simply the lack of BD (Tylka & Wood-Barcalow, 2015).
BA is a unique cognitive concept that has been shown to protect body
assessments (Halliwell, 2013). However, unknown is whether BA in young
adults protects them from experiencing BD stemming from social media
usage. Thus, our research purpose was to investigate the impact of BA
on the relationship between SNS usage and BD with young adult
women and men.

Literature Review and Hypotheses Development

Social Media Use and Body Dissatisfaction

Several researchers have documented that social media use is
related to negative thoughts about the body (Tiggemann & Miller, 2010;
Tiggemann & Slater, 2013). Fardouly, Diedrichs, Vartanian, and Halliwell
(2015) used experiments to investigate the effect of Facebook usage on
mood and body image among young women. When compared to viewing
neutral websites, young adult women who briefly viewed Facebook
pages reported a more negative mood after exposure.

While Fardouly et al. (2015) did not find that Facebook viewing
impacted body satisfaction directly, participants who made appearance
comparisons while viewing the Facebook pages desired to change
specific aspects of their bodies (i.e., hair, face, skin-related features). This
suggests that these participants did negatively evaluate their bodies.
Support for this notion is supplied in a study by Cohen and Blaszczynski
(2015), who found that young women who made appearance comparisons
exhibited BD after viewing Facebook. It seems to be the case that
the content on SNS tends to promote BD by encouraging viewers to make
comparisons to others.

In addition to appearance comparisons, another factor that seems to contribute to the development of BD from SNS usage is the internalization of body appearance ideals. A standard is set in society concerning the constitution of physical attractiveness. Regardless of how realistic these appearance ideals are, the media transmit messages concerning the appearance standards to viewers (Trekels & Eggermont, 2017). The degree to which individuals internalize these appearance ideals varies, but internalization seems to affect how people evaluate themselves in relation to others. Cohen and Blaszczynski's (2015) study demonstrated that participants who had internalized the ideal that women should be thin expressed BD after viewing Facebook. A similar relationship between Facebook usage, ideal appearance internalization, and body image concerns was found among adolescent females in Tiggemann and Slater's (2013) study. While Cohen and Blaszczynski (2015) and Tiggemann and Slater (2013) focused on body weight concerns, Wang, Fardouly, Vartanian, and Lei (2019) found a relationship between SNS usage and concerns about facial attractiveness. The adolescents in the study, both males and females, who had internalized the appearance ideals exhibited facial dissatisfaction after viewing selfie photographs posted on the Internet. The results of these studies suggest that appearance ideals internalization contributes to BD following SNS usage.

Body Appreciation

Due to the negative physical and emotional impact of BD, researchers have attempted to uncover factors that contribute to holding a positive body image (Frisén & Holmqvist, 2010; Holmqvist & Frisén, 2012). People who appreciate their bodies tend to interpret appearance-related information in a manner that shields them from developing

negative thoughts about their bodies. Wood-Barcalow, Tylka, and Augustus-Horvath (2010) identified college women who held positive body images and interviewed them to identify factors that contributed to their holding a favorable opinion of their bodies. Characteristics of these women included the following: unconditional acceptance from others, finding others who are accepting of themselves (role models), body acceptance, spirituality/religion, taking care of the body, broadly conceptualizing beauty, and filtering information in a body-protective manner.

As BA embodies acceptance of the body, researchers have been interested in the extent to which BA in women might counter the impact of exposure to thin-ideal media on body-related concerns (e.g., body satisfaction, desire to lose weight, desire to change appearance). Halliwell (2013) compared the responses of young women who varied in the level of BA after exposure to advertisements featuring models or products. Women who had internalized a thin-ideal and were low in BA reported larger differences between their appearance and an ideal appearance as compared to women who were high in BA.

Building on this research, Andrew, Tiggemann, and Clark (2015) conducted an experiment with young women to investigate the role of BA in protecting them from media-induced increases in body dissatisfaction. Overall, BA was negatively related to BD. Level of BD increased after exposure to the thin-ideal advertisements for all participants except for those with high levels of BA, who reported no change. Thus, it seems that BA may have a moderating effect on BD.

The impact of BA on evaluations of body image when individuals view SNS, instead of traditional media, has also been investigated. BA seems to have a moderating effect on dissatisfaction with aspects of

the body in the SNS context as well (Wang et al., 2019). In this way, BA appears to safeguard viewers from negative evaluations. However, the point at which BA impacts BD for young adult males and females remains unknown. While Wang et al. (2019) found that BA moderated the relationship between internalization of appearance ideals and facial dissatisfaction for adolescents, Yao, Niu, and Sun (2021) found that BA moderated the relationship between young women's body shame and disordered eating, which is a behavioral consequence of BD. The relationships between the variables known to impact BD when young adults use SNS, including appearance comparisons, internalization of appearance ideals, and BA, are not fully understood (Jarman, Marques, McLean, Slater, & Paxton, 2021). The order of the effect of each variable on BD has not been investigated with young adult males and females, but Perloff's (2014) model does provide some guidance about the relationships that may be present between the variables.

Theoretical Framework

Perloff (2014) created a framework for explaining social media's influence on individuals' body-related concerns. Although his initial focus was on young women's body image, we propose that his framework can be applied to young men as well. While less is known about young males' BD resulting from SNS usage, studies that have involved both males and females typically have found similar effects for both genders (Jarman et al., 2021). In his transactional model, Perloff proposes that social media provides an interactive environment rich with visual content. The presence of this content enables young adults to engage in negative appearance comparisons (i.e., comparisons resulting in negative outcomes) that influence self-perceptions concerning the body (e.g., image, satisfaction).

Perloff (2014) contends that there are characteristics of individuals (e.g., low self-esteem, perfectionism) that place certain social media users at risk for body-related concerns. These characteristics may be in evidence prior to exposure to SNS but they may also result from exposure to SNS, which is similar to a pattern found for traditional media exposure. For example, increased exposure to appearance ideals in traditional media led to greater internalization of these ideals in both adolescents of both genders (Trekels & Eggermont, 2017) and young female adults (Nouri, Hill, & Orrell-Valente, 2011). The same pattern was found for SNS. Greater use of SNS has been shown to lead to a high degree of internalization of appearance ideals across several studies (Mingoia, Hutchinson, Wilson, & Gleaves, 2017). These studies lend support to Perloff's (2014) proposition.

While increased exposure to SNS precedes internalization of the appearance ideals, Perloff (2014) suggests that the way in which individuals use social media mediates the relationship between appearance ideal internalization and BD. Processes such as social comparison (including appearance-based comparisons) are proposed to directly impact body-related concerns. Perloff (2014) proposes that young adults with certain predispositional characteristics, including those who have internalized the appearance ideals, engage specifically with visual content (i.e., appearance-focused content), seeking specific rewards such as validation. These rewards propel them to spend significant amounts of time engaged with social media content that motivate appearance comparisons such that media use leads to increased body dissatisfaction and other negative outcomes (e.g., eating disorders). Using SNS to provide and receive feedback about their appearance is a process referred to as social grooming (Kim & Chock, 2015). Social grooming

can be a competitive activity as users seek approval in the form of "likes" or approval from others (Tufekci, 2008). Users of SNS participate in social grooming evaluate themselves in comparison to others and against the appearance ideals (Kim, 2018), which they have likely internalized.

Applying these ideas to our research, we proposed that social media usage contributes to the internalization of appearance ideals. Young adults who have internalized appearance ideals engage in social grooming using SNS (e.g., Facebook) (Kim & Chock, 2015). This social grooming activity encourages social appearance comparisons (Kim, 2018; Kim & Chock, 2015; Tiggemann & McGill, 2004). These appearance comparisons lead to BD (Cohen & Blaszczynski, 2015). However, as past research based on traditional media influences suggest, BA moderates the relationship between appearance comparisons and BD in an SNS environment (Andrew, Tiggemann, & Clark, 2015; Wang et al., 2019) such that BD will be lower for individuals high in BA.

Based on Perloff's (2014) model and supporting literature, our specific hypotheses were as follows:

H1: Facebook usage is positively related to internalization of appearance ideals.

H2: Internalization of appearance ideals is positively related to Facebook social grooming.

H3: Facebook social grooming is positively related to social appearance comparison.

H4: Social appearance comparison is positively related to body dissatisfaction.

H5: Body appreciation moderates the relationship between social appearance comparison and body dissatisfaction.

Method

Sample and Procedure

Data were collected using an online survey. Participants were recruited using Amazon Mechanical Turk (MTurk). MTurk is an online crowdsourcing system that offers researchers an inexpensive means for quickly collecting survey data from a diverse sample (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). To screen for qualified participants, they were asked if they had a Facebook profile before beginning the survey. Those participants who indicated that they did have a Facebook profile were directed to complete the remaining items on the questionnaire.

Measures

All measures were adapted from previous research. All multi-item scales featured seven-point, Likert-type items. Facebook usage was assessed with a four-item scale developed by Tiggemann and Slater (2013). Participants were asked to indicate how much time (1=none; 7=more than 6 hours) they spent using Facebook on weekdays, weeknights, weekend days, and weekend nights.

Internalization of appearance ideals was measured using Thompson et al.'s (2004) scale. These nine items directed participants to indicate how much they agreed (1=strongly disagree; 7=strongly agree) with statements concerning identification with the people they saw in various media outlets (e.g., TV, magazines, Internet).

To assess Facebook social grooming, participants were asked to complete eleven items adapted from Kim and Chock's (2015) study (e.g., "How often do you click ''Like'' on the profiles of close friends?") and three items from Mabe, Forney, and Keel's (2014) study (e.g., "How

often do you take photos in public for the main purpose of posting them on Facebook?") about Facebook-related activities. Participants were directed to indicate how often they performed the behaviors described (1=never; 7=more than once a day). Additionally, participants were directed to indicate how much they agreed (1=strongly disagree; 7=strongly agree) with five statements from Kim and Chock (2015) concerning the importance they placed on receiving feedback regarding their Facebook activities (e.g., "It is imperative to me that people "like" my photos.").

Social appearance comparison was measured with Thompson, Heinberg, and Tantleff's (1991) scale. This scale contained five items to assess how much participants compared themselves to others. Participants were directed to indicate how much they agreed (1=strongly disagree; 7=strongly agree) with each of the statements (e.g., "At parties or other social events, I compare my physical appearance to the physical appearance of others.").

Body dissatisfaction was assessed by adapting McFarland and Petrie's (2012) scale. Participants were asked to indicate how satisfied (1=extremely dissatisfied; 7=extremely satisfied) they were with thirteen particular body parts/areas of the body (e.g., overall face, stomach/abdomen) as well as five aspects of their overall body (e.g., overall size/shape of the body). These items were reversed coded to assess dissatisfaction with the body.

To measure body appreciation, Tylka and Wood-Barcalow's (2015) scale was utilized. Participants were directed to indicate how often (1=never; 7=always) they believed that ten statements concerning their body (e.g., "I take a positive attitude towards my body.") were true.

Demographic variables, including gender, ethnicity, age, and highest level of education completed, were also assessed.

Results

Participant Characteristics

Usable questionnaires were completed by 404 participants. Approximately half of the participants were female (51.5%). In terms of ethnicity, Caucasians were the majority group (63.6%), followed by Asians (24.7%). The mean age of participants was 34.47 years. As for educational attainment, 42.6% had completed a bachelor's degree, 20.2% had completed some college but had not earned a degree, and 18% had completed a master's degree.

Hypotheses Testing

To test the hypotheses, structural equation modeling using Anderson and Gerbing's (1988) two-step approach was employed. A measurement model was estimated in the first step. This model exhibited a moderate, but acceptable, fit (χ^2(539) = 1258.83, p = .00; GFI = .78; CFI = .85; NFI = .77; TLI = .84; RMSEA = .07) (Bollen & Long, 1993; Hair *et al.,* 1998). Items that were not significant or with loadings of less than 0.50 were excluded from further analysis (Kim & Chen-Yu, 2005). Cronbach's alpha values for the remaining scale items were greater than .75 for all constructs (see Table 1). The correlation matrix for the final scale items is presented in Table 2.

Table 1

Results of Measurement Model Assessing Construct Reliability

	Constructs/Indicators	Standard Factor Loading	Composite Reliability	Average Variance Extracted	Cronbach's alpha
Facebook usage	- Fast fashion retailers rapidly turn over their merchandise.	.75	.95	.59	.77
	- Fast fashion retailers' products are not available for very long.	.81			
	- Fast fashion retailers introduce new fashion styles quickly.	.75			
Internalization of appearance ideals	- I think that products that I would be interested in at fast fashion retailers would be almost out of stock.	.50	.86	.51	.76
	- Fast fashion retailers only carry a limited number of products per size, style, and color.	.75			
Facebook social grooming	- It is affordable.	.94	.86	.72	.88
	- It meets my budget for clothing shopping.	.88			
	- The price is lower than comparable fashion stores.	.73			

	Constructs/Indicators	Standard Factor Loading	Composite Reliability	Average Variance Extracted	Cronbach's alpha
Social appearance comparison	- I think fast fashion retailers are good.	.84	.93	.63	.77
	- I have a favorable opinion of fast fashion retailers.	.74			
Body dissatisfaction	- "Just do it" describes the way I buy things at fast fashion retailers.	.78	.87	.61	.88
	- I often buy things without thinking at fast fashion retailers.	.84			
	- "I see it, I buy it" describes my behavior in fast fashion retail environments.	.88			
	- "Buy it now, think about it later" describes the way I act in fast fashion retail environments.	.84			
	- I buy things according to how I feel at the moment when I am shopping with fast fashion retailers.	.51			

Constructs/Indicators	Standard Factor Loading	Composite Reliability	Average Variance Extracted	Cronbach's alpha
Body appreciation - After I made my purchase, I felt anxious.	.66	.90	.65	.75
- After I made my purchase, I felt guilty	.92			
- I frequently return the products that I purchase from fast fashion retailers.	.83	.95	.67	.80
- I have returned most of the products that I have purchased from fast fashion retailers.	.80			

Table 2

Mean, Standard Deviation, and Correlation Matrix

	FU	IAI	FSG	SAC	BD	BA	
FU	—						
IAI	.00	—					
FSG	.77	.00	—				
SAC	.31	.23	.41	—			
BD	.10	.07	.13	.32	—		
BA	.03	.02	.03	.08	.26	—	
Mean	5.85	4.12	3.84	3.99	3.22	2.68	1.99
SD	1.04	.46	.69	.68	.94	1.05	.96

Note. n = 246. FU = Facebook usage. IAI = Internalization of appearance ideals.
FSG = Facebook social grooming. SAC = Social appearance comparison.
BD = Body dissatisfaction. BA = Body appreciation.

Next, the structural model was estimated. This model displayed a moderate, but acceptable, fit ($\chi^2(248)$ = 1181.81, p = .00; GFI = .78; CFI = .90; NFI = .86; TLI = .88; RMSEA = .09) (Bollen & Long, 1993; Hair et al., 1998; Marcoulides & Hershberger, 1997; Maskarinec et al., 2000; Steiger, 1990). This model was used to test the proposed hypotheses.

As shown in Figure 1, the path between Facebook usage and internalization of appearance ideals (H1) was positive and significant (γ = .17, t = 3.21, p = .001). The path between internalization of appearance ideals and Facebook social grooming (H2) was positive and significant (β = .87, t = 9.99, p = .00). Facebook social grooming was positively and significantly related to social appearance comparison (H3) (β = .86, t = 10.47, p = .00). The path between social appearance comparison and body dissatisfaction (H4) was positive and significant (β = .21, t = 3.94, p = .00). Thus, H1 through H4 were supported.

Figure 1

Structural Model Used for Hypothesis Testing (Unconstrained Model)
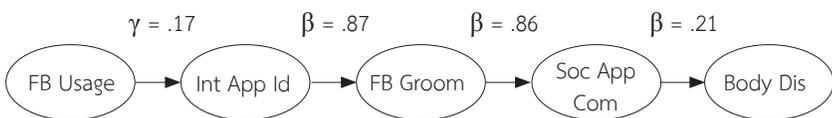
Lastly, H5 was tested by comparing the χ^2 in the constrained model (888.69) and the unconstrained model (742.15) (Awang, 2012). The difference was significant (p = .02), supporting H5 and indicating that body appreciation does reduce the effect of social appearance comparison and body dissatisfaction (β = .18, t = 2.33, p = .02).

Figure 2

Structural Model Used for Hypothesis Testing (Constrained Model)
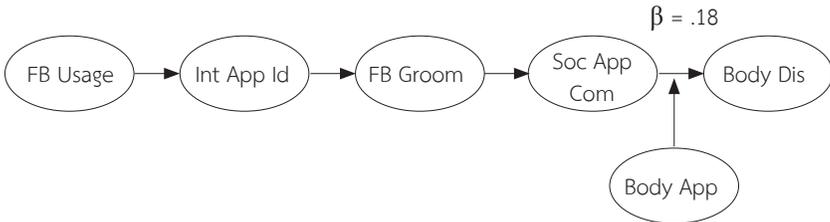
Discussion

The results of the present study demonstrate that SNS usage is positively related to BD. In this way, the present study supports the work of previous researchers (Tiggemann & Miller, 2010; Tiggemann & Slater, 2013) who found that SNS usage had a negative impact on body image. Furthermore, the present study demonstrates that SNS usage affects BD just as other types of media (e.g., television, magazines) influence BD (Nouri, Hill, & Orrell-Valente, 2011). However, unlike many other previous studies, the present study demonstrated that the negative effect of SNS usage on BD exists for both men as well as women.

The results of the present study also revealed that Perloff's (2014) transactional model does seem to be useful for explaining the process of how SNS usage, particularly Facebook usage, impacts BD. Men and women who used Facebook often internalized appearance ideals and engaged in appearance comparisons more than those individuals who did not use Facebook often. It was these appearance comparisons that lead directly to BD in participants. These findings support the work of previous researchers who found similar relationships between SNS usage and the internalization of appearance ideals (Cohen & Blaszczynski, 2015; Tiggemann & Slater, 2013) and SNS usage, appearance comparisons, and

BD (Tiggemann & McGill, 2004). Perloff's model unites the findings of several studies into one cohesive model, which, as the present study highlights, can be useful for understanding the development of BD in contemporary society.

Fortunately, the present study's findings suggest that the effect of social appearance comparison on BD can be reduced if individuals experience BA, supporting previous research (Andrew et al., 2015; Wang et al., 2019). Because SNS, particularly Facebook, usage is ubiquitous in today's society, uncovering ways to increase BA among both men and women is imperative for those concerned about BD. Worldwide, over 1 billion people log on to Facebook every day (Tankovska, 2021). Despite the fact that Facebook's popularity has declined among young adults, users still spend an average of 38 minutes of every day on the site (Georgiev, 2021). This usage exposes many people around the world to the potential development of BD. Researchers who are interested in minimizing the negative consequences of BD (e.g., eating disorders) (Stice & Shaw, 2002) can seek effective techniques to increase BA, particularly among the most vulnerable SNS users. Future researchers should continue to investigate the impact of SNS, particularly newly emerging sites, on BD among diverse populations. Additionally, the specific effect of different types of photographs can be studied. The influence of photographs featuring users engaging in physical activities (e.g., working out) can be compared to those featuring users in static poses (Mulgrew & Hennes, 2015).

The findings from our study could be used in further research to explore if body dissatisfaction or appreciation is passed down from mothers to daughters or sons, all of whom frequently use SNS to communicate (Pew Research Center, 2013). Older women who use SNS

may be of particular interest in terms of investigation. With increasing age, spots, wrinkles, and browning of the skin cause more aging anxiety in this time of public social comparison with both the general public as well as influential older and younger celebrities on SNS. Social comparisons for this particular population of women may result in more intense, negative outcomes when they occur, thus, becoming more damaging. Research that explores appearance concerns in the age of high-definition and facial recognition technology will grow in importance as we come to live not only with but on social media sites.

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