

**The Relationship Between Social Media Use and Body Dissatisfaction in Adolescents:
The Moderating Role of Gender**

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Student: T.A. Oostelbos (577782)

Thesis supervisor: M. van der Molen

Second assessor: I. van der Valk

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Abstract

Previous research argues that social media use is related to higher rates of body dissatisfaction among female adolescents. However, little is known about whether male adolescents experience this to the same extent. The present cross-sectional study among 440 Dutch adolescents (aged 12-19; 53.1 % male) aimed to reduce this gap in knowledge. Results show that percentagewise, adolescent females make more use of social media and experience more body dissatisfaction than males. Further analysis showed social media use predicted increased body dissatisfaction. Gender did not significantly moderate the relationship between social media use and body dissatisfaction. Thus, regardless of their gender, adolescents experience body dissatisfaction. This may be related to social media use.

Key words: social media use, body dissatisfaction, gender, adolescents

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The Relationship Between Social Media Use and Body Dissatisfaction in Adolescents: The Moderating Role of Gender

Social media plays a crucial role in the everyday lives of many adolescents (Chou, Hunt, Beckjord, Moser & Hesse, 2009; Tiggemann & Slater, 2013). Social media can be defined as: websites and applications that allow users to create online communities and platforms, share information and engage in social interaction through social networking, video sites, gaming sites, and blogging (O’Keeffe & Clarke-Pearson, 2011). The use of these applications allows individuals to keep in touch, (Steinfeld, Ellison & Lampe, 2008) create a sense of identity (real or fake) (Kietzmann, Hermkens, McCarthy & Silvestre, 2011) and can have positive effects on communication and social connection (O’Keeffe & Clarke-Pearson, 2011). However, using social media also comes with risks. Users put themselves in the spotlight and often post idealized versions of themselves online, which other young users compare themselves to (Fardouly & Vartanian, 2016; Tiggemann & Zaccardo, 2015). Research shows that social media use is associated with decreased self-esteem through negative feedback (Valkenburg, Peter & Schouten, 2006) and mental health issues such as eating disorders (Ghaznavi & Taylor, 2015) and body dissatisfaction (Brown & Tiggemann, 2016; Fardouly, Pinkus & Vartanian, 2017; Jin, Ryu & Muqaddam, 2018; Strubel, Petrie & Pookulangara, 2018; Tiggemann & Slater, 2013). Consequently, concerns about the association between social media use and body dissatisfaction in adolescence have grown (Holland & Tiggemann, 2016; Strubel et al., 2018).

Body Ideals

As previously mentioned, social media users often post idealized versions of themselves online (Fardouly & Vartanian, 2016). Many users compare themselves with these idealized versions or with other social media users who post to inspire others to become fit by eating healthy and exercising (Fardouly & Vartanian, 2016). In many cultures, beauty and physical appearance are part of a socialization process (Strubel et al., 2018). Formed ideals transferred through magazines, television, parents, friends and social media are internalized by women and young girls (Strubel et al., 2018).

A relative recent fitness trend called ‘fitspiration’ is meant to inspire individuals to exercise and eat healthy (Carrotte, Prichard & Lim, 2017). These images often show women who are already thin or muscular, suggesting only such bodies are beautiful and healthy (Tiggemann & Zaccardo, 2015). Currently there is controversy about the ‘fitspiration’ trend.

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On the one hand ‘fitspiration’ focuses on exercising and eating healthy. On the other hand, the trend “emphasizes looks rather than body functionality” (Carrotte et al., 2017, p. 2).

Most of these idealistic bodies are thinner than the average body creating an unrealistic image that many females cannot accomplish (Strubel et al., 2018). For males, the ideal body focuses on muscularity and acquiring a V-shaped body (Knobloch-Westerwick & Romero, 2011).

Adolescent females who compare themselves to these idealistic images may struggle with negative emotions such as anger, guilt, shame and sadness, which could ultimately cause a negative perception of their own body (i.e. body dissatisfaction; Bucchianeri et al., 2016; Strubel et al., 2018). The desire of wanting these idealistic bodies is maintained by increased feelings of body dissatisfaction (Rodgers, McLean & Paxton, 2015). This is problematic as some studies claim body dissatisfaction to be a strong predictor for mental health issues among female adolescents (Andsager, 2014; Ferguson, 2013; Grabe, Ward & Hyde, 2008). Studies where male adolescents are accounted for show that males also experience mental health problems in relation to body dissatisfaction (Agliata & Tantleff-Dunn, 2004; Cohane & Pope, 2000; Sharpe et al., 2017).

Males

In the past 20 years cultural changes have caused the media to pay more attention to males. Especially magazines and advertisements have put more attention into featuring images of muscular and lean men (Blond, 2008). The exposure of social media images seems to be the drive to develop muscles and become extremely fit (Girard, Chabrol & Rodgers, 2017). Adolescent males internalize these images (Knauss, Paxton & Alsaker, 2007) and are affected by societal pressure to obtain such bodies (Dakanalis et al., 2015). The greatest risk factor for body dissatisfaction among males is this muscular ideal body (Blond, 2008). Males who are satisfied with their appearance perceive images of muscular bodies to be inspiring. When males are unhappy about their looks, such images become a risk factor for body dissatisfaction (Blond, 2008).

Sociocultural models

Probably the most common sociocultural model to support research about body image disturbances is the *tripartite influence model* (as cited in van den Berg et al., 2007). This model consists of three sources of influence on body image disturbances: peers, family and the media ideal. The two main aspects, through which these sources apply their effect on body image disturbances, are social appearance comparison and internalization of the beauty ideal (Keery, van den Berg & Thompson, 2004). These two aspects are considered to be

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psychological predictors of body dissatisfaction (Rodgers et al., 2015). The relations between these three sources (peers, parents and media) are mediated by body comparison tendency (van den Berg et al., 2007). The first phase of the model assumes that the influences of media on individuals lead to the development of media-internalization. The second phase suggests internalization of the beauty-ideal and appearance comparisons lead to the development of body dissatisfaction (Rodgers et al., 2015). Consequently, media-internalization then leads to body dissatisfaction as the images depicted in the media are the new standard, followed by the realization that the gap between an individual's own physical appearance and the media ideal is unreachable (Rodgers et al., 2015).

Aim, research question and hypotheses

The previously mentioned studies show the negative effects social media has on body image of adolescent females. This is because little research about the relationship between social media use and body image has been performed on adolescent males. A possible reason for the abundant literature on adolescent females may be because body image problems are more common among females (O'Dea & Caputi, 2001). Body image problems are frequently noted among adolescent females because low self-esteem is also more common among female adolescents (Furnham, Badmin & Sneade, 2002). Besides body image, studies show that social media use is also linked to low self-esteem (Hawi & Samaha, 2017; Valkenburg et al., 2006). And so, female adolescents with low self-esteem, who use social media, are easily influenced by the thin ideal within social media (Andsager, 2014) and may therefore be a more prominent group to write about.

The relationship between body dissatisfaction and social media use among male adolescent has only been explored in recent years. Studies claim that males are undeniably also affected by the thin body ideals (Blond, 2008; Dakanalis et al., 2015; De Jesus et al., 2015). Yet studies highlighting disturbed body images in both sexes are still scarce. Seemingly, because rates of low self-esteem and body dissatisfaction are higher for adolescent females, the relatively small group of adolescent males with similar problems is less prioritized. One goal of this study is to reduce this gap and add to the emerging literature.

Body dissatisfaction among adolescent males has been ignored resulting in under-diagnosis of mental health problems (Ricciardelli & McCabe, 2015). Currently males make up 20-25 % of eating disorder cases, whereas 20 years ago this was only 10 % (Ricciardelli & McCabe, 2015). Besides reducing the gap and adding to the existing literature, another goal of this study is to confirm that body dissatisfaction is a problem for male and female

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adolescents. Based on the abovementioned goals and literature, the following research question will be investigated: “*What is the relationship between social media use and body dissatisfaction among high school students and does gender influence this relationship?*”.

The following hypotheses have been formed based on the literature about associations between social media use and body dissatisfaction among adolescents (Brown & Tiggemann, 2016; Ghaznavi & Taylor, 2015; Rodgers et al., 2015):

H1: More social media use is positively related to higher levels of body dissatisfaction. H2: It is expected that females score higher on body dissatisfaction than males. H3: Social media use will predict body dissatisfaction.

Previously mentioned research (Fardouly et al., 2017; Jin et al., 2018; Strubel et al., 2018) provides information about the association social media has with body dissatisfaction, especially in female adolescents. Furthermore, studies show gender can have a moderating effect, meaning that exposure to social media causes different effects on body image in females and males (Lawler & Nixon, 2011; Presnell, Bearman & Stice, 2004; van den Berg et al., 2007). Additionally, the tripartite influence model (van den Berg et al., 2007) suggests that females feel more pressurized by social media to achieve the ideal body than males. Therefore, body dissatisfaction will be greater among females (de Vries, Peter, de Graaf, & Nikken, 2016). Based on the abovementioned literature, the following hypothesis have been formulated:

H4: The association between social media use and body dissatisfaction is stronger for females compared to males.

Method

The main purpose of this study was to conduct a cross-sectional survey by testing and summarizing the relationships between social media use, body dissatisfaction and gender (Neuman, 2014). Additionally, gender was used to examine whether it has a moderating effect on the relationship between social media use and body dissatisfaction among high school students. The data used for this study is part of the ‘Vossen dataset’. Part of this data was used to answer the hypotheses that were formulated for this study. This study is considered to be a quantitative study.

Participants

Samples of 440 high school students between the ages 12-19 (min = 12, max = 19) were recruited from seven schools spread throughout the Netherlands ($M = 14.9$ and $SD =$

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1.8; 53.1 % male). Three participants (0.7 %) did not fill in their gender. The majority of the students were aged 16-17 (41.3 %), followed by ages 12-13 (30.2 %), 14-15 (25.2 %) and finally 18-19 (3.4 %). Out of the 440 participants one student was aged 19 and six (1.4 %) did not provide their age. The majority of the participants were identified as born in the Netherlands (97.9 %) and the remaining as other (2.1 %). Most participants were VWO students (50.8 %), followed by Havo (29.1 %), Vmbo (9.6 %), Vmbo/havo (5.3 %), Havo/vwo (4.8 %), MBO (0.2 %), and other (0.2 %).

Procedure

The sample was a convenience sample. Adolescents were recruited through high schools in the Netherlands. Students and parents were informed about the purpose and procedure of this study and provided active informed consent. Parents were given the opportunity to retract the participation of their child before the adolescent participated in the study. Participants did not receive any compensation for their cooperation.

Measuring instruments

After consent was provided, adolescents filled in a paper-pencil questionnaire that took approximately 30 minutes to fill out.

Social Media Use. An adapted version of the *Multidimensional Scale of Facebook Use* (MSFU; Frison & Eggermont, 2016) was used to measure Social Media Use. Items were rephrased so they would not specifically refer to Facebook but to social network sites in general (e.g., also Instagram). Originally the MSFU has 7 response options: (1) *never*, (2) *less than once a month*, (3) *1-3 times a month*, (4) *once per week*, (5) *multiple times a week*, (6) *daily* and (7) *multiple times a day*. Because recent statistics show that adolescents often use social media constantly throughout the day (Wennekers et al. 2016) an additional category was included: (8) *all day long*. In this study, the scale Social Media Use included 10 items (min = 1, max = 8) and had a high internal consistency, Cronbach's $\alpha = .88$ (Field, 2013). An example of one of these items is: "visiting a profile of someone who is not on your SNS-friends list." The variable *Social Media Use* was created by calculating the mean of these 10 items.

Body dissatisfaction. The body dissatisfaction subscale of the Body Attitude Test (BAT; Probst et al. 1995) was used to measure Body Dissatisfaction. Respondents can choose answers from a 7-point scale running from (1) *completely disagree*, (2) *disagree*, (3) *disagree a little*, (4) *disagree a little/agree a little*, (5) *agree a little*, (6) *agree to* (7) *completely agree*. In this study, the scale Body Dissatisfaction included four items (min = 1, max = 7) and had a

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high reliability, Cronbach's $\alpha = .87$ (Field, 2013). An example of one of these items is: "when comparing body to someone of the same age, the student is dissatisfied with his/her own body." The variable *Body Dissatisfaction* was then created by calculating the mean of these four items.

Analytic Approach

Descriptive statistics will be shown to present the mean, standard deviation and range of the main variables. Next, a correlation analysis (Pearson's) will be used to determine whether Social Media Use is positively related to Body Dissatisfaction (H1). A t-test will be used to detect the difference in scores of male and females on Body Dissatisfaction (H2). Subsequently, a linear regression will be used to detect whether Social Media Use is a predictor of the dependent variable Body Dissatisfaction (H3). Additionally, *Age* will be added to the model as a covariate to check whether it has any direct influence on the dependent variable Body Dissatisfaction. Finally, through means of a multiple regression analysis with moderator variable, it will be tested whether Gender has moderating effect on the relationship between Social Media Use and Body Dissatisfaction (H4). Before these tests were conducted variables will be checked for the following assumptions: normality and absence of outliers.

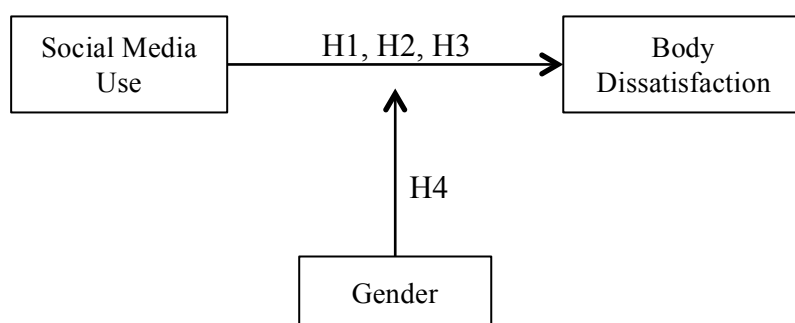


Figure 1. Conceptual model of the hypothesized relationship between Social Media Use and Body Dissatisfaction with Gender as moderator.

Results

Assumptions

It is important to test for normality and outliers as the violation of these assumptions may lead to less reliable and valid results (Ghasemi & Zahediasl, 2012). Nonetheless, when

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the sample size of a study is >30 , violating the normality assumption do not cause major problems (Field, 2013). On the Kolmogorov-Smirnov test, the variable Body Dissatisfaction $D(434) = 0.13, p = <.001$, scores significant on the 'Test of Normality'. This indicates that there was no normal distribution. Also, a 'Stem-and-Leaf Plot' shows two outliers and a right skewed distribution. Thus, the normality assumption is violated. The respondents score higher than average on body dissatisfaction and social media use. The outliers are not winsorized because they can be explained on the basis of the expectation (more social media use is related to higher body dissatisfaction). The variable Social Media Use $D(432) = 0.04, p = .06$ scores non-significant, though very close to significant, on the 'Test of Normality' and indicates a normal distribution. The 'Stem-and-Leaf Plot' shows one outlier, but this has no significant impact on the distribution and the assumption of normality is therefore not violated.

Effects of Social media on Body Dissatisfaction

In Table 1 the descriptive statistics and bivariate correlations of the main variables are displayed. The correlations show that there is a positive significant relation between Body Dissatisfaction and amount of Social Media Use, indicating that more Social Media Use is positively related to higher rates of Body Dissatisfaction (H1). Based on this result H1 will be accepted. Additionally, the variable Age shows a positive significant relation with Body Dissatisfaction, implying that Body Dissatisfaction increases as Age increases. Finally, there is a non-significant negative relation between Social Media Use and Age.

Table 1

Summary of Bivariate Correlations for Scores on Body Dissatisfaction, Social Media Use, and Age

Measure	1	2	3	M	SD	Range
1. Body Dissatisfaction	—	.26*	.20*	2.80	1.43	1-7
2. Social Media Use		—	-.06	3.92	1.41	1-8
3. Age			—	14.86	1.79	12-19

* $p = <.001$

The t-test was performed to determine whether Gender is positively associated with Body Dissatisfaction (H2). The t-test (Table 2) and scatterplot (Figure 1) show that males have lower scores on Social Media Use and Body Dissatisfaction compared to females. Therefore, H2 is accepted.

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Table 2

Comparison by Gender of Scores on Independent Variable Body Dissatisfaction, Dependent Variable Body Dissatisfaction and Moderator Variable Gender

	Gender ¹						<i>p</i>
	Males		Females				
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	
Social Media Use	227	3.55	1.48	205	4.33	1.22	<.001
Body Dissatisfaction	231	2.28	1.25	203	3.41	1.40	.05
Age	230	14.90	1.8	204	14.82	1.79	.72

Note. ¹0 = male, 1 = female

Scatterplot with regression lines

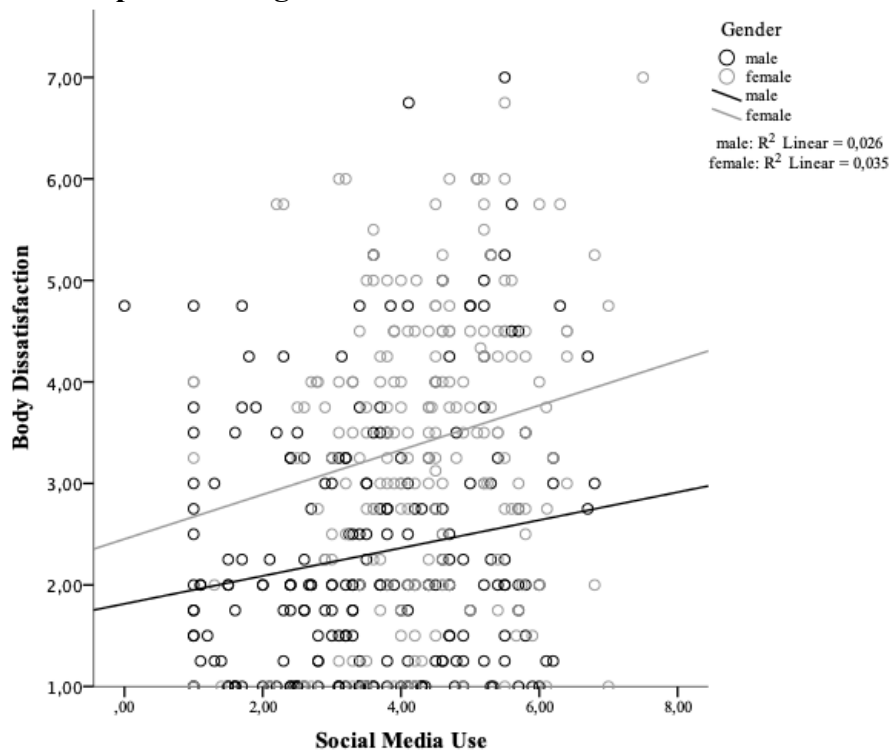


Figure 1. Scatterplot of Social Media Use and Body Dissatisfaction, with the Regression lines for Males and Females.

In Table 3 the main effects of the multiple regression with Social Media Use on Body Dissatisfaction are displayed, corrected by the variable Age. The results show a significant model, with a total variance of 22% ($R^2 = .22$, $F(3, 422) = 40.00$, $p = <.001$). The results show a significant relationship between Social Media Use and Body Dissatisfaction, $p = <.001$.

This means that Social Media Use is a significant predictor of Body Dissatisfaction (H3) and

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so H3 is accepted. Furthermore, there is a significant relationship between Gender and Body Dissatisfaction, $p = <.001$.

Table 3

Coefficients of Linear Regression Analysis of Social Media on Body Dissatisfaction

	B	SE B	t	p	95% CI
2 (Constant)	.09	.52	.18	.86	[-0.94 -1.12]
Social Media Use (centered)	.20	.05	4.33	<.001	[0.11- 0.30]
Gender (centered)	.95	.13	7.38	<.001	[0.70-1.21]
SocialM*Gender (moderator)	.15	.10	1.53	.13	[-0.04-0.33]
Age	.18	.04	5.23	<.001	[0.11-0.30]

Note. Dependent variable: Body Dissatisfaction. CI = Confidence Intervals.

Gender

Table 4 shows a significant model with a total variance of 23% ($R^2 = .23$, $F(4, 425) = 30.68$, $p = <.001$). There is a positive significant relationship between Social Media Use and Body Dissatisfaction. Additionally, a positive significant relationship between Social Media Use and Body Dissatisfaction is found. The fourth hypothesis states that the positive association between Social Media Use and Body Dissatisfaction will be stronger for females compared to males (H4). The moderation effect was calculated by using the PROCESS macro program (Hayes, 2019). Table 5 shows significant regressions of Social Media Use on Body Dissatisfaction separately for males and females, but they do not differ significantly from each other. The model cannot be explained by the moderation effect of Gender, $p = .13$, hence H4 is rejected. Male and female body dissatisfaction is equally associated with social media use.

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Social Media Use (centered)	.20	.05	4.33	<.001	[0.11- 0.30]
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SocialM*Gender (moderator)	.15	.10	1.53	.13	[-0.04-0.33]
Age	.18	.04	5.23	<.001	[0.11-0.30]

Note. Dependent variable: Body Dissatisfaction. *CI* = Confidence Intervals.

Table 5

Conditional Effects of Social Media Use At Values of the Moderator

	B	SE B	t	<i>p</i>
3				
Gender				
Male	.13	.06	2.31	.02
Female	.28	.08	3.69	<.001

Note. Dependent Variable: Body Dissatisfaction. Values for quantitative moderators are the mean and +/- 1 SD from mean.

Discussion

The increased use of social media among adolescents is a growing concern. Specifically, in relation to the connections that have been made with body dissatisfaction (e.g. Brown & Tiggemann, 2016). Female and male adolescents internalize the perfect body ideal that is portrayed on social media (Dakanalis et al., 2015; Fardouly & Vartanian, 2016). The desire of wanting ideal bodies is maintained by increased feelings of body dissatisfaction (Rodgers et al., 2015). Unfortunately, increased feelings of body dissatisfaction have been linked to other mental health problems such as eating disorders and low self-esteem (e.g. Cohane & Pope, 2000). In the past 10 years research on this topic has primarily focused on female adolescents (e.g. Fardouly et al., 2017). But, since muscularity became the mass media's new male body ideal (Blond, 2008), studies have started to divide their focus on both sexes. From these emerging studies results show the time male adolescents spend on social media is also linked to mental health issues including body dissatisfaction (e.g. Sharpe et al., 2017).

The purpose of this study was to examine whether increased use of social media is related to increased levels of body dissatisfaction among adolescents. Additionally, this study sought to determine whether gender moderates the relationship between social media use and body dissatisfaction. It was hypothesized that more social media use is related to higher levels of body dissatisfaction (H1). Furthermore, it was expected that females score higher on body

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dissatisfaction than males (H2). Also, more social media use would predict increased body dissatisfaction (H3). Finally, it was expected that the association between social media use and body dissatisfaction is stronger for females compared to males (H4).

Social Media Use and Body Dissatisfaction

Consistent with other research (e.g. Grabe et al., 2008) results from this study show that increased social media use is significantly related to increased levels of body dissatisfaction. For this reason the first hypothesis has been accepted. The perfect body's that are posted on social media often portray muscular males and thin females and could be a possible explanation for the results of the current study. These ideals are difficult to achieve, but are still internalized and compared to (e.g. De Jesus et al., 2015; Girard et al., 2017). This often causes adolescents to feel bad about themselves and therefore perceive increased levels of body dissatisfaction (Rodgers et al., 2015).

Findings from the current study suggest that females experience higher rates of body dissatisfaction than males. This finding is supported by studies where similar results have been found (e.g. Presnell et al., 2004). For this reason the second hypothesis has also been accepted. Additionally, females spend more time on social media than males. Cha and Seo (2018) suggest that females depend more on their smartphone and mostly use the Internet for social purposes whereas males for practical things. Furthermore, as expected, more use of social media predicted greater levels of body dissatisfaction (H3). This finding is in line with other studies (e.g. de Vries et al., 2016) and with the tripartite model, which postulates that the mass media's body ideal is one of the leading factors that contribute to body dissatisfaction (Van den Berg, 2007). Because the current study is a cross-sectional survey no causal relations can be made. It is unclear whether higher rates of body dissatisfaction are directly related to the amount of time adolescents spend on social media.

Gender

In contrast to what was expected, gender did not moderate the relationship between social media use and body dissatisfaction. Results of the current study indicate that regardless of their gender, adolescents' body dissatisfaction is associated with social media use. This goes against claims of other studies with relatable variables, such as eating disorders and depression, where gender did moderate certain relationships (Lawler & Nixon, 2011; Menzel et al., 2010; Presnell et al., 2004). Still, a more recent study by de Vries et al., (2016) support the findings of the current study. De Vries et al., (2016) claim that the effects of social media use on body dissatisfaction are the same for male and female adolescents. Overall, results

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seem inconclusive. Nevertheless, the current study has contributed to the emerging knowledge of the relation between social media use on body dissatisfaction among adolescents, particularly male adolescents.

Strengths and Limitations of the Current Study

One strength of the current study is the fact that males have been accounted for. Results shed new light on the influence social media use can have on the body image of both female and male adolescents. Another strength is the sample size ($N = 440$). This is considered to be a relative large sample size and therefore provides reliable and valid results (Field, 2013). Furthermore, the fact that the seven participating schools are spread throughout the Netherlands allows the results to be generalized to the entire population of the study. Finally, the number of participating males (53.1 %) was only slightly greater than participating females (46.9 %), which allows results to be generalized to both sexes.

The current study is a cross-sectional survey. Though there are strengths to this type of research such as single data collection (no follow-up periods) and prevalence rates, weaknesses should also be noted. Conclusions cannot be made regarding causality as measurements were conducted once. Therefore possible effects cannot be measured. Additionally, cross-sectional surveys are sensitive to biases (Singh Setia, 2016). An example in this study is the measuring instrument. A questionnaire is quick and easy, but may produce inaccurate results as students could give socially desirable answers (Neuman, 2014).

Conclusions

What Ricciardelli and McCabe (2015) claim about males being under prioritized is supported by this study. That is, results of the current study suggest that regardless of their gender, adolescents' body dissatisfaction is associated with social media. Recent studies show an increased rate of body dissatisfaction among adolescent males (e.g. Sharpe et al., 2017), which was long thought to be an irrelevant subject for adolescent males. The current study contributes to the knowledge about the relationship between social media and body dissatisfaction among both male and female adolescents.

Because body dissatisfaction is related to different types of mental health problems among adolescents, it is crucial that more in depth studies (at individual and social level) about the effects social media use have on body dissatisfaction are carried out. The tripartite model (Van den Berg et al., 2007) postulates that peers, family and the mass media's body ideal are the three main sources that influence adolescents' body image. However, the current study and other literature (e.g. de Vries et al., 2016), indicate that social media use should also

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be considered as an influential factor in the tripartite model.

Recommendations

One common intervention used for educating people on the harmful effects media can have is media literacy (Jeong, Cho & Hwang, 2012). The main goal is to identify what factor(s) of media are harmful to a person and/or to protect them against these factors (Potter, 2010). However, studies lack support of effectiveness of media literacy interventions. Often these interventions are carried out at individual level and are time costly (Tiggemann, Slater, Bury, Hawkins & Firth, 2013). Evidence shows that the constant confrontation of the ideal body in the media has not been neutralized by the counter messages given in media literacy interventions (Grabe et al., 2008; Irving & Berel, 2001). Other approaches may be needed to tackle the mass media's thin/muscular body ideals. One possibility would be to educate adolescents in school through a series of compulsory group lessons spread throughout the year. This may contribute to a better awareness of the negative effects social media can have. The repetitive character of the sessions will reinforce the message and allows students to keep thinking about the effects of social media, and share their experiences and feelings among peers.

Concluding, instead of confirming relations or causal effects, studies should focus more on identifying how social media effects body image in adolescents and compare this to the three main sources of the tripartite model. When such factors are known interventions can be implemented and could ultimately lead to the prevention of body dissatisfaction and other mental health issues.

References

- Andsager, J. L. (2014). Research directions in social media and body image. *Sex Roles, 71*(11-12), 407-413. doi:10.1007/s11199-014-0430-4
- Blond, A. (2008). Impacts of exposure to images of ideal bodies on male body dissatisfaction: A review. *Body Image, 5*(3), 244-250. doi:10.1016/j.bodyim.2008.02.003
- Brown, Z., & Tiggemann, M. (2016). Attractive celebrity and peer images on Instagram: Effect on women's mood and body image. *Body Image, 19*, 37-43. doi:10.1016/j.bodyim.2016.08.00
- Bucchianeri, M. M., Fernandes, N., Loth, K., Hannan, P. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2016). Body dissatisfaction: Do associations with disordered eating and psychological well-being differ across race/ethnicity in adolescent girls and boys? *Cultural Diversity and Ethnic Minority Psychology, 22*(1), 137-146. doi:10.1037/cdp0000036
- Cha, S-S., & Seo, B-K. Smartphone use and smartphone addiction in middle school students in Korea: Prevalence, social networking service, and game use. *Health Psychology Open, 5*(1), 1-15. doi:10.1177/2055102918755046
- Chou, W-Y, S., Hunt, Y. M., Beckjord, E. B., Moser, R. P., & Hesse, B. W. (2009). Social media use in the United States: Implications for health communication. *Journal of Medical Internet Search, 11*(4), 1-12. doi:10.2196/jmir.1249
- Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders, 29*(4), 373-379. doi:10.1002/eat.1033
- Cohen, R., & Blaszczynski, A. (2015). Comparative effects of Facebook and conventional media on body image dissatisfaction. *Journal of Eating Disorders, 3*(1), 1-11. doi:10.1186/s40337-015-0061-3
- Dakanalis, A., Zanetti, A. M., Riva, G., Colmegna, F., Volpato, C., Madeddu, F., & Clerici, M. (2015). Male body dissatisfaction and eating disorder symptomatology: Moderating variables among men. *Journal of Health Psychology, 20*(1), 80-90. doi:10.1177/1359105313499198
- De Jesus, A., Ricciardelli, L. A., Frisén, A., Smolak, L., Yager, Z., Fuller-Tyszkiewicz, M., ... Holmqvist Gattario. (2015). Media internalization and conformity to traditional masculine norms in relation to body image concerns among men. *Body Image, 18*, 137-142. doi:10.1016/j.eatbeh.2015.04.004
- De Vries, A., Peter, J., de Graaf, H., & Nikken, P. (2016). Adolescents' social network site

SOCIAL MEDIA USE, BODY DISSATISFACTION AND GENDER

- use, peer-appearance-related feedback, and body dissatisfaction: Testing a mediation model. *Journal of Youth and Adolescence*, 45(1), 211-224.
doi:10.1007/s10964-015-0266-4
- 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. doi:10.1016/j.bodyim.2016.11.002
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, 9, 1-5.
doi:10.1016/j.copsyc.2015.09.005 2352-250X/#
- Ferguson, C. J. (2013). In the eye of the beholder: Thin-ideal media affects some, but not most, viewers in a meta-analytic review of body dissatisfaction in women and men. *Psychology of Popular Media Culture*, 2(1), 20-37. doi:10.1037/a0030766
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*, (4th ed.). London: Sage.
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction: Gender differences in eating attitudes, self-esteem, and reason for exercise. *The Journal of Psychology: Interdisciplinary and Applied*, 136(6), 581-596.
doi:10.1080/00223980209604820
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology & Metabolism*, 10(2), 486-489.
doi:10.5812/ijem.3505
- Ghaznavi, J., & Taylor, L. D. (2015). Bones, body parts, and sex appeal: An analysis of #thinspiration images on popular social media. *Body Image*, 14, 54-61.
doi:10.1016/j.bodyim.2015.03.006
- Girard, M., Chabrol, H., & Rodgers, R. F. (2017). Support for a modified tripartite dual pathway model of body image concerns and risky body change behaviors in French young men. *Sex Roles*, 78(11-12), 799-809. doi:10.1007/s11199-017-0850-z
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134(3), 460-476. doi:10.1037/0033-2909.134.3.460
- Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, 35(5), 576-586. doi:10.1177/0894439316660340
- Holland, G., & Tiggemann, M. (2016). A systematic review of the impact of the use of social

SOCIAL MEDIA USE, BODY DISSATISFACTION AND GENDER

- networking sites on body image and disordered outcomes. *Body Image*, 16, 100-110. doi:10.1016/j.bodyim.2016.02.008
- Irving, L. M., & Berel, S. R. (2001). Comparison of media-literacy programs to strengthen college women's resistance to media images. *Psychology of Women Quarterly*, 25(2), 103-111. doi:10.1111/1471-6402.00012
- Jeong, S.-H., Cho, H., & Hwang, Y. (2012). Media literacy interventions: A meta-analytic review. *Journal of Communication*, 62(3), 454-472. doi:10.1111/j.1460-2466.2012.01643.x
- Jin, S. V., Ryu, E., & Muqaddam, A. (2018). Dieting 2.0!: Moderating effects of Instagrammers' body image and Instafame on other Instagrammers' dieting intention. *Computers in Human Behavior*, 87, 224-237. doi:10.1016/j.chb.2018.06.001
- Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the tripartite influence model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image*, 1(3), 237-251. doi:10.1016/j.bodyim.2004.03.001
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizon*, 54(3), 241-251. doi:10.1016/j.bushor.2011.01.005
- Knauss, C., Paxton, S. J., & Alsaker, F. D. (2007). Relationships amongst body dissatisfaction, internalization of the media body ideal and perceived pressure from media in adolescent girls and boys. *Body Image*, 4(4), 353-360. doi:10.1016/j.bodyim.2007.06.007
- Knobloch-Westerwick, S., & Romero, J. P. (2011). Body ideals in the media: Perceived attainability and social comparison choices. *Media Psychology*, 14(1), 27-48. doi:10.1080/15213269.2010.547833
- 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
- Menzel, J. E., Schaefer, L. M., Burke, N. L., Mayhew, L. L., Brannick, M. T., & Thompson, J. K. (2010). Appearance-related teasing, body dissatisfaction, and disordered eating: A meta-analysis. *Body Image*, 7(4), 261-270. doi:10.1016/j.bodyim.2010.05.004
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118(4), 683-698. doi:10.1037/a0016763

SOCIAL MEDIA USE, BODY DISSATISFACTION AND GENDER

Neuman, W. L. (2014). *Understanding Research*. Pearson Education, Inc.

ISBN: 9781784343187

O'Dea, J. A., & Caputi, P. (2001). A cross-cultural examination of weight-related teasing, body image, and eating disturbance in Swedish and Australian samples. *Health Education Research*, *16*(5), 521-532. doi:10.1093/her/16.5.521

O'Keeffe, G. S., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics*, *127*(4), 800-804. doi:10.1542/peds.2011-0054

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. doi:10.1007/s11199-014-0384-6

Potter, W. J. (2010). The state of media literacy. *Journal of Broadcasting & Electronic Media*, *54*(4), 675-696. doi:10.1080/08838151.2011.521462

Presnell, K., Bearman, S. K., & Stice, E. (2004). Risk factors for body dissatisfaction in adolescent boys and girls: A prospective study. *International Journal of Eating Disorders*, *36*(4), 389-401. doi:10.1002/eat.20045

Ricciardelli, L., & McCabe, M. P. (2015). Eating disorders in boys and men. In L. Smolak & M. P. Levine (Ed.), *The Wiley handbook of eating disorders* (pp. 492-500). Chichester: John Wiley & Sons. Retrieved from [https://books.google.nl/books?id=jQ1ACgAAQBAJ&pg=PA505&dq=Ricciardelli,+L.,+%26+McCabe,+M.+P.+\(2015\).+Eating+disorders+in+boys+and+men.&hl=nl&sa=X&ved=0ahUKEwj88Lw8sXiAhXHLFAKHQAAAlsQ6AEIPDAC#v=onepage&q=eating%20disorders%20in%20boys&f=false](https://books.google.nl/books?id=jQ1ACgAAQBAJ&pg=PA505&dq=Ricciardelli,+L.,+%26+McCabe,+M.+P.+(2015).+Eating+disorders+in+boys+and+men.&hl=nl&sa=X&ved=0ahUKEwj88Lw8sXiAhXHLFAKHQAAAlsQ6AEIPDAC#v=onepage&q=eating%20disorders%20in%20boys&f=false)

Rodger, R. F., McLean, S. A., & Paxton, S. J. (2015). Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction: Implications for the tripartite influence model. *Developmental Psychology*, *51*(5), 706-713. doi:10.1037/dev0000013

Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S.-J., Dick, B., Ezeh, A. C., & Patton, G. C. (2012). Adolescence: A foundation for future health. *The Lancet*, *379* (9826), 1630-1640. doi:10.1016/S0140-6736(12)60072-5

Sharpe, E. Patalay, P., Choo, T.-H., Wall, M., Mason, S. M., Goldschmidt, A. B., & Nemark-Sztainer, D. (2017). Bidirectional associations between body dissatisfaction and depressive symptoms from adolescence through early adulthood. *Development and Psychopathology*, *30*(4), 1447-1458. doi:10.1017/S0954579417001663

SOCIAL MEDIA USE, BODY DISSATISFACTION AND GENDER

- Singh Setia, M. (2016). Methodology series model 3: Cross-sectional studies. *Indian Journal of Dermatology*, *61*(3), 261-264. doi:10.4103/0019-5154.182410
- Steinfeld, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, *29*(6), 434-445. doi:10.1016/j.appdev.2008.07.002
- Strubel, J., Petrie, T. A., & Pookulangara, S. (2018). "Like" Me: Shopping, self-display, body-image, and social networking sites. *Psychology of Popular Media Culture*, *7*(3), 328-344. doi:10.1037/ppm0000133
- Tiggemann, M., Slater, A., Bury, B., Hawkins, K., & Firth, B. (2013). Disclaimer labels on fashion magazine advertisements: Effects on social comparison and body dissatisfaction. *Body Image*, *10*(1), 45-53. doi:10.1016/j.bodyim.2012.08.001
- 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. doi:10.1002/eat.22141
- Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. *Body Image*, *15*, 61-67. doi:10.1016/j.bodyim.2015.06.003
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents' well-being and social self-esteem. *Cyber Psychology & Behavior*, *9*(5), 584-590. doi:10.1089/cpb.2006.9.584
- 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. doi:10.1016/j.bodyim.2007.04.003