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**The Role of Media Exposure, Peers and Family on Body Dissatisfaction
Among Boys and Girls in Singapore**

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Abstract

This study aims to examine how influences of media, peers, and family on body dissatisfaction differ between boys and girls in Singapore through a survey to 277 students aged 10 to 13. The hierarchical regression analyses reveal that two media exposure variables, watching television/VCDs/DVDs/music videos and engagement with online social media, were significantly related to girls' body dissatisfaction. None of the traditional or new media exposure variables influenced boys' body dissatisfaction. Instead, boys' body dissatisfaction was found to be influenced by family member's criticism of weight. Peers' perception of weight influenced body dissatisfaction in both gender, although the effect was stronger among girls. Our findings revealed gender differences in the antecedents of body dissatisfaction among children in Singapore, specifically exposure to television/VCDs/DVDs/music videos, family's criticisms of weight, and peers' perception of weight. Educators and health authorities should take these differences into account when designing media and school health education programs.

KEYWORDS: Body dissatisfaction; body shape; child health; media exposure

Introduction

Negative body image is receiving growing attention due to its increasing prevalence and harmful health outcomes. Body dissatisfaction has been found among 25% of elementary boys and 40% of elementary girls in the United States (US) (McCabe & Ricciardelli, 2004; Smolak, 2002). A European study has also shown that almost 50% of adolescent girls and 18% of adolescent boys were dissatisfied with their body (Narring, et al., 2004). Asians have also been found to experience body dissatisfaction, for instance, only 46% of boys and 43% of girls aged 3 to 15 years-old in a Chinese study felt satisfied with their body (Li, Hu, Ma, Wu, & Ma, 2005). Various negative consequences have been associated with body dissatisfaction, such as depression (Stice & Bearman, 2001), poor self esteem (Ricciardelli & McCabe, 2003) and eating disorders (Stice, Presnell, & Spangler, 2002). In Singapore, 7.4% of young females were found to be at risk of developing eating disorders, a rate that is comparable to that in the West (Ho et al., 2006).

Media, where ultrathin models and celebrities are commonly featured, have been frequently blamed for the rising levels of body dissatisfaction and eating disorders among young women (Harrison & Cantor, 1997; Levine & Smolak, 1996; Thompson, Heinberg, Altabe, & Tanleff Dunn, 1999). As most women and girls are unable to achieve the unrealistic beauty standard frequently portrayed by the media (Spitzer, Henderson, & Zivian, 1999), a gap is created between the actual and perceived ideal body shape, leading to negative feelings toward their body (Thompson & Stice, 2001). The influence of media and other sociocultural variables on body image is the crux of the Sociocultural Theory (Thompson, et al., 1999) which has been used to explain the potential influencers of negative body image. Of the Sociocultural Theory models, the Tripartite Influence Model attempts to incorporate various variables influencing body image and eating disorders into a single model. The model proposes that parents, peers and media are primary influences that could

1 directly affect body dissatisfaction. However, these three influences could also have an
2 indirect effect through two mediational factors, namely internalization of thin ideals and
3 appearance comparison (Keery, van den Berg, & Thompson, 2004; Thompson, et al., 1999).
4 The model has been applied to understand body image concerns among female adults and
5 adolescences as well as boys (e.g., Keery, van den Berg, & Thompson, 2004; Smolak,
6 Murnen, & Thompson, 2005; van den Berg, Thompson, Brandon, & Coover, 2002). The
7 current study draws upon this model to explore the influences of media, peers, and family on
8 body dissatisfaction among boys and girls.

9 It is critical to study the development of body dissatisfaction among older children
10 and early adolescents as they face growing insecurities and spend significant time on media
11 consumption (Levine & Smolak, 1996). In addition, the nature, risk factors, and
12 consequences of body dissatisfaction are dissimilar among boys and girls (Smolak, 2004) due
13 to differing pubertal development (Barker & Galambos, 2003). To our knowledge, few
14 studies have examined this phenomenon among Asians. The present study seeks to examine
15 the gender differences in the predictors of body dissatisfaction among preteens (aged 10–13)
16 in Singapore. Considering that acculturation to Western culture has been found to be
17 positively associated with body image disturbance (Soh, et al., 2008), the biculturalism of
18 Singaporeans makes it an interesting context to examine the topic. While Asian values are
19 core to the nation's ideology (Hill, 2000), Singaporeans have been frequently exposed to
20 Western culture due to its status of being a British colony prior to its independence in 1965
21 (Quah, 1965). Most Singaporeans are also bilingual and speak English, which is the country's
22 primary language, as well as a mother tongue language of either Chinese, Malay, or Tamil
23 ("Languages of Singapore," January 4, 2011). Furthermore, cultural products from the West
24 in a form of English-language television programs and films are commonly broadcast in
25 Singapore (Weber, 2003).

1 In investigating effects, media cannot be treated unitarily as exposure to each media
2 type may influence body dissatisfaction differently (Tiggemann, 2003). Although some
3 studies have found both television viewing and fashion magazine consumption to be
4 associated with body dissatisfaction (Jones, Vigfusdottir, & Lee, 2004; Tiggemann, 2003),
5 others have found differing results. For instance, television viewing, but not magazine
6 reading has been shown to predict body dissatisfaction in preadolescent girls (Harrison &
7 Cantor, 1997). Despite mixed results, meta-analytic reviews have found support for the
8 influence of media content on body dissatisfaction (Grabe, Ward, & Hyde, 2008; Groesz,
9 Levine, & Murnen, 2002) and concluded that there was a small to moderate correlation of
10 television viewing and magazine reading with body dissatisfaction (Grabe, et al., 2008;
11 Murnen, Levine, Groesz, & Smith, 2007). Although a content analysis of children's book and
12 videos revealed that their contents highlight the cultural ideal for female body shape as being
13 slender (Herbozo, Tantleff-Dunn, Gokee-Larose, & Thompson, 2004), there have been no
14 studies exploring the influence of exposure to other print media, such as books and
15 newspapers, on body dissatisfaction.

16 Meta-analyses of 25 correlational and experimental studies revealed that media
17 pressure to conform to the muscular ideal influences men's "body satisfaction, body esteem,
18 self-esteem, psychological disorders (e.g., depression), and behavioral outcomes (e.g.,
19 excessive exercising)" (Barlett, Vowels, & Saucier, 2008, p. 279). However, other studies
20 have found that boys did not experience strong pressure to conform to media's ideal body
21 image (McCabe & Ricciardelli, 2001) and that media influence predicted body dissatisfaction
22 in girls, but not in boys (Ricciardelli & McCabe, 2003). The latter findings may be more
23 relevant to Asian boys as muscular physical appearance is not popular among certain Asian
24 men, like Taiwanese (Yang, Gray, & Pope, 2005). Moreover, magazine advertisements in the

US feature undressed Western men more frequently as compared to Taiwanese magazines featuring undressed Asian men (Yang, et al., 2005). Thus, we propose that:

H1: Exposure to traditional media specifically (a) watching television, (b) reading magazine, and (c) reading newspapers/books will influence body dissatisfaction in girls more strongly than in boys.

The emergence of new media has changed media habits. Internet use has displaced television consumption among Singaporean children (Lee & Kuo, 2002). American youth spend more time exposed to content on television, music, computer and video games by multitasking and accessing them through online and mobile media (Rideout, Foehr, & Roberts, 2010). However, research linking new media use with body image has been limited. A decade ago, Borzekowski, Robinson, and Killen (2000) did not find a significant relationship between playing computer or video games with perceived importance of appearance or weight concerns in adolescent girls. However, featured characters in digital games have become more “muscular, powerful, attractive, and sexy” (Miller & Summers, 2009), and an experimental study found that participants reported significantly lower body self-esteem after playing a video game with muscular or thin characters (Barlett & Harris, 2008). We propose to examine the impact of exposure to interactive and online media on body dissatisfaction, including accessing content and chatting/social networking on the Internet.

RQ1: Are there differences in the influence of exposure to new media, particularly (a) playing computer or video games, (b) engaging with online social media, and (c) viewing online content, on body dissatisfaction between girls and boys?

In addition to media, immediate social environments are likely influencers of young people’s body image perception. Perceived weight norm among family and peers, as well as family members’ criticisms of shape, have been related to body concerns among adolescents

(Fabian & Thompson, 1989; Neumark-Sztainer, Wall, Story, & Perry, 2003). Parental encouragement to lose weight has been associated with increased drive for thinness and body dissatisfaction among adolescents (Wertheim, Martin, Prior, Sanson, & Smart, 2002), but effects may differ by gender. Among children, encouragement from a parent to lose weight was associated with body mass index (BMI), desire to be thinner, and dieting in girls, but only with BMI in boys (Thelen & Cormier, 1995). Similarly, parental comments on weight have a stronger influence on girls' weight-related beliefs and behavior than boys (Smolak, Levine, & Schermer, 1999).

Peer influences on body dissatisfaction in adolescents have been documented through peer criticism of and conversation about appearance (Jones, et al., 2004), weight teasing, and friend dieting (Paxton, Eisenberg, & Neumark-Sztainer, 2006). As compared with boys, girls are likely to receive greater peer pressure to attain society's body ideal, to be involved in discussion about weight with their peers, and to believe that having a thin body would enhance peer likability (McCabe & Ricciardelli, 2001; Oliver & Thelen, 1996). Hence, we propose the next hypothesis:

H2: (a) Family members' criticisms of weight and (b) peers' perception of weight will influence body satisfaction in girls more strongly than in boys.

Methods

Participants and Procedures

A total of 277 fifth and seventh grade school children in Singapore completed pencil and paper survey in classrooms. Approval from the Singapore's Ministry of Education was sought and attained. The procedure of the survey administration was in line with the Institutional Review Board requirements. Consent from parents was obtained prior to the survey. The initial cohort was trimmed to 256 as surveys with incomplete data were

excluded. The sample consisted of 44.4% males and 55.6% females. Forty-four percent were in grade 5 and 56% were in grade 7, with ages ranging from 10 to 13 years. Fifty percent were Chinese, 32% Malay, 6% Indian, 4% others or race unidentified.

Instruments

A standard set of demographic questions regarding grade, gender, age, race, and type of housing were asked. The dependent variable in our study was body dissatisfaction, while the independent variables were six items related to media exposure, peers' perception of weight, family's criticisms of weight, age, and body mass index.

Body dissatisfaction. Body dissatisfaction was assessed by asking participants to select a drawing representing their current body shape, their ideal body shape, and the opposite sex's ideal body shape. Collins' Figure Rating scale (Collins, 1991) for children was used for grade 5 participants, while the adult Figure Rating scale was used for grade 7 participants to better reflect the physical development of respondents. The two body image discrepancy scores (current–ideal and current–opposite sex's ideal) were averaged to assess body dissatisfaction (Cronbach's Alpha = .90). A positive discrepancy score indicated that the actual body shape is perceived to be larger than the ideal body and a negative score indicated that the actual body shape is smaller than the ideal.

Body Mass Index (BMI). The weight and height of each participant was measured a week prior to the survey administration by the school's Physical Education teacher. A BMI was computed using the formula $BMI = kg/m^2$. The mean BMI for boys was 19.54, while for girls was 19.16. The BMI was then classified based on gender, and then by BMI-for-age-percentile chart developed by the US Centers for Disease Control and Prevention (CDC) (Centers for Disease Control and Prevention in the United States, 2000) into five categories, underweight ($BMI < 5\%$), normal weight ($5\% < BMI < 85\%$), overweight 1 ($85\% < BMI <$

90%), overweight 2 (90% < BMI <95%), and obese (BMI > 95%). The distribution of the BMI-for-age percentiles is shown in Table 1.

Insert Table 1 about here

Media Exposure. The media exposure scale was modified from a study by Borzekowski et al (2000). Participants were asked to report how many hours they spent with the following activities on a typical school day and weekend day: (a) watching television/VCDs/DVDs/music videos, (b) reading magazines, (c) reading books/newspapers, (d) playing computer or video games, (e) chatting or social networking online, (f) watching online music videos, movies or other online content. For each media type, the number of hours on a weekday was multiplied by five while the weekend exposure was multiplied by two. These total weekday and weekend hours were summed to estimate the total hours of weekly exposure to each media type. Five respondents did not fill in two items of the media exposure measures. To treat missing data, mean replacement was employed.

Peers' Perception of Weight. Peer influence was assessed using two newly-created questions ("My friends feel that I am fat" and "I am fatter than most of my friends") on a 7-point Likert scale from 1="strongly disagree to 7="strongly agree". These questions were chosen to address peer pressure on weight and showed high reliability (Cronbach's Alpha = .83), and hence, were averaged to form a peer influence score.

Family's Criticisms of Weight. Family influence was measured utilizing two questions ("My family members say that I am fat" and "My family members encourage me to lose weight") on a 7-point Likert scale from 1="strongly disagree to 7="strongly agree". The questions, which focused on familial pressure on weight, achieved high reliability (Cronbach's Alpha = .76), and were averaged to obtain a family criticism score.

Data Analysis

Using an independent sample t-test, we performed a gender comparison of BMI, hours of media exposure, peers' perception of weight, family's criticisms of weight, and body dissatisfaction. Subsequently, a hierarchical regression analysis was run separately for the male and female subsamples to determine factors influencing body dissatisfaction. BMI percentile, used to control for weight status, and age were entered into the first block as control variables, followed by media exposure, peers' perception and family's criticisms of weight variables into the next block. Further regression analyses incorporating gender, as well as interaction variables of gender and each of the independent variables under examination, were performed to determine significant differences for coefficients of the factors influencing body dissatisfaction between boys and girls.

Results

On average, both male and female participants said that they were not satisfied with their body shapes (Table 2). However, girls demonstrated significantly greater body dissatisfaction [$t(254) = -2.71, p < .01$], in which girls ($M = .58, SD = 1.08$) desired a thinner body than boys ($M = .20, SD = 1.18$). No significant differences were found between genders for BMI, peers' perception of weight, and family's criticisms of weight. Girls spent more time than boys engaging with social media and reading magazines.

Insert Table 2 about here

Regression results, as shown in Table 3, revealed strong gender differences in factors influencing body dissatisfaction. The overall regression model significantly influenced body dissatisfaction for both girls $R^2 = .513, F(10, 130) = 13.70, p < .001$ and boys $R^2 = .650, F(10, 103) = 19.15, p < .001$. The first block of BMI percentile and age explained 42.5% of variance among boys, but only 19.7% of variance among girls.

Insert Table 3 about here

1 Among the traditional media exposure variables, body dissatisfaction in girls was
2 found to be influenced only by hours of watching television/VCDs/DVDs/movies ($\beta = -.142$,
3 $t(130) = -2.23, p < .05$). The negative direction of effect indicated that girls exposed to these
4 media were dissatisfied that their bodies were too thin. None of the traditional media
5 exposures significantly influenced body dissatisfaction in boys.

6 Exposure to new media was not related to boys' body dissatisfaction. Among girls,
7 engagement with online social media was marginally related to body dissatisfaction ($\beta = -$
8 $.149, t(130) = -1.93, p = .056$), but playing computer or video games and watching online
9 content were not. The direction for engagement with online social media was negative,
10 indicating that the longer the time the girls spent with social media, the more likely they were
11 to be dissatisfied that their bodies were too thin.

12 Family's criticisms of weight significantly influenced boys' body dissatisfaction ($\beta =$
13 $.271, t(103) = 2.25, p < .05$), but did not influence girls. Peers' perception of weight had a
14 significant influence on both girls ($\beta = .470, t(130) = 4.74, p < .001$) and boys ($\beta = .257$,
15 $t(103) = 2.22, p < .05$), although the influence seemed to be greater among girls.

16 In order to test for differences between boys and girls on the significant factors
17 influencing body dissatisfaction, we undertook further regression analyses incorporating
18 interaction variables of the independent variables and gender. Significant gender differences
19 were found for watching television/VCDs/DVDs/music videos and peers' perception of
20 weight, hence supporting *H1a* and *H2b*, respectively. While family's criticisms of weight
21 were also found to be significantly different between genders, the earlier regression analyses
22 had shown that the variable significantly influenced body dissatisfaction in boys, but not in
23 girls, which was in opposition to *H2a*. The influence of engagement with social media on
24 body dissatisfaction (*R1b*) was not found to be significantly different between boys and girls.

These regression results demonstrate that there are gender differences in the influence of sociocultural factors on body dissatisfaction among children in Singapore. While body dissatisfaction in girls is more likely to be affected by media exposure, specifically watching television/VCDs/DVDs/music videos and peers, boys tend to be influenced more by peers and family members.

Discussion

We found significant gender differences in the influences of media exposure, peers, and family on body dissatisfaction among boys and girls in the Asian context. With traditional media, we found that only exposure to television/VCDs/DVDs/music videos significantly influenced girls' body dissatisfaction, while none of the traditional media variables were significant in influencing boys' body dissatisfaction. Interestingly, the direction of the influence was in contrast to past studies which have often shown girls exposed to media being more likely to desire a thinner body (e.g., Tiggemann, 2003). The differing results can possibly be attributed to the current popularity of reality TV shows and game shows depicting regular folks who often do not possess an ideal shape, and thus providing a sense of "realness" to its viewers. Among television genres, soap operas have been found to be positively associated with drive for thinness in both male and female adolescents while entertainment genre (which includes reality TV, sitcoms, lifestyle programs, game shows) was negatively associated with drive for thinness among boys and was not significantly related among girls (Tiggemann, 2005), demonstrating the different sense of "realness" between soap operas and other dramas or sitcoms (Barbatsis & Guy, 1991). In Singapore, the number of current shows equivalent to soap operas on national TV is relatively smaller than the number of reality TV shows, game shows and other forms of drama or sitcoms. In recent years, there has been a proliferation of reality TV shows in

Singapore, with imported shows such as *American Idol*, *America's Got Talent*, as well as similar locally-produced reality TV shows making up 33% of programming on Channel 5, the main local English-language TV channel ("Getting an overdose of Reality TV," 2007). Singaporeans have also witnessed an increased presence of local adaptations of game shows, such as *Who Wants To Be A Millionaire* and *The Weakest Link*, during local TV channels' prime time schedule (Lim, 2004). In addition, the television content in Singapore consists of programs featuring people from different races and ethnicity. The local drama and sitcoms often feature characters from the three main ethnic groups in Singapore, namely Chinese, Malay, and Indian, although Chinese remains the predominant group to reflect the country's racial proportion in reality (Tan, 2008). At least one local TV channel is also dedicated to serve each of the three ethnic groups. Furthermore, imported television contents also come from various countries, with Western contents mainly represented by programs from the United States, while Asian contents are imported from a variety of countries including Republic of China, Taiwan, Hong Kong, Korea, Japan, and, to a lesser extent, India, and Indonesia (Chua, 2006; "MediaCorp Channel 5", 2011). Hence, it is plausible that young viewers are exposed to people with a diverse body image type and shape, instead of a fixed body shape, resulting in the negative direction of television viewing to body dissatisfaction found in the study.

Our findings on the effect of exposure to new media showed that engagement with social media was marginally significant in negatively influencing girls' body dissatisfaction, although a subsequent regression analysis did not show a significant gender difference of this variable. This implies that the effect of engagement with social media among girls on body dissatisfaction might be relatively little. Scholars have pointed out that online interactions are not anonymous, but rather they are linked to their lives offline (e.g., Winn & Katz, 1997; McKenna & Bargh, 2000). While individuals may desire to present their ideal selves in their

1 online profiles, the presentation of their selves need to be integrated to that which is
2 appropriate and coherent to the perception of all of their online friends (Manago, Graham,
3 Greenfield, & Salimkhan, 2008). This may result in girls expressing their persona that are
4 closer to their real selves, especially as the sampled group in the study is children whose
5 friends may likely consist of mostly their school friends whom they meet almost every day.
6 Thus, engagement with online social media through chatting and Facebook could have
7 exposed the girls to visuals of their friends whose body shapes are closer to those in real life.
8 Our study did not find a significant relation between exposure to online content and
9 video/computer games with body dissatisfaction, in line with similar past research (e.g.,
10 Borzekowski, Robinson, & Killen, 2000; Tiggemann & Miller, 2010).

11 As for boys, the non-significant finding of traditional and new media exposure on
12 body dissatisfaction could be due to the fact that muscular physical appearance is not popular
13 in Asia (Yang et al., 2005). Hong Kong men, for instance, have been found to be more
14 satisfied with their muscularity, less likely to have a drive for muscular body, and associate
15 muscularity with fewer positive qualities as compared to American men (Jung, Forbes &
16 Chan, 2010). Indeed, Chinese males have defined masculine ideals not only in term of
17 physical attributes like aggression, but also in term of intellectual, scholarly characteristics
18 (e.g., Yang et al., 2005). Thereby, it may not be surprising that there were relatively lack of
19 advertisements featuring undressed Asian men (Yang, et al., 2005). On the other hand,
20 thinness as the standard of feminine beauty has been prevalent among Chinese girls for
21 centuries (Chen & Jackson, 2011; Li et al., 2005), which may explain the pervasiveness of
22 thin female models and celebrities in the media. In turn, the influence of mass media on body
23 image has been found to be more significant among girls than boys, as found in our study for
24 the case of television viewing and is also consistent with other studies examining American

adolescents (e.g., Jones, 2004) as well as Chinese children and adolescents (Chen & Jackson, 2011).

Finally, hypothesis 2 proposed that peers' perception and family's criticisms of weight would influence body dissatisfaction in girls more than in boys. The hypothesis was partially supported in that while for both gender peers' perception of weight positively influenced body dissatisfaction, the effect was greater among girls, which is consistent with past research (Keery, et al., 2004). The tendency of girls to compare and discuss their appearance with peers more often than boys may be responsible for this phenomenon (Chen & Jackson, 2011). However, boys were significantly influenced by their family members' criticisms of weight, while girls were not. The children's weight status can probably account for this, with 39.5% of the boys in our sample being overweight or obese while only 24.1% of the girls were overweight or obese. Hence, the boys were more likely to have been told by their family members that they were fat, resulting in increased body dissatisfaction.

Given the study's limitations, the following suggested improvements can be considered for future studies. Additional items to measure peers' perception and family members' criticisms of weight can be included such that the items asked for family members and peers are identical. Specific questions such as mother's criticisms, father's criticisms can also be incorporated to better understand the nuances in the influencers of body dissatisfaction. Future research can also examine the moderating role of peer and familial influences on the effect of mass media on body dissatisfaction, as the media could present similar influences on one's peers and family members. The use of CDC chart to classify the BMI may bias the classification toward Western children standard. However, to our knowledge, there is currently no equivalent chart for Asian children, and hence, it is imperative for health authorities in Asian countries to develop a similar chart. Together with a further investigation of specific media content effects, the unusual direction for the

influence of overall television viewing and engagement with social media on body dissatisfaction among girls need to be investigated in future studies to further understand the phenomenon.

Conclusion and Implications

Our findings supported the premise that exposure to media could influence body dissatisfaction, particularly among girls. Therefore, schools should consider incorporating media literacy curriculum in their health education programs so that children can be more critical and knowledgeable about body images in advertisements and other media forms and about various health issues associated with body dissatisfaction. Schools can offer videos like Kilbourne's *Slim Hopes*, which have been found effective in improving students' understanding on body image and in producing a lower body image discrepancy (Chambers & Alexander, 2007). Likewise, the *Cover Girl Culture* video (Clark, 2009) can be shown to educate girls in understanding the intention behind the advertising images.

The impact of familial influence on body dissatisfaction, as found especially among boys indicates that health programs should include elements of family interaction whereby family relationships that encourage healthy body image and focus less on physical attributes can be built. Similarly, as peers' perception of weight influenced body dissatisfaction in both genders, programs that challenge the children not to compare themselves with others or to alleviate negative talks on appearance, and instead, encourage discussions to achieve normal shape through healthy dieting and physical activity will be useful. Hence, schools could conduct workshops attended by both students and parents to watch and discuss videos created to counter negative media messages about body image. Schools can also implement the Kater's Healthy Body Image curriculum in such workshops, which has been shown to improve children's knowledge on healthy body, ability to view appearance-related media

1 messages more critically, attitudes on eating choices and physical activity, and to reduce
2 prejudicial attitudes toward body size (Kater, Rohwer, & Londre, 2002). Through these
3 workshops, both children and parents may begin to realize the unrealistic portrayals of body
4 image prevalent in the media and society and put less pressures on others in attaining the
5 improbable body shapes.

6

1 Table 1. Percentage of BMI-for-age Weight Status

	Boys	Girls
Underweight (<5%)	11.40	7.09
Normal (5% < BMI < 85%)	49.12	68.79
Overweight1 (85% < BMI < 90%)	9.65	9.93
Overweight2 (90% < BMI < 95%)	9.65	6.38
Obese (BMI > 95%)	20.18	7.80

2

3

4

1 Table 2. Mean, Standard Deviation, and Independent Sample t-Tests Testing Gender
2 Differences in BMI, Media Exposure, Peers' Perception of Weight, Family's Criticisms of
3 Weight, and Body Dissatisfaction

	Boys		Girls		t	df
	M	SD	M	SD		
BMI	19.54	4.31	19.16	3.71	.76	224.10
Media Exposure						
TV/VCDs/DVDs/music videos	17.47	9.43	18.32	11.36	-.64	254
Magazines	2.55	4.10	4.68	4.22	-4.08***	254
Newspapers / books	6.80	6.04	7.21	6.39	-.52	254
Computer/video games	14.48	10.21	13.06	10.04	1.12	254
Social media	8.45	9.69	11.08	9.05	-2.24*	254
Online contents	7.69	7.83	8.90	8.42	-1.17	254
Peers' perception of weight	2.71	1.61	2.89	1.63	-.91	254
Family's criticisms of weight	3.05	1.98	3.24	1.94	-.80	254
Body dissatisfaction	0.20	1.18	0.58	1.08	-2.71**	254

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

4
5

1 Table 3. Factors associated with body dissatisfaction among boys and girls

<i>Independent variables</i>	Boys (N = 114)			Girls (N = 141)		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
BMI percentile	.301	.064	.345***	.158	.077	.144*
Age	-.083	.079	-.063	.059	.076	.052
ΔR^2	.425***			.197***		
Media Exposure						
TV/VCDs/DVDs/music videos	.011	.008	.091	-.014	.006	-.142*
Magazines	-.024	.020	-.084	.007	.017	.025
Newspapers / books	.001	.012	.003	.001	.011	.008
Computer/video games	-.011	.009	-.095	.000	.008	.001
Social media	.003	.010	.022	-.018	.009	-.149^
Online contents	-.020	.011	-.134	.005	.011	.041
Peers' perception of weight	.188	.085	.257*	.313	.066	.470***
Family's criticisms of weight	.161	.072	.271*	.070	.053	.125
ΔR^2	.225***			.316***		
$Total R^2$	.650***			.513***		

2 Note: Coefficients are from final regression equation with all blocks of variables in the model.

3 ^p = .056, *p < .05, ***p < .001

4

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