Boise State University

ScholarWorks

Psychological Sciences Faculty Publications and Presentations

Department of Psychological Science

12-2013

Media's Influence on the Drive for Muscularity in Undergraduates

Brooke Cramblitt Boise State University

Mary Pritchard Boise State University

NOTICE: this is the author's version of a work that was accepted for publication in *Eating Behaviors*. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version was subsequently published in *Eating Behaviors*, Vol. 14, Issue 4, (2013). DOI: 10.1016/j.eatbeh.2013.08.003.

Media's Influence on the Drive for Muscularity in Undergraduates

Brooke Cramblitt

Boise State University

Mary Pritchard Department of Psychology Boise State University

Correspondence concerning this article should be addressed to Mary Pritchard, Department of Psychology, Boise State University, 1910 University Drive, Boise, ID 83725-1715 USA. Phone: (208) 426-1901, fax: (208) 426-4386, e-mail: marypritchard@boisestate.edu.

Abstract

Although research has found that body ideals presented by the media influence women's body dissatisfaction, less is known about media's influence on men's body satisfaction. An online survey examining media use, the drive for muscularity, and internalization of appearance and body shape ideals was given to a sample of 311 participants comprised of both men and women. Results indicated (a) the more time men and women reported watching television, the higher their reported drive for muscularity (b) total hours of viewing sports-related, image-focused, and entertainment television related to increased drive for muscularity in women (c) drive for muscularity in men related to watching image-focused television and reading men's health magazines, and (d) internalization of athletic attitudes towards appearance mediated the relationship between total television watched and drive for muscularity in both genders. Clinicians may wish to utilize these findings when treating men and women suffering from drive for muscularity and body dysmorphia.

Keywords: drive for muscularity; media; body ideals; internalized images.

Body dissatisfaction has become normative in today's society, with over 90% of U.S. collegiate women and 70% of U.S. college men reporting body and weight dissatisfaction (Neighbors & Sobal, 2007). In the past, research has suggested that men and women may experience body dissatisfaction in different ways, with women being more likely to report wanting to lose weight and men being more likely to report wanting to gain muscle mass (drive for muscularity; Neighbors & Sobal). However, Choi (2000) recently hypothesized that drive for muscularity may be increasing in Western women as society emphasizes physical exercise as part of an ideal lifestyle.

Although research on the drive for muscularity in men is well-documented, research on the drive for muscularity in women is harder to find. Drive for muscularity has surfaced in women as society emphasizes physical exercise as part of an ideal lifestyle (Choi, 2000). This emphasis creates the idea that women should be thin but toned without the bulk of muscle (Choi, 2000; Gruber, 2007; Homan, McHugh, Wells, Watson, & King, 2012; Steinfeldt, Carter, Benton, & Steinfeldt, 2011). Women's drive to be toned was illuminated when the Drive for Muscularity Attitudes Questionnaire (DMAQ) was modified to focus on muscle tone, showing that women desired tone without bulk, which causes the gender differences in drive for muscularity to dissipate (Kyrejto, Mosewich, Kowalski, Mack, & Crocker, 2008). Thus, it is not surprising that Jacobi and Cash (1994) found that 78% of women wanted to be more muscular, whereas only 4% wanted to be less muscular.

The increases in drive for muscularity have occurred in-concordance with media's representation of males and females becoming increasingly more restrictive (Daniel & Bridges, 2010). Women displayed in the media are generally 15% below the average female weight (Hawkins, Richards, Granely, & Stein, 2004) and women are being fed the idea that they must be thin but still have an athletic, toned, and tight body (Markula, 1995). The current male media image is classified as lean and muscular, with a well-developed chest and arms, wide shoulders and a narrow waist (Hargreaves & Tiggemann, 2004). Thus, media prototypes for both men and women establish a body ideal that is nearly impossible for most people to realistically and healthily achieve.

Media's inimical effect on body dissatisfaction is exhibited by media's negative impact on self-esteem and drive for muscularity in both men and women. For women, magazines often promote thinness and body tone. Articles and ads associate attractiveness with body shape and weight by featuring models below the average weight, endorsing dieting products, and instructing readers on how to become, and stay, thin and toned (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Vaughan & Fouts, 2003). The content in these magazines is harmful to women, as a one-time 30-minute exposure to magazine ads can negatively affect women's body-size perceptions (Botta, 1999; Spettigue & Henderson, 2004). The ultimate result of magazine exposure is seen when women shown sexual images of athletes, such as Anna Kournikova, made negative self-evaluations, with 87.9% making comments about the athletes' physical appearances and expressed jealousy or admiration (Daniels, 2012).

Similar findings are seen in men who read magazines. Men who read more magazines report higher levels of drive for muscularity, more eating problems (Botta, 2003; Hatoum & Belle, 2004; Morry & Staska, 2001), taking more dietary supplements to increase muscle mass and exercising more than do men who read fewer magazines (Hatoum & Belle, 2004). Parallel to women, men's self-esteem decreases after viewing images of men who possess the ideal male body (Hobza & Rochlen, 2009; Peterson, Paulson, & Williams, 2007). In a study by Roberto Olivardia, Harrison G. Pope Jr., John J. Borowiecki III, and Geoffrey H. Cohane (2004) college men branded the ideal male as having, on average, 25 pounds more muscle than their own bodies. Men who display muscularity concerns prior to being exposed to this ideal image reported more muscularity dissatisfaction after viewing ideal male media images (Arbour & Ginis, 2006). It seems that body dissatisfaction, in the form of drive for muscularity, increases as both men and women digest media ideals.

The detrimental effects of media ideals cannot be attributed to media alone. Specifically, magazines may not be fully to blame for the surge of body dissatisfaction among females and males. Research suggests that magazine exposure alone does not cause body dissatisfaction (Morry & Staska, 2001). Rather, body dissatisfaction manifests when media ideals are internalized as personal goals and those goals are not met (Agliata & Tantleff-Dunn, 2004). For instance, magazines display perfect bodies that women believe they can realistically achieve (Botta, 1999). When women internalize the goal of achieving the perfect body by comparing themselves to models, this creates a desire to become thinner and a decrease in body satisfaction that often results in unhealthy behaviors to obtain that ideal (Botta, 1999). Thus, media exposure and internalization can become a vicious cycle (Botta, 1999; Morry & Satska, 2001), as magazines not only cultivate unhealthy behaviors but reinforce them as well. This cycle can be applied to anorexic women who report frequently engaging in media use and cite their media dependency as a result of their eating disorder lifestyle (Spettigue & Henderson, 2004). In addition, girls who read more health and fitness magazines show an increase in bulimic behaviors, an increase in anorexic behaviors, and an increase drive to be thin (Botta, 2003). Similarly, adolescent girls who read sports magazines show a greater increase in drive for muscularity (Botta, 2003). Thus, it seems that media exposure is not what causes body dissatisfaction; rather it is internalizing the media and societal ideal.

This idea that media internalization might be harmful to one's body image is not a new one. Media internalization is just another form of social comparison. Social comparison theory (Festinger, 1954), argues that people tend to compare themselves to others with respect to certain attributes (e.g., thinness, muscularity), especially when the characteristics are important to them. Once individuals have internalized these ideal images, they use those images as a comparison point for their own body image goals. Once media images have been internalized and women and men have begun to compare themselves to media images in an effort to see how they "stack up," they then form a schema about what they should look like and what the idea person would do to achieve those goals. This schema represents information and beliefs referring to the self and one's self-worth, and comes from information extracted from sociocultural influences. Once the schema has been established, these individuals will turn to the same media sources (e.g., magazines, TV) from whence they obtained the schema for information on how to meet said ideal image (Levine & Smolak, 1996, 2005).

Present Study

Magazines are not the only media outlet that exemplifies the ideal physique of men and women; however, it does seem to be the most influential (Hatoum & Belle, 2004; Tiggemann, 2003). Body dissatisfaction occurs more after reading magazines because magazines require a stronger emotional investment, a closer assessment of thin models, and higher social comparison than does television watching (Vaughan & Fouts, 2003). Conversely, television is used primarily for entertainment and viewers do not seem to be as affected by thin television models and actors (Harrison & Cantor, 1997).

Much research has been conducted on media's impact on women's drive for thinness but few studies have evaluated media's impact on women and men's drive for muscularity. Based on the literature reviewed, we hypothesized the following:

- 1. Magazine reading will be more strongly related to the drive for muscularity than will television viewing.
- 2. The more men and women read magazines and watch television, the higher drive for muscularity they will report.
- 3. Internalization of media ideals will mediate the influence of reading magazines and watching television shows that portray the ideal male or female physique on drive for muscularity in both men and women.

Method

Participants

A sample size of 311 students in General Psychology classes at a large Western university enrolled using EMS software to take a survey to fulfill a research experience requirement of their General Psychology class. Upon completing the survey, students received class credit for participating. The student's ages ranged from 18-47, with the average age being 21.55 (SD = 5.85); 40.5% were male and 59.5% were female. Of the 126 men, 82.9% were Caucasian, 4.8% African-American, 2.9% Asian, 1.9% Pacific Islander, and 7.6% Other. Of the 185 women, 85.5% were Caucasian, 1.3% African-American, 3.1% Asian, 1.3% Pacific Islander, 1.3% Native American, and 7.5% Other. Men had a significantly higher BMI (M=26.34, SD=4.90) than did women (M=23.74, SD=5.76), t(306) = 4.12, p<.001. Informed consent was obtained from all participants and the university's Research Ethics Board approved the study.

Materials

Media Exposure.

Magazines. Based on various top ten read magazines and bestseller lists, a list of the 31 most popular fashion, sports, and entertainment magazines was presented to participants. Participants were asked to designate every magazine they had read, looked through, or bought in the last 4 weeks - the 4 week time period was modeled after Tiggeman's 2003 study. Magazines were then categorized as Women's Beauty (e.g., *Allure*), Women's Fashion (e.g., *Cosmopolitan*), Women's Health (e.g., *Shape*), Entertainment (e.g., *Vanity Fair*), Men's Health (e.g., *Men's Fitness*), Men's Fashion (e.g., *Esquire*), Teen (e.g., *Seventeen*), and Sports (e.g., *ESPN*).

Television. Based on various television show rankings and primetime television guides, a list of 21 television shows was presented to participants. Participants were asked to designate every television show they had watched in the past 4 weeks. Television shows were then categorized as Entertainment (e.g., That 70s Show), Image-Focused (e.g., The Biggest Loser), and Sports (e.g., NFL). Total hours of television watched were calculated by summing the total minutes of each television program participants reported watching.

Awareness and Internalization of Body Shape Ideals. The 30-item Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3) of Thompson, van den Berg, Roehrig, Guarda, & Heinberg (2004) was utilized to determine internalization and consciousness of appearance and body shape ideals. Participants' attitudes towards appearance were calculated based on a five-point Likert scale of 1 (*Definitely Disagree*) to 5 (*Definitely Agree*). Items were categorized into one of four subscales: Societal Pressure (7-items; e.g., "I've felt pressure from TV or magazines to lose weight"; $\alpha = .90$ in the present study, $\alpha = .94$ in a study with a similar population, Pritchard & Neilsen, 2012), Internalization-Athlete (5 items; "I compare my body to that of people in 'good shape'"; $\alpha = .77$ for the present study, $\alpha = .74$ in Pritchard & Neilsen), and Information (9 items; "TV programs are an important source of information about fashion and 'being attractive'"; $\alpha = .83$ for the present study, $\alpha = .84$ in Pritchard & Neilsen).

Drive for Muscularity. Drive for muscularity was assessed by the 15-item Drive for Muscularity Scale of McCreary and Sasse (2000). This scale has been shown to be valid and reliable in previous studies with similar populations (e.g., $\alpha = .91$, Juarez, Soto, & Pritchard, 2012). Participants' drive for muscularity was calculated by summing their responses to items on a four-point Likert scale of 0 (*never*) to 4 (*always*) to questions such as "I wish that I were more muscular." In the present sample, internal consistency for the total scale was high, $\alpha = .92$.

Results

Media Use

In the particular month under study, women read, looked through, or bought an average of 3 magazines (M = 2.57) and watched television for an average of 6 hours (M = 6.20). Men read, looked through, or bought an average of 2 magazines (M = 1.56) and watched television for an average of 6.5 hours (M = 6.50).

Independent-sample *t*-tests were calculated to examine gender differences in the number of magazines read, looked through, and bought. Table 1 shows that there was a significant gender difference in the types of magazines read, looked through, and bought. Women read, looked through, and bought more teen magazines, women's beauty magazines, women's fashion magazines, women's health magazines, and entertainment magazines as compared to men. Men read, looked through, or bought more men's health magazines, men's fashion magazines, and sports magazines than did women. Overall, women read, looked through, or bought more total magazines than did men.

Table 1 also shows a significant gender difference in the types of television programs watched. Women watch more entertainment and image-focused television than did men. Men watched more sports television than did women. However, no significant difference was found between sex and total amount of television watched.

Relationship Between Television Use, Internalization of Body Shape Ideals, and Drive For Muscularity

As can be seen in Table 2, total hours of television watched and viewing sports-related, image-focused, and entertainment television related to a higher drive for muscularity in women. However, only watching image-focused television related to a higher drive for muscularity in men.

Table 2 also shows that internalization of general attitudes towards appearance, internalization of athletic attitudes towards appearance, internalization of appearance related pressure, and internalization of information regarding body shape ideals are related to drive for muscularity in women. Similarly, internalization of general attitudes towards appearance, internalization of athletic attitudes towards appearance, and internalization regarding body shape ideals are related to drive for muscularity in women.

Relationship Between Magazines Read, Internalization of Body Shape Ideals, and Drive For Muscularity

As can be seen in Table 3, reading teen, women's beauty, women's fashion, women's health, entertainment, men's fashion, sports magazines, and total magazines did not relate to drive for muscularity in either men or women. Men's health magazines related to drive for muscularity in men but not women.

Table 3 also shows that internalization of general attitudes towards appearance, internalization of athletic attitudes towards appearance, internalization of appearance related pressure, and internalization of information regarding body shape ideals related to drive for muscularity in women. Similarly, internalization of general attitudes towards appearance, internalization of athletic attitudes towards appearance, and internalization regarding body shape ideals related to drive for muscularity in women.

Relationship Between Drive for Muscularity, Total TV, and Internalization of Athletic Ideals

We originally hypothesized that the internalization of media ideals would mediate the influence of reading magazines and watching television shows that portray the ideal male or female physique on drive for muscularity in both men and women. As drive for muscularity was unrelated to magazine reading in both men and women, we could not test for meditation for magazines. Thus, the mediation model was only tested for television viewing. Similarly, as the relation between total television viewing and general internalization was non-significant in men and fell to nonsignificance in women in the first regression equation, only the possible mediation of internalization-athlete was tested in the mediation models.

As displayed in Table 4, for both men and women total television viewing hours significantly predicted drive for muscularity. However, once internalization of athletic attitudes towards appearance was entered into the equation, total television viewing was no longer significantly related to the drive for muscularity in men (t = 1.60, $\beta = .13$, p = .113). In women, although total television remained significant its contribution did decrease (t = 2.00, $\beta = .15$, p < .05).

Discussion

The present study assessed the relationships between media exposure – specifically magazines and television – and the drive for muscularity in undergraduate students. It was hypothesized that (a) magazine reading would relate to increased drive for muscularity, more so than television watching (b) those who read more magazines and watched more television would have higher drives for muscularity (c) internalization of media ideals would mediate magazines and television's influence on drive for muscularity in men and women.

The first hypothesis explored the relationship between drive for muscularity and frequency of exposure to the two media outlets mentioned above – magazines and television shows. Based on Tiggemann's (2003) findings, we expected that exposure to magazines would be more strongly related to the drive for muscularity than would frequency of television watching. The two types of media did have different effects on users, but contrary to our hypothesis, watching television was related to increased drive for muscularity in both men and women, whereas only reading men's health magazines was related to drive for muscularity in men. This difference may be attributable to the athletic images idolized in various television programs, such as professional sports, weight loss, makeover, and reality television programs. Television continuously reinforces athletic images through multiple stations, advertisements, athletes, and models, whereas magazines only provide monthly issues and are unable to constantly generate new advertisements, products, models, and articles for readers.

Although our results demonstrated a stronger relationship between television viewing and the drive for muscularity than between magazine reading and the drive for muscularity, previous researchers suggest that magazines require a stronger emotional investment, a closer assessment of thin models, and higher social comparison than does television watching (Vaughan & Fouts, 2003). Magazines heavily influence body dissatisfaction - even a one-time, 30-minute exposure to magazine ads negatively affects women's body size perceptions (Botta, 1999; Spettigue & Henderson, 2004). Thus, it was slightly surprising to find that the relationship between television watching and drive for muscularity was stronger than was the relationship between magazine reading and drive for muscularity. Specifically, total hours of television watched, viewing sports-related, image-focused, and entertainment television was related to increased drive for muscularity in women. In the month under study, women read, looked through, or bought an average of 3 magazines and watched television for an average of 6 hours. So, if a onetime 30-minute magazine exposure to generatively affects women's body size perception, it seems a 30-minute exposure to television programs and advertisements may invoke similar negative effects on body image.

This partially supports the second hypothesis - both men and women who read more magazines and watch more television displayed a higher drive for muscularity – and aligns with previous researchers' findings that media equates female sexiness to a thin and toned body (Choi, 2000; Gruber 2007; Homan et al., 2012; Steinfeldt et al., 2011). As women are exposed to these thin but toned images their body dissatisfaction and drive for muscularity increases. This is seen when women who view media images of toned and thin models display a greater increase in body dissatisfaction than do women who view neutral images (Homan et al., 2012). Thus, the finding that watching sports-related, image-focused, and entertainment television relates to an increase in women's drive for muscularity fits well into previous research but also illustrates that television watching may have a greater impact on drive for muscularity than does magazine reading.

When compared to women, the relationship between television use and drive for muscularity in men manifests on a smaller scale. Drive for muscularity in men was only related to watching image-focused television. However, men's media use almost mirrored women's - men read, looked through, or bought an average of 2 magazines and watched television for an average of 6.5 hours. The gender difference in the relationships between television viewing and the drive for muscularity between sexes could be attributed to women's internalization of a paradoxical media ideal. Women's drive for muscularity is marked by women's desire to be toned but thin (Choi, 2000; Gruber, 2007; Homan et al., 2012; Steinfeldt et al., 2011). This finding fits with the ideal body of contemporary female models, actors, and athletes - which are slender with muscle definition.

Media's influence on drive for muscularity is seen more clearly in women than men. Previous researchers have found that men exposed to ideal male images in television advertisements displayed increased muscle dissatisfaction and a decrease in body esteem (Agliata & Tantleff-Dunn, 2004; Hobza & Rochlen, 2009). However, other researchers have found that television advertisements featuring the muscular-ideal had little influence on boys' body image and did not cause an increase in body dissatisfaction (Hargreaves & Tiggemann, 2004). Research in this area is contradictory but it does seem that image-focused media may relate to men's drive for muscularity and body dissatisfaction. In fact, men who read more magazines reported higher levels of the drive for muscularity, more eating problems (Botta, 2003; Hatoum & Belle, 2004; Morry & Staska, 2001), taking more dietary supplements to increase muscle mass and exercising more than men who read few magazines (Hatoum & Belle, 2004). Overall, it seems the more men are exposed to media ideals, the higher their drive for muscularity.

The third hypothesis proposed that internalization of media ideals would mediate the influence of magazines and television on drive for muscularity in both genders. This hypothesis was true for women, as their drive for muscularity increased when general attitudes towards appearance, athletic attitudes towards appearance, and information regarding ideal body shapes were internalized. Other studies have shown that internalization of media ideals can lead to body dissatisfaction and, in some studies, drive for muscularity (Agliata & Tantleff-Dunn, 2004; Botta, 1999; Daniels, 2012; Spettigue & Henderson, 2004).

Congruently, internalization of general attitudes towards appearance, internalization of athletic attitudes towards appearance, and internalization regarding body shape ideals also displayed a relationship with increased drive for muscularity in men. Internalization of media ideals has been pinpointed as the strongest predictor of drive for muscularity in men (Daniels & Bridges, 20120). The impact of internalizing media images and its influence on drive for muscularity is seen in studies of magazine exposure. Men who read more magazines display higher drives for muscularity (Botta, 2003; Hatoum & Belle, 2004; Morry & Staska, 2001). Thus, as men engage in more media use, the more they may internalize attitudes towards appearances and body shape ideals, which can lead to increased drive for muscularity.

Although the relationship between internalization of media images, drive for muscularity, and magazine reading could not be tested in the present study, the internalization of athletic attitudes towards appearance and the relationship between total television watched and drive for muscularity was testable. Previous research shows that men and women who internalize media ideals as personal goals experience body dissatisfaction, especially when these ideals are not achieved (Agliata & Tantleff-Dunn, 2004). When women internalize the goal of achieving the perfect body by comparing themselves to models they desire to become thinner, which decreases body satisfaction and often results in unhealthy behaviors to obtain their ideal (Botta, 1999). This same cycle can be applied to men and women's drive

for muscularity. Men and women may internalize the goal of achieving a muscular body; this creates a desire to become more muscular and causes a decrease in body satisfaction that may result in increased drive for muscularity and engagement in unhealthy behaviors to attain the muscular ideal. Thus, media exposure and internalization of body ideals can become a vicious cycle (Botta, 1999; Morry & Satska, 2001).

Limitations

Limitations of this study must be considered when discussing the findings. First, the television shows used to assess media use and its impact on internalization of bodily ideals and body dissatisfaction should have been chosen based on content and portrayal of media ideals. It may have been beneficial to choose television shows according to predetermined categories rather than assigning television shows to categories after the survey was administered. Second, measurements based on self-report were used. By using a more precise measure of TV viewing researchers would be able to more accurately assess the relationship between the variables of interest (e.g., designing a system that calculates the total hours of television, future studies should investigate time spent reading magazines as a mediating factor as well. Fourth, the study was correlational in nature and causal conclusions cannot be made. Thus, women and men may use media as a result of their drive for muscularity rather than media causing their drive for muscularity. Finally, to better test drive for muscularity in women, the DFM should be altered to assess women's desire to be toned rather than muscular. Future researchers should consider these limitations and continue to assess media's influence on women's drive for tone as opposed to drive for thinness and muscularity.

Conclusion

The present study shows that drive for muscularity is related to television use and internalization of athletic attitudes towards appearance in both men and women, whereas magazine reading was not related to drive for muscularity or internalization of athletic attitudes in either gender. This furthers the evidence that media, mainly television, may relate to the body ideal of both genders and that women's wish to be thin has morphed into a desire to be thin and toned. Overall, it seems that media and the internalization of body ideals may have an impact on drive for muscularity in men and women. By understanding relationships between the frequency of media exposure and women and men's drive for muscularity, clinicians can pinpoint external influences on and triggers of body dissatisfaction, body dysmorphia, and eating disorders.

References

- Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure in males' body image. *Journal of Social and Clinical Psychology*, 23, 7-22.
- Arbour, K. P., & Ginis, K. A. M. (2006). Effects of exposure to muscular and hypermuscular media images on young men's muscularity dissatisfaction and body dissatisfaction. *Body Image*, *3*, 153-161.
- Botta, R. A. (1999). Television images and adolescent girls' body image disturbance. *Journal of Communication*, 49, 22-41.
- Botta, R. A. (2003). For your health? The relationship between magazine reading and adolescents' body image and eating disturbances. *Sex Roles*, 48, 389-399.
- Choi, P. Y. L. (2000). Femininity and the physically active woman. London: Routledge.
- Daniels, E. A. (2012). Sexy versus strong: What girls and women think of female athletes. Journal of Applied Developmental Psychology, 33(2), 79-90.
- Daniel, S., & Bridges, S. K. (2010). The drive for masculinity in men: Media influences and objectification theory. *Body Image*, 7, 32-38.
- Festinger, L. (1954). A theory of social comparison processes. Human Relations Human Relations, 7(2), 117-140.
- Gruber, A. J. (2007). A more muscular female body ideal. In J.K. Thompson and G. Cafri (eds.), *The muscular ideal: Psychological, social, and medical perspectives* (pp. 217-234). Washington, DC: American Psychological Association.
- Hargreaves, D. A., & Tiggemann, M. (2004). Idealized media images and adolescent body image: "Comparing" boys and girls. *Body Image*, *1*, 351-361.
- Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication*, 47, 40-67.
- Hatoum, I. J., & Belle, D. (2004). Mags and abs: Media consumption and bodily concerns in men. Sex Roles, 51, 397-407.
- Hawkins, N., Richards, P. S., Granely, H. M., & Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating Disorders*, 12, 35-50.
- Hobza, C. L., & Rochlen, A. B. (2009). Gender role conflict, drive for muscularity, and the impact of ideal media portrayals on men. *Psychology of Men and Masculinity*, *10*, 120-130.
- Homan, K., McHugh, E., Wells, D., Watson, C., & King, C. (2012). The effect of viewing ultra-fit images on college women's body dissatisfaction. *Body Image*, *9*(1), 50-56.
- Jacobi, L., & Cash, T. F. (1994). In pursuit of the perfect appearance: Discrepancies among the self-ideal percepts of multiple physical attributes. *Journal of Applied Social Psychology*, 24(5), 379-396.
- Juarez[†], L., Soto, E., & Pritchard, M. E. (2012). Drive for muscularity and drive for thinness: The impact of proanorexia websites. *Eating Disorders: Journal of Treatment and Prevention, 20*, 99-112.
- Kyrejto, J. W., Mosewich, A. D., Kowalski, K. C., Mack, D. E., & Crocker, P. E. (2008). Men's and women's drive for muscularity: Gender differences and cognitive and behavioral correlates. *International Journal Of Sport And Exercise Psychology*, 6(1), 69-84.
- Levine, M. P., & Smolak, L. (1996). Media as a context for the development of disordered eating. In L. Smolak, M. P. Levine & R. Striegel-Moore (Eds.), *The developmental psychopathology of eating disorders: Implications for research, prevention, and treatment.* (pp. 235-257). Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc.
- Levine, M. P., & Smolak, L. (2005). *The prevention of eating problems and eating disorders : Theory, research, and practice*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Markula, P. (1995). Firm but shapely, fit but sexy, strong but thin: The postmodern aerobicizing female bodies. Sociology of Sport Journal, 12(4) 424-453.
- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health, 48*(6), 297-304.
- Morry, M. M., & Staska, S. L. (2001). Magazine Exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioral Science*, 33, 269-279.
- Neighbors, L. A., & Sobal, J. (2007). Prevalence and magnitude of body weight and shape dissatisfaction among university students. *Eating Behaviors*, 8(4), 429-439.
- Olivardia, R., Pope Jr., H. G., Borowiecki III, J. J., & Cohane, G. H. (2004). Biceps and body image: The relationship between muscularity and self-esteem, depression, and eating disorder symptoms. *Psychology of Men and Masculinity*, 5(2), 112-120.

- Peterson, K. A., Paulson, S. E., & Williams, K. K. (2007). Relations of eating disorder symptomology with perceptions of pressures from mother, peers, and media in adolescent girls and boys. *Sex Roles*, *57*, 629-639.
- Pritchard, M. E., & Neilsen[†], A. (2012). Predicting exercise dependence in athletes v. non-athletes. Commentary. In R. Schinke, Sports Psychology Insights (pp. 327-336). Hauppauge, NY: Nova Science Publishers.
- Spettigue, W., & Henderson, K. A. (2004). Eating disorders and the role of the media. *The Canadian Child and* Adolescent Psychiatry Review, 13, 16-19.
- Steinfeldt, J. A., Carter, H., Benton, E., & Steinfeldt, M. (2011). Muscularity beliefs of female college student-athletes. Sex Roles, 64(7-8), 543-554.
- Thompson, J., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance.* Washington, DC: American Psychological Association.
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The sociocultural attitudes towards appearance scale-3 (sataq-3): Development and validation. *International Journal of Eating Disorders*, *35*(3), 293-304.
- Tiggemann, M. (2003). Media exposure, body dissatisfaction, and disordered eating: Television and magazines are not the same. *European Eating Disorders Review*, 11, 418-430.
- Vaughan, K. K., & Fouts, G. T. (2003). Changes in televisions and magazine exposure and eating disorder symptomatology. Sex Roles, 49, 313-320.

Table 1

Variable	Women Mean	Women sd	Men Mean	Men sd	t	р
Teen Magazines	.35	.62	.01	.09	-6.20	.000
Women's Beauty Magazines	1.07	1.30	.11	.40	-8.34	.000
Women's Fashion Magazines	1.02	1.30	.12	.47	-7.40	.000
Women's Health Magazines	.84	1.36	.24	.56	-4.73	.000
Entertainment Magazines	.34	.52	.16	.45	-3.12	.002
Men's Health Magazines	.02	.15	.40	.76	6.55	.000
Men's Fashion Magazines	.02	.13	.07	.31	2.15	.033
Sports Magazines	.12	.42	.58	.80	6.52	.000
Total Magazines	2.57	2.78	1.56	2.00	-3.48	.001
Sports Television	2.58	2.89	4.81	3.0	6.57	.000
Entertainment Television	3.62	2.68	1.68	1.47	-7.39	.000
Image-Focused Television	2.31	1.99	.87	1.05	-7.48	.000
Total Television	6.20	4.22	6.49	3.49	.65	.518

Independent-samples t-tests between gender and media subcategories.

Table 2

	1	2	3	4	5	6	7	8	9
1. DMS	-	.23**	.23**	.19**	.15*	.23**	.32***	.20**	.15*
2. Total TV	.17†	-	.68**	.74**	.78**	.20**	.26**	.11	.22**
3. Image-Focused TV	.22*	.41*	-	.94**	.12	.33**	.19*	.22**	.36**
4. Entertainment TV	.16	.51**	.85**	-	.15*	.37**	.25**	.25**	.33**
5. Sports TV	.12	.91***	.06	.11	-	060	.15*	07	.01
6. General Internalization	.20*	.01	.02	.11	.00	-	.64**	.76**	.65**
7. Athlete Internalization	.39***	.14	01	05	.18*	.60**	-	.57**	.47**
8. Pressure	.09	.03	.06	.10	01	.54**	.32**	-	.43**
9. Information	.23**	.25**	.13	.15	.22*	.44**	.39**	.31**	-

Correlations between television use, SATAQ, and drive for muscularity

Note: DMS=Drive for Muscularity Scale

 $\dagger p=.053$, *p < 0.05; **p < 0.01, ***p < 0.001; correlations for women are above and correlations for men are below diagonal.

Table 3

Correlations between magazines read, SATAQ, and drive for muscularity

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. DMS	-	.09	.01	.10	.13	84	.13	08	.10	.12	.23**	.32**	.20**	.14*
2. Teen Magazine	.02	-	.43**	.45**	.14	.33**	02	00	.76	.53**	.22**	.16*	.19*	.22**
3. Women's Beauty	06	.20*	-	.95**	.63**	.38**	01	01	.20**	.88**	.30**	.15	,23**	.31**
Magazine 4. Women's Fashion	052	.17	.90**	-	.53**	.35**	00	00	.17*	.83**	.33**	.12	.27**	.32**
Magazine 5. Women's Health Magazine	.04	04	.34**	.26**	-	.22*	.18*	10	.33**	.79**	.14	.17*	.11	.17*
6. Entertain Magazine	02	.37**	.40**	.41**	.17	-	10	08	.28**	.56**	.20**	.13	.11	.16*
7. Men's Health Magazine	.20*	.20*	.22*	.14	.55**	.17	-	02	04	.08	07	10	10	1.20*
8. Men's Fashion Magazine	02	02	.20*	.38**	01	.03	.05	-	04	01	05	07	10	06
9. Sports Magazine	.15	.16	.10	.05	.21*	.28**	.28*	01	-	.42**	03	.13	07	.01
10. Total Magazine	.13	.29**	.54**	.48**	.67**	.54**	.74**	.21*	.65**	_	.27**	.20**	.20**	.27**
11. General Internalization	.20*	.04	.04	.11	.08	.13	03	.04	02	.05	-	.65**	.76**	.65**

12. Athlete Internalization	.39**	.00	.07	.08	.03	.04	.05	.05	.12	.60**	.60**	-	.57**	.43**
13. Pressure	.09	.11	.06	.04	.02	.09	.00	01	04	.54**	.54**	.32**	-	.43**
14. Information	.23**	.10	.02	.04	.01	.19*	.03	.01	.23**	.44	.44**	.40**	.31**	-

Note: DMS=Drive for Muscularity Scale p < 0.05; p < 0.01, p < 0.001; Correlations for women above diagonal and correlations for men below diagonal.

Table 4

	Gender								
	W	vomen	Me	en					
	ΔR^2	ß	ΔR^2	ß					
Step 1	.05		.04						
Total Television		.22**		.19*					
Step 2	.12		.17						
Total Television		.15*		.13					
Internalization Athlete	e	.28***		.37***					
Total R ²		.12	.1	7					
n		176	12	2					

Hierarchical Regression Analysis Predicting Drive for Muscularity from Total Television Watched and Internalization Athlete (Mediator Model)

p* < 0.05; *p* < 0.01; ****p* < 0.001