

Television Viewers' Ideal Body Proportions: The Case of the Curvaceously Thin Woman

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Dozens of studies have linked ideal-body media exposure to the idealization of a slim female figure, but none have examined the proportions of this figure. College women's and men's exposure to ideal-body images on television was correlated with their perceptions of the ideal female bust, waist, and hip sizes and their approval of surgical body-alteration methods. For women, exposure to ideal-body images on television predicted the choice of a smaller waist and hips, and either a larger bust (for those who perceived themselves to be smaller-busted) or a smaller bust (for those who perceived themselves to be larger-busted). For both women and men, exposure to ideal-body images on television predicted approval of women's use of surgical body-alteration methods such as liposuction and breast augmentation.

KEY WORDS: body image; television; cultivation; women; bust size.

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—WonderBra advertisement

The ideal American woman is not only thin, she is thin with specific bust, waist, and hip proportions that, if we are to believe the makers of the WonderBra, need correction if they stray from their ideal dimensions by as little as 2 in. It is outside the scope of this paper to explore the origin of the 36–24–36-in. ideal female body, but it bears mentioning that this particular configuration is not as balanced as it may appear because it represents a woman who, by garment industry standards, simultaneously wears a size 4 (hips), a size 2 (waist), and a size 10 (bust). She represents a sexual ideal, a fantasy, a nonrealistic woman who is nonetheless used by real women as a point of comparison in their efforts to “improve” their bodies. Given the discrepancy between the upper and lower halves of this ideal, women's efforts to mold their bodies to these proportions must include not only dieting to whittle down the lower bodily stratum, but creative methods of simultaneously main-

taining an average-sized upper stratum. At the same time that the prevalence of eating disorders is at an all-time high (Gleaves, Miller, Williams, & Summers, 2000), more and more women are turning to breast-reduction surgery, breast augmentation surgery, and lipoplasty (also known as liposuction) to reconfigure their bodies.

Studies of young adults' perceptions of the ideal female figure suggest that a slim body with comparatively large breasts indeed sets the standard. Jourard and Secord (1955) reported that a sample of women rated their ideal waist and hips as significantly smaller than their actual waist and hips; in contrast, they rated their ideal bust as larger. There is a cap to the “largeness” of the ideal bust, however. Koff and Benavage (1998) found that among European American and Asian American women, both large and small bustedness were associated with lower breast size satisfaction than was medium bustedness.

Mass Media and the Thin Ideal

Where do young people learn about the skinny-yet-medium-busted ideal? Most are likely to have learned about this body ideal through the mass media.

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Television programs such as *Baywatch* and Comedy Central's *The Man Show* are just two of the many outlets that broadcast or illustrate body ideals. A number of important studies (e.g., Harrison & Cantor, 1997; Stice, Schupak-Neuberg, Shaw, & Stein, 1994) have shown that exposure to ideal-body media is linked to the drive for thinness among women and the preference, among men, for thinness in women.

Content analyses of television and magazines show that thinness has become the norm, and the most desirable or successful female characters and media personalities are typically thin. Silverstein, Perdue, Peterson, and Kelly (1986) reported that the body shape standard on television is slimmer for women than for men. In their study, two independent coders rated 69% of female characters, but only 17% of male characters, as conspicuously thin. Thinness is portrayed as the female ideal not only through depictions of thinness as attractive and virtuous but also through depictions of fatness as disgusting and worthy of ridicule. Fouts and Burggraf (1999, 2000) analyzed television situation comedies and found that thinner female characters received more positive comments from male characters than did heavier female characters, whereas heavier female characters received more *negative* comments from male characters than did thinner characters.

Further, results of both surveys and experiments show that exposure to media images of the female body ideal is linked among female audience members to the desire to be slimmer. Harrison and Cantor (1997) measured thin-ideal television and magazine exposure and thinness-favoring attitudes and behaviors. They reported that exposure to thin-ideal media images predicted college women's tendency to idealize thinness. This relationship remained even when selective exposure to thin-ideal media (based on interest in fitness and dieting as media topics) was controlled. Moreover, McCreary and Sadava (1999) reported a positive correlation between television viewing and young women's and men's belief that they were overweight, regardless of their actual weight.

Cause-and-effect relationships are best demonstrated within experimental research, and there is plenty of experimental research on the effects of thin-ideal media images on young women's physical self-perceptions. Irving (1990) reported that undergraduate women exposed to slides of thin models reported poorer subsequent physical self-evaluations. Stice and Shaw (1994) found that exposure to photos of thin models increased negative mood and body dissatisfaction among female undergraduates. These findings

have been replicated for a number of dependent measures, including increased preoccupation with thinness (Turner, Hamilton, Jacobs, Angood, & Dwyer, 1997) and poorer body image (Cattarin, Thompson, Thomas, & Williams, 2000). Women are not the only ones who respond this way to images of female attractiveness. Kenrick and Gutierrez (1980) found that exposure to attractive actresses (relative to controls) led men to rate an average-looking woman as less attractive, which supports the hypothesis that exposure to highly idealized images produces a contrast effect that works against the average woman.

Finally, the way young women perceive their bodies to begin with can moderate the effects of thin-ideal media on their physical self-evaluations. Henderson-King and Henderson-King (1997) found that participant weight functioned as a moderator of the effects of exposure to slides that depict ideal-body advertising images. Relative to participants in a control condition composed of advertisements with nonhuman images, female undergraduates in the ideal-body condition reported more negative physical self-evaluations if they were heavier, whereas those ideal-body condition participants who were thinner actually felt better about themselves after exposure. This finding speaks to the need to factor body mass and perceived body size into analyses of the relationship between ideal-body media exposure and body cognitions.

Importance of Studying the Curvaceously Thin Ideal

A focus on the ideal female body as merely thin paints an incomplete picture, however. The size 10–2–4 standard of female beauty suggests that the female body ideal is in fact “curvaceously thin,” in that her lower half is proportionately thin compared to her upper half. Although she possesses an extremely small waist and narrow hips, she possesses an average bustline. To complement the studies of thinness in the mass media, a unique series of studies has focused on specific icons of American female beauty whose body measurements were public and therefore available for analysis. These are *Playboy* magazine centerfold models and Miss America pageant contestants. In the first of these studies, Garner, Garfinkel, Schwartz, and Thompson (1980) reported a significant decrease in the body measurements and weights of centerfold models and pageant contestants between 1959 and 1978. Wiseman, Gray, Mosimann, and Ahrens (1992) updated this study by documenting a continued decline in centerfold models' and pageant contestants' weights between 1979 and 1988. More recently,

Spitzer, Henderson, and Zivian (1999) analyzed the body mass indices (BMIs or weight-to-height ratios) of centerfold models and pageant contestants, and found that the body sizes of pageant winners continued to decrease through the 1990s, whereas centerfold models remained below average in weight.

The only researchers to report actual bust, waist, and hip measurements (rather than BMIs or ratios) were Garner et al. (1980). They reported average bust, waist, and hip measurements for *Playboy* centerfold models of 90.8, 58.6, and 89.3 cm, respectively, very close to the 36–24–36-in. ideal. This ideal represents a woman with bust-to-waist and hip-to-waist ratios of 1.5; and three other studies have documented media ideals that are close to this ratio. Silverstein, Perdue, Peterson, and Kelly (1986) reported bust-to-waist ratios that varied over time, but centered around 1.5. Moreover, Silverstein, Perdue, Peterson, Vogel, and Fantini (1986) showed that the bust-to-waist ratio of models depicted in popular women's magazines changed over time from as little as 1.1 to over 2.0, but they also centered around 1.5. More recently, Barber (1998) reported similar variation in the bust-to-waist ratios of Miss America pageant winners, *Vogue* models, and *Playboy* centerfold models, but again, these ratios centered around 1.5. Thus, the curvaceously thin female figure, which consists of a small waist and hips coupled with a medium bust, appears to have dominated portrayals of the ideal female, both historically and recently.

What is curious about this ideal figure is its unusual fat distribution. Breasts are composed mainly of fat, not glandular tissue (Sherwood, 1993). Because breast fat is positively correlated with total body fat (Katch et al., 1980), it is impossible to lose body fat without reducing breast size. Thus, women who wish to meet the skinny-yet-busty body ideal generally cannot do so through diet and exercise alone. The demands of meeting this ideal put women at risk for doing "double damage" to their bodies, through extreme dieting or disordered eating to reduce the lower half and surgery or the use of potentially dangerous drugs or herbal treatments to maintain or increase the upper half. It is therefore important to understand not only what drives women and men to embrace this ideal, but also what body-alteration methods they would approve of in the name of obtaining it.

The Cultivation Approach

Although the curvaceously thin female body ideal seems to be widely embraced, it has not yet been

empirically linked with media exposure. That was the purpose of this study. According to cultivation theory (Gerbner, Gross, Morgan, & Signorielli, 1994), television exposure "cultivates" beliefs, attitudes, and ideals about the real world that match the media-depicted world. According to this theory, the real-world perceptions of heavier media users should correspond more closely with the media-depicted world than should the perceptions of lighter media users. Predictions that can be derived from cultivation theory are typically straightforward: Media exposure will be positively correlated with perceptions of the world and its components, such that these perceptions match the way the world is portrayed in the media. Because content analyses have shown that extreme thinness, coupled with average-bustedness, is the norm on television, it was predicted that:

H1. Exposure to ideal-body television images will be positively associated with women's and men's idealization of a slimmer female waist and hips, but not a smaller bust.

Regarding ideal bust size, a specific pattern of findings was predicted for female participants, based on the cultivation theory construct of "mainstreaming." Mainstreaming is described by cultivation theorists as the typical pattern of worldview change that cultivation, as a process, takes (Gerbner et al., 1994). Mainstreaming occurs when groups who are initially divergent in their worldviews come to hold similar views with greater television exposure. Their views converge to reflect the "reality" that is most commonly represented on television. If this media worldview is somewhere in the middle of a range of possibilities, extremists on either side should, according to theory, become less extreme and more moderate in their views with increased television exposure.

The television "worldview" of the ideal female waist and hips could be described as relatively extreme: thinner is better. In contrast, the television worldview of the ideal female bust is more moderate: medium is ideal. Thus, following the mainstreaming rationale, it was predicted that women starting from divergent personal realities regarding bust size would, with increased exposure to ideal-body television, converge upon a medium bust as their ideal.

H2. For larger-busted women, exposure to ideal-body television images should predict a smaller ideal bust size, whereas for smaller-busted women, exposure to

ideal-body television images should predict a larger ideal bust size.

Because extremely thin waists and hips coupled with medium-sized breasts are the television norm, and because extreme measures are frequently required to attain this rather unnatural body shape, it was also predicted that exposure to ideal-body television images would be related to the approval of nondieting methods for changing the body. In particular, exposure to ideal-body television images was expected to predict approval of surgical methods of changing the breasts, waist, and hips, such as breast surgery (augmentation or reduction) and liposuction.

H3. Exposure to ideal-body television images should be positively associated with women's approval of using, and men's approval of women's use of, surgical body-alteration methods such as breast surgery and liposuction.

Finally, following the mainstreaming rationale, it was predicted that the bust-specific body-alteration methods women approved of would be a function of their own perceived bust size, so that ideal-body television exposure would be related to approval of different methods depending upon whether women perceived themselves to larger- or smaller-busted.

H4. For larger-busted women, exposure to ideal-body television images should predict approval of breast reduction surgery, whereas for smaller-busted women, exposure to ideal-body television images should predict approval of breast augmentation surgery.

METHOD

Participants

Undergraduates enrolled in introductory communication and psychology courses at a large Midwestern university were recruited with the offer of course credit in exchange for participation. The total sample consisted of 149 women (mean age 19.56) and 82 men (mean age 20.04). Most of the participants were White (68.5% of women and 73.2% of men), and their mean BMIs fell within the normal range, at 22.17 for women and 23.89 for men.

Measures

Whole-Figure Drawings

A set of nine adult female figure drawings was presented to each participant. The drawings were photocopies of those validated by Stunkard, Sorensen, and Schulsinger (1983), and they ranged from extremely thin to obese. Women were asked which of the nine figures looked most like their own figure, and which looked like the figure they would "most like to have" (i.e., their ideal figure). Men were asked which of the nine figures looked like the female figure they found most attractive (i.e., their ideal female figure).

The BodyBook

The whole-figure drawings by Stunkard et al. (1983) range from extremely thin (with small breasts) to obese (with large breasts), and offer no way to separate bust size from waist and hip sizes. To solve this problem, the BodyBook was constructed. The BodyBook is a spiral-bound, 9.5-by-11-in., hard-laminated, three-part flipbook that allows participants to choose separate bust, waist, and hip sizes. The top third of the book depicts stylized line drawings of nine different bust sizes, framed within a pair of shoulders that remain the same size in all drawings (100 mm wide). Below the breasts are two vertical lines that represent a ribcage that is 72 mm wide at its narrowest point, just above the waist panel. The only part of the bust drawings that varied was the size of the breasts. These drawings were arranged in random order within the book so that the first image was not necessarily the smallest or largest. There were two random orders for both the bust and hip drawings; subsequent analyses showed that there were no effects of order. The bottom third of the book depicted stylized line drawings of nine different hip widths. Hip width variation was a function of how widely the hip curves spread out from their starting points, just below the waist panel. The intervals between successive bust and hip drawings increased slightly with each size increase, in order to facilitate visual discrimination between the images.³

The middle section of the books consisted of blank panels for participants to draw in waists to connect their chosen bust and hip drawings. Participants used a wet-erase marker for this task; when they were finished, they handed their completed book to a research assistant, who measured the width of the

³A sample page from the BodyBook is available from the author.

drawn-in waists (in millimeters), recorded this measurement, and cleaned the ink off the books for reuse. Concave waist drawings were measured at their narrowest point, and convex drawings were measured at their widest point.

Women were first asked to indicate which figure looked most like their own by choosing the appropriate bust and hip drawings, and then drawing in the waist that connected these images in a way that reflected their own perceived body contours. They were then asked to repeat this procedure for their ideal bust, waist, and hips. Test-retest reliabilities for women's *own* bust, waist, and hip sizes were .95, .65, and .79.⁴ For women's *ideal* bust, waist, and hip sizes, these coefficients were .74, .85, and .75, respectively. Men were asked to indicate which of the nine bust and hip drawings looked like the female figure they found most attractive, and then to draw in the waist that completed that figure. Test-retest reliability coefficients for men's ideal bust, waist, and hip sizes were .74, .95, and .75, respectively.

Approval of Body-Alteration Methods

Women were presented with the following item: "If cost were not an issue, how likely would you be to do each of the following to improve your appearance?" Response options ranged from 0 (*highly unlikely*) to 5 (*I have already done this*). There were 12 methods listed, including leg-length surgery, rib removal, liposuction, breast reduction surgery, breast augmentation surgery (implants), diet, exercise, and wearing a shaper/girdle, wearing control-top pantyhose, wearing a padded bra, wearing a minimizing bra, and wearing height-altering shoes. Men were presented with the same 12 methods, preceded by the following question: "To what extent do you approve or disapprove of the following measures women can take to improve their appearance?" Response options ranged from 0 (*strongly disapprove*) to 5 (*I have urged a woman in my life to do this*).

Exposure to Ideal-Body Television Images

The procedure described by Harrison (2000) was followed for measuring and calculating exposure

to ideal-body television images. This procedure has three steps: First, participants report their habitual exposure to popular television shows. Second, a separate, impartial sample of coders (not research participants) rates each program according to how thin they perceive its female main characters to be. Third, the mean ratings supplied by the coders are multiplied by participants' frequency-of-viewing scores for each show, and the crossproducts for all of the shows are added for each participant, which creates a single variable that reflects both frequency of viewing and extremity of thinness in the programs viewed.

Frequency of viewing (0 = *never* to 4 = *regularly*) was measured for 36 Nielsen top-rated programs for the winter/spring season of 2000. These programs were chosen because they were popular among young adults and because they contained a diverse sampling of the body types featured among characters in popular television entertainment. Following Harrison's three-step procedure (Harrison, 2000), 64 college undergraduates (61% women) in a research course were recruited to code the body sizes of the female main characters in each of the 36 programs. Ratings were made on a 7-point scale that ranged from 1 (*conspicuously fat*) to 7 (*conspicuously thin*); the midpoint was designated "average." Coders were told to consider a character's body size "conspicuous" if characters on the show periodically made reference to it as part of the character's identity, or if the character's body size was regularly adorned in such a way as to draw viewer attention to its size. There were no differences in the ratings by sex of coder, so mean ratings were calculated for the entire coder sample.⁵

Along with exposure, interest in television topics related to the attainment of an ideal body shape was measured following the rationale of Harrison and

⁵Starting with the "thinnest," the programs and their corresponding ratings were *Ally McBeal*, $M = 6.84$; *Melrose Place*, $M = 6.77$; *Baywatch*, $M = 6.62$; *Popular*, $M = 6.60$; *Friends*, $M = 6.48$; *Beverly Hills 90210*, $M = 6.28$; *Charmed*, $M = 6.13$; *Moesha*, $M = 6.12$; *Felicity*, $M = 5.98$; *Buffy the Vampire Slayer*, $M = 5.88$; *Just Shoot Me*, $M = 5.78$; *Suddenly Susan*, $M = 5.76$; *Dharma and Greg*, $M = 5.60$; *Jesse*, $M = 5.45$; *Once and Again*, $M = 5.39$; *Sabrina the Teenage Witch*, $M = 5.31$; *Third Rock from the Sun*, $M = 5.21$; *Dawson's Creek*, $M = 5.20$; *Two Guys and a Girl*, $M = 5.11$; *Frasier*, $M = 4.98$; *Veronica's Closet*, $M = 4.98$; *Will and Grace*, $M = 4.94$; *The Practice*, $M = 4.92$; *Stark Raving Mad*, $M = 4.79$; *Get Real*, $M = 4.72$; *Law and Order*, $M = 4.67$; *ER*, $M = 4.25$; *Third Watch*, $M = 4.09$; *Judging Amy*, $M = 3.76$; *X-Files*, $M = 3.67$; *Chicago Hope*, $M = 3.41$; *Everybody Loves Raymond*, $M = 3.38$; *JAG*, $M = 3.20$; *King of Queens*, $M = 3.09$; *Touched by an Angel*, $M = 2.44$; and *Drew Carey*, $M = 1.79$.

⁴The lower test-retest reliability coefficient for perceived own waist size might be explained by week-to-week fluctuations in abdominal girth that results from changes in eating patterns, the menstrual cycle, or other factors.

Cantor (1997), who argued that significant correlations between exposure to ideal-body images in the media and the tendency to favor a thin body type might simply reflect the fact that people who already embrace the thin ideal seek out media that reflect this ideal. By measuring and controlling interest in these media topics, then, one is able to discount this alternative explanation for the findings. Participants were asked how interested they would be in a hypothetical new television show if it covered each of nine separate topics. Among the topics listed were dieting, nutrition, fitness, and exercise, all of which are related to the attainment of an ideal body shape. Scores for these four topics were summed to create one measure of interest ($\alpha = .86$ for women, $\alpha = .85$ for men).

Procedure

Participants were asked to come at their convenience to a large campus laboratory, where they were tested in groups of 5–10. A research assistant gave each participant a complete testing packet, and allowed him or her to complete it undisturbed. Half of the participants received the figure drawings measure first, followed by the BodyBook measures; the other half received the BodyBook measures first. There were no effects of order. On average, participants required about 30 min to complete the questionnaire. A week later, participants were asked to return to complete only the BodyBook measure, so that test-retest reliability estimates could be obtained. All except four participants (two women and two men) returned.

RESULTS

Figure Ideals

Women's and men's figure ratings are displayed in Table I. Women desired a significantly smaller figure than their own, yet if thinness were the only body dimension that mattered, one should observe a desire to be smaller all over. The BodyBook measures showed that this was not the case. Women desired a waist and hips significantly smaller than their own, but at the same time wanted a significantly larger bust. When asked which of the nine whole-figure drawings they found most attractive, men chose a larger ideal than did women. However, examination of the BodyBook measures showed that men's idealization of a larger female body was rooted in their choice of a

Table I. Mean Whole-Figure, Bust, Waist, and Hip Size Ratings

Variable	Ratings [$M(SD)$]		
	Women's own	Women's ideal	Men's ideal
Whole figure	3.78 _b (1.08)	2.76 _a (0.75)	3.32 _b (0.65)
BodyBook bust	3.63 _a (1.83)	4.95 _b (1.39)	5.72 _c (1.12)
BodyBook waist	69.39 _b (7.75)	65.57 _a (6.87)	69.40 _b (5.61)
BodyBook hips	3.91 _b (1.58)	2.82 _a (1.31)	2.98 _a (1.14)

Note. Whole-figure, bust, and hip size ratings ranged from 1 to 9. Waist size ratings were measured in millimeters. Within rows, means with different subscripts differ at $p < .05$ by the Tukey procedure.

larger waist and bust; men's and women's ideal hip size ratings did not differ.

Television Viewing and Ideal Body Proportions

To test the hypothesis that thin-ideal television exposure would be linked to the desire for a smaller waist and hips, multiple regression analyses were conducted with BMI and interest in television topics related to the attainment of an ideal body shape entered on the first step and exposure to ideal-body television images entered on the second step. To provide a benchmark for comparison, the first criterion variable was the ideal whole-figure rating. As expected, exposure to ideal-body television images predicted women's desire for a smaller figure, $\beta = -.20$, $\Delta R^2 = .04$, $p < .01$. What the whole-figure measure fails to reveal, however, is exactly which bodily proportions women wanted reduced. This question was answered with the BodyBook measures as criteria. With ideal hips, waist, and bust as separate criterion variables, regression analyses revealed that exposure to ideal-body television images significantly predicted women's desire for a smaller waist, $\beta = -.17$, $\Delta R^2 = .03$, $p < .05$, and hips, $\beta = -.17$, $\Delta R^2 = .03$, $p < .01$, but not a smaller bust, $\beta = -.06$, $\Delta R^2 = .01$, *ns*. To test the same hypothesis for men, identical multiple regression analyses were conducted without controlling for BMI.⁶ Although the coefficients were in the predicted direction for overall figure size ($\beta = -.13$), hip size ($\beta = -.11$), waist size ($\beta = -.05$), and bust size ($\beta = .08$), none of these results were significant. The first hypothesis was therefore supported for women but not for men. The fact that exposure to ideal-body television images predicted a smaller whole-body rating for women may be due to the fact

⁶BMI was not controlled in analyses involving men because there was no reason to expect men's own BMI to act as a confound between their media exposure and their ideal proportions for women.

that the whole-figure scale forces women who want to choose a thinner figure to choose one that has a smaller bust as well.

The purpose of this study was not to single out specific television shows, but it is interesting that, in spite of the fact that exposure to ideal-body television images in general was unrelated to men's ideal figure ratings, viewing certain programs *was* related to men's ideals. For instance, viewing of the program *Felicity*, whose main character is small-busted, was correlated with the idealization of a smaller bust, $r = -.28$, $p < .01$. In contrast, viewing of *Baywatch*, known for its large-busted lifeguards, was associated with the idealization of a larger bust, $r = .29$, $p < .01$. The idealization of a smaller figure overall was linked with viewing of both *Ally McBeal*, $r = -.36$, $p < .001$, and *Beverly Hills 90210*, $r = -.35$, $p < .001$, both of which have been criticized for portraying women who are extremely thin.

Differences Based on Own Perceived Bust Size

Depending on whether their own bust was larger or smaller to begin with, women's exposure to ideal-body television images was expected to be linked to their idealization of either a smaller or larger bust. The lack of significant findings in the above regression analyses for women's ideal bust size could be due to different processes occurring among smaller- and larger-busted women, processes that cancel each other out when the sample is combined as a whole. To test for this interaction between own perceived bust size and exposure to ideal-body television images, an ANOVA was performed with ideal bust size as the dependent measure and exposure to ideal-body television images (split at the median into lighter and heavier viewing categories) and own perceived bust size (split by thirds into lowest, middle, and highest size categories) as factors. The main effects were not significant but, in support of hypothesis two, the predicted interaction was significant, $F(2, 142) = 3.29$, $p < .05$, $\eta^2 = .05$. A clear mainstreaming pattern can be seen in Fig. 1. This pattern reflects the converging of divergent groups upon a similar belief, attitude, or ideal with greater television use. The ideal here is medium-bustedness. The more ideal-body television women viewed, the more both larger- and smaller-busted participants desired a medium bust. Medium-busted women, in contrast, maintained the medium-busted ideal regardless of amount of television viewing.

Approval of Body-Alteration Methods

It was predicted that exposure to ideal-body television images, with their emphasis on female bust, waist, and hip proportions (to the exclusion of other aspects of body build), would be positively correlated with acceptance of surgical methods for altering the bust, waist, and hips. To test this for women, semipartial correlations were computed between exposure to ideal-body television images and the body-alteration methods; BMI and interest in television topics related to the attainment of an ideal body shape were controlled. Exposure to ideal-body television images was positively related to women's approval of breast surgery, $sr = .28$, $p < .001$, liposuction, $sr = .31$, $p < .001$, and wearing a special bra to change the appearance of bust size, $sr = .20$, $p < .05$, but was not significantly correlated with women's approval of leg-length surgery, $sr = .12$, rib removal, $sr = .09$, diet, $sr = .08$, exercise, $sr = .07$, or wearing a shaper/girdle, $sr = .14$, control-top pantyhose, $sr = .13$, or height-altering shoes, $sr = .07$. For men, semipartial correlations between exposure to ideal-body television images and approval of body-alteration methods were tabulated, and interest in television topics related to the attainment of an ideal body shape was controlled. Exposure to ideal-body television images significantly predicted men's approval of breast augmentation, $sr = .21$, $p < .05$, and liposuction, $sr = .23$, $p < .05$, but did not predict approval of breast reduction, $sr = -.12$, leg-length surgery, $sr = .14$, rib removal, $sr = -.07$, diet, $sr = .00$, exercise, $sr = .13$, or wearing a padded bra, $sr = .04$, minimizing bra, $sr = .00$, shaper/girdle, $sr = .10$, control-top pantyhose, $sr = .07$, or height-altering shoes, $sr = .09$. The third hypothesis was therefore supported for both women and men.

Differences by Own Perceived Bust Size

When the sample of women was split at the median of their own perceived bust size into small-to-medium-busted and medium-to-large-busted groups, different correlations emerged for breast surgery and wearing a special bra. For the small- to medium-busted group, television viewing was significantly correlated with approval of breast augmentation, $sr = .22$, $p < .05$, and wearing a padded bra, $sr = .19$, $p < .05$, but not correlated with approval of breast reduction, $sr = .04$, or wearing a minimizing bra, $sr = .03$. In contrast, for the medium-to-large-busted group, television viewing was significantly correlated

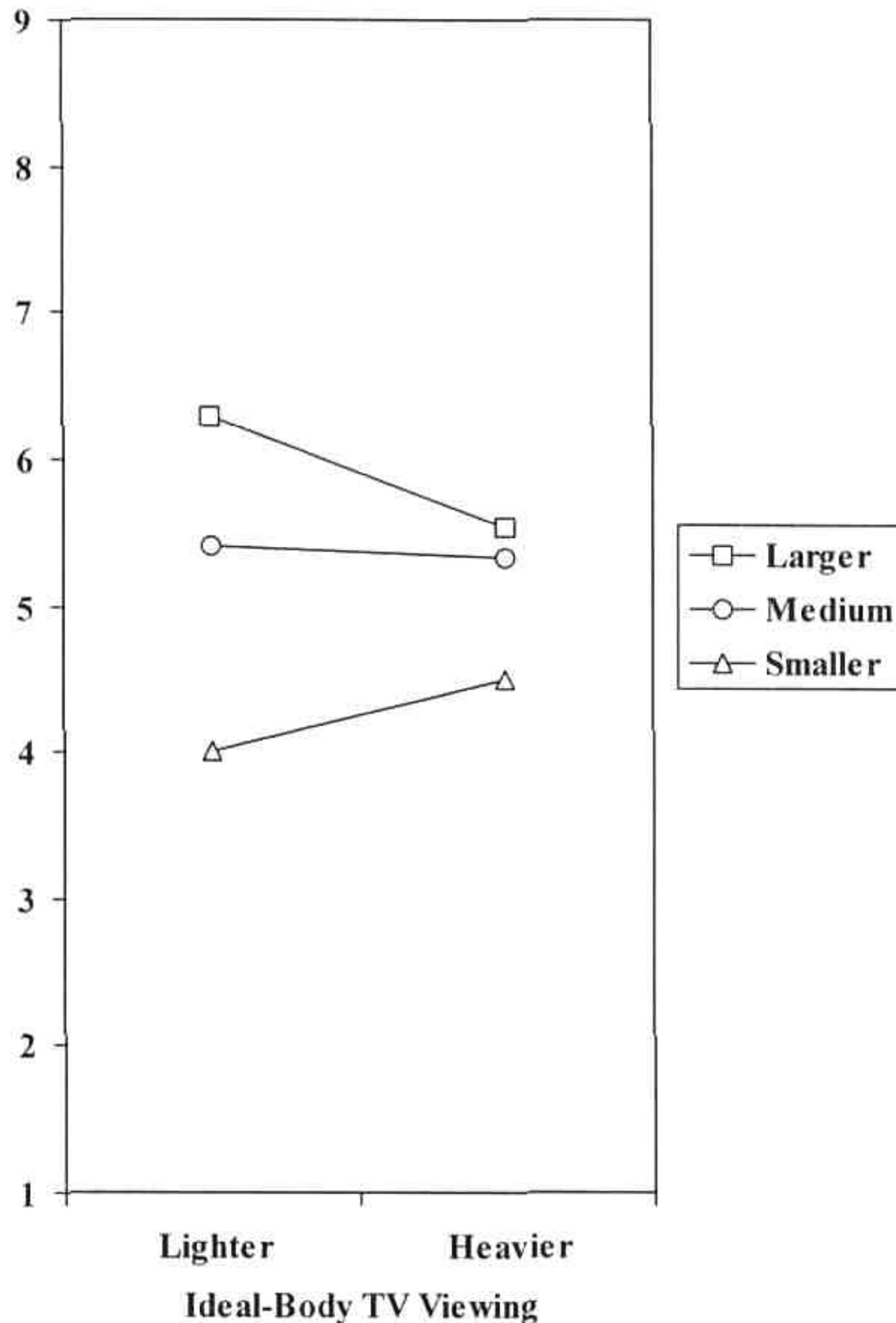


Fig. 1. Mainstreaming of ideal bust size by exposure to ideal-body television images, for women of smaller, medium, and larger bust sizes. *Note.* Among the lighter TV viewers, ideal-bust scores $M = 6.29$, $SD = 0.99$, for larger-busted women; $M = 5.41$, $SD = 0.83$, for medium-busted women; and $M = 4.00$, $SD = 1.30$, for smaller-busted women. Among the heavier TV viewers, ideal-bust scores were $M = 5.53$, $SD = 1.46$, for larger-busted women; $M = 5.53$, $SD = 1.09$, for medium-busted women; and $M = 4.50$, $SD = 1.23$, for smaller-busted women.

with approval of breast reduction surgery, $sr = .27$, $p < .05$, and wearing a minimizing bra, $sr = .26$, $p < .05$, but not correlated with approval of breast augmentation, $sr = .07$, or wearing a padded bra, $sr = -.03$. These findings provide sound support for the fourth hypothesis. Exposure to ideal-body television images predicted acceptance of both surgical and cosmetic methods to change the bust size. This change was in the direction of an increase for women

who perceived themselves to be smaller-busted and a decrease for women who perceived themselves to be larger-busted.

DISCUSSION

In summary, exposure to ideal-body television images predicted women's idealization of a smaller waist, smaller hips, and a medium-sized bust, but it

did not significantly predict men's perceptions of the ideal female figure. However, exposure to ideal-body television images predicted *both* men's and women's approval of surgical body-alteration methods such as breast surgery and liposuction. For larger-busted women, exposure to ideal-body television images predicted approval of breast-reduction methods, whereas for smaller-busted women, the same variable predicted approval of breast-augmentation methods.

The cultivation theory of media effects, including the pattern of mainstreaming, was supported by the findings of this study, but more so for women than for men. One of the assumptions of cultivation theory is that the mass media, and television in particular, present similar systems of stories, so that cultivation researchers usually downplay genre differences (Gerbner et al., 1994). However, the lack of findings for men suggests that there may be other genres that are more important in influencing men's perceptions of the ideal female body proportions. Table I shows that men, like women, preferred a thin lower body paired with a full bust, but unlike women, men's ideals were unrelated to their general exposure to ideal-body television images. It may be that media images do not play a major role in shaping young men's perceptions of the ideal female figure. It may also be that less mainstream media genres, such as soft-core erotica or pornography, contribute more to men's notions of the ideal female body than do the popular prime-time television programs measured here. Indeed, there is reason to suspect that this is the case. Harrison and Cantor (1997) found that men's exposure to "men's entertainment" magazines (e.g., *Playboy*) predicted their anticipated disappointment in meeting a blind date who turned out to be overweight, $r = .16, p < .01$. It is also possible that individual portrayals may be particularly important for men. Viewing of specific programs such as *Baywatch* and *Felicity* was related to men's female-body preferences, whereas the more comprehensive television exposure measure was not. Thus, perhaps there is a sort of "drench" effect (Greenberg, 1988) for men, such that individual portrayals make a disproportionately strong impact on their ideals. Certain female characters or media personalities may function as modern "pin-up girls" and set or change men's standards for the ideal female proportions. It is important, though, that exposure to mainstream television did predict men's acceptance of breast augmentation and liposuction for women. This is problematic because men's approval of these methods may encourage the women in their lives to use them.

The findings in the present study support those of other studies that show that ideal-body media exposure is linked to women's idealization of thinness, but here this idealization is limited to waist and hip size. Overall thinness is not necessarily desired; the ideal waist and hips are small, but the ideal bust is medium-sized. Further, the fact that exposure to ideal-body television images predicted approval of surgical body-alteration methods suggests that eating disorders are not the only potential adverse outcome of exposure to thin-ideal media images. Feeling pressured to change their bodies surgically could put young women at risk for doing "double damage" to themselves, by pairing extreme dieting and disordered eating with potentially risky medical procedures.

Also noteworthy is the fact that the only body-alteration methods predicted by exposure to ideal-body television images were those that directly change the body's proportions. Methods that change overall size (e.g., dieting) or height (e.g., shoes) were unrelated to media exposure. One might argue, then, that rib-removal surgery should also have been related to media exposure. The lack of a relationship here is likely due to a floor effect, because only a few participants reported any degree of approval for rib-removal surgery. Perhaps rib-removal surgery is an idea whose time has yet to come; it will be interesting to see if any future media trends in small-waistedness are accompanied by an increase in public interest in rib-removal surgery. In the meantime, liposuction will probably continue to function as the preferred surgical waist-whittler.

Limitations and Future Directions

This cross-sectional study was meant to uncover relationships between variables rather than to demonstrate cause and effect relationships. Implicit in my theoretical arguments is the assumption that media images of the ideal female body influence viewers' own body ideals, rather than the reverse: body ideals influence media viewing. However, the latter causal chain is not only possible but probable, which is why interest in television topics related to the attainment of an ideal body shape was measured and controlled. The findings therefore demonstrate that even for people who claim to have no interest in such television topics, exposure to ideal-body television images was still linked to thinness-favoring attitudes and approval of surgical body-alteration methods. Still, there is no substitute for experimental research as a follow-up strategy. Researchers interested in extending these

findings would contribute much to our understanding by conducting experiments on the impact of ideal-body media images on perceptions of the ideal female bust, waist, and hip sizes. Moreover, the definition of ideal-body media images should be investigated further in light of the gender differences reported here. Perhaps standard commercial media have an effect on women, whereas men respond mainly to female body portrayals in "male-oriented" entertainment fare such as Comedy Central's *The Man Show*.

In summary, this study replicates others by showing that exposure to ideal-body television images is linked to the idealization of female thinness. Internalization of the thin ideal has been linked to disordered eating (Harrison & Cantor, 1997; Stice et al., 1994), which wreaks tremendous havoc on women's health. But the present study furthers our knowledge by suggesting that there is another potential adverse outcome of exposure to ideal-body media images: approval of risky surgical procedures to obtain the "curvaceously thin" female body ideal. Exposure to ideal-body media images may thus contribute to women's tendency to do "double damage" to their bodies through both extreme dieting and surgery.

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REFERENCES

- Barber, N. (1998). Secular changes in standards of bodily attractiveness in American women: Different masculine and feminine ideals. *Journal of Psychology, 132*, 87-94.
- Cattarin, J. A., Thompson, J. K., Thomas, C., & Williams, R. (2000). Body image, mood, and televised images of attractiveness: The role of social comparison. *Journal of Social and Clinical Psychology, 19*, 220-239.
- Fouts, G., & Burggraf, K. (1999). Television situation comedies: Female body images and verbal reinforcements. *Sex Roles, 40*, 473-481.
- Fouts, G., & Burggraf, K. (2000). Television situation comedies: Female weight, male negative comments, and audience reactions. *Sex Roles, 42*, 925-932.
- Garner, D. M., Garfinkel, P. E., Schwartz, D., & Thompson, M. (1980). Cultural expectations of thinness in women. *Psychological Reports, 47*, 483-491.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1994). Growing up with television: The cultivation perspective. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 17-41). Hillsdale, NJ: Erlbaum.
- Gleaves, D. H., Miller, K. J., Williams, T. J., & Summers, S. A. (2000). Eating disorders: An overview. In K. J. Miller & J. S. Mizes (Eds.), *Comparative treatments for eating disorders* (pp. 1-49). New York: Springer.
- Greenberg, B. (1988). Some uncommon television images and the drench hypothesis. *Applied Social Psychology Annual, 8*, 88-102.
- Harrison, K. (2000). The body electric: Thin-ideal media and eating disorders in adolescents. *Journal of Communication, 50*, 119-143.
- Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication, 47*, 40-67.
- Henderson-King, E., & Henderson-King, D. (1997). Media effects on women's body esteem: Social and individual difference factors. *Journal of Applied Social Psychology, 27*, 399-417.
- Irving, L. M. (1990). Mirror images: Effects of the standard of beauty on the self- and body-esteem of women exhibiting varying levels of bulimic symptoms. *Journal of Social and Clinical Psychology, 9*, 230-242.
- Jourard, S. M., & Secord, P. F. (1955). Body-cathexis and personality. *British Journal of Psychology, 46*, 130-138.
- Katch, V. L., Campaigne, B., Freedson, P., Sayd, S., Katch, F. L., & Behnke, A. R. (1980). Contribution of breast volume and weight to body fat distribution in females. *American Journal of Physical Anthropology, 53*, 93-100.
- Kenrick, D. T., & Gutierrez, S. E. (1980). Contrast effects and judgments of physical attractiveness: When beauty becomes a social problem. *Journal of Personality and Social Psychology, 38*, 131-140.
- Koff, E., & Benavage, A. (1998). Breast size perception and satisfaction, body image, and psychological functioning in Caucasian and Asian American college women. *Sex Roles, 38*, 655-673.
- McCreary, D. R., & Sadava, S. W. (1999). Television viewing and self-perceived health, weight, and physical fitness: Evidence for the cultivation hypothesis. *Journal of Applied Social Psychology, 29*, 2342-2361.
- Sherwood, L. (1993). *Human physiology: From cells to systems*. St. Paul, MN: West Publishing.
- Silverstein, B., Perdue, L., Peterson, B., & Kelly, E. (1986). The role of the mass media in promoting a thin standard of attractiveness for women. *Sex Roles, 14*, 519-532.
- Silverstein, B., Perdue, L., Peterson, B., Vogel, L., & Fantini, R. (1986). Possible causes of the thin standard of bodily attractiveness for women. *International Journal of Eating Disorders, 5*, 907-916.
- Spitzer, B. L., Henderson, K. A., & Zivian, M. T. (1999). Gender differences in population versus media body sizes: A comparison over four decades. *Sex Roles, 40*, 545-565.
- Stice, E., Schupak-Neuberg, E., Shaw, H. E., & Stein, R. I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. *Journal of Abnormal Psychology, 103*, 836-840.
- Stice, E., & Shaw, H. E. (1994). Adverse effects of the media portrayed thin-ideal on women and in cages to bulimic symptomatology. *Journal of Social and Clinical Psychology, 13*, 288-308.
- Stunkard, A. J., Sorensen, T. L., & Schulsinger, F. (1983). Use of the Danish Adoption Register for the study of obesity and thinness. In S. Kety (Ed.), *The genetics of neurological and psychiatric disorders* (pp. 115-120). New York: Raven.
- Turner, S. L., Hamilton, H., Jacobs, M., Angood, L. M., & Dwyer, D. H. (1997). The influence of fashion magazines on the body image satisfaction of college women: An exploratory analysis. *Adolescence, 32*, 603-614.
- Wiseman, C. V., Gray, J. J., Mosimann, J. E., & Ahrens, A. H. (1992). Cultural expectations of thinness in women: An update. *International Journal of Eating Disorders, 11*, 85-89.