

# Thin Ideals in Music Television: A Source of Social Comparison and Body Dissatisfaction

Marika Tiggemann\* and Amy Slater

School of Psychology, Flinders University, Adelaide, Australia

Accepted 26 January 2003

**Abstract:** **Objective:** *The study investigated the impact of thin idealized images of women as presented in music television, a popular form of entertainment for young people.* **Methods:** *A sample of 84 women viewed a videotape containing either appearance music videos (which emphasized appearance and featured thin and attractive women) or nonappearance music videos. The instructional set was also manipulated to encourage or discourage social comparison.* **Results:** *Viewing the appearance music videos featuring thin women led to increased social comparison and body dissatisfaction. Regression analyses showed that the effect of video condition on body dissatisfaction was mediated by the level of comparison processing.* **Discussion:** *The study demonstrated that the content of television programming can have negative consequences for women's body image. In addition, it offered social comparison processing as both a theoretic mechanism and a practical target for intervention.* © 2003 by Wiley Periodicals, Inc. *Int J Eat Disord* 35: 48–58, 2004.

**Key words:** *thin ideals; music television; social comparison; body dissatisfaction*

## INTRODUCTION

Widespread body dissatisfaction among women, particularly with body shape and weight, has been documented in many studies. The findings of these studies add cumulative support to the conceptualization of weight as “a normative discontent” as reported by Rodin, Silberstein, and Striegel-Moore (1985). High levels of body dissatisfaction and disordered eating generally are attributed to sociocultural factors (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Current societal standards for female beauty inordinately emphasize the desirability of thinness, and thinness at such a level as to be increasingly impossible for most women to achieve. As images of the ideal shape presented in the media have become progressively thinner (Wiseman, Gray, Mosimann, & Ahrens, 1992), women have become heavier (Spitzer, Henderson, & Zivian, 1999). Although beauty ideals can be transmitted in many ways (e.g., by parents and peers),

---

\*Correspondence to: Marika Tiggemann, Ph.D., School of Psychology, Flinders University, G.P.O. Box 2100, Adelaide, South Australia, 5001. E-mail: Marika.Tiggemann@flinders.edu.au

Grant sponsor: Australian Research Council.

Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/eat.10214

the mass media are probably the most powerful conveyors of sociocultural ideals. They play an important causal role in body dissatisfaction and disordered eating (Andersen & DiDomenico, 1992; Nemeroff, Stein, Diehl, & Smilack, 1994; Stice, 1994).

The causal role played by the media has been demonstrated by studies that manipulated and assessed the immediate impact of exposure to thin idealized media images. In their meta-analysis of such studies, Groesz, Levine, and Murnen (2002) concluded that there was a small but relatively consistent negative effect on body satisfaction, particularly for certain individuals. Of the 25 studies included in the meta-analysis, 21 employed fashion magazine images (still photographs) as experimental stimuli. Despite television's more pervasive influence, relatively fewer studies have employed televised images of thinness. Nevertheless, those few have likewise found increases in state body dissatisfaction or negative mood following exposure to television commercials (Cattarin, Thompson, Thomas, & Williams, 2000; Hargreaves & Tiggemann, 2002; Heinberg & Thompson, 1995; Lavine, Sweeney, & Wagner, 1999). However, no study has investigated the effect of thin idealized images as portrayed in television program content on mood or body satisfaction.

The current study investigates the impact of thin ideals presented in one of the most popular forms of entertainment for young people, namely, music television. Music television programs (e.g., MTV) target audiences between the ages of 12 and 34, with a median age of 23 (Englis, Solomon, & Ashmore, 1994). Viewers typically report watching between half-an-hour and 2 hr of these programs per day (Sun & Lull, 1986). Content analyses of music videos have shown that, like other forms of popular culture, the portrayal of women is decidedly sexist in orientation with high levels of sex-role stereotyping (Kalof, 1993). In particular, the physical appearance of women is emphasized (Gow, 1996) and they are commonly depicted as thin and attractive, usually provocatively or scantily clad, and often involved in implicitly sexual or subservient behavior (Sommers-Flanagan, Sommers-Flanagan, & Davis, 1993; Vincent, Davis, & Boruszkowski, 1987).

Experimental research in other areas has demonstrated that viewers may be affected by the content of music videos (Hansen & Krygowski, 1994). Specifically, exposure to an hour of rock music videos that contained violent scenes resulted in high school viewers becoming more accepting of violence (Greeson & Williams, 1986). Other research has found that even a brief exposure to music videos with sex-role stereotypic or antisocial themes alters viewers' social judgments. For example, Calfin, Carroll, and Shmidt (1993) found that people who were exposed to one erotic videotape with highly sexualized content (Madonna) endorsed more liberal sexual attitudes than those who viewed a "romantic" tape (Amy Grant). Similarly, Kalof (1999) reported that exposure to a gender and sexuality stereotyped music video (Michael Jackson) produced greater endorsement of adversarial sexual attitudes than a neutral music video (REM). Although these studies have linked exposure to particular music video content with behaviors such as aggressiveness and sexuality, as yet such a link has not been investigated in the arena of body image. However, some correlational studies of naturally occurring television exposure have shown that the amount of time spent watching music videos correlates with body dissatisfaction (Borzekowski, Robinson, & Killen, 2000; Tiggemann & Pickering, 1996). The primary aim of the current study was to investigate the effect of thin ideals portrayed in music videos on mood and body dissatisfaction.

A secondary aim was to examine the underlying process by which media images might affect body dissatisfaction. Along with a number of studies (Cattarin et al., 2000; Faith, Leone, & Allison, 1997; Heinberg & Thompson, 1992, 1995; Posavac, Posavac, & Wiegel, 2001; Tiggemann & McGill, *in press*), we suggest that the process of social comparison

may provide the mechanism by which exposure to media images induces negative effects. We reason that acute exposure to the thin ideal images in music videos will elicit appearance concerns and evoke comparison processing in vulnerable women. Both qualitative and quantitative studies show that women and girls report that they do compare themselves with the models in fashion magazines (Milkie, 1999). The trait variable of tendency to make social comparisons has also been found to be correlated with body dissatisfaction (Heinberg & Thompson, 1992; Striegel-Moore, McAvay, & Rodin, 1986; Stormer & Thompson, 1996).

In 1954, Festinger's social comparison theory suggested that individuals' drive for self-evaluation can be met by comparison with similar others. Since 1954, a number of other motives have been identified for engaging in social comparison, specifically, self-improvement and self-enhancement (Wood, 1989). These carry implications for the target chosen for comparison. In particular, the motive for self-improvement leads to the selection of a superior target, resulting in an upward social comparison, which can have negative effects on mood and self-esteem (Major, Testa, & Bylsma, 1991). Such upward social comparison is particularly likely with music videos. For example, young people became highly involved and reported personal connections with music television (Abt, 1987). The strongest factor to emerge from a factor analysis (Sun & Lull, 1986) of motivations for watching MTV was to learn about the social world (e.g., how to dance the latest steps or participate in fashion). However, when young women compare themselves to an image presented on music television, they will almost invariably find themselves lacking and, consequently, are likely to experience negative mood and body dissatisfaction. The current study investigates the role of social comparison, which Groesz et al. (2002) characterized as a "critically important construct that has received insufficient attention to date" (p. 12).

Here, social comparison was manipulated by instructional set. When Cattarin et al. (2000) manipulated instructions as an experimental variable, they found that participants instructed to compare themselves with the people in a 12-min videotape of television commercials featuring thin and attractive women reported more comparison and were affected more negatively than participants exposed to neutral or distractor instructions. Similarly, Tiggemann and McGill (in press) found that a social comparison instructional set elicited more comparison, which in turn partially mediated the observed impact of thin ideals presented in magazine advertisements. We sought to replicate these results for music videos. We predicted that both thin idealized images and social comparison instructions would elicit more comparison processing, negative mood, and body dissatisfaction and that comparison processing would mediate the effects of image type on body dissatisfaction.

## METHOD

### Design

The current study employed a between-subjects  $2 \times 2$  factorial design. We investigated the effect of music video condition (appearance video clips, nonappearance video clips) and instructional set (comparison viewing instructions, distractor viewing instructions) on the dependent variables of state mood and body dissatisfaction (assessed before and immediately after viewing the video clips). The extent of appearance focus and actual comparison were measured as potential mediating variables.

## Participants

Eighty-four female students attending Flinders University who were between the ages of 18 and 30 years ( $M = 20.23$ ,  $SD = 2.66$ ) participated in the study. They were recruited from the employment agency and via notices posted around the university campus and received payment of \$15 for completing the experiment.

## Materials

### State Mood and Body Dissatisfaction

Eight visual analog scales (VAS) were used to measure mood and body satisfaction both before and immediately after viewing the music video clips (Heinberg & Thompson, 1995). Each scale consisted of a 10-cm horizontal line, with end points labeled "none" and "very much." Participants were asked to indicate how they feel "right now" by placing a small mark on the line for the following dimensions: anxious, depressed, angry (negative mood), happy, confident (positive mood), fat, physically attractive, and satisfied with my body size and shape (body satisfaction). Heinberg and Thompson (1995) demonstrated that VAS are reliable measures of fluctuations in mood and body dissatisfaction. The responses were scored to the nearest millimeter. To assess the interrater reliability of the VAS in the current study, a subsample of 25% of the scales were measured by a second independent rater. The two raters achieved complete agreement on 93.8% of the scales assessed and were within  $\pm 1$  mm for the remaining scales.

### Appearance and Comparison Processing

Using a 7-point scale (1 = *no thought about my appearance*, 7 = *a lot of thought about my appearance*), participants were asked to indicate the extent to which they thought about their appearance while watching the video clips (Tiggemann & McGill, in press). They also indicated the extent to which they compared themselves with the women in the video clips (1 = *no comparison*, 7 = *a lot of comparison*). Because these were highly correlated ( $r = .85$ ,  $p < .001$ ), they were summed and averaged to produce a single composite measure of actual comparison.

Appearance processing was also measured differently. The word-stem completion task (Hargreaves & Tiggemann, 2002) was designed to access appearance-schema activation. This is an implicit task that presents participants with 20 three-letter word stems that can be completed to form either an appearance-related or nonappearance-related word. For example, SLE\_ can be completed as slender (an appearance-related word) or as sleep or sled (nonappearance-related words). Scoring is accomplished by summing the number of appearance words generated. A subsample of 25% of the words generated were scored by two independent raters who achieved 96% agreement on classification of the words as appearance or nonappearance related. This implicit measure was moderately correlated with self-reported actual comparison ( $r = .49$ ,  $p < .001$ ).

### Experimental Manipulation: Videotape Stimuli

Two videotapes, each containing seven music video clip segments (running 2–2.5 min each), were generated for the study. The appearance tape consisted of six music video clips that emphasized female thinness and attractiveness plus one animated clip (singing hamsters). The animated clip did not feature any people at all to help distract from the true nature of the content of the other six clips. The nonappearance tape consisted of six video clips of ordinary-looking people and scenic shots and did not particularly feature thin and attractive women. One animated clip was also included. The two tapes were

matched for overall effectiveness and were equivalent on singer characteristics and style of music.

The final sets of music video clips were selected from recordings of 12 hr of two popular music video programs (Rage and Video Hits) taped over two weekends, in Adelaide, the capital city of South Australia. This resulted in 156 individual video clips, from which a subsample of 30 were selected for piloting. Each of these 30 clips was rated by 8–11 volunteers (male and female) on a series of 7-point scales. Participants were asked to rate how effective overall they believed the clip was, the extent to which attractiveness was a major focus of the clip, and the extent to which the clip featured thin women. Six clips that rated highly on the attractiveness focus ( $M = 6.4$ ) and the presence of thin women ( $M = 6.3$ ) were matched as best as possible with six clips that did not focus on attractiveness ( $M = 2.9$ ) or feature thin women ( $M = 1.6$ ). In particular, the overall effectiveness rating was similar for the final appearance ( $M = 4.0$ ) and nonappearance videotapes ( $M = 4.1$ ).

### **Experimental Manipulation: Instructional Set**

Following the general procedure of Tiggemann and McGill (in press), the instructional set was manipulated to produce a social comparison and distractor viewing condition, each of which was received by one half of the participants. The social comparison instructional set was designed to encourage participants to compare themselves with any women featured in the video clips, whereas the distractor instructional set was designed to discourage women from these activities. The instructional set was not manipulated by a general instruction (Cattarin et al., 2000), but more subtly through a series of ratings that participants were asked to make while watching the video clips. For both conditions, there were five dimensions for each video clip, three of which were in common: the extent to which participants liked the music, how much the clip grabbed their attention, and how effective the clip was in promoting the song (1 = *strongly disagree*, 5 = *strongly agree*). In the distractor instructional set condition, the remaining questions asked participants whether each clip was creative or boring. Under the social comparison instructional set, participants were asked about their level of agreement with the two statements: "The people (if any) in this video clip are physically attractive" and "I would like my body to look like the bodies of the women (if any) in this video clip."

### **Procedure**

The study was presented as an investigation of the effects of various types of television programming on mood. Participants first completed a brief questionnaire about their general media consumption to aid this cover story, and then completed the preexposure VAS measures of mood and body dissatisfaction. They completed the experiment in groups of 3 or 4. Each group was informed that different groups would be watching different types of television programs (e.g., soap operas, sitcoms) and that their group had been selected randomly to watch music videos. After being asked if and how often they watched music videos, participants were told that the videotape consisted of several segments of music video clips about which they would be asked a number of questions. One-half of the participants were given questions that encouraged comparison between their bodies and the bodies of the women in the video clip (comparison instructional set), whereas the other one-half rated the clip for creativity and boredom (distractor instructional set). Groups were assigned randomly to view and rate either the appearance or nonappearance videotape. On completion, participants filled in postexposure VAS

measures of mood and body dissatisfaction, as well as the measures of appearance and comparison processing. At this time too, the height and weight of each participant were measured.

## RESULTS

### Characteristics of the Sample

The mean age of the women was 20.23 years (range, 18–30 years). Their mean body mass index (BMI) was 24.38, which is in the upper limit of the normal range (BMI = 20–25) as defined by Garrow and Webster (1985). They reported watching television for an average of 2.68 hr per weekday and 2.79 hr per day on the weekend.

### Effect on State Mood and Body Satisfaction

A multivariate analysis of covariance (MANCOVA) was used to test the overall effect of appearance video condition and instructional set on the VAS state variables. The postexposure and corresponding preexposure VAS scores were entered as multiple dependent measures and covariates, respectively. The MANCOVA revealed a significant main effect of appearance condition,  $F(8, 64) = 2.10, p < .05$ . There was no significant main effect of instructional set,  $F(8, 64) = 1.63, p > .05$ , nor significant interaction,  $F(8, 64) = 0.63, p > .05$ .

To locate the source of significance, univariate analysis of covariance (ANCOVA) tests were conducted on each variable. Significant univariate effects of video condition were obtained on four of the VAS dimensions: confident,  $F(1, 78) = 5.83, p < .05$ ; fat,  $F(1, 78) = 7.93, p < .01$ ; physically attractive,  $F(1, 78) = 4.82, p < .05$ ; and satisfied with my body size and shape,  $F(1, 78) = 7.12, p < .01$ . The adjusted mean scores (Table 1) indicate that women in the appearance video condition felt relatively fatter, less confident, less physically attractive, and less satisfied with their bodies after viewing the music videos than women in the nonappearance condition.

Although confidence was conceptualized initially as a mood item, a principal component analysis of the VAS produced two factors: mood (anxious, depressed, happy, angry) and body satisfaction (confident, fat, physically attractive, satisfied with body). In summary, the appearance videos led to increased body dissatisfaction, but had no effect on mood.

### Effect on Appearance Processing and Social Comparison

The strength of the instructional set manipulation was tested by an analysis of variance (ANOVA) on the amount of comparison women reported with the women in the music video clips. There was a strong main effect of video condition,  $F(1, 79) = 42.92, p < .001$ , whereby the thin ideal condition elicited more comparison than the control condition. There was also a significant interaction with the instructional set,  $F(1, 79) = 4.96, p < .05$ . The comparison instructional set elicited more actual comparison, but only in the (non-appearance) control video condition (Table 2).

The word-stem completion test was also designed as a process measure of appearance-schema activation. Table 2 shows that the thin ideal music videos did lead to the production of more appearance-related words,  $F(1, 80) = 5.10, p < .05$ . There was no effect of the instructional set,  $F(1, 80) = 1.91, p > .05$ , or their interaction,  $F(1, 80) = 0.39, p > .05$ .

Table 1. Adjusted mean scores (standard errors) on VAS after watching music video clips

Instructional Set	Video Condition	
	Nonappearance	Appearance
Anxious		
Comparison	12.9 (2.4)	12.8 (2.4)
Distractor	10.8 (2.5)	16.4 (2.4)
Depressed		
Comparison	14.8 (3.4)	17.7 (3.5)
Distractor	20.3 (3.5)	19.9 (3.4)
Happy		
Comparison	65.2 (3.6)	59.3 (3.6)
Distractor	52.3 (3.6)	56.9 (3.6)
Angry		
Comparison	7.2 (3.4)	9.5 (3.5)
Distractor	11.0 (3.5)	16.3 (3.4)
Confident		
Comparison	68.8 (3.7)	57.3 (3.7)
Distractor	60.4 (3.8)	54.2 (3.7)*
Fat		
Comparison	34.6 (3.4)	40.4 (3.4)
Distractor	36.3 (3.5)	49.8 (3.4)*
Physically attractive		
Comparison	54.7 (3.2)	48.4 (3.2)
Distractor	49.0 (3.3)	41.3 (3.2)*
Satisfied with my body		
Comparison	51.7 (3.3)	44.7 (3.3)
Distractor	48.1 (3.4)	37.2 (3.3)*

VAS: visual analog scales.

\* $p < .05$

### Appearance and Comparison-Mediating Processes

We predicted that the effect of music video clips on body dissatisfaction would be mediated by the processes of appearance-schema activation and social comparison. For these analyses, a single index of body dissatisfaction was constructed by summing scores on confident, fat, physically attractive, and satisfied with body (reversed coded as necessary).

Baron and Kenny (1986) outlined three preconditions for testing a mediation effect. In the current study, the music video condition (the independent variable) affected the two processing variables (mediator variables) and body dissatisfaction (outcome variable).

Table 2. Mean scores (standard deviations in parentheses) for actual comparison and word-stem completion

Instructional Set	Video Condition	
	Nonappearance	Appearance
Actual comparison		
Comparison	2.8 (1.7)	4.2 (1.7)
Distractor	1.6 (0.8)	4.5 (1.8)*
Word-stem completions		
Comparison	5.5 (3.6)	6.7 (4.4)
Distractor	4.0 (2.7)	6.1 (3.1)*

\* $p < .05$ .

Both mediating variables were related to body dissatisfaction: actual comparison ( $r = .50, p < .05$ ) word stem ( $r = .45, p < .05$ ). To establish mediation, the effect of video condition on body dissatisfaction should be less when processing is entered into the regression equation than when video condition is entered on its own. A hierarchical multiple regression was conducted. The preexposure body dissatisfaction measure was entered in Step 1, followed by video condition in Step 2, and the two processing variables in Step 3. The relationship between video condition and body dissatisfaction ( $\beta = -.21, p < .001$ ) was reduced to nonsignificance ( $\beta = -.06, p > .05$ ) when comparison processing was added to the regression equation. This indicates what Baron and Kenny (1986) termed *perfect mediation*, that is, there was no significant direct relationship between video condition and body dissatisfaction. The partial regression coefficients ( $\beta$ s) in the final regression equation indicate that the primary mediator is the actual amount of comparison ( $\beta = .26, p < .001$ ) as opposed to the effect for word stem ( $\beta = .01, p > .05$ ).

## DISCUSSION

The current study examined the effects of acute exposure to thin ideal body images in music videos on women's mood and body dissatisfaction from a social comparison perspective. The major finding is that brief exposure to music videos containing thin and attractive images of women led to increases in body dissatisfaction.

This finding extends and bridges two previously independent lines of research enquiry. First, it confirms that viewers may be affected by the content of the music videos they watch, but also expands the scope of demonstrated influence. Although previous studies have shown effects on viewers' attitudes to violence and sexuality (Calvin et al., 1993; Greeson & Williams, 1986; Kalof, 1999), the current study has demonstrated effects in a new area, namely, that of body image. It is likely that music videos, as a popular form of mass media entertainment, may be sending multiple messages and may be influential in a multitude of ways. Music videos are a particularly potent mechanism for the socialization of young people. They watch them for long periods of time and do so to learn how to behave and how to look (Sun & Lull, 1986).

Second, the study extends the previous research on the effects of media exposure on body satisfaction to a new medium, that of music television. The current result confirms previous findings of negative consequences following exposure to magazine still shots or television commercials that feature thin idealized images of women. Consequently, it not only adds to, but expands the growing body of evidence for small but relatively consistent negative effects of media exposure, which is the conclusion of the Groesz et al. (2002) meta-analysis. The results of the music video comparisons were more clear-cut than the results of most of the previously reviewed research, perhaps because music videos provide a more naturalistic medium. Viewers may be more aware of and resistant to the efforts of advertisers to influence them (as in television commercials or fashion magazine shots) than they are of actual television content. Content analyses of music videos have revealed a preponderance of video clips that emphasize appearance and feature thin and attractive idealized images of women (Sommers-Flanagan et al., 1993; Vincent et al., 1987). Therefore, the viewers of music television are liable to be exposed to a large dose of precisely the type of video clip used in the experimental condition. This argument is consistent with the observed correlation in naturalistic studies between hours spent watching music videos and body dissatisfaction (Borzekowski et al., 2000; Tiggemann & Pickering, 1996).



In the current study, in contrast to body satisfaction, mood was not affected by the video condition. This result counters possible claims for an overall positive or negative emotional difference between the video clips in the two conditions, or that some overall response to demand characteristics is operating. The two sets of music videos were chosen to be matched on overall effectiveness. The focus on television program content allowed a more credible cover story than in many previous studies.

The second aim of the study was to investigate further the role of appearance and comparison processing as mediators of the link between media images and body dissatisfaction. Although the comparison instructional set was sufficiently strong to produce more appearance focus and actual comparison in the nonappearance video condition, its effect on actual comparison was far outweighed by the effect of video condition. As predicted, the thin ideal appearance videos produced more self-reported actual comparison than did the nonappearance videos, as well as more appearance processing as indicated implicitly by the word-stem task, regardless of the instructional set. Music videos may be a particularly potent elicitor of appearance concerns and social comparison among young women. The distractor instructional set deliberately focused participant attention on the technical aspects of the video and away from the appearance content. Therefore, we can be fairly confident that the images of thin and attractive women contained in music videos will elicit appearance concerns and evoke social comparison across a range of settings, including "normal" viewing at home.

The crucial test of the importance of comparison processing comes from the regression analyses, which showed that the relationship between video condition and body dissatisfaction was mediated totally by the level of comparison. This finding replicates that of Tiggemann and McGill (in press) for magazine advertisements and supports the conceptualization of social comparison as an important linking process between media images and negative consequences. The current study confirms that social comparison processing can be elicited by image type or by the instructional set. Accordingly, the actual comparisons that women make offer a good target for interventions. Media literacy programs have begun to show some promise as preventative in body image problems (Berel & Irving, 1998; Levine & Smolak, 1998; Levine, Piran, & Stoddard, 1999). We suggest that education on how to receive media images without making comparisons could be incorporated into such programs. If girls and women can be dissuaded from the need to compare themselves with media images, then the demonstrated negative consequences of media exposure should be reduced.

In summary, the study provides strong support for the negative impact of the idealized body images portrayed in the bulk of music videos presented on television. We demonstrated greater body dissatisfaction after watching only six such video clips over 15 min, far less than the number contained in any single music video television program. The study showed that the negative effect was mediated by social comparison, which contributed to our theoretic modeling of underlying processes, but also offered a concrete target for intervention.

## REFERENCES

- Abt, D. (1987). Music video: Impact of the visual dimension. In J. Lull (Ed.), *Popular music and communication* (pp. 96-111). Beverly Hills, CA: Sage.
- Andersen, A.E., & DiDomenico, L. (1992). Diet vs. shape content of popular male and female magazines: A dose-response relationship to the incidence of eating disorders? *International Journal of Eating Disorders*, 11, 283-287.

- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Berel, S., & Irving, L.M. (1998). Media and disturbed eating: An analysis of media influence and implications for prevention. *Journal of Primary Prevention*, 18, 415–430.
- Borzekowski, D.L., Robinson, T.N., & Killen, J.D. (2000). Does the camera add 10 pounds? Media use, perceived importance of appearance, and weight concerns among teenage girls. *Journal of Adolescent Health*, 26, 36–41.
- Calvin, M.S., Carroll, J.L., & Shmidt, J. (1993). Viewing music-videotapes before taking a test of premarital sexual attitudes. *Psychological Reports*, 72, 475–481.
- 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.
- Englis, B.G., Solomon, M.R., & Ashmore, R.D. (1994). Beauty before the eyes of the beholders: The cultural encoding of beauty types in magazine advertising and music television. *Journal of Advertising*, 23, 49–64.
- Faith, M.S., Leone, M.A., & Allison, D.B. (1997). The effects of self-generated comparison targets, BMI, and social comparison tendencies on body image appraisal. *Eating Disorders: The Journal of Treatment and Prevention*, 5, 128–140.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.
- Garrow, J.S., & Webster, B.S. (1985). Quetelet's Index ( $W/H^2$ ) as a measure of fatness. *International Journal of Obesity*, 9, 147–153.
- Gow, J. (1996). Reconsidering gender roles on MTV: Depictions in the most popular music videos of the early 1990s. *Communication Reports*, 9, 151–161.
- Greeson, L.E., & Williams, R.A. (1986). Social implications of music videos for youth: An analysis of the content and effects of MTV. *Youth and Society*, 18, 177–189.
- Groesz, L.M., Levine, M.P., & Murnen, S.K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1–15.
- Hansen, C.H., & Krygowski, W. (1994). Arousal-augmented priming effects: Rock music videos and sex object schemas. *Communication Research*, 21, 24–47.
- Hargreaves, D., & Tiggemann, M. (2002). The effect of television commercials on mood and body dissatisfaction: The role of appearance-schema activation. *Journal of Social and Clinical Psychology*, 21, 328–349.
- Heinberg, L.J., & Thompson, J.K. (1992). The effects of figure size feedback (positive vs. negative) and target comparison group (particularistic vs. universalistic) on body image disturbance. *International Journal of Eating Disorders*, 12, 441–448.
- Heinberg, L.J., & Thompson, J.K. (1995). Body image and televised images of thinness and attractiveness: A controlled laboratory investigation. *Journal of Social and Clinical Psychology*, 14, 325–338.
- Kalof, L. (1993). Dilemmas of femininity: Gender and the social construction of sexual imagery. *Sociological Quarterly*, 34, 639–651.
- Kalof, L. (1999). The effects of gender and music video imagery on sexual attitudes. *Journal of Social Psychology*, 139, 378–385.
- Lavine, H., Sweeney, D., & Wagner, S.H. (1999). Depicting women as sex objects in television advertising: Effects on body dissatisfaction. *Personality and Social Psychology Bulletin*, 25, 1049–1058.
- Levine, M.P., Piran, N., & Stoddard, C. (1999). Mission more probable: Media literacy, activism, and advocacy as primary prevention. In N. Piran, M.P. Levine, & C. Steiner-Adair (Eds.), *Preventing eating disorders: A handbook of interventions and special challenges* (pp. 3–25). Philadelphia: Brunner/Nazel.
- Levine, M.P., & Smolak, L. (1998). The mass media and disordered eating: Implications for primary prevention. In W. Vandereycken & G. Van Noordenbos (Eds.), *The prevention of eating disorders* (pp. 23–56). New York: New York University Press.
- Major, B., Testa, M., & Blysm, W.H. (1991). Responses to upward and downward social comparisons: The impact of esteem-relevance and perceived control. In J. Suls & T.A. Ashby (Eds.), *Social comparison: Contemporary theory and research* (pp. 237–260). Hillsdale, NJ: Erlbaum.
- Milkie, M. (1999). Social comparisons, reflected appraisals, and mass media: The impact of pervasive beauty images on black and white girls' self concepts. *Social Psychology Quarterly*, 62, 190–210.
- Nemeroff, C.J., Stein, R.I., Diehl, N.S., & Smilack, K.M. (1994). From the Cleavers to the Clintons: Role choices and body orientation as reflected in magazine article content. *International Journal of Eating Disorders*, 16, 167–176.
- Posavac, H.D., Posavac, S.S., & Weigel, R.G. (2001). Reducing the impact of media images on women at risk for body image disturbance: Three targeted interventions. *Journal of Social and Clinical Psychology*, 20, 324–340.
- Rodin, J., Silberstein, L., & Streigel-Moore, R. (1985). Women and weight: A normative discontent. In T.B. Sonderegger (Ed.), *Psychology and gender* (pp. 267–307). Lincoln: University of Nebraska Press.
- Sommers-Flanagan, R., Sommers-Flanagan, J., & Davis, B. (1993). What's happening on music television? A gender role content analysis. *Sex Roles*, 28, 745–753.
- 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. (1994). Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review*, 14, 633–661.

- Stormer, S.M., & Thompson, J.K. (1996). Explanations of body image disturbance: A test of maturational status, negative verbal commentary, social comparison, and sociocultural hypotheses. *International Journal of Eating Disorders, 19*, 193–202.
- Striegel-Moore, R., McAvay, G., & Rodin, J. (1986). Psychological and behavioral correlates of feeling fat in women. *International Journal of Eating Disorders, 5*, 935–947.
- Sun, S.E., & Lull, J. (1986). The adolescent audience for music videos and why they watch. *Journal of Communication, 36*, 115–125.
- Thompson, J.K., Heinberg, L.J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., & McGill, B. (in press). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology*.
- Tiggemann, M., & Pickering, A.S. (1996). Role of television in adolescent women's body dissatisfaction and drive for thinness. *International Journal of Eating Disorders, 20*, 199–203.
- Vincent, R.C., Davis, D.K., & Boruszkowski, L.A. (1987). Sexism on MTV: The portrayal of women in rock videos. *Journalism Quarterly, 64*, 750–755.
- 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.
- Wood, J.V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin, 106*, 231–248.