Sex Roles (2007) 56:581–591
DOI 10.1007/s11199-007-9200-x

ORIGINAL ARTICLE

Use of Objectification Theory to Examine the Effects of a Media Literacy Intervention on Women

Becky L. Choma · Mindi D. Foster · Eileen Radford

Published online: 23 March 2007
© Springer Science + Business Media, LLC 2007

Abstract Although the impact of the media's thin ideal on body image may be lessened by media literacy, empirical support for this is inconsistent. Objectification theory, which suggests that certain social situations serve to increase women's self-objectification (i.e., viewing self from a third person perspective), was used as a framework to understand this inconsistency. In particular, it was hypothesized that media literacy may involve both negative (heightened self-objectification) and positive (well-being) effects. We used both qualitative and quantitative measures, and two studies showed that viewing the video *Slim Hopes* increased state self-objectification, as well as self-esteem and positive affect. Implications for effective media literacy and self-objectification are discussed.

Keywords Media literacy · Objectification theory · Body image · Self-esteem · Awareness · Well-being · Mass media

Media are an effective avenue for relaying information to a vast number of people, and, like other social agents, they serve to shape social norms, values, and individuals' perceptions of themselves. Unfortunately the messages sent and received through media about prescriptions for women's appearance are not often positive or constructive. For example, the ideal image of women shown in movies, television, and magazines has become increasingly thinner (Kilbourne 1995; Silverstein et al. 1986; Wolf 1991).

Previous research has shown that media depictions of a thin female standard has harmful consequences for women's well-being (e.g., Botta 1999; Irving 1990; Tiggemann et al. 2000; Wilcox and Laird 2000). Viewing and internalizing thin images has been shown to have negative consequences for women's body image (e.g., Cusumano and Thompson 1997; Sands and Wardle 2003; Tiggemann and McGill 2004; Yamamiya et al. 2005), mood (Heinberg and Thompson 1995; Tiggemann and McGill 2004), self-esteem (Cusumano and Thompson 1997), and eating behaviours (e.g., Cusumano and Thompson 1997; Morry and Staska 2001). Therefore, if viewing and internalizing media messages fosters lowered well-being, then one way of addressing this problem is to provide viewers, especially girls and women, with the internal resources to oppose those effects, namely through enhancing their critical skills (i.e., media literacy).

Many researchers have proposed that empowering women to critique media, especially media that sanction and promote thinness and objectification of one's own body, will effectively reduce its harmful effects (e.g., Berel and Irving 1998; Irving and Berel 2001; Levine and Smolak 1998; Smolak et al. 1998; Yamamiya et al. 2005). Media literacy has been shown to be an effective tool for addressing a variety of social concerns, such as reducing children's intentions to use alcohol (Austin and Johnson 1997a), decreasing children's acceptance of violence on television (Voojis and van der Voort 1993), increasing adolescents' knowledge about tobacco, and decreasing their pro-tobacco attitudes (Gonzales et al. 2004). In addition, Austin and Johnson (1997b) found that children who were exposed to information about how media messages are

Portions of this article were presented at the 2005 Society for Personality and Social Psychology General Annual Meeting in New Orleans, LA, and the 2005 Canadian Psychological Association meeting in Montreal, Quebec.

B. L. Choma (✉)
Department of Psychology, Brock University,
St. Catharines, ON, Canada L2S 3A1
e-mail: becky.choma@brocku.ca

M. D. Foster · E. Radford
Department of Psychology, Wilfrid Laurier University,
Waterloo, Canada

constructed and about the messages' underlying meanings showed less susceptibility to the negative effects of later media consumption. In sum, media literacy has demonstrated substantial success in a variety of areas.

With respect to body image however, the effectiveness of media literacy is not as well established. On the one hand, the use of media literacy programs in countries such as Canada, Australia, and the United States is on the rise, and some of these programs have shown success in alleviating the negative consequences of media on women's body image (Brown and Stern 2002). For example, Wade et al. (2003) found their media literacy program to be more successful than a self-esteem program at reducing risk factors for eating disorders (e.g., weight concern) among 13 year olds. Other researchers have found that media literacy effectively increases knowledge about nutrition and dieting (e.g., Smolak et al. 1998) and also increases scepticism about the media (e.g., Irving and Berel 2001). Yet, research has also shown that media literacy programs have no impact on body esteem; behaviours related to dieting, eating, or exercising among girls (Smolak et al. 1998); and no effect on the internalization of media messages or well-being among young women (Irving and Berel 2001). Thus, given the contradictory findings and the effectiveness of media literacy in other realms, additional research is needed to understand how media literacy may be helpful in providing positive impacts on women's body image.

One theory that may help to clarify the contradictory findings in media literacy and body image research is objectification theory (Fredrickson and Roberts 1997). According to objectification theory, women in our culture are socialized to internalize an outside perspective of their physical self, one that objectifies women as sex objects (Fredrickson and Roberts 1997). Specifically, self-objectification occurs when women rate their bodies from a third person point of view with a focus on their observable physical features (Fredrickson and Roberts 1997). Self-objectification has been operationally defined as a dispositional trait (trait self-objectification; TSO), that is, people vary in the extent to which they self-objectify. Researchers have identified a number of destructive consequences that women who are high self-objectifiers can experience including negative body regard (Muehlenkamp et al. 2005), body shame, appearance anxiety, lower body esteem, (McKinley 1998), disordered eating (Noll and Fredrickson 1998; Tiggemann and Slater 2001), higher drive for thinness (Calogero et al. 2005), heightened self-surveillance (Tiggemann and Slater 2001), diminished internal awareness, greater depressive symptoms (Muehlenkamp and Saris-Baglama 2002), and negative attitudes toward menstruation (Roberts 2004). Even something as beneficial as exercise has been shown to relate to lowered esteem if motivations for exercise are appearance-based rather than for fun- or health-related (Strelan et al. 2003). Thus, women high in trait self-objectification are at an increased risk of lowered well-being.

Whereas most of the literature has focused on self-objectification as a trait, objectification theory also suggests it can be defined as a state (state self-objectification; SSO). In particular, self-objectification may be more salient in certain situations, situations that raise a woman's awareness of her body shape and size and her concern about being judged (Fredrickson et al. 1998). Research on state self-objectification has shown that situations such as trying on a bathing suit (Fredrickson et al. 1998; Hebl et al. 2004), being exposed to fat talk (i.e., derogatory body talk that occurs in peer groups; Gapinski et al. 2003), anticipating a male gaze (Calogero 2004), and exposure to objectifying words (Roberts and Gettman 2004) can increase body shame and decrease cognitive performance (Calogero 2004; Fredrickson et al. 1998; Hebl et al. 2004; Gapinski et al. 2003; Roberts and Gettman 2004). Thus, if situations can so easily be detrimental to women's well-being, it is not surprising that media, as perhaps the most pervasive situational influence of self-objectification, may be one of the most harmful situations for women.

At the same time, however, the ease with which state self-objectification can occur may also explain some of the inconsistencies in media literacy research. Although their purpose is the opposite, media literacy interventions may actually serve as a potential source of state self-objectification and, therefore, may also have unintended negative consequences. That is, media literacy may serve to raise the salience of body shape and size and, consequently, have a short term negative impact on well-being. As such, as Irving and Berel (2001) suggested, it may be initially difficult to isolate the positive impact of media literacy videos. It is not uncommon that positively intended messages have unintended negative consequences. For example, advertising campaigns that negatively target a behaviour (e.g., smoking) often serve to maintain the behaviour because individuals become defensive rather than convinced of the campaign's merit (e.g., Leventhal et al. 1967; Liberman and Chaiken 1992). Therefore, the general purpose of the present study was to evaluate whether a popular media literacy intervention for body image raises state self-objectification and to investigate the various effects of this intervention on young women.

An additional way we sought to clarify the inconsistent research on media literacy and body image was to use qualitative measures in Study 1. It may be that close-ended measures have been insufficient to clarify why the inconsistency occurs. Specifically, many of the well-being measures typically used may be too general to capture women's more specific experiences with media literacy.

Thus, open-ended questions provided a means to explore women's reactions on a deeper level of analysis and to provide a rich understanding of their experiences with media literacy.

Study 1

Hypotheses

The popular media literacy video *Slim Hopes* (Kilbourne 1995) focuses on body size and advertising's obsession with thinness. As a popular video shown in Psychology of Women and Women's Studies classes, anecdotal evidence suggests that the media literacy video has positive effects for women and their well-being. Thus, we hypothesized that women would report positive effects as a result of viewing *Slim Hopes*. However, given its focus on body image, albeit positively intended, it may also serve to raise state self-objectification. Thus, it was also predicted that participants who viewed the media literacy video would report state self-objectification.

Method

Participants

Participants were 50 undergraduate women (Mean age= 18.56, *SD*=.54, range: 18–20 years) enrolled in a first year introductory psychology course at a university in Ontario, Canada. The majority (92%) of participants were White Canadians who received credit toward their first year psychology course.

Procedure

In groups of approximately 5 to 10, participants viewed the video *Slim Hopes* then completed three open-ended questions about their general reactions to the video. Once they had finished their questionnaire package, participants were provided with a written debriefing.

Materials

Media literacy video Slim Hopes (Kilbourne 1995) served as the media literacy video. The video is 30 min in length. It presents a critique that focuses on advertising and North American culture's obsession with thinness. The film links the portrayal of unrealistically, unhealthy thin images of women to women's and girl's obsession with thinness.

General reactions Three open ended questions were asked: "What are your general reactions/feelings to this film? Please explain," "Did watching the video change the way you feel/think about yourself/others? Please explain;" and "Did the video have an impact on you in other ways? If yes, please explain." The short answer questions were qualitatively analysed. First, one of the researchers used "open coding" (Strauss and Corbin 1998), whereby the qualitative data was analysed without an existing framework to allow themes to emerge. Once a set of themes had been established, a deductive analysis was carried out by two of the researchers, whereby responses were analysed according to the existing framework (Patton 2002) created through the open coding to confirm the themes. Initial inter-rater agreement was .80. All disagreements were resolved through discussion so that all quotes could be placed into only one category.

State self-objectification Women's answers were also coded for SSO. In accordance with the criteria used by Fredrickson et al. (1998), comments whereby participants talked about their body shape and size (e.g., I am overweight) were coded as signifying SSO. In addition, comments whereby participants talked about how they felt about their bodies or appearance were also coded as SSO.

Results and discussion

General reactions

The qualitative analyses revealed four general themes that arose after viewing the media literacy film *Slim Hopes*: critical thinking, positive emotions, no change, and negative emotions (see Table 1).

Critical thinking Similar to Irving and Berel (2001), who found an increase in media scepticism and less perceived realism of media images, our participants demonstrated critical thinking after viewing *Slim Hopes*. The largest sub-category within critical thinking was "increased awareness about media." Participants (64%) often acknowledged the value of being exposed to venues that increase awareness and provide insight about media's portrayal of unrealistic images. Participants expressed thoughts such as "it is a good wake up call for females because it makes you aware of the media's tricks/strategies that they use when portraying women."

Exposure to *Slim Hopes* appeared to empower many women to develop new perspectives and to develop their critical skills; thus, the second sub-category in critical thinking was "new skills and new perspective" (50%). This sub-category includes comments that demonstrate women's application of their increased knowledge and critical skills. One woman wrote: "this film has made me reflect on the

Table 1 Summary of themes found in Study 1.

	Number of participants	Percentage
Critical thinking		
Awareness	32	64%
New skills/perspective	25	50%
Action	11	22%
Positive emotions		
Better & increased confidence	10	20%
Other	1	2%
No change		
Previous knowledge	32	64%
Already confident	4	8%
Helplessness	16	32%
Negative emotions		
Anger & shock	20	40%
Concern for others	8	16%
Distress for self	5	10%
Self-objectification	24	48%

n=50.

way I see myself and will encourage me to think more critically about media images in the future." This new perspective may have assisted some in finding new ways to view themselves as acceptable.

The third sub-category that emerged was that the media literacy video encouraged women to take action, or fostered a desire for society to change and to shed harmful cultural ideals (22%). Many women shared sentiments such as "I think the film is a great eye opener ... and makes me feel fairly angry and empowered to do something to prevent young girls from falling into media's trap." Generally, the findings of the qualitative analyses demonstrated that *Slim Hopes* increased the women's critical thinking about media.

Positive emotions Consistent with anecdotal evidence, the second category to emerge was positive emotions. Women wrote that watching *Slim Hopes* made them feel better about themselves and their bodies and increased their self-confidence (20%). One participant wrote: "in a way I felt relieved because that standard seemed so hard to reach and seeing how unrealistic it was made me feel more confident and happy with my body." In sum, the qualitative analyses supported the hypothesis that media literacy has positive effects for women's well-being.

No change The third category to emerge consisted of participants' statements that detail reasons why they did not experience change or experienced limited change in their well-being. The first sub-category was "previous knowledge." Participants (64%) often noted that they had been previously informed about issues related to the media and their harmful messages, which prevented substantial changes from occurring. The second sub-category within no change was "already confident." Some women indicated that they experienced no changes in their well-being because they were already confident about who they are (8%). Thus, past researchers (e.g., Irving and Berel 2001) may have found few changes because women were already critical of such media images.

Despite having already been exposed to such critical messages, many women (32%), however, reported feeling helpless; they thought that media and cultural messages were too powerful to change. For example, one woman stated:

> ...nothing has changed or probably will be changed in the future. I think this is a hopeless topic... at first I started to think that perhaps I should just forget what the model's look like because they are just created images anyways. However, when Jean mentioned that it was a $3 billion industry I realized that nothing will ever change because people are making money off of this.

The main message from participants who did not experience change was that, because of the many barriers they face, change is challenging.

Negative emotions A substantial number of participants (40%) expressed negative emotions such as anger, horror, and shock. Participants were outraged and upset with the media and their tactics. For example, women expressed feelings such as: "...this film did anger me as I became increasingly annoyed that society as a whole is so naive about the effects of advertisements and permits the use of unrealistic female images and promotes unhealthy actions."

Participants also expressed concern for others. This sub-category was characterized by realizing that media images are unrealistic, seeing the extent to which advertisers go in order to promote these images, and concern about the consequences of the portrayal of unrealistic images for women in general (16%). Quotes that illustrated this theme include: "it made me worry that other women will see these images-which are virtually unattainable-and become unhappy or dissatisfied with themselves and their body."

The third sub-category within negative emotions was distress for self. This includes feelings of guilt, frustration, and feeling brainwashed by the media (10%). Although participants experienced negative emotions, the majority of negative emotions tended to be directed at the media and advertisers, not at the participants themselves. This theme illustrates that viewing media literacy videos may be beneficial for women. Thus, despite the positive effects of media literacy, it is apparent that negative feelings will also arise as a result.

State self-objectification

Almost one-half of all participants (48%) wrote comments about their own bodies. For example, one woman wrote: "I'm glad to know my body weight is normal," and another wrote "(*Slim Hopes*) caused me to stop and think about my 'body image.'" Other participants made comments such as "I feel that I am lucky to be born with a good looking figure" and "I still feel a self loathing for the way my body is." Thus, consistent with hypotheses, we found that *Slim Hopes* can create a state of self-objectification.

In sum, the results of Study 1 indicate that participants experienced both positive and negative reactions to the media literacy video. Participants reported increased knowledge, and some felt better about themselves. However, participants also experienced anger, upset, and concern, and their comments indicate that the media literacy film raised SSO. Past research (e.g., Irving and Berel 2001) may be inconclusive because of the contradictory result that both positive and negative effects can occur in media literacy interventions.

Indeed, our results do not indicate that media literacy is ineffective. Instead the simultaneous existence of positive and negative effects is consistent with feminist consciousness-raising. However, whereas increased anger may have a beneficial effect (see Downing and Rousch 1985), heightened SSO may be damaging to the self. According to feminist consciousness-raising, various stages characterize the development of a feminist identity (see Downing and Rousch 1985). One proposed stage has been named "revelation," whereby an event (e.g., media literacy) or series of events encourage a woman to question her and other women's role in society (Downing and Rousch 1985). This new understanding fosters increased knowledge and awareness, but also feelings of anger, guilt, rage, and betrayal (see Downing and Rousch 1985; Westkott 1983). Thus, it is not surprising that both positive and negative effects occur after a media literacy intervention, which might actually signify a typical experience for women developing a feminist identity.

Study 2

Hypotheses

One limitation of Study 1 was that trait self-objectification (i.e., dispositional differences in self-objectification) was not measured. Research on the relationship between trait self-objectification and state self-objectification has shown that state self-objectification is especially harmful for women high in trait self-objectification (e.g., Fredrickson et al. 1998; Gapinski et al. 2003). In part, women high in trait self-objectification may be most likely to experience negative effects of a situation that induces high self-objectification. Because trait self-objectification was not assessed, it is possible that the negative effects found in Study 1 may have been a function of women's trait self-objectification, rather than of the state self-objectification elicited by the media literacy video. Thus, we controlled for trait self-objectification scores in Study 2. Further, Study 2 included a control video to compare the level of state self-objectification that arose after the media literacy video to that of another educational film. Based on the findings from Study 1, we hypothesized that participants in the media literacy video condition would report greater state self-objectification than would participants in the control video condition, after controlling for trait self-objectification.

Given that multimethod research fosters an accurate and rich understanding of the data (Reinharz 1992), in Study 2 we used quantitative measures to establish some consistency across the two studies. We therefore included quantitative measures of some of the positive effects that emerged in Study 1: awareness, feeling more confident about self (i.e., self-esteem), and positive emotions (i.e., positive affect). Thus, consistent with Study 1, we hypothesized that participants who viewed the media literacy film would also report greater awareness, self-esteem, and positive affect than would participants who viewed the control video. To assess negative effects we measured negative affect, and we hypothesized that participants who viewed the media literacy video would also report greater negative affect than would participants who viewed the control video.

Method

Participants

Participants were 366 undergraduate women (Mean age= 18.65, *SD*=.88, range: 17–22 years) from a university in Ontario, Canada. Participants received credit toward their first year psychology course and were entered into a draw for $200 as incentive. The majority (93.2%) of participants were White Canadians.

Procedure

Participants were randomly assigned to one of two conditions. In groups of approximately 10, participants read and signed their consent form, completed a measure of TSO, watched either the media literacy video or control video, then completed a questionnaire package that contained measures of demographics, body mass index (BMI), SSO, awareness, body esteem, social esteem, performance esteem, positive affect, and negative affect. Once they had finished their questionnaire package,

participants were provided with both a written and a verbal debriefing.

Materials

Videos *Slim Hopes* was used as the media literacy video. The control video was a 25 min segment from a National Geographic video on the wildlife of Madagascar.

Measures

Trait self-objectification TSO was assessed with the Self Objectification Questionnaire (Noll and Fredrickson 1998). Participants rank ordered (0–9) five appearance-based attributes (physical appearance, weight, sex appeal, measurements, and muscle tone) and five competence-based attributes (muscular strength, physical coordination, health, physical fitness, and physical energy level). Overall scores were computed by summing ranks for each list separately and then computing a difference score. Scores ranged from −25 to +25; higher scores indicate higher TSO. Noll and Fredrickson (1998) have established the scale's construct validity; the scale is related to other measures that assess preoccupation with observable aspects of the physical body.

Body mass index Self-reported height and weight were gathered from participants in order to calculate their BMI, or relative weight to height ratio: weight (kg)/height^2(m^2) (Garrow and Webster 1985). BMI was included as a potential covariate because of its documented relationship with variables such as negative mood and poor self-concept (e.g., French et al. 1996). Participants' average BMI was 22.64 (SD=3.74) and, therefore, within the normal range.

State self-objectification To assess the extent to which the videos elicited SSO, the Modified Twenty Statements Test (Fredrickson et al. 1998) was administered. Participants completed 20 "I am..." statements about themselves and their identities. We utilized codes identified by Fredrickson et al. (1998) (i.e., body shape and size, other physical appearance, physical competence, traits or abilities, states or emotions, and illegible responses) in order to group the responses. Consistent with the scoring method of Fredrickson et al. (1998), SSO was assessed by the sum of statements related to body shape and size. Two researchers coded the statements for SSO, and their results had an inter-rater reliability of r=.98, p=.0001. The number of SSO statements ranged from 0 to 6 for the *Slim Hopes* condition and from 0 to 3 for the control condition.

Awareness The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ; Heinberg et al. 1995) was used to measure participants' awareness (e.g., "people think that the thinner you are, the better you look in clothes") of media messages. Six phrases were rated on a scale of "strongly disagree" (0) to "strongly agree" (4). The mean was used as the overall score (Cronbach α=.65). Scores range from 0 to 4; high scores indicate greater awareness.

Self-esteem The State Self-Esteem Scale (SSES; Heatherton and Polivy 1991) was administered to assess participants' performance esteem (e.g., "I feel confident about my abilities"), body esteem ("I feel satisfied with the way my body looks right now"), and social esteem ("I feel inferior to others in this moment"). Items were rated on a scale from "not at all" (0) to "extremely" (4). The means of the subscale items across the eight performance (α=.79), eight social (α=.86), and four body esteem (α=.87) items were used as the three self-esteem scores. Scores on the three subscales range from 0 to 4; high scores indicate greater self-esteem.

Positive and negative affect To assess mood, the Positive and Negative Affect Schedule was administered (PANAS; Watson et al. 1988). Participants rated 20 adjectives in terms of how they felt at that moment on a scale from "not at all" (0) to "extremely" (4). The overall positive and negative affect scores were computed using the mean score across the nine positive affect (e.g., interested, attentive; α=.86) and 11 negative affect (e.g., upset, nervous; α=.87) items. Research shows that people can experience both positive and negative feelings simultaneously and that as one type (e.g., negative) of affect increases, the other (e.g., positive) does not necessarily decrease (e.g., Schimmack 2001). As such, the nine positive (e.g., interested, attentive) and 11 negative affect (e.g., upset, nervous) adjectives were individually analysed to investigate which specific emotions were influenced by the media literacy and control videos.

Results

Preliminary analyses

Correlations among the dependent measures are shown in Table 2. Consistent with past research TSO was related to most measures such that higher TSO was associated with higher SSO, awareness, and negative affect, and with lower body esteem, social esteem, performance esteem, and positive affect. Prior to testing the experimental hypotheses, we calculated an independent t-test (p<.05), which showed that there was no difference between the control and experimental group participants on BMI. BMI was corre-

Table 2 Correlations among dependent measures and covariates.

	1	2	3	4	5	6	7	8	9
BMI	1.00								
TSO	.06	1.00							
SSO	−.02	.11*	1.00						
AWN	.007	.29**	.10*	1.00					
BE	−.52***	−.31**	−.10*	−.22**	1.00				
SE	−.18***	−.30**	−.13*	−.28**	.70**	1.00			
PE	−.02	−.12*	−.04	−.07	.36**	.60**	1.00		
PA	−.01	−.17**	−.04	−.13**	.26**	.26**	.23**	1.00	
NA	.07	.18**	.19**	.15**	−.45**	−.58**	−.46**	−.13*	1.00

n=354; *BMI* Body Mass Index; *TSO* Trait Self-objectification; *SSO* state self-objectification; *AWN* awareness; *BE* body esteem; *SE* social esteem; *PE* performance esteem; *PA* positive affect; *NA* negative affect. *$p<.05$, **$p<.025$, ***$p<.001$.

lated with body esteem and social esteem, and was therefore included as a covariate in the main analyses.

Main analyses

The relevant means and standard deviations by video condition for all main analyses are summarized in Table 3.

State self-objectification To evaluate whether *Slim Hopes* increased SSO more than the control video did, a one-way univariate analysis of covariance (ANCOVA) was conducted with TSO as a covariate. Consistent with predictions, results indicated a significant video effect, F (1, 358)=114.13, p=.0001, η^2=.24, such that participants who viewed *Slim Hopes* reported higher levels of SSO than did participants who viewed the control video. Thus, despite having controlled for TSO, *Slim Hopes* still raised SSO.

Table 3 Means and standard deviations for dependent measures by video condition.

	Slim Hopes	Control
State self-objectification	1.22 (1.07)	.27 (.58)***
Awareness	2.49 (.57)	2.34 (.65)*
Self-esteem		
Body esteem	2.20 (.99)	2.15 (.90)
Social esteem	2.44 (.80)	2.53 (.71)
Performance esteem	2.71 (.60)	2.56 (.62)*
Positive affect	1.85 (.80)	1.52 (.72)***
Interested	2.50 (.96)	1.85 (1.03)***
Excited	1.18 (1.13)	.93 (1.08)*
Strong	1.87 (1.20)	1.53 (1.04)**
Enthusiastic	1.49 (1.17)	1.34 (1.06)
Proud	1.80 (1.29)	1.41 (1.16)**
Inspired	2.04 (1.25)	1.48 (1.21)***
Determined	2.09 (1.13)	1.87 (1.11)
Attentive	2.16 (1.04)	2.00 (.97)
Active	1.56 (1.21)	1.29 (1.13)*
Negative affect	.83 (.79)	.65 (.56)*
Distressed	.92 (.98)	.90 (1.02)
Upset	.88 (1.01)	.51 (.81)***
Guilty	.86 (1.11)	.57 (.98)**
Scared	.50 (.88)	.37 (.67)
Irritable	.91 (1.06)	.92 (.99)
Helpless	.63 (1.02)	.73 (1.06)
Ashamed	.68 (1.05)	.47 (.91)**
Nervous	.80 (1.05)	.86 (.97)
Resentful	.61 (.94)	.35 (.69)**

Standard deviations appear in parentheses. *$p<.05$, **$p<.01$, ***$p<.001$. TSO was included as a covariate in all analyses. BMI was included as a covariate in analyses for self-esteem.

Awareness An ANCOVA was also conducted to evaluate our hypothesis that media literacy participants would report greater awareness of media messages than would control participants. Results showed that, after controlling for TSO, there was a significant effect for video on awareness, F (1, 363)=7.28, p=.007, η^2=.02, such that participants who viewed *Slim Hopes* reported greater awareness of media messages.

Self-esteem A one-way multivariate analysis of covariance (MANCOVA) was used to evaluate our hypothesis that women exposed to a media literacy intervention would report higher self-esteem; both BMI and TSO served as covariates. One univariate and one multivariate outlier were detected and removed from the analysis. A significant covariate effect was found for BMI, F (3, 356)=71.34, p=.0001, and TSO, F (3, 356)=17.29, p=.0001. The multivariate effect for video was significant, F (3, 356)= 7.36, p=.0001, η^2=.06. The follow-up univariate tests showed that media literacy participants reported greater performance esteem, F (1, 358)=4.50, p=.027, η^2=.01. However, social esteem, F (1, 356)=3.34, p=.068, and body esteem, F (1, 358)=.39, p=.535, were not significantly different between groups.

Positive affect To analyze our hypothesis that media literacy participants would report greater positive affect, a MANCOVA was conducted on the nine positive affect adjectives, with TSO as a covariate. A significant covariate effect was found for TSO, F (9, 353)=2.73, p=.004. The multivariate effect for video was significant, F (9, 353)= 6.05, p=.0001, η^2=.13. The follow-up univariate tests

showed that the media literacy video participants reported higher scores than control video participants on feeling interested, F (1, 361)=37.97, p=.0001, η^2=.10, excited, F (1, 361)=4.39, p=.037, η^2=.01, strong, F (1, 361)= 7.25, p=.007, η^2=.02, proud, F (1, 361)=8.54, p=.004, η^2=.02, inspired, F (1, 361)=18.64, p=.0001, η^2=.05, and active, F (1, 361)=4.10, p=.044, η^2=.01. There was also a marginally significant effect on determined, F (1, 361)= 3.01, p=.083, such that media literacy video participants reported higher scores. There was no significant effect found on feeling enthusiastic, F (1, 361)=2.03, p=.155.

Negative affect A MANCOVA with TSO as a covariate was used to analyze our final hypothesis that media literacy participants would report greater negative affect. The adjectives hostile and jittery were excluded from analysis because their distributions were extremely skewed. This finding was not surprising. We did not expect to find variability on such extreme emotions, given the findings from Study 1. Ten univariate and seven multivariate outliers were detected and removed from the analysis. A significant covariate effect was found for TSO, F (9, 336)=2.48, p=.010. The multivariate effect for video was significant, F (9, 336)=4.93, p=.0001, η^2=.12. The follow-up univariate tests showed that the media literacy video participants reported higher scores than the control video participants on feeling upset, F (1, 344)=16.10, p=.0001, η^2=.05, guilty, F (1, 344)=6.79, p=.010, η^2=.02, ashamed, F (1, 344)=5.12, p=.019, η^2=.02, and resentful, F (1, 344)=9.38, p=.002, η^2=.03.

Discussion

Consistent with Study 1, *Slim Hopes* elicited state self-objectification even when we controlled for trait self-objectification. This finding suggests that, similar to situations examined in previous research (e.g., anticipated male gaze, Calogero 2004; trying on a bath suit, Fredrickson et al. 1998), the media literacy video *Slim Hopes* can heighten women's level of self-objectification. Thus, despite the positive purposes of media literacy interventions, they can enhance state self-objectification.

Study 2 also showed some indication that the video has negative consequences. Participants in the media literacy video condition reported feeling more upset, guilty, ashamed, and resentful than did participants in the control condition. However, it is important to note that, although participants who viewed *Slim Hopes* reported higher negative affect than control participants did, their reported means were low. Thus, the present findings suggest that, although *Slim Hopes* elicited more negative mood than a control video did, its negative effects are certainly manageable.

Despite the raised levels of state self-objectification, the media literacy video fostered many positive effects on women's well-being. First, participants who viewed the media literacy video reported higher levels of awareness of media messages than the control group did, which is consistent with previous studies (e.g., Irving and Berel 2001). Second, participants who viewed *Slim Hopes* reported greater positive affect and performance esteem than did participants in the control condition. However, contrary to predictions, no differences were found on social esteem or body esteem. One possibility for this may be the heightened level of state self-objectification. For example, in comparison with performance esteem, social esteem and body esteem may be more resistant to positive change because state self-objectification tends directly to affect variables related to heightened social awareness and body esteem (e.g., Calogero 2004). Thus, whereas social and body esteem are likely to be most relevant in situations high in SSO, performance esteem, in contrast, may be less affected by SSO and more influenced by the positive effects of media literacy because it captures a different domain of well-being. Generally, the findings of Study 2 imply that inconsistencies in past research (e.g., Irving and Berel 2001) may be explained by the existence of both positive and negative effects that can occur in media literacy interventions.

General Discussion

The present studies demonstrate that, consistent with predictions, *Slim Hopes* raised state self-objectification. Thus, similar to other situations (e.g., fat talk; Gapinski et al. 2003), a positively intended video such as *Slim Hopes* is capable of fostering increased self-objectification among women, regardless of their level of trait self-objectification.

The occurrence of heightened state self-objectification may explain the presence of negative feelings after a media literacy intervention, despite positive intentions. Indeed, consistent with objectification theory (Fredrickson and Roberts 1997), when women are focussed on their bodies, negative emotions increase. Thus, it is not surprising that *Slim Hopes* elicits negative feelings. At the same time, however, these negative effects are interpreted in light of their clear positive effects. Specifically, both studies showed that women who watched this video reported greater awareness, higher self-esteem (greater self-confidence in Study 1; performance esteem in Study 2), and greater positive affect. Thus, perhaps the mark of a successful media literacy intervention is one that allows for both negative and positive feelings, but the positive effects outweigh the negative. Indeed, as Downing and Rousch (1985) suggested, feminist identity development involves both negative and

positive emotions, and, as such, *Slim Hopes* may represent a form of feminist consciousness-raising.

The findings presented in this article should be considered in light of several limitations. First, the results are limited to White older adolescent and young women and should not be generalized to other age groups or women of different ethnic or racial groups. Second, it is important to acknowledge that participants were from a non-clinical population; individuals struggling with eating disorders would likely require a more invasive and interactive intervention than used in the present study (see Stice and Shaw 2004). Third, it should be noted that the effect sizes for awareness, performance esteem, and affect were relatively small, although statistically significant. Despite these limitations, the present studies illustrate that both positive and negative effects can co-occur in media literacy interventions and that it appears that the positive outweighs the negative. The present research also raises questions about the effects of state self-objectification and suggests that not all environments characterized by state self-objectification are damaging to women. That is, despite the fact that *Slim Hopes* raised state self-objectification, positive mood ensued. Future researchers will need to clarify which elements of state self-objectification, or which forms of it, are most damaging.

Acknowledgement We thank SSHRC for their support for Study 1 through a Master's Canadian Graduate Scholarship to the first author.

References

Austin, E. W., & Johnson, K. K. (1997a). Effects of general and alcohol-specific media literacy training on children's decision making about school. *Journal of Health Communication, 2*, 17–42.

Austin, E. W., & Johnson, K. K. (1997b). Immediate and delayed effects of media literacy training on third graders' decision making for alcohol. *Health Communication, 9*, 323–349.

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.

Botta, R. A. (1999). Television images and adolescent girls' body image disturbance. *Journal of Communication, 49*, 22–41.

Brown, J. D., & Stern, S. R. (2002). Mass media and adolescent female sexuality. In G. M. Wingwood & R. J. DiClemente (Eds.), *Handbook of women's sexual and reproductive health. Issues in women health* (pp. 93–112). New York: Plenum.

Calogero, R. M. (2004). A test of objectification theory: The effect of the male gaze on appearance concerns in college women. *Psychology of Women Quarterly, 28*, 16–21.

Calogero, R. M., Davis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles, 52*, 43–50.

Cusumano, D. L., & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles, 37*, 701–721.

Downing, N. E., & Rousch, K. L. (1985). From passive acceptance to active commitment: A model of feminist identity development for women. *Counseling Psychologist, 13*, 695–709.

Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*, 173–206.

Fredrickson, B. L., Roberts, T., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology, 75*, 269–284.

French, C. S., Perry, G. L., & Fulkerson, J. (1996). Self-esteem and change in body mass index over three years in a cohort of adolescents. *Obesity Research, 4*, 27–33.

Gapinski, K. D., Brownell, K. D., & LaFrance, M. (2003). Body objectification and "fat talk": Effects on emotion, motivation, and cognitive performance. *Sex Roles, 48*, 377–388.

Garrow, J. S., & Webster, J. (1985). Quetelet's index (W/H^2) as a measure of fatness. *International Journal of Obesity, 9*, 147–153.

Gonzales, R., Glik, D., Davoudi, M., & Ang, A. (2004). Media literacy and public health: Integrating theory, research, and practice for tobacco control. *American Behavioral Scientist, 48*, 189–201.

Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology, 60*, 895–910.

Hebl, M. R., King, E. B., & Lin, J. (2004). The swimsuit becomes us all: Ethnicity, gender, and vulnerability to self-objectification. *Personality and Social Psychology Bulletin, 30*, 1322–1331.

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.

Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ). *International Journal of Eating Disorders, 17*, 81–89.

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.

Irving, L. M., & Berel, S. R. (2001). Comparison of media literacy programs to strengthen college women's resistance to media images. *Psychology of Women Quarterly, 25*, 103–111.

Kilbourne, J. (1995). *Slim Hopes: Advertising and the obsession with thinness* [Video]. (Available from Media Education Foundation, 26 Centre Street, Northampton, MA 01060.).

Leventhal, H., Watts, J. C., & Pagano, F. (1967). Effects of fear and instructions on how to cope with danger. *Journal of Personality and Social Psychology, 6*, 313–321.

Levine, M. P., & Smolak, L. (1998). The mass media and disordered eating: Implications for prevention. In W. Vandereycken & G. Noordenbos (Eds.), *The prevention of eating disorders* (pp. 23–56). New York: New York University Press.

Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin, 18*, 669–679.

McKinley, N. M. (1998). Gender differences in undergraduates' body esteem: The mediating effects of objectified body consciousness and actual/ideal weight discrepancy. *Sex Roles, 39*, 113–123.

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 Behavioural Science, 33*, 269–279.

Muehlenkamp, J. J., & Saris-Baglama, R. N. (2002). Self-objectification and its psychological outcomes for college women. *Psychology of Women Quarterly, 26*, 371–379.

Muehlenkamp, J. J., Swanson, J. D., & Brausch, A. M. (2005). Self-objectification, risk-taking, and self-harm in college women. *Psychology of Women Quarterly, 29*, 24–32.

Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, shame, and disordered eating. *Psychology of Women Quarterly, 22*, 623–636.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). London: Sage.

Reinharz, S. (1992). *Feminist methods in social research*. New York: Oxford University Press.

Roberts, T. (2004). Female trouble: The menstrual self-evaluation scale and women's self-objectification. *Psychology of Women Quarterly, 28*, 22–26.

Roberts, T., & Gettman, J. T. (2004). Mere exposure: Gender differences in the negative effects of priming a state of self-objectification. *Sex Roles, 51*, 17–27.

Sands, E. R., & Wardle, J. (2003). Internalization of ideal body shapes in 9–12-year old girls. *International Journal of Eating Disorders, 33*, 193–204.

Schimmack, U. (2001). Pleasure, displeasure, and mixed feelings: Are semantic opposites mutually exclusive? *Cognition and Emotion, 15*, 81–97.

Silverstein, B., Perdue, L., Peterson, B., & Kelly, E. (1986). The role of the mass media in promoting a thin standard of bodily attractiveness for women. *Sex Roles, 14*, 519–532.

Smolak, L., Levine, M. P., & Schermer, F. (1998). Lessons from lessons: An evaluation of an elementary school prevention program. In W. Vandereycken & G. Noordenbos (Eds.), *The prevention of eating disorders* (pp. 137–172). New York: New York University Press.

Stice, E., & Shaw, H. (2004). Eating disorder prevention programs: A meta-analytic review. *Psychological Bulletin, 130*, 206–227.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.

Strelan, P., Mehaffey, S. J., & Tiggemann, M. (2003). Self-objectification and esteem in young women: The mediating role of reasons for exercise. *Sex Roles, 48*, 89–95.

Tiggemann, M., Gardiner, M., & Slater, A. (2000). "I would rather be a size 10 than have straight A's": A focus group study of adolescent girls' wish to be thinner. *Journal of Adolescence, 23*, 645–659.

Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology, 23*, 23–44.

Tiggemann, M., & Slater, A. (2001). A test of objectification theory in former dancers and non-dancers. *Psychology of Women Quarterly, 25*, 57–64.

Voojis, M. W., & van der Voort, T. H. A. (1993). Learning about television violence: The impact of a critical viewing curriculum on children's attitudinal judgements of crime series. *Journal of Research and Development in Education, 26*, 133–142.

Wade, T. D., Davidson, S., & O'Dea, J. A. (2003). A preliminary controlled evaluation of a school-based media literacy program and self-esteem program for reducing eating disorder risk factors. *International Journal of Eating Disorders, 33*, 371–383.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063–1070.

Westkott, M. (1983). Women's studies as a strategy for change: Between criticism and vision. In G. Bowles & R. Duelli Klein (Eds.), *Theories of women's studies* (pp. 210–218). New York: Routledge.

Wilcox, K., & Laird, J. D. (2000). The impact of media images of super-slender women on women's self-esteem: Identification, social comparison, and self-perception. *Journal of Research in Personality, 34*, 278–286.

Wolf, N. (1991). *The beauty myth*. New York: William Morrow.

Yamamiya, Y., Cash, T. F., Melnyk, S. E., Posavac, H. D., & Posavac, S. S. (2005). Women's exposure to thin-and-beautiful media images: Body image effects of media-ideal internalization and impact-reduction interventions. *Body Image, 2*, 74–80.