

An Evaluation of Brief Interventions- Cognitive dissonance And Media literacy On Body Dissatisfaction in undergraduate women

By Jayanti Bhardwaj

(Under the supervision of Dr.KanikaKhandelwal)



The present study aimed to compare the effectiveness of two interventions namely cognitive dissonance and media literacy, in reducing body dissatisfaction in undergraduate women. Participants (N 100) were randomly assigned to dissonance-based intervention (N 34), media literacy intervention (N 31), or control group (N 35). Both Interventions consisted of a single two hour session. The design employed was pre-post test with control. The analysis employed was t test for independent samples. Thin-ideal internalization (IBSS-R), negative affect (PANAS-X), and body dissatisfaction (Satisfaction and Dissatisfaction with Body Parts Scale) were measured. Results showed that the dissonance-based program was successful in reducing negative affect, thin-ideal internalization and body dissatisfaction. The media literacy intervention successfully reduced negative affect. Results provide evidence that a single intervention can be effectively used to help women cope with body dissatisfaction, which in turn can help prevent eating disorders, depression and anxiety.

Keywords: Body dissatisfaction; Negative Affect; Thin Ideal; media literacy intervention; dissonance based intervention

Introduction:

Concern with physical appearance has always haunted womankind. Physical appearance becomes very influential in social relations and psychological functioning (Jackson, Hunter, & Hodge, 1995).

Excessive worry and preoccupation with one's physical appearance has become a serious health concern. Body dissatisfaction represents a risk factor for myriad physical and psychological disturbances like eating disorders (Keel, Fulkerson, & Leon, 1997; Stice, Presnell, & Spangler, 2002), unhealthy weight control behaviours (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006), low self-esteem (Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006), depression (Stice & Bearman, 2001), suicidal ideation (Brausch & Muehlenkamp, 2007), negative affect (O'Dea, 1995; Twamley & Davis, 1999), higher levels of anger, negative mood (Pinhas et al, 1999), confusion and anxiety (Cash & Pruzinsky, 2002) among many others. Body dissatisfaction is a common characteristic among many women. It expresses itself in terms of discrepancies between perceived, actual and desired body size, feeling fat and behaviourally it expresses itself in terms of attempts to restrain food intake and episodes of overeating (Herman and Mack, 1975; Cash and Pruzinsky, 1990, 2002; Muth and Cash, 1997; Grogan, 1999; Ogden, 2003).

Several studies have shown that women are more likely to experience body dissatisfaction than men (Klesges, Mizes, and Klesges, 1987; Rozin and Fallon, 1988; Brodie, Slade, and Riley, 1991; Jeffrey, Adlis, and Forster, 1991). Review has shown that girls' and women's mean levels of body dissatisfaction are consistently higher than that of boys' and men's (Bearman, Presnell, Martinez, & Stice, 2006; Keel, Baxter, Heatherton, & Joiner, 2007). Body dissatisfaction and disordered eating patterns have been found to be an especially prevalent issue in college females (Schwitzer, Bergholz, Dore, & Salimi, 1998; Stice & Whitenton, 2002). Review has shown that body dissatisfaction is a robust risk factor for the development of disordered eating and has been associated with the prediction of eating disordered pathology (Abrahamson and Valene, 1991; Harrison and Cantor, 1997; Engeln and Maddox, 2005). Given the severity and difficulty of treating eating disorders, improving body satisfaction in women and young people can be considered an important goal that may lead to amelioration of significant clinical psychopathology.

Interventions used in the present study:

Cognitive dissonance refers to the tension that develops when people experience inconsistency in their thoughts, beliefs, attitudes, and/or behaviour (Brehm & Cohen, 1962; Festinger, 1957). The cognitive dissonance intervention consists of training participants to voluntarily adopt an anti-thin stance. The goal of the Cognitive Dissonance intervention is for participants to reject the thin-ideal. Cognitive Dissonance is one of very few prevention programs to meet the American Psychological Association's (APA) criteria for an efficacious intervention (APA, 1995).

Media literacy promotes adaptive behaviour by teaching individuals to evaluate media critically and, consequently, to reduce the credibility and persuasive influence of media messages. Several studies have shown that women could be successfully taught to be more critical of the methods used by the media (Stormer and Thompson, 1996; Thompson and Heinberg, 1999; Oliver, 2001; Yamamiya et al., 2005).

Cross cultural perspective on body dissatisfaction : Body dissatisfaction and a preference for thinness have been reported in various cultures and ethnic groups, for instance among Australians and Italians (Durkin, Paxton, & Sorbello, 2007), Israelis (Barak et al., 1994), Mexican Americans (Ayala et al., 2007), Asians (Croll et al., 2002), Chinese (Chen, Gao, & Jackson, 2007) and Japanese (Yamamiya, Shroff, & Thompson, 2008), among others. French et al. (2002) found that more than one-half of girls in each of the ethnic groups surveyed (African American, Asian American, Hispanic, Native American and White) engaged in unhealthy weight control behaviors and were concerned with their weight.

Norms for thinness are becoming more insistent in Indian culture (Srinivasan et al., 1998). Research on body dissatisfaction in young women holds beauty advertisements responsible for extending this dissatisfaction in adolescents from India (Shroff and Thompson, 2004). In a study, similar levels of eating attitudes were found across samples of participants from Japan, India, Oman, and the Philippines to those reported in Western samples (Kayano et al., 2008). In sum, evidence suggests that prevention programs aimed to decrease body dissatisfaction are necessary for all ethnic groups, especially young Indians.

The Present Study:

The present study aims to design Interventions that would effectively help adolescent girls and young women resist sociocultural pressures to conform to this ideal and reduce their pursuit of thinness. This study aims to develop interventions that would reduce thin ideal internalization, body dissatisfaction and negative affect.

The results and findings of such a research may be utilized in gaining a deeper understanding of body image issues that affect young women today. Since most interventions have been designed and used in the Western context, it is hoped that the modified activities used in these interventions will be more culturally valid and help in improving body satisfaction among young college going women in India. It's hypothesized that there will be a significant difference in body dissatisfaction, thin ideal internalization, and negative affect in the three conditions

Method:

Design

The present study aims to investigate the effectiveness of two single session interventions of two hours each, namely, cognitive dissonance and media literacy intervention in reducing body dissatisfaction, thin ideal internalization, and negative affect in young women. In the present research, a pre-post test with control design was employed.

Participants

The sample consisted of 100 undergraduate students. The mean age of the sample was 19 years. 37% were in their first year, 28% in their second year, 33% in their third year, and the remaining 2% in their fourth year. Demographic variables like educational qualifications, age, gender, and socio-economic status were controlled by selecting a sample of only those presently enrolled in an undergraduate programme.

Measures

- **Body Dissatisfaction**

Satisfaction and Dissatisfaction with BodyParts Scale, developed by Berscheid, Walster and Bohrnstedt (1973), and adapted by Stice, Maxfield and Wells (2003) was used to assess body dissatisfaction. This scale asks participants to indicate their level of current satisfaction with nine body parts (weight, figure, body build, stomach, waist, thighs, buttocks, hips and legs) on a 5-point scale ranging from extremely satisfied=1 to extremely dissatisfied=5. Items were summed for analyses, with high scores indicating greater dissatisfaction. The scale has acceptable internal consistency ($r = 0.94$), temporal reliability (3 week test-retest $r=0.90$), and predictive validity (Stice, 2001), and has been previously used on female undergraduate students (Stice, Maxfield, & Wells, 2003).

- Negative Affect

The fear, hostility, guilt and sadness subscales from PANAS-X were used to assess negative affect (Watson & Clark, 1991a). Participants reported the extent to which they were currently feeling 23 negative emotional states (e.g., sad, ashamed, angry, nervous, etc.) on a 5-point scale ranging from very slightly or not at all=1 to extremely=5. Items were summed to form an overall negative affect composite, with high scores indicating greater negative affect. PANAS-X has been shown to have acceptable internal consistency ($M = 0.87$), temporal reliability (2-month test-retest = 0.71), and convergent validity (Watson & Clark, 1991a). Furthermore, self-reported negative affect on the PANAS-X shows agreement with peer reports (Watson & Clark, 1991b).

- Thin-Ideal Internalization

Internalization of the thin-ideal was assessed with the Ideal-Body Stereotype Scale-Revised (IBSS-R; Stice, 2001). The scale consists of six items (e.g., Slender women are more attractive, Women with long legs are more attractive). Participants responded using a 5-point response format ranging from 1 (strongly disagree) to 5 (strongly agree). Items were averaged for analyses. Higher scores indicating higher thin ideal internalization. This scale has acceptable internal consistency ($\alpha = .89$), 10-month test-retest reliability ($r = .63$), and predictive validity (Stice, 2001).

Procedure: Participants were recruited through flyers posted in the college and postings on web discussion forums. Upon initial contact, each participant was randomly assigned to one of three conditions (control condition, media literacy intervention, cognitive dissonance intervention). The protocols were delivered within a single two hour session. In addition to the utility of a single session for college students, who often experience considerable time constraints, a single-session intervention reduces the likelihood of sample bias created by attrition across multiple sessions.

- The pre- test phase:

All participants irrespective of the condition they had been assigned to filled the scales Ideal-Body Stereotype Scale- Revised (IBSS-R) , the fear, hostility, guilt and sadness subscales from PANAS-X , Satisfaction and Dissatisfaction with Body Parts Scale, measuring internalization of the thin-ideal , negative affect and body dissatisfaction respectively.

The three conditions:

The control group condition: After a period of one month the participants once again filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Cognitive dissonance intervention: The protocols used in the current study are modified versions of those used by Stice et al. (2001). The intervention consisted of the activities adapted from the 'Body Acceptance Class Manual' Developed by: Eric Stice, Heather Shaw, Paul Rohde. The manual outlines a dissonance-based body acceptance intervention that has been developed and used at Stanford University, the University of Texas at Austin, and Oregon Research Institute.

The intervention consisted of the following activities:

- First, an overview of the purpose of the study was provided to participants and informed consent was obtained
- Next, we collectively defined the thin-ideal, the origin of the thin-ideal, how it is perpetuated, the impact of thin-ideal messages and who benefits from it.
- This was followed by the Mirror activity which involved the participants to stand in front of a mirror, observe themselves and write down at least 6 positive qualities about themselves. The sheet provided to the participants to write the same can be found in the appendix.
- The Verbal challenge form required each participant to generate a counter thin-ideal statement in response to the "thin-ideal" statements. The sheet containing the thin ideal statements that were handed out to the participants can be found in the appendix.
- The participants were divided into small groups. Each group engaged in a role play to discourage the pursuit of the thin ideal.
- The participants took a pledge to resist pressures to be thin and combat any negative comments about their body. The pledge the participants were requested to take has been attached in the appendix.
- Finally, a positive auto suggestion reinstated that they can and will love and accept their body.

Immediately after the two hour intervention, the participants filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Media literacy intervention: This intervention focused on teaching women to think critically about the media. This is thought to be successful because of the strong association between media exposure and body image concerns. The intervention involved the following activities:

- Similar to the dissonance based intervention, after an overview of the purpose informed consent was obtained. Next, we collectively defined the thin-ideal.
- After this the participants were shown a power point presentation about media's distortion of reality. It was adapted from the PPT used by Jane Ogden and Faye Sherwood in the paper 'An evaluation of the effectiveness of an air-brushing educational intervention on body dissatisfaction'. This presentation was modified to make it more culturally valid.

- The participants were shown a movie which demonstrated both the convenience by and the extent to which photoshop can alter one's appearance.
- This was followed by showing participants the movie 'Killing Us Softly' by Jean Kilbourne. The movie has been used in several media literacy interventions (Foreg, Rabak-Wagener et al., 1998; Irving and Berel, 2001; Watson and Vaughn, 2006) . It described media's portrayal of unrealistic ideals of perfection, objectification of women by the media and the violence it subsequently leads to.

Immediately after the two hour intervention, the participants filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Results:

An analysis was conducted on 100 undergraduate participants. Analyses verified that the groups did not differ significantly on any of the study variables at the time of pre-test.

Table 1 One way ANOVA of pre-test scores

Variables under study	Pre- test control group	Pre-test dissonance group	Pre-test media literacy group	F	p
Body dissatisfaction M SD	23 6.96	25.32 7.07	24.70 7.00	0.976	0.381
Thin ideal internalization M SD	17.68 4.05	18.70 3.95	18.62 4.09	0.668	0.515
Negative Affect M SD	33.77 8.22	35 5.16	34.41 4.83	0.316	0.730

Note: $p > 0.05$ hence there is no significant difference on any of the variables in the three groups at pre-test.

Independent samples t-tests were used to evaluate the effectiveness of the intervention:

Table2:Independent samples t-test scores for control group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	23	22.8	0.122	68	0.903
SD	6.96	6.56			
Thin ideal internalization					
M	17.68	17.4	0.293	68	0.770
SD	4.05	3.98			
Negative affect					
M	33.77	33.68	.043	68	0.966
SD	8.22	8.26			

Table3:Independent samples t-test scores for dissonance group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	25.32	20.56	2.812*	66	0.006
SD	7.07	6.58			
Thin ideal internalization					
M	18.70	15.55	3.293*	66	0.02
SD	3.95	3.93			
Negative affect					
M	35	30.70	3.372*	66	0.001
SD	5.16	5.17			

Note- *= $p < 0.05$

Table4: Independent samples t-test scores for media literacy group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	24.70	22.77	1.076	60	0.286

SD	7.00	6.92			
Thin ideal internalization					
M	18.62	16.58	1.942	60	0.057
SD	4.09	4.14			
Negative affect					
M	34.41	30.93	2.796*	60	0.007
SD	4.83	4.81			

Note- $*=p<0.05$

Negative affect:

A non-significant difference in negative affect between pre-test and post test results in the control group is obtained $t(68)=.043, p=.966$. There is a significant difference between the pre-test and post test results of the dissonance intervention group $t(66)=3.372, p=.001$. There is a significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=3.372, p=.001$.

Thin ideal internalization:

A non-significant difference in internalization of the thin ideal between pre-test and post test results in the control group is obtained $t(68)=.293, p=.77$. There is a significant difference between the pre-test and post test results of the cognitive intervention group $t(66)=3.239, p=.02$. There is a non-significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=1.942, p=.57$.

Body dissatisfaction:

A non-significant difference in the body dissatisfaction scores between pre-test and post test results in the control group is obtained $t(68)=1.942, p=.57$. There is a significant difference between the pre-test and post test results of the cognitive intervention group $t(66)=2.812, p=.006$. There is a non-significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=1.076, p=.286$.

Discussion:

Results indicated that participants in the dissonance intervention showed significant reductions in thin-ideal internalization, negative affect, and body dissatisfaction, there was a significant reduction only in the negative affect for the media literacy intervention, while there was no significant difference between pre-test and post-test results for control group.

The cognitive dissonance intervention directly targets thin ideal internalization.

As with the dissonance-based intervention, participants' reduction of internalization of this unrealistic ideal putatively contributes to reductions in negative affect and body dissatisfaction (Stice 2002).

The adoption of an anti-thin ideal stance is clear from the counter thin ideal statements the participants generated, for e.g.:

A few examples of Thin ideal statements	Some responses by participants
My classmate said, "No guy is going to ask me out unless I Drop some weight."	"No guy is going to ask you out if you're insecure about something so trivial", "You've been saved from someone shallow"
Look at the fatso over there.	"It's more important to be a good per so don't talk like that", "Why don't you gaze inwards and work for the betterment of your attitude"
My mother said, "Mrs Gupta has really let herself go. I think she has put on 3 kgs"	"And losing 3 kgs is what will make the world a better place", " Good she's eating to her hearts content"
My boyfriend said, "Girls should exercise. Anyone could have the body of a supermodel if they really tried"	"Alternatively supermodels should eat more it'll make them look better", "Girls don't need to look like models everyone is beautiful in their way."

After the intervention some participants said, "I feel more confident about my looks", I've decided to not let anyone else define beauty for me, "I feel more comfortable with my body"

The role play exercise also targeted the thin ideal. (Neumark-Sztainer et al., 1995) have found role-play exercises effective in reducing pressures to be thin.(Miller, 1983) said that discussing the costs of the thin ideal helps people in adopting an anti-thin stance.

The findings of the present study are consistent with past research wherein cognitive dissonance programs were found to be superior to media advocacy in reducing body dissatisfaction (for e.g., Becker, Smith, & Ciao, 2006).Also, because of the cumulative impact of years of media exposure, it might be difficult for brief interventions to counteract such effects(Stormer& Thompson, 1995).

In the media literacy intervention, the participants felt good about being equipped by the knowledge of media distortions and the perfection being artificially created and unattainable which explains the reduction in negative affect but it seems that the process of appearance comparison did not occur. Some participants said that, "Being thin is their job not ours, "These images are far from reality", "These models have an extremely different lifestyle."

According to social comparison theory, the development of negative self-attitudes involves a two-stage process; first the individual compares herself to an idealized media image (i.e., "upward comparisons"); second, as a result of such comparisons, the individual develops negative attitudes about the attribute being evaluated (e.g., one's body; Richins, 1991). In the present study, lower levels of realism and similarity may represent an interruption of the initial "comparison" stage in this process. Yet media is an important cause of body dissatisfaction making media literacy interventions important.

Importantly, the positive effects in the current study were achieved using a single-session brief workshop format, in contrast with the multi-session approach used by Stice and colleagues. It

Limitations and suggestions for future Research:

The limitations of the present study are, firstly, the use of fairly homogeneous undergraduate females as research participants limits the generalizability of the current findings to other populations. Other limitations are no follow-up period, and a modest sample size. The programme was also of short duration (single two hour session), and, so the effects may not be maintained over a longer period of time. Future studies examining the effectiveness of such interventions should include larger and more diverse samples, and follow-up intervals.

Body dissatisfaction is a serious public health concern. The present study shows that interventions can be used to help women cope with body dissatisfaction, be more critical consumers of the media and learn to effectively cope with pressures to be thin.

Future studies should determine ways to enhance the magnitude and duration of the effects of these two prevention programs and test whether increasing the number and duration of intervention sessions, or an intervention component targeting parents improves effects. In addition, future research should investigate whether the dissonance and media literacy interventions can be integrated to produce even stronger effects. Researchers should also consider adapting components from other programs that produced promising intervention effects. Additional rigorous research will bring us closer to realizing the goal of reducing the overall prevalence of body dissatisfaction.