

Journal of Development and Social Sciences

www.jdss.org.pk

RESEARCH PAPER

Physical Comparison, Diet Belief and Weight Stigma among Women University and College Students

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ABSTRACT

The present study was accomplished to observe the role of physical comparison and diet belief in weight self-stigma among women students. A total number of 250 college students (Age=12-28) were selected through purposive sampling from different colleges of Faisalabad city. The participants were assessed through in order to investigate the findings following measures was used to assess the findings i.e. Demographic Form were used to gather the personal information. Weight Self Stigma Scale (WSSC; Janson et al., 2010) would be used to measure the weight related self-stigma, Physical Comparison Scale-Revised (PACS-R; Lauren et al., 2014) would be used to measure the overall tendency to compare one's own appearance to the appearance of others in social situations, Diet Belief Scale (DBS; Stotland and Zurrof 1990) would be used to measure the dieting and weight locus of control. To investigate the finding intercorrelation, regression analysis, t-test and MANOVA analysis were used to analyze the data. The conclusions of the data show that weight self-stigma have significant relationship between physical appearance comparison, diet beliefs. Dieting Belief Scale and Physical comparison is the most significant predictors of Weight self-stigma. The results show significant differences on scores of physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult women students. The results displaying significant differences on scores of physical appearance comparison, dieting beliefs, and weight self-stigma in term of educational levels among women.

Keywords: Diet Belief, Physical Appearance Comparison, Weight Self -Stigma

Introduction

This study is conducted to examine the role of physical comparison and diet belief in weight self-stigma among women students. The idea that modern-day women are largely unhappy with their looks is not novel. During the last three decades, female citizens of the United States have become more unhappy with their physical appearance. Images of women in the print and cinema media have, predictably, shown slimmer figures over this time period. Researchers have shown that media portrayals of women's bodies have a major impact on those women's self-perceptions. Some writers claim that body esteem is a wider phrase that includes behavioral characteristics, such as weight reduction efforts, and other signs of investment in beauty, whilst others use the term body esteem to refer only to people' thoughts and attitudes about their bodies (Banfield & McCabe, 2002).

Self-evaluations of one's physical appearance, or "body esteem," are a key component of self-esteem. Evaluative categories, or dimensions, vary for women and men, and are used when individuals assess their own physical parts and the roles those parts perform. They discovered that women tend to base their self-evaluations of their bodies on their weight, whereas males base theirs on their muscularity. Multifaceted and differentiated between the sexes was the concept of body esteem. The Body Esteem Scale

(BES) is a brief and simple tool for measuring self-esteem. Female sexual attractiveness, body image anxiety, and overall health are assessed along three parameters. Attitudes about a man's physical beauty, upper body strength, and overall physical condition may be measured along three dimensions (Frost et al., 2017).

According to a recent assessment by Sicorski et al. (2011) There has been a dramatic shift in the public's understanding of obesity. Fewer than 3% of people in the early 2000s recognized obesity as a serious health concern, but now in places like Germany, the vast majority does. While more people than ever before see obesity as a serious health issue, the stigma and prejudice faced by fat people persist. Obese persons have disadvantages in a variety of situations, including the workplace, healthcare, and personal relationships.

Physical appearance comparison is the habit of constantly contrasting one's physical features with those of other people in social settings (Lauren et al., 2014). In the past, individuals were far less concerned about their physical appearance. The "kalokagathia," a man perfect in intellect and body, was the archetype in ancient Greek society. Palestra training and agonistic disciplines helped students achieve physical beauty (kalos), while the study of art forms like music, song, dance, rhetoric, and philosophy helped students acquire intellectual and spiritual virtue (agathos). To be healthy, as the saying goes, is the greatest gift God can give a person; a beautiful look comes in at a close second. The ancient Greeks were not the first to recognise the connection between health and attractiveness evidenced by (Corral et al., 2010).

Women have to compete with one another for idealized beauty, larger feminine body form, and other variables, particularly by displaying evidence of health and fertility. As a result, women may come to believe certain things about diets, such as that it is necessary to enhance fitness by shifting attention to one's looks and making an effort to present indicators of health and youthfulness. Many female dieting attitudes may be traced back to the ideal-thin body, which is widely promoted in electronic and print media and via social pressure. Magazines and diet books provide a similar message that individuals can shape their bodies to their liking by altering their food to fit their ideals, which is reinforced by societal pressure. Therefore, not only do these messages show what one should look like, but they also imply that with little effort, one may achieve that appearance (Carracedo et al., 2013).

Stigmatization based on one's weight is characterized as "negative attitudes and beliefs about one's weight that are expressed in stereotypes, bigotry, rejection, and prejudice." On an individual level, it may be broken down into three distinct types: experienced stigma, perceived stigma, and self-stigma. Individuals who have been the targets of genuine discrimination are the ones who have felt the effects of stigma. When a person thinks that the broader public looks down on the stigmatized group, they are experiencing perceived stigma. When a person believes the stigma about themselves or herself and comes to terms with the prejudice that results from that conviction, they are engaging in self-stigma (Puhl & Latner, 2007).

Goffman (1963) created a complex picture of stigma and detailed its manifestations in daily life. Stigmatized features, also known as severely discrediting attributes, make individuals look dangerous or undesirable to others, diminish their life possibilities, and isolate them. This theory made a seminal argument that persons are stigmatized and categorized as undesirable for three reasons: tribal stigmata, abominations of the body, and flaws of human character.

Cash and Pruzinski (2002) elaborate the prevalence and harmful implications of body dissatisfaction have been more publicly known, more and more emphasis has been paid to the potential risk factors for the development of body dissatisfaction throughout adolescence. As body dissatisfaction is related with a broad range of bad experiences, it's crucial to learn what causes it. Psychological variables such as poor self-esteem, depression,

and attitudes about the value of thinness, as well as cultural and social contexts that place an emphasis on thinness and appearance, are hypothesized to enhance the likelihood of developing body dissatisfaction. Despite significant shifts in developmental responsibilities and roles from early to late adolescence, it has been widely anticipated that risk factors for increases in body dissatisfaction would be consistent over the lifespan of adolescence. Therefore, the current study attempted to uncover psychosocial determinants of 5-year increases in body dissatisfaction in girls and boys throughout two periods of development, from early to middle adolescence and from medium to late adolescence, using a multivariate method.

According to Greenleaf et al. (2009) an individual's social identity is the part of one's sense of self that originates from one's perception of membership in a social category or social group. This kind of ridicule may lower one's confidence and make one unhappy with their physical appearance. Negative physical and mental health effects, such as gaining weight and engaging in harmful methods of maintaining a healthy weight, may result from exposure to the stereotypes and prejudices that surround obesity.

Ata et al. (2007) demonstrated the effects of gender, self-esteem, social support, teasing, and family, friend, and media pressures on adolescents' body image and eating-related attitudes and behaviors are investigated. The sample included 177 students (age13-19). Male adolescents wanted they were bigger up top while female adolescents desired, they were slimmer all around. The secondary purpose of the research was to compare the effect of social vs individual factors on the food habits of female adolescent pupils. Seven hundred and fifty-six female students' files were examined (age 12-17 years). Independent variables comprised both social (in the form of norms) and personal elements (attitude to dieting, perceived behavior control, body esteem, body-figure discrepancy and past dieting). The study's dependent variables were people's intentions and behaviors about their diets. Overall, personal factors like dieting history and poor self-perception were more important in explaining eating disorders than social ones. (Myint et al., 2015).

The importance of how one sees their body changes dramatically throughout adolescence, according to research by Choi and Choi (2016) that Low self-esteem and despair are only two of the negative psychological outcomes that have been linked to body dissatisfaction. Dissatisfaction with one's physical appearance has been shown to have a detrimental effect on one's self-esteem, which in turn has been shown to have an adverse effect on one's mental health.

Another research has shown that there is a connection between how one perceives their physique, their sense of self-worth, and their level of social anxiety. This was a cross-sectional study with a sample size of 260 college students. The Body Shape Questionnaire was used to gauge levels of body image anxiety. Both social anxiety and self-esteem were examined using the Interaction Anxiety Scale and the Revised Feelings of Self Inadequacy scale, respectively. Main results showed a negative relationship between self-esteem and social anxiety, and a negative relationship between body form concern and self-esteem. Body image issues were shown to significantly increase the risk of social anxiety (Sumanth et al., 2017).

Hypotheses

Following hypotheses are formulated in the light of above-mentioned objectives.

- 1. Weight-self stigma would be significant predictors of diet belief scale among women university and college students.
- 2. Weight-self stigma would be significant predictors of physical appearance comparison among women university and college students.

- 3. There would be significant differences on scores of physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult college and university students.
- 4. There would be significant differences on scores of physical appearance comparison, dieting beliefs, and weight self-stigma in term of educational levels among college and university women students.

Material and Methods

Participants

The target population comprised of women students from colleges and universities of Faisalabad. The education level of participants was F.A/FSC, B.A/BSC, M.A/MSC.

Inclusion Criteria

- Adolescents and adult Women students were included in the study.
- Only un-married girls were included.
- The age range of women students from 12 to 28 years old were included.
- Only the college and university students are included.
- Only women who agreed to be studied as part of the study were included.

Exclusion criteria

The women students those are not enrolled in the university and college were excluded.

- The women less than 12 years and more than 28 years were excluded.
- Males were excluded from the study
- participants with any kind of medical history and psychological abnormality or disability were excluded.
- The married girls were excluded.
- Those women that were not willing for the consent form those were excluded.

Measures

Informed Consent Form

Participants were asked to complete a demographic sheet. The demographic sheet provides information about age, education level, institution, profession, dieting, use of fast food, name of fast food and breakfast intake of study participants.

Weight Self Stigma Scale (WSSQ; Janson et al., 2010).

The self-report measure of weight-related self-stigma in overweight and obese people is the Weight Self-Stigma Scale, which consists of 12 Likert-type questions. Weight-related self-devaluation and fear of enacted stigma are measured by separate subscales on the WSSQ. Items on the WSSQ are graded from 1 (strongly disagree) to 5 (totally agree) (completely agree). Every item on the scale and all of the subscales are added together to form a total score. The first six questions make up the self-devaluation subscale, whereas the next twelve make up the stigma anxiety subscale. Good internal consistency was found in

the first version (.88). Reliability analyses of the WSSQ showed strong composite validity (.97) for the overall scale.

Physical Appearance Comparison Scale-Revised (PACS-R; Lauren et al., 2014).

The updated Physical Comparison Scale consists of eleven items, with answer options ranging from never to always. It evaluates how well you are doing in five key areas of physical appearance (physical, body weight, body shape, body size, body fat). This concept has been linked to greater instances of both body dissatisfaction and eating disorders, according to studies utilizing the Personal Appearance Comparison Scale (PACS) and other measures of appearance comparison. A higher rating means that the body was evaluated favorably. It is not possible to score it backwards or on a different subscale. The scale's internal consistency was very high (.97) and reliable (.95) according to Cronbach's alpha.

Diet Belief Scale (DBS; Stotland & Zurrof, 1990).

The DBS was a 16-item scale that measured a woman's dietary habits. A 6-point scale from "not at all descriptive of my belief" (1) to "extremely descriptive of my believe" (6) is provided for respondents to rate how well each statement reflects their own views. Dieting beliefs with higher scores (Cronbach's alpha =.69) imply a greater sense of internal control over one's weight, while lower scores suggest that one is more likely to place their focus on external factors. Some diet-related beliefs scale items score in the other direction (item number 3, 4, 5, 6, 7, 12, 14, 16).

Procedure

The author gave us formal permission to use their scales in this study. After that, we reached out to the proper authorities at Riphah University Faisalabad. Appointment times for data collection were arranged with relevant authorities after first inquiry. They lent a classroom for data gathering and gave participants verbal assurances that their privacy would be respected. People who agreed to take part in the study filled out a permission form. Participants were given access to certain demographic data. Those who signed the permission form and agreed to further studies.

Three questionnaires, the Diet Belief Scale, weight Self-Stigma Scale and the Physical Appearance Comparison Scale-Revised were used to collect data for the research. If respondents had any trouble following the directions or comprehending the statements or questions on the survey. At any time, they choose, they might pose questions to the investigator. The investigator actively sought to evaluate each person there in order to maintain tighter control over the process. After study procedures were carried out, participants and relevant authorities were thanked for their participation and patience.

Ethical consideration

Prior approval, informed consent, anonymity, and confidentiality were obtained for the quantitative study's subjects in accordance with the ethical standards recommended by the American Psychological Association. The research was conducted after receiving approval from the University of Riphah Faisalabad's board of advanced study and the materials and methods utilized in the study. There was no deceit in the study, and participants were given a full explanation. The participants' written agreement was obtained, and they were informed that they may discontinue participation in the research at any moment without any negative effects.

Results and Discussion

Tabular data analysis of the study is presented in this chapter. All the calculations were done in SPSS 20.0 (Statistical Package for the Social Sciences) with a significance level of 0.05 or 0.01. The data was analyzed using a number of statistical methods, including a

reliability analysis, descriptive statistics, intercorrelation, multiple linear regression analyses, an independent samples t test, and a two-way multivariate analysis of variance (MANOVA).

Table 1
Reliability Analysis of Scales and Subscales (N = 250)

	<u> </u>			
Variable	K	M	SD	A
SD_WSSQ	6	15.04	4.798	.622
SE_WSSQ	6	14.24	5.610	.784
WSSQ	12	29.27	9.005	.795
PCS	11	26.61	9.779	.867
DBS	16	53.26	15.253	.819

Note: SD_WSSQ= Self Devaluation Weight Self-Stigma, SE_WSSQ= Self enacted Weight Self-Stigma, WSSQ_TOT= Weight Self Stigma Total, PCS= Physical Comparison Scale, DBS= Diet Belief Scale

Table no 1 shows the reliability analyses of Self devaluation Weight Self-Stigma scale is .622, reliability of Self-enacted Weight Self-Stigma is .784, reliability of Weight Self-Stigma total is .795, reliability of Physical Comparison Scale is .867, reliability of Diet Belief scale is .819.

Table 2
Demographic Characteristics of Sample N= (250)

Dell	iographic Characteri	sucs of Sample N= (2	50)
Characteristics	Categories	F	%
Age	12_18	144	44.9
	19_28	136	53.5
Educational level	FA/FSC	97	38.2
	BA/BSC	22	8.7
	MA/MSC	31	51.6
Institution	College	114	44.9
	University	136	533.5
Employment	Job	49	19.3
	Jobless	201	79.1
Dieting	Dieter	105	57.1
	Non dieter	145	41.3
Use of fast food	Like	186	73.2
	Dislike	64	25.2
Name of fast food	Shawarma	90	35.4
	Burger	77	30.3
	Pizza	83	32.7
Breakfast	Intake	72	28.3
	Not intake	178	70.1

Table 3
Inter correlation between study variables, physical comparison scale, dieting belief and weight self-stigma scale among female students(N=250)

	and weight sen-sug	ilia scale a	mong tema	ie students	M-230)	
	Measures	1	2	3	4	5
1	PCS	-	.28**	.39**	.48**	.50**
2	DBS		-	.33**	.28**	.35**
3	SD_WSSQ			-	.49**	.84**
4	SE_WSSQ				-	.88**
5	WSSQ					-

Note: *p<.05, **p<.01, PCS_TOT, Physical Comparison Scale Total, DBS: Dieting Belief Scale Total, SD_WSSQ: Self Devaluation Weight Self Stigma Questionnaire, SE_WSSQ: Self Enacted Weight Self Stigma Questionnaire, WSSQ_TOT: Weight Self Stigma Total.

Physical comparison scale total shows significant positive correlation with dieting belief scale total(r = .28**, p < .01), and self-devaluation weight self-stigma questionnaire(r = .39**, p < .01), and self-enacted weight self-stigma questionnaire(r = .48**, p < .01), and weight self-stigma questionnaire total(r = .50**, p < .01).

Dieting belief scale total show significant positive correlation with self-devaluation weight self-stigma questionnaire (r = .33**, p < .01) and self-enacted weight self-stigma questionnaire (r = .28**, p < .01), and weight self-stigma questionnaire total(r = .35**, p < .01).

Self-devaluation weight self-stigma questionnaire shows significant positive correlation with self-enacted weight self-stigma questionnaire (r = .49**, p < .01), and weight self-stigma questionnaire total(r = .84**, p < .01).

Self-enacted weight self-stigma questionnaire shows significant positive correlation with weight-self stigma questionnaire total (r = .88**, p < .01).

Table 4
Summary of Multiple Regression Analysis with weight-self stigma as a predictor of diet belief among women university and college student

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Predictor	R^2	ΔR^2	F	Sig.
Weight self-stigma	.114	.110	31.76	.000a

Note: *p<.05, **p<.01

Table 5
Coefficients for Multiple Regression Analysis with weight-self stigma as a predictor of diet belief among women university and college students

<u> </u>	bener among n	omich amiren	icy and con	ege stauents	
Model	В	SE	ß	T	Sig
(Constant) Weight self-stigma	20.059 .199	3.267 .036	.337	6.140 5.582	.000

Note: *p<.05, **p<.01

Table no 4 and 5 demonstrated the results of Multiple Regression Analysis to test if weight self-stigma predicted positive affect dimension of diet belief. The results reveal that that predictor explained 11% variation. (R^2 =.110, F=31.76, p<.05). The analysis found that weight self-stigma predict the levels of diet belief (β =.337) in women university and college students.

Table 6
Summary of Multiple Regression Analysis with weight-self stigma as a predictor of diet belief among women university and college students

Predictor	R ²	ΔR^2	F	Sig.	
Weight self-stigma	.132	.125	18.727	.000b	

Note: *p<.05, **p<.01

Table 7
Coefficients for Multiple Regression Analysis with weight-self stigma as a predictor of physical appearance comparison among women university and college students

-							
	Model	В	SE	ß	T	Sig	
-	(Constant)	10.027	3.789		2.647	.000	
_	Weight self-stigma	.412	.053	.447	7.838	.000	
_	,			.447			

Note: *p<.05, **p<.01, IV: Weight Self Stigma, DV1: Dieting Belief Scale, DV2: Physical Comparison Scale.

Table no 6 and 7 demonstrated the results of Multiple Regression Analysis to test if weight self-stigma predicted positive affect dimension of diet belief. The results reveal that that predictor explained 13% variation. (R^2 =.132, F=.125, p<.01). The analysis found that weight self-stigma predicts the levels of physical appearance comparison (β =.447) in women university and college students. The regression tables show that the Weight self-stigma is the most significant (p<.01) predictors of DBS and PCSQ.

Table 8
The independent sample t-test shows the difference on the score of physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult college and university women students

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Scales	Age	M	SD	Df	T	P	Cohen's d
PCSQ	12-19	29.24	9.366	248	3.987	.000	0.50
	20-30	24.42	9.607				
DBS	12-19	56.09	15.862	248	2.714	.000	0.37
	20-30	50.90	14.359				
SDWSSQ1	12-19	15.68	4.803	248	1.940	.054	1.07
	20-30	10.50	4.745				
SEWSSQ2	12-19	15.22	5.837	248	2.566	.011	0.32
	20-30	13.41	5.295				
WSSQ	12-19	30.89	9.389	248	2.640	.009	0.32
	20-30	27.91	8.468				

Note: *p<.05, **p<.01, PCS: Physical Comparison Scale Total, DBS: Dieting Belief Scale, WSSQ: Weight Self Stigma.

Table no 8 results show significant differences on scores of physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult women students.

Table 9
Two-way Multivariate Analysis of Variance (MANOVA)displaying significant differences on scores of physical appearance comparison, dieting beliefs, and weight self-stigma in term of educational levels among college and university women students

Source	DVs	SS	df	MS	F	р	η2
Educational	WSSQ	610.73	2	305.367	3.838	.023	.030
level	PCSQ	1548.5	2	774.274	8.592	.000	.065
	DBS	3454.5	2	1727.271	7.800	.001	.060
	WSSQ1	125.19	2	62.595	2.746	.036	.022
	WSSQ2	210.30	2	105.155	3.396	.035	.027
Error							
	WSSQ	19572.0	246	79.561			
	PCSQ	22168.8	246	90.117			
	DBS	54474.8	246	221.443			
	WSSQ1	5607.48	246	22.795			
	WSSQ2	7616.253	246	30.960			
Total							<u>.</u>
	WSSQ	233730	249				
	PCSQ	199985	249				
	DBS	764597	249				
	WSSQ1	62028	249				
	WSSQ2	58382	249				

Corrected Total		
WSSQ 20182.75	248	
PCSQ 23717.43	248	
DBS 57929.43	248	
WSSQ1 5732.675	248	
WSSQ2 7826.562	248	

Note: PCS: Physical Comparison Scale Total, DBS: Dieting Belief Scale Total, WSSQ: Weight: Stigma Total.

Table no 9 Results displaying significant differences on scores of physical appearance comparison, dieting beliefs, and weight self-stigma in term of educational levels among college and university women students.

Discussion

The study predict relationship between physical appearance comparison, dieting beliefs and weight self-stigma among women students. The conclusions of the data stated that hypothesis was proved that have positive relationship between physical appearance comparison, diet beliefs and weight self-stigma. First and Second hypothesis of the research was that "weight self-stigma would be positive predictors of physical appearance comparison, dieting beliefs among women students". The conclusions of the data stated that hypothesis was proved that Weight self-stigma is the most positive significant predictors of Dieting Belief and Physical Comparison

A study examines the prevalence of body comparison among Japanese adolescents and its connection to weight status, body esteem, and dieting behavior to consider implications for public health. The design of this study is a cross-sectional study. An anonymous self-administrated survey was conducted with 1172 female students. The sampling method was non-random design. The survey items included self-reported height and weight, history and source of comparison, body esteem, and dieting behavior. Conclusion shows that Body comparison has a significant association with body image and dieting behavior in Japanese adolescence (Haruki & Chisuwa, 2017).

The previous researches are in line with the current researches that demonstrated a positive body image may contribute to increased self-esteem, engagement in social activities, healthier weight control practices, and greater physical activity. Conversely, negative body image may contribute to decreased self-esteem, negative affect, social withdrawal, and unhealthy weight control practices, feelings of worthlessness and incompetence, and eating pathology (Thompson et al., 1999).

Furthermore, A study examined social comparisons, appearance related comments and contingent self-esteem, and their relationships with body dissatisfaction and eating disturbance in young adult women. Importantly, the role of both positive and negative appearance related comments, and upward and downward comparisons, were investigated. A self-report questionnaire assessing each of these variables was completed by one hundred and ninety-six women aged 18–35. A higher frequency of negative comments and contingent self-esteem were associated with higher upward comparisons, and more positive comments were associated with higher downward comparisons. Overall, social comparisons were shown to be more important than verbal commentary and contingent self-esteem. More upward comparisons and less downward comparisons uniquely predicted higher body dissatisfaction and eating disturbance. In addition, negative appearance comments were found to be more salient than positive comments. Negative comments and contingent self-esteem uniquely predicted more eating disturbance but positive comments were not a predictor of body dissatisfaction or eating disturbance (Bailey & Ricciardelli, 2010).

Conclusion

There would be significant differences on score physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult women students". The conclusions of the data stated that hypothesis was proved that have significant differences on scores of body esteem, physical appearance comparison, dieting beliefs and weight self-stigma among adolescents and adult women students. The results proved that there would be significant differences on scores of physical appearance comparison, dieting beliefs, and weight self-stigma in term of educational levels. Females were more likely to have eating disorders if they were exposed to the media. Further research and evaluation are required to expand on the current study, which focused only on "ideal" vs "actual" picture perception.

Recommendations

The findings of the study cannot be generalized due to purposive sampling technique. Sample is not representative because it is taken form a District of Faisalabad. The current study was quantitative in nature which cannot explore each and every aspect regarding study variables. The media could use average sized models instead of thin ones, as the former may be equally effective in ads without adversely affecting the body image of women with high internalization. the strong media emphasis on women's thinness and attractiveness. Societal and institutional changes are needed to deemphasize unrealistic physical standards.

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