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Gender Differences in Physical Fitness, Body Shape Satisfaction, and Body Figure Preferences

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The present study aimed to determine the relationship between physical fitness and body shape satisfaction; gender and age differences in physical fitness, body shape satisfaction, and body figure preferences. Participants (35 men and 34 women with age range 18-32 years) were taken from fitness centers and jogging tracks of Lahore city. It was expected that gender related differences in physical fitness, body shape satisfaction, and body figure preferences would appear, with women exhibiting greater concerns as compared to men. Data was collected using the protocols: Eating Attitudes Test (Garner & Garfinkel, 1979), Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1987), Body Figure Preferences Test (Stunkard & Schulsinger, 1983), and Physical Activities Test (Ashfaq, 2008). Pearson Product Moment correlations, independent sample *t*-test, chi squares, and cross tabulation were conducted for data analyses. Findings revealed significant positive relationship between physical fitness and body shape concern. Gender differences were found only on body shape as women exhibited greater dissatisfaction and higher differences on current and ideal body shape as compared to men, however, no gender differences in physical fitness and body shape satisfaction were found.

Keywords: physical fitness, body shape satisfaction, body figure preferences

Body image is how one perceives, thinks, and feels about one's own body and physical appearance. Body image is a complex set of perceptions and attitudes toward size, shape, aesthetics, and experience of one's body (Keeton, Cash, & Brown, 1990). Body shape satisfaction is to what extent a person is satisfied with his weight, size,

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body shape, and physical appearance. Body image is a subjective concept, produced by inter- and intra-personal dynamics, and not actual physical body or outsider's impression of it (Cash & Pruzinsky, 1990; Hutchinson, 1994). Body image is often measured by asking the subject to rate their current and ideal body shape using a series of depictions. The difference between these two values is the amount of body dissatisfaction. The desire to lose weight has been shown to be highly correlated with poor body image and negative body image is formed over a lifetime from many different influences including family, peer group, media, and social pressure (Monteath & McCabe, 1997).

Abell and Richards (1996) examined body shape satisfaction and self-esteem of 41 men and 43 women. They found that men are significantly more dissatisfied than women with their weight, as men reported desire to be heavier. Both men and women reported a positive significant relationship between overall body image and self-esteem. Women also reported positive significant relationship between satisfaction with body shape and self-esteem (significantly stronger for upper class than for lower class women). Further, women who expressed greater dissatisfaction with their weight and body shape tend to have lower self-esteem scores than women who have a healthier body image. Women are more at risk than men are for problems related to body dissatisfaction and disordered eating behavior. Compared to men, women are more concerned with their appearance; more likely to perceive themselves as heavier than they actually are; more dissatisfied with their bodies; more likely to engage in various disordered eating behaviors; and also desire to lose more weight. More recent research also indicates that although a relationship between body satisfaction and self-esteem exists in both men and women, but this relation may be stronger for women than it is for men (Carraca et al., 2011; Safir, Shimrit, & Rosenmann, 2005).

In one of earliest reported studies, Fallon and Rozin (1985) asked men and women participants to rate different aspects of their body image on a set of nine figure drawings, which ranged from very thin to very heavy. All participants were instructed to indicate which figure most closely resembled their current figure; which figure was the ideal figure; as well as which figure they thought was the most attractive to the other sex. The current, ideal, and the most attractive figures were almost identical for men. Women's current figure was heavier than their most attractive figure, which was heavier than their ideal figure. The discrepancy between the figure that represents current body size and the figure that represents the ideal figure has been used as an indicator of level of dissatisfaction with one's body. Cash, Morrow,

Hrabosky, and Perry (2004) in a cross-sectional study of a 19 year period of men and women's body image reported gender differences in body image, where men's body image remained stable as compared to women (nonBlack and Black).

Dissatisfaction with one's body was also found to be connected with attempts to control eating behaviors. Improving body image plays a role in enhancing eating self-regulation during weight control (Carraca et al., 2011; McFarlane, Urbszat, & Olmstead, 2011). In clinical as well as nonclinical populations, negative attitudes are highly correlated with dieting behaviors (Safir et al., 2005). Women showed greater body dissatisfaction than men, even when the genders were matched on body focus (Lokken, Ferraro, Kirchner, & Bowling, 2003). Women are more likely than men to be on diets and are more dissatisfied with their body weight and shape. In a sample, out of those who were of healthy weight, 23% of the women perceived themselves as overweight, while only 9% of the men did. At the same time, of those who were actually overweight, 41% of the men versus 13% of the women thought their weight was just right. Men are obviously more accepting of their bodies and as a result seem to have a more relaxed approach about their food choices (Johnson, 2008). It is also reported that women tend to internalize societal ideals of physical appearance communicated through magazines and exhibit body shape dissatisfaction (Morry & Staska, 2001).

Across cultures, this seems to be a consistent research finding. Holmqvista, Lunde, and Frisena (2007) found differences among Argentinean and Swedish teens on body satisfaction, although girls in both countries displayed greater body dissatisfaction than boys. Similarly, Harris, Sandoval, and Cortese (2008) reported that in a multicultural sample of college students from five ethnic groups, women had higher restraint scales than men, were more dissatisfied with their weight, and preferred a thinner figure than the one they considered healthiest. Closer to Pakistan, the same pattern is reported on a sample of Iranian women athletes (Gargari, Khadem-Haghighian, Taklifi, Hamed-Behzad, & Sharaki, 2010) and Turkish female high school students (Akdemir et al., 2011).

Barry, Grilo, and Masheb (2001) report that men and women patients with Binge Eating Disorder do not differ significantly on age at first overweight, age at first diet, age at onset of regular binge eating, or number of weight cycles, current eating disorder features (binge eating, eating concerns, and weight or shape concerns), but women reported significantly greater body image dissatisfaction and drive for thinness.

In Pakistan, there has been a shift from the traditional eating patterns and food with the advent of international fast food chains (McDonalds, KFC, Subway, Hardees, One Potato Two Potato, Pizza Hut, Dominoes, etc.). At the same time there has been a mushroom growth of business which offer health consciousness/awareness (gyms and slimming clinics), lifestyle change gurus, businesses, and cosmetic surgery clinics (stomach, facial, stomach patching, intestinal reduction) all over the country. At the same time Pakistani fashion industry has grown enormously with modeling careers (and very thin models) becoming more visible in print and electronic media. Researchers have reported that Pakistani women are similar to British women (White and Asian) in aspiring for a thinner "Western Ideal" body (Bardwell & Choudary, 2000). The media has had a negative influence on young university students' body image, with more young men showing dissatisfaction than women (Khan, Khalid, Khan, & Jabeen, 2011). Keeping the lifestyle changes and the pressure for "Thin and Fit", the present research aimed to investigate the physical fitness, body shape satisfaction, and eating and body shape concerns in the young Pakistani men and women.

On the basis of the aforementioned literature it was hypothesized that:

1. There would be a strong positive relationship between physical fitness and body shape satisfaction.
2. Women would have greater physical fitness concerns as compared to men.
3. Women would be more dissatisfied with their body shape as compared to men.
4. Women would exhibit greater difference between their current and ideal body shape as compared to men.

Method

Sample

Sixty nine participants (35 men and 34 women) taken from different slimming centers, different departments of Punjab University, and from different areas of Lahore city where there were parks with jogging tracks were taken. Purposive sampling strategy

was used for sample selection with the inclusion criteria i.e. a) regular walkers or walked at least four days a week; b) had no health problems, physical issues, and chronic diseases; or c) had joined a gym or did physical exercise at home.

Demographic Questionnaire. A questionnaire was developed to obtain information regarding participants' demographic variables, such as their age, gender, occupation, monthly family income, and education (see Table 1).

Table 1

Descriptive Statistics of the Sample (N = 69)

Demographic		Men (n = 35)	Women (n = 34)	Total
Education	Matric	0	1	1
	Internediate	1	6	7
	Graduation	21	11	32
	Post-graduation	13	16	29
Income (PKR/month) employment status				
> 10.000	Unemployed	21	14	35
	Employed	4	6	10
	Total	25	20	45
> 50.000	Unemployed	4	5	9
	Employed	2	3	5
	Total	6	8	14
>100.000	Unemployed	2	5	7
	Employed	2	1	3
	Total	4	6	10

As can be seen from the demographic profile (Table 1), majority of the participants were educated that is, graduation and higher (χ^2 = 7.99, df = 3, $p < .05$); unmarried and unemployed with a reported income of greater than 10,000 PKR/month (χ^2 = 3.67, $p < .05$; χ^2 = 1.67; χ^2= .67, n.s., respectively). Majority of men and women were unemployed with reported income of greater than Rs.10,000, but less than Rs. 50,000 followed by the Rs. 50,000-100000 category, and only 10 out of 69 reported higher than 100,000 PKR/month (χ^2 = 1.20, n.s.; χ^2 = .26, n.s.; χ^2 = 1.26, n.s.)

Measures

Body Shape Questionnaire (BSQ). This scale developed by Cooper et al. (1987) was used in the current research for measuring body shape satisfaction. It is designed to assess satisfaction with body shape, weight, and physical appearance. This 34 items scale has six subscales named as Body Shape, Fatness, Thighs or Bottom, Fleshy Areas, Consciousness of Body Shape in Presence of Others, and Disordered Eating. The scores on this scale can be from 34 to 204, with 6 response options for each item (ranging from *never* = 1 to *sometimes* = 3, to *always* = 6). Higher scores show dissatisfaction with body shape. The cutting points of this scale are less than 80 = no concern with shape; 80 to 110 = mild concern with shape; 111 to 140 = moderate concern with shape; and above 140 = marked concern with shape. The Cronbach's alpha reliability for the entire 34 items scale was .96 on the present sample.

Eating Attitudes Test (EAT-40). This scale developed by Garner and Garfinkel (1979) was used for current research. It was designed as an assessment tool for measuring restrained eating and physical activities. The EAT has six options for each item, with responses ranging from *always* to *never*. The participants were asked to respond by marking the options which was best applicable to them. This scale has eight subscales which measure Diet Consciousness, Social Eating, Fatness, Eating Disorder, Fitness, Physical Activities, Others Influence on Eating, and Preoccupation with Food. The score on this scale can vary from 58 to 312 and higher scores show consciousness of physical fitness. The Cronbach's alpha reliability for the entire 58 items scale was .91 in the present study.

Physical Activities Test (PAT). Scores on this self-constructed test measured concerns about physical activities. Since the current research also focuses on physical fitness, therefore, to appraise the two main factors of physical fitness that is, Eating Attitudes and Physical Activities, a short 11 item questionnaire was developed. The 11 new items cover physical activities and fitness concerns (frequency and regularity of exercise, weighing self, watching calories). These were rated on a 3-point rating scale ranging from *low* to *high*, with higher score indicating greater concerns for weight. The Cronbach's alpha reliability of .72 was achieved for the current sample.

Body Figure Preferences Test (BFPT). It provides assessment on a simple visual 7-point body scale (adapted from Stunkard & Schulsinger, 1983 in present study). Seven female adult figure drawings were used to illustrate body weight ranging from very thin to

obese. It was designed as an assessment tool for measuring difference between current and ideal body shape which indicates the level of dissatisfaction with one's body with alpha reliability for this sample was .58. The scores on this scale can be from 2 to 7 and the greater the difference between two figures the greater the dissatisfaction with body shape.

Procedure

Participants were contacted and briefed about the purpose of the research. Consent was obtained regarding the participant's willingness to participate in the research.

Results

Pearson Product Moment Correlation and Independent sample *t*-test were applied on the scores of BSQ, EAT, PAT, and BFPT, keeping in view the hypotheses.

Significant correlations were found between EAT and PAT ($r = .51, p < .001$), EAT and BSQ ($r = .61, p < .001$), EAT and BFPT ($r = .35$, $p < .01$), BSQ and BFPT ($r = .31$, $p < .01$)), but nonsignificant correlations between PAT and BSQ and BFPT were found.

As can be seen in Table 2, there is a significant positive relationship dieting has with body shape and fatness, indicating those who are conscious about their body shape and fatness are diet conscious. Further, there is a significant positive relationships between the expressed concerns of the fleshy areas such as thighs/bottom and dieting. Interestingly, dieting and consciousness of body shape in others company are also significantly related. Tbis indicates that those who are conscious about their body shape in company of others, diet more. Strong positive correlation between being overweight and consciousness of body shape in the presence of others is also found. However, enjoying food or social eating appears not to be associated with the body shape (see Table 2).

Correlations between BSQ and PAT are also presented in Table 2. Preoccupation with food is significantly and positively associated with all factors such as body shape, fatness, fleshy areas, consciousness of body shape in others company, and eating disorder but little associated with thighs or bottom. Further, as can be seen in

Table 2, significant positive correlations between fitness and fatness, and exercise/physical activities, and body shape show that those who are conscious about being fat are conscious about fitness as well. Fitness is significantly and positively associated with fatness and consciousness of body shape in others company, whereas it has very little association with body shape, thighs/bottom, fleshy areas, and eating disorder. Exercises or physical activities are significantly and positively associated with almost all the factors of the body shape questionnaire. Furthermore, strong positive significant correlation was found between PAT, EAT, and BFPT with BSQ. Thus, indicating that consciousness of physical fitness affects eating and body shape concerns (see Table 2).

Table 2

Correlations of Body Shape Questionnaire with Subscales of Eating Attitudes Test and Physical Activities Test (N = 69)

	BSQ					
Subscales	Body Shape	Fatness	Thighs/ Bottom	Fleshy Areas	Consciousness of body Shape in others company	Eating concerns
EAT						
Dieting/ Diet	.48**	.58**	.37**	.46**	.47**	.26*
Consciousness						
Enjoy Eating / Social Eating	.15	.18	.11	.19	.18	.08
Overweight / Fatness	.68**	.74**	.61**	.66**	.68**	.33**
Eating Disorde	.46**	.36**	.32**	.45**	.40**	.36**
Others Influen on Eating	.10	.11	.03	.18*	.15	.14
PAT						
Exercises/ Physical Activities	.39**	.62**	.38**	.39**	.42**	.18
Fitness	.12	.29*	.02	.15	.21*	.12

*$p < .05$. **$p < .01$.

As can be seen in Table 3, gender difference in mean scores for BSQ, EAT, and PAT are nonsignificant. However, significant difference in means can be seen in the body figure shape present/ideal as reported by men and women. Women exhibit greater dissatisfaction and higher differences on current and ideal body shape as compared to men. This also indicates that women were perhaps more dissatisfied with their body weight and shape.

Table 3

Means, Standard Deviations, and t-values of Scores of Men and Women on Body Shape Questionnaire, Eating Attitudes Test, Physical Activity Test, and Body Figure Preferences Test (N = 69)

Variables	Men ($n = 35$)	Women ($n = 34$)		95%CI		
	M(SD)	*M(SD)*	$t(67)$	UL	LL	Cohen's *d*
BSQ	93.75(39.64)	80.43(40.80)	.51	24.35	14.31	.33
EAT	113.57(33.40)	123.06(26.50)	1.29	24.37	5.10	.31
PAT	44.63(10.47)	46.47(8.56)	.99	6.57	2.49	.19
BFPT	1.28(.98)	1.55(.80)	2.06*	2.27	1.40	.40

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit.
*$p < .01$.

Discussion

This study set out to examine relationship between physical fitness and body shape satisfaction and gender differences in physical fitness, dissatisfaction with body shape, and body figure discrepancy. Our findings are consistent with previous research where dissatisfaction with body size and weight is more common among women than men (Casey et al., 1991). The results of body figure preferences also showed significant gender difference with women more likely to choose a slimmer ideal than their actual body size; the men within normal weight range choose a figure matching their own; while men with above average weight range showed a preference for a slimmer figure.

The results also revealed that the discrepancy between current and ideal figure was higher in women as compared to men which indicates their dissatisfaction with body shape. Several studies support such findings as Rozin and Fallon (1988) conducted a research on body image by using nine figure drawings, which ranged from very

thin to very heavy and the results showed that women's current figure was heavier than their most attractive and ideal figure and the discrepancy between current and ideal figure is used as an indicator of level of dissatisfaction with one's body. Similar findings showed that women indicated a larger discrepancy between their real versus ideal body images than did men and women showed greater body dissatisfaction than men (Lokken et al., 2003; Monteath & McCabe, 1997).

However, in the present study physical fitness was measured on the basis of eating patterns and exercise habits and the results revealed significant relationship between physical fitness and body shape dissatisfaction. This finding supports the previous research that dissatisfaction with one's body was found to be connected with attempts to control eating behavior. In clinical as well as nonclinical populations, negative attitudes are highly correlated with dieting behaviors (Cash et al., 2004; Safir et al., 2005). This has been found to be true cross-culturally. In an Iranian study of young women, eating attitude disorders (as measured by EAT-26) were higher in women who participated in the fitness programs. High social physique anxiety accompanied by low self-esteem and high body weight was reported in these women (Gargari et al., 2010).

Our results do not show a significant difference between men and women on body shape dissatisfaction. Earlier Silberstein, Ruth, Moore, Timko, and Rodin (1988) reported no gender difference on body shape in adults. Men reported being conscious of their body shape as well as women. However, Morry and Staska (2001) reported that men internalize social ideals through self-objectification and women through body shape dissatisfaction. Similarly, findings are reported where adolescent girls exhibit greater body dissatisfaction as compared to boys (Jones, Vigfusdottir, & Lee, 2004).

The present study revealed some trends in consciousness of physical fitness for both genders; however, women are slightly more conscious of their physical fitness as compared to men. This finding is supported by the earlier researches. Women are more concerned with their appearance; more likely to perceive themselves as heavier than they actually are; more dissatisfied with their bodies; more likely to engage in various disordered eating behaviors; and also desire to lose more weight (Safir et al., 2005); more likely to be on diets; and are more dissatisfied with their body weight and shape (Johnson, 2008). Further, women are more likely to take exercise for weight control than men and exercising for weight control is associated with deregulated eating (Silberstein et al., 1988).

Conclusion

It can be concluded from the results that there is a significant relationship between physical fitness and body shape concern. There is also a significant difference in body figure preference between men and women but not for physical fitness and body shape.

Implications

The opening up of many multinational food outlets, along with increasing concerns about body shape and physical fitness, as well as emergence of many gyms and fitness centers (in addition to cosmetic surgery clinics) are indications of change in the Pakistani society. The concern could have a negative influence for young boys and girls whose concerns about their body shape (and not physical fitness) may be an indicator for concern for parents, teachers, counselors, and medical practitioners. These finding might be helpful for further researches and counseling.

Limitations and Suggestions

This is a preliminary research in this area in Pakistan, focusing on the changing food and eating influences on body shape concerns, weight satisfaction, and physical fitness. However, the present results cannot be generalized because of the limited sample size and a narrow age range. Further, our sample was taken on purposive basis from two slimming centers, various departments of Punjab University, and from some areas of Lahore city (where there were walking tracks and exercise areas).

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