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EATING BEHAVIORS

An examination of eating attitudes and physical activity levels of Turkish University students with regard to self-presentational concern

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Abstract

This study aimed to examine eating attitudes and physical activity level of young women and men university students with regard to social physique anxiety level. 482 university students participated in this study voluntarily. "Eating Attitude Test (EAT-40)", "Social Physique Anxiety Scale" and "Physical Activity Assessment Questionnaire" were used to assess the eating attitude, social physique anxiety and physical activity level of participants, respectively. Women and men participants in this study were assigned to high (HSPA) and low (LSPA) social physique anxiety groups with respect to their median scores. Men had favorable eating attitudes and higher physical activity level than women. In addition, participants in the HSPA group had unfavorable eating attitudes and higher physical activity MET values than participants in the LSPA group. On the other hand, group × gender interaction was only significant for the eating attitudes scores but, not for physical activity level. Women in the HSPA group scored higher on the EAT-40 than men in HSPA and women and men in the LSPA groups.

Keywords: Eating attitudes; Physical activity; Social physique anxiety

1. Introduction

Through the history of life, people have been loading different meanings to slimness and fatness. Slimness has been defined as happiness, success, youthfulness and social acceptability whereas, being overweight was linked to laziness, lack of will power and being out of control (Grogan, 1999). Moreover, society, especially the media showed women as ideally slim and men as ideally slender and muscular. These kinds of presentations drive people to be slim, slender and muscular to become attractive and socially acceptable (Grogan, 1999; Silverstein, Peterson, & Purdue, 1986). The cultural standards for physical attractiveness and ideal physique of being slim, thin and fit physique for women and lean and muscular for men influences the way that many individual perceive their bodies (Imm & Pruitt,

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1991). Aspiring toward attaining this ideal, many individual are dissatisfied with their body shape and preoccupied about fat on their bodies (McAllister & Caltabiano, 1994). These negative perceptions about one's body size and weight are often distorted and may lead to the development of maladaptive eating and exercise patterns (Striegel-Moore, McAway, & Rodin, 1986; Striegel-Moore, Silberstein, & Rodin, 1989). One mean to understand the relationships among the cultural ideal body, body satisfaction, eating and exercise behaviors is through the self-presentation framework (Leary, 1992; Leary & Kowalski, 1990).

Self-presentation refers to the ways in which people manage how they present themselves to others and it is an attempt by the individual to selectively present aspects of himself or herself or to omit self-relevant information to maximize the likelihood that a positive social impression will be generated and undesired impression will be avoided (Leary, 1992; Leary & Kowalski, 1990). Self-presentation pervades throughout all areas of individual's life and an individual try to create desired impression in the variety of environmental and social settings such as job interview, school environment, buying clothes, going out to a party/dance, being next to someone with a good physique, and being center of attention. In addition, people who are particularly attuned to others' perception of themselves concerned with behaving in accordance with situational norms, worried about social approval and disapproval, or anxious about others' perceptions and evaluations of themselves or anxious about the evaluation of their physique. In particular, cultural ideals and messages concerning body shape may rise the self-presentational concerns and individuals try to present themselves fit, thin, lean and muscular.

One of the self-presentational concerns is the social physique anxiety which may result from self-consciousness concerning one's body (Hart, Leary, & Rejeski, 1989). Within the self-presentation framework, social physique anxiety is one type of social anxiety and is defined as an affective response reflecting concern for how one' s body is judged by others (Leary, 1992).

Social physique anxiety has been found to correlate with number of psychosocial variables logically associated with evaluative concerns such as global self-esteem, body esteem, weight dissatisfaction and body dissatisfaction (Bartlewski, Van Raalte, & Brewer, 1996; Crawford & Eklund, 1994; Lantz, Hardy, & Ainsworth, 1997; McAuley, Bane, & Mihalko, 1995). Besides, social physique anxiety may also be associated with eating attitudes, motives to exercise and exercise behavior pattern (Crawford & Eklund, 1994; Eklund & Crawford, 1994; Frederick & Morisson, 1996; McAuley et al., 1995).

The different propositions put forward to explain the possible relationship between social physique anxiety, eating attitudes and exercise behaviors. For example, it is possible that those with high levels of social physique anxiety might engage in healthy dieting/eating behavior to assist themselves to self-present in a favorable manner. On the other hand, it is possible that those with high social physique anxiety might engage in abnormal eating behavior to create favorable impressions (Haase & Prapavessis, 1998). In addition, social physique anxiety has been associated with both low (Lantz et al., 1997) and excessive exercise (Frederick & Morrison, 1996). Some evidence provides support for these different propositions for the relationship between social physique anxiety, exercise behavior and eating attitudes on the Western culture samples. However, there is no attempt to test these propositions on the Eastern cultures. Thus, the present study was conducted to answer the main question of how the social physique anxiety influences the exercise and eating behaviors of Turkish university students by comparing the eating attitudes and physical activity level of young women and men university students with regard to their social physique anxiety. In addition, the present study was conducted to answer three other questions: (1) what percentage of women and men university students would be diagnosed with disturbed eating behavior? (2) would the eating attitude of women differ from men? (3) would the physical activity level of women differ from men?

2. Method

2.1. Participants

253 women ($M_{age}=22.15\pm2.75$) and 229 men ($M_{age}=23.20\pm2.29$) university students were voluntarily participated in this study. Students were selected from one of the universities in the capital city of Turkey. The participants were from moderate-income families and the majorities were from the urban regions of Ankara, Turkey.

2.2. Measures

2.2.1. Social physique anxiety scale (SPAS)

The 12 item Social Physique Anxiety Scale (SPAS) was used as the measure of social physique anxiety (Hart et al., 1989). Items are presented on a 5-point Likert scale with total scores ranging from 12–60. The reliability and validity of SPAS for Turkish population were determined by Mülazımoğlu Ballı and Aşçı (2004).

2.2.2. Eating attitude test (EAT-40)

EAT-40 is a psychological measure of anorexic/bulimic like attitudes and beliefs (Garner & Garnikel, 1979). It includes 40 items in which the frequencies of attitudes and beliefs are rated using 6-point scale. A score of 30 and above is commonly used as a cut-off point to identify individuals with anorexia or bulimia (Garner & Garnikel, 1979). The reliability and validity of EAT-40 for Turkish population is determined by Savaşır and Erol (1989).

2.2.3. Physical activity assessment questionnaire (PAAQ)

PAAQ is a self-report questionnaire, which asked the participants to give the weekly average of the number of times, and duration they engaged in physical activity over the last year (Karaca, Ergen, & Koruç, 2000). The work (school for students), travel, home, sport and stair activities were listed as 5 separate categories to estimate the activity of participants during the last year. Respondents indicated whether the activities that are listed under these categories were done and if so, on how many days and how many minutes per day the activity was generally performed in a week. Each activity was assigned an intensity value (Metabolic expenditure units—MET) based on the work of Ainsworth, Jacobs, Leon, Richardson, and Montoye (1993). MET/week values are computed by the multiplication of duration, frequency and assigned MET values to each activity (MET/week = Frequency × Duration × MET value of activity). The average weekly energy expenditure in kilocalories (kcal/week) is also computed by using the following formula set:

$$\text{kcal/week} = \text{Frequency} \times \text{Duration} \times \text{MET value of activity} \times \text{Weight}.$$

PAAQ reveals MET/week and kcal/week values for home, work, travel, sport and stair categories. The sum of the five scores is considered the total physical activity score (MET/week or kcal/week).

PAAQ has been shown to have acceptable validity for research purposes. Two week test–retest reliability was $r = .40$ for MET/week and $r = .53$ for kcal/week in adults (Karaca et al., 2000). The PAAQ has been found to be moderately correlated ($r = .72$; $p < .01$) with 24 h daily writing of the activities (Karaca et al., 2000). In this study, sport MET/week scores were used as indicator of exercise behavior.

2.2.4. Procedure

SPAS, EAT-40 and PAAQ were administered to participants in a group at classroom setting. Researchers provided verbal and visual information on how to respond to items in each questionnaire. Participation in the study was voluntary and self-report questionnaire responses were anonymous. Men and women participants were classified as low (LSPA, $n = 267$) and high (HSPA, $n = 215$) social physique groups based on median split of social physique anxiety values. The median social physique scores were 31 and 28 for women and men, respectively.

3. Results

The prevalence results showed that 3.7% of 229 men and 6.6% of 253 women had disturbed eating behavior and disturbed eating behavior (EAT ≥ 30) was found in 5.2% of the total sample. Women had a mean EAT-40 score of 14.66 ± 8.98 and men had a mean score of 12.33 ± 7.08. The physical activity scores were 4.58 ± 4.03 and 5.61 ± 5.16 for women and men, respectively (Table 1).

2 × 2 (Women/Men × High/Low Social Physique Anxiety Groups) Analysis of Variance was conducted to test the gender and social physique anxiety group differences in eating attitudes and physical activity level.

Table 1
Physical activity level and eating attitudes of men and women in high and low social physique anxiety groups

Scales	High social physique anxiety group ($n=215$)		Low social physique anxiety group ($n=267$)		Total ($n=482$)	
	M	SD	M	SD	M	SD
Eating attitudes						
Female	18.36	10.54	11.58	5.92	14.66	8.98
Male	12.99	8.01	11.85	6.29	12.33	7.08
Total	15.94	9.83	11.71	6.09	13.57	8.23
Physical activity level (sport MET/week)						
Female	5.17	5.00	4.06	2.83	4.58	4.03
Male	6.31	6.53	5.08	3.76	5.61	5.16
Total	5.71	5.78	4.58	3.37	5.09	4.64

2×2 ANOVA revealed significant gender differences in eating attitudes ($F_{(1,457)}=12.09$; $p<.01$) and physical activity level ($F_{(1,383)}=5.24$; $p<.05$) between men and women. Men have favorable eating attitudes and tend to participate to physical activity more than women. In addition, significant differences were obtained in eating attitudes ($F_{(1,457)}=29.14$; $p<.01$) and physical activity level ($F_{(1,383)}=6.16$; $p<.01$) between participants with high social physique anxiety and those with low social physique anxiety. Participants in the HSPA group have unfavorable eating attitudes and have higher physical activity MET values than participants in the LSPA group.

On the other hand, group × gender interaction was only significant for the eating attitudes scores ($F_{(1,457)}=14.75$; $p<.01$) but, not for physical activity level ($F_{(1,383)}=.02$; $p>.01$). Women in the HSPA group scored higher on the EAT-40 than men in HSPA and women and men in the LSPA groups.

4. Discussion

This study illustrates that small number of university students were (5.2% of the university students) struggling with disturbed eating attitudes. In other words, 5.2% of late adolescents scored above the cutoff scores. This percentage is likely lower than percentage that obtained in the previous studies (Borgen & Corbin, 1987; Prouty, Protinsky, & Canady, 2002; Ratcliff, 1986). Especially, the prevalence of eating disorders for women was very low than previous prevalence studies (Borgen & Corbin, 1987; Prouty et al., 2002; Ratcliff, 1986).

The results on the comparisons between the eating attitude scores indicated a significant difference between women and men. Women in the present study have been found to report higher eating attitudes scores compared to men. This gender difference in eating attitudes was consistent with the most of the previous studies (Borgen & Corbin, 1987; Furnham, Badmin, & Sneade, 2002). As reported by many researchers (Taub & Blinde, 1992; Wichmann & Martin, 1993; Wilkins, Boland, & Albinson, 1991), societal conditions and culturally ideal body shape encourage women to believe that in order to be attractive they must be thin. These social influences can lead to an obsession with thin, thinness, distorted body images and body image dissatisfaction. In addition, generally women are more likely to describe themselves as fat and are more dissatisfied with their physical appearance than men (Furnham & Calnan, 1998). These conditions can lead unhealthy eating behavior patterns and severe eating problems (Striegel-Moore et al., 1986, 1989).

As in the previous studies, men are found to be more physically active than women which were in line with the results on Canadian, British, American, and Russian populations (Crocker, Eklund, & Kowlaski, 2000; Hagger, Ashford, & Stambulova, 1998; Hayes, Crocker, & Kowalski, 1999; Ross & Pate, 1987). Numerous reasons can be postulated for the higher physical activity scores of the men than women. As suggested by Armstrong and McManus, a lack of perceived competence, feeling of alienation from being unable to conform to a desired physique, and conflict between sport participation and the ideology of femininity may be reasons for low participation of physical activity in females. On the other hand, the placement of higher value on sport competence, and the domination of games and activities in males' school social life may be reasons of high level of involvement in physical activity for males (cited by Hagger et al., 1998). In addition, traditional stereotype of females "being less assertive" than males might contribute to this physical activity differences. The reasons underlying the differences between the sexes in physical activity preferences and participation frequencies need to be explored in more detail.

Consistent with the previous studies (Haase & Prapavessis, 1998; Spink, 1992), social physique anxiety was found to be an important contributor to the eating attitudes of university students. In other words, eating attitude differences were obtained between participants who were classified as having high social physique anxiety and low social physique anxiety. Although eating attitude scores of high social physique anxiety group were not accepted as abnormal eating behavior pattern, late adolescents who are in high social physique anxiety had higher eating attitude score than those in the low social physique anxiety group. In other words, individuals with higher social physique anxiety report less healthy eating attitudes. Especially, women university students in the present study with high social physique anxiety tend to engage in unhealthy eating attitudes or report high eating attitude scores. The obtained finding on Turkish university students was in line with the Western proposition of those with high levels of social physique anxiety might engage in abnormal dieting/eating behavior to create favorable impressions. In addition, the findings of present study with Turkish university students as well as those by Reel and Gill (1996) with cheerleaders, Spink (1992) with figure skaters and Haase and Prapavessis (1998) with university students provide evidence for this proposition. Furthermore, the findings of Johnson, Diehl, Petrie, and Rogers (1995) and McDonald and Thompson (1992) provide further support to the result of the present study and this proposition.

Another finding of this study indicated that individuals with high social physique anxiety have more tendency to participate in physical activity than those in the low social physique anxiety. The obtained result on the physical activity level was in line with the results of Frederick and Morrison (1996). As reported by Kowalski, Crocker, and Kowalski (2001), individuals with high social physique anxiety may be motivated to engage in physical activities as remedial behaviors, with intentions to improve or maintain their physical appearance through physical activity participation.

From the findings of the present study, it is possible to conclude that, having high social physique anxiety directed individuals to engage in unhealthy eating attitudes and excessive physical activity. This study provides support for one of the Western culture propositions of those with high social physique anxiety might engage in abnormal eating behavior to create favorable impressions and social physique anxiety has been associated with excessive exercise.

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