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Body Dissatisfaction and Mental Health of Competitive and Recreational Male Bodybuilders

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Abstract: Interaction of physical and mental dimensions is necessary to survive. The purpose of present study was to examine body dissatisfaction and mental health of competitive and recreational male bodybuilders. The sample composed of 97 bodybuilders (46 competitive, 51 recreational ones), aged 21 to 34 years old, selected randomly from Tehran gymnasia. It was ex-post facto research. Mental health was assessed by GHQ-28 and body dissatisfaction was evaluated by FRS. Results showed that there was significant difference between competitive and recreational male bodybuilders in social dysfunction. Recreational male bodybuilders had better performance in social function. However, there was not significant difference in other dimensions of mental health ($p<0.05$). BMI predicted body dissatisfaction significantly in group of recreational. However, age, body weight and marital status did not predict body dissatisfaction significantly in both groups of competitive and recreational ($p>0.05$). Moreover, BMI did not predict body dissatisfaction significantly in group of competitive.

Key words: Mental health · Body dissatisfaction · Competitive male body builder · Recreational male body builder

INTRODUCTION

Human includes physical and mental dimensions which their interaction and balance are necessary to survive. Sport is a tool to improve the interaction of physical and mental dimensions. Sport composes of physical activities which decrease the anxiety and physical and affective tiredness. Sport increases the physical and mental health [1].

Mental health is health of body, psyche, social power and affective power. The specialists believe that depression, anxiety, aggression and social abnormalities threat mental health. Such factors not only threat mental health but also physical health [2].

During three decades, body dissatisfaction has been increased among men since 15% to 43% which the value has been changed close to the statistics of female dissatisfaction [3]. The laboratory and cross-sectional studies show that women wish for thin beauty standards and men desire ideally thin muscular body as advertised in the media. Consequently, it increases body dissatisfaction followed by negative impact on both men and women [4-8].

The most of young men follow thinner, larger and more muscular body [5]. Body dissatisfaction incompatible with the beauty standards exists in both sexes. The prevalence of body dissatisfaction is worrying since the subject of body image mostly stimulates nutritional disorders, compulsory behaviors [9] and use of anabolic-androgenic steroids [10].

Male body builders have high levels of body dissatisfaction [11], mental involvement of body shape and size, incorrect corrective exercises such as severe diet and dehydration [12] and use of anabolic-androgenic steroids [13].

Loosemore and Moriarty (1990) showed more nutritional disorders and body dissatisfaction in male bodybuilders than athletes and non-athletes.

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However, more positive body image was demonstrated in male bodybuilders [14] in comparison with active subjects [15] and inactive control group [16]. According to psychological traits, the male bodybuilders have more egoism [17], masculinity beliefs [18] and inefficient feeling [13].

Nutritional behavior and psychological traits have been slightly considered between recreational and competitive bodybuilders. Davis and Scott-Robertson (2000) found that there was not significant difference in egoism between competitive male bodybuilders and women suffering from anorexia nervosa but both of them significantly differ from group control. Moreover, the competitive male bodybuilders had more positive comprehension of body image and self worth than women suffering from anorexia nervosa [17]. Mangweth *et al.* (2001) understood that the male bodybuilders had more body dissatisfaction and weight dissatisfaction than control group of male non-athletes [19].

Sport significantly influences mental health. We tried to find whether there is different mental health between competitive and recreational male bodybuilders. The purpose of present study was to examine body dissatisfaction and mental health of competitive and recreational male bodybuilders.

Methodology: The body builders were recruited by posting advertisements in local gymnasia. They were given a cover letter describing the purpose of the study as to examine "body dissatisfaction and mental health of competitive and recreational male bodybuilders." To protect their anonymity, bodybuilders were instructed not to include their name or contact information on any of the surveys and they were guaranteed that data obtained would only be available to study staff. Any publication of data would involve aggregated data so that no individual could be identified. The sample composed of 97 bodybuilders (46 competitive, 51 recreational), aged 21 to 34 years old, selected randomly from Tehran gymnasia. Demographic characteristics were age, weight, height and marital status (single, married). BMI was calculated through the equation (BMI=weight/height^2). In the General Health Questionnaire-28 (GHQ-28), the participants responded to the items using a 4-point Likert Scale ranging from 1 (not at all) to 4 (much more than usual). The higher the total score, the poorer the psychological well-being is. It composed of four dimensions including somatic symptoms, anxiety, social dysfunction and depression. It has proven to be a valid and reliable instrument [20,21]. Moreover, Figure Rating Scale (FRS) was used in order to measure body dissatisfaction [22]. Stunkard's body figure rating scale consists of 9 silhouettes, which progressively change from extremely thin to extremely fat. Each figure is marked with a number from 1 to 9. Participants were asked to choose a number, figure, which most closely matches their own body, figure which they wish to have and the one they consider ideal in their country. The level of body dissatisfaction was figured as a difference between the ideal and the current body figure or country ideal and the current body figure. The values could range from-8 to +8. Values <0 indicated a desire to be heavier than one's perceived current image, whereas values >0 indicated a desire to be lighter than one's perceived current image. This instrument has reliable test-retest values of 0.71 to 0.92 and an adequate constructive validity [23]. Also, the competitive were separated from the recreational by the specific criteria. Inclusion criteria for the competitive male bodybuilders required a person to be either actively training for a competition or to have competed within the past 12 months. Recreational male bodybuilders were defined as those people who engaged in traditional forms of weight training (for example, free weights) at least twice weekly for 7 months or more (although all did significantly more) and who had never competed in a bodybuilding competition and had no plans to do so in the next 12 months. Demographic characteristics were measured by descriptive statistics (mean, standard deviation). Data analysis was done by Kolmogorov-Smirnov test, independent-samples t test and multiple regression. All the statistical calculations were done by SPSS 16 software.

RESULTS

Table 1 shows the demographic characteristics of the participants.

There were 46 competitive male bodybuilders (age: 27.2±4.4 years old, height: 176.31±5.4 centimeters, weight: 95.2±13.5 kilograms, BMI: 31.7±3.1 kg/m^2) and 51 recreational male bodybuilders (age: 24.6±5 years, height: 178.1±8.1 centimeters, weight: 80.6±11.7 kilograms, BMI: 25.9±5 kg/m^2).

Table 2 presents the comparison of the mental health between competitive and recreational male bodybuilders.

As shown in table 2, there was significant difference between competitive and recreational male bodybuilders in social dysfunction (t (df = 95) =-2.95, p=0.01).

Table 1: Demographic characteristics

	competitive		recreational	
	mean	Std. deviation	mean	Std. deviation
Age (years old)	27.2	4.4	24.6	5
Height (cm)	176.31	5.4	178.1	8.1
Weight (kg)	95.2	13.5	80.6	11.7
BMI (kg/m^2)	31.7	3.1	25.9	5

Table 2: Comparison of mental health

	Recreational		Competitive				
	M	SD	M	SD	df	t	sig
somatic symptoms	5.22	4.35	6	4.32	95	-1.25	0.21
anxiety	7.07	4.85	6.80	5.11	95	0.37	0.71
social dysfunction	7.11	4.9	9.06	4.33	95	-2.95	0.004
depression	6.66	5.94	6.63	6.01	95	0.043	0.96

Table 3: Prediction of body dissatisfaction from different factors

	recreational					competitive				
	B	Std. error	β	t	sig	B	Std. error	β	t	sig
Constant	0.260	2.248		2.598	0.008	1.699	1.503		1.131	0.260
Age	0.634	0.51	-0.91	-0.764	0.410	-0.042	0.042	-0.031	-0.476	0.634
Body weight	0.356	0.201	-0.009	-0.108	0.929	0.94	0.121	0.59	0.925	0.356
BMI	0.343	0.072	-0.123	-1.976	0.05	-0.048	0.052	-0.069	-0.951	0.343
Marital status	0.599	0.647	-0.102	-0.9	0.37	-0.231	0.352	-0.033	-0.527	0.599

Note. Recreational (R^2=0.184, adjusted R^2=0.10), competitive (R^2=0.296, adjusted R^2=0.36).

The mean value of the recreational (M = 7.11) was less than competitive (M = 9.06). So, the recreational had better performance in social function. However, there was not significant difference in other dimensions of mental health ($p<0.05$).

Table 3 demonstrates the prediction of body dissatisfaction from demographic characteristics (age, body weight, BMI, marital status).

BMI predicted body dissatisfaction significantly in group of the recreational (β =-0.123, t =-1.976, $p\leq0.05$). However, age, body weight and marital status did not predict body dissatisfaction significantly in both groups of competitive and recreational ($p>0.05$). Moreover, BMI did not predict body dissatisfaction significantly in group of the competitive ($p>0.05$).

DISCUSSION

The purpose of present study was to examine body dissatisfaction and mental health of competitive and recreational male bodybuilders. We found that there was significant difference between competitive and recreational male bodybuilders in social dysfunction and recreational male bodybuilders had better performance in social function. However, there was not significant difference in other dimensions of mental health. The reason why recreational male bodybuilders had better performance in social function is a challenge.

The culture, media, gender, society, peers, parent, family, teachers and sport trainers influence the desired body shape [24,25]. The definition of desired body was changed in the middle of 1900 [26] as a result of media propaganda. A moderate thin body was advised for female and muscular thin body was suggested for male. So, there is distance between actual and desired body (here body shape measured by BMI is considered).

There was difference in BMI of competitive and recreational male bodybuilders. BMI is a way to measure adipose tissue indirectly. It is an index of body composition. The high BMI of bodybuilders does not mean obesity since high weight is a principle in bodybuilding to have more muscle size. Therefore, the difference is natural. Maybe, the high competition of competitive bodybuilders is the reason of more value.

According to the theory of self discrepancy [27], the difference between real and ideal ego leads to the motivation of attempts at desired body condition [28]. If the desired condition was unrealistic or unattainable, the dangerous and inappropriate ways would be selected to lose weight [29]. Biological factors are the other limit since the weight is influenced by the genetic traits [30]. Also, the distribution of muscle and fat is impacted by the genetic traits. The adipose pattern of individuals is specific [31].

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