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### RELATIONSHIP BETWEEN BODY SATISFACTION AND PSYCHOPHYSICAL HEALTH

Nevena Miu in<sup>1</sup> and Jelena Šakoti -Kurbalija<sup>2</sup>

<sup>1</sup>Department of Psychology, Faculty of Philosophy, University of Novi Sad

<sup>2</sup>Department of Psychology, Faculty of Philosophy, University of Novi Sad

#### Correspondence :

Nevena Miu in

Department of Psychology, Faculty of Philosophy

University of Novi Sad

E-mail: [nevena.miuchin@gmail.com](mailto:nevena.miuchin@gmail.com)

#### Abstract

Body satisfaction has become immensely popular topic over the last couple of decades, and yet, there are still so many undiscovered aspects of the phenomenon which actively influence people's everyday lives. In this study, we've been investigating the connection between body satisfaction and self-rated symptoms of psychophysical health. Sample comprised 393 women, aged 19 to 76, with different socio-economic status. In order to determine the differences in psychophysical health between women who are satisfied with their body and those who are not, discriminant analysis was applied. Obtained discriminant factor was significant (Wilks' lambda=0.79; p level<0.01) which indicate that there is a significant difference in the level of psychophysical health between women who are satisfied with their body and those who are not. Results of this study show that women who are dissatisfied with their body appearance are more likely to experience some symptoms of poor psychophysical health (nervousness and irritability, fatigue, anxiety, digestive problems, poor productivity, lack of energy and depressive thoughts) compared to the women who are satisfied with their body appearance.

**Keywords:** body image, ideal figure, self-perceived health, stress

## Introduction

The first definition of body image, which circumvented hitherto exclusively neurological perspective, and took into account a psychological view, was conceived by Paul Schilder as: "The picture of our own body which we form in our mind, that is to say the way in which the body appears to ourselves." (Schilder, 2013, p. 11). Later, this definition was modified to: "The picture we have in our minds of the size, shape and form of our bodies; and our feelings concerning these characteristics and our constituent body parts." (Slade, 1994, p. 497). Formulated in this way, it highlights the distinction between two important components: perceptual (the degree to which one can accurately assess their own body) and attitudinal (feelings and thoughts one has towards their own body) (Slade, 1994). In this research, we have focused on the latter, or more precisely, body satisfaction.

Body image related topics have become immensely popular in the past few decades among researchers as well as laymen. Cash notes that the number of publication, regarding body dissatisfaction, has doubled in the 2000s compared to the 1990s (Cash & Smolak, 2011). This is not completely surprising, considering massive changes in the culturally imposed ideal figure over the last couple of decades. Idealized figure of woman's body has become slimmer and, due to the additional digital adjustments, almost impossible to attain. Series of studies confirmed this by comparing size and weight measures of models in magazine Playboy and Miss America pageant contestants from 1950s to 2000s (Garner et al., 1980; Wiseman et al., 1992; Spitzer et al., 1999).

The notion that those rigorous expectations bypass male population is just ostensible. Through various channels of mass media, men are constantly inundated with visuals of idealized V-shape masculine figures and therefore compelled to compare themselves to those ideals (Leit et al., 2002; Blond, 2008).

Interestingly, the roots of these influences become apparent even after a mere glance at the most popular children's toys. Dittmar and colleagues report that after the exposure to the images of Barbie dolls, girls, ages 5 to 8, reported lower self-esteem and greater desire for thinner body (Dittmar et al., 2006). At the same time, many of the boys' favorite action toys, which evidently represent an idealized male body in tiny plastic figures, become even more muscular over time (Pope et al., 1999).

According to *The Sociocultural Model*, permanent exposure to idealized body images, conveyed through the media, family and peers, leads to internalization of those ideals. The level of discrepancy between idealized picture and individual's own appearance determines the level of (dis)satisfaction with their own body (Cash & Smolak, 2011). Body disturbance can lead person to engage in various unhealthy behaviours (in order to attain desired body shape) such as: eating restraint (Lunner et al., 2000), dieting (Davis, 1992; Cooley & Toray, 2001; Davison et al., 2003; Markey & Markey, 2005), bingeing (Cargill et al., 1999; Carano et al., 2006) and purging (Brown et al., 1989), reluctance to quit smoking because of the risk of weight gaining (King et al., 2005), lower levels of physical activity and fruit and vegetable intake (Neumark-Sztainer et al., 2006). These behaviors can lead to dangerous health

outcomes (Fielding, 1985; Barr et al., 1994; Lakka et al., 2003; Tomiyama et al., 2010). Besides the risks to physical health, it was found that body disturbance is associated with mental health deterioration (Archer & Cash, 1985; Ali et al., 2010), namely, stress (Johnson & Wardle, 2005; Murray et al., 2011), depression (Rierdan & Koff, 1997; Stice & Bearman, 2001; Johnson & Wardle, 2005) and low self-esteem (Ali et al., 2010).

Despite the fact that research on body image has been proliferating over the past couple of decades, few studies investigated the potential impact body image disturbance has on everyday functioning in non-clinical population. The majority of research has been focused on the issues relating to the body image in the context of obesity and eating disorders. On the other hand, there is a substantial group of studies that investigated the impact some physical (AIDS, cancers, physical disabilities etc.) and mental (depression, anxiety) deteriorations have on the perception, feelings and attitudes towards one's own body (Noles, Cash, & Winstead, 1985; Cash, 2004; Fobair et al., 2006; Grogan, 2007). Although the significance of the studies scrutinizing the mediating/moderating role body image has in complex psychological and physical issues is indisputable, the consequences of low body satisfaction on every-day functioning in otherwise healthy individuals is unduly neglected.

Bearing in mind the vague nature of complex clinical problems related to the body concerns (eating disorders, obesity, depression etc.), it is often hard to determine the exact pertinence each contributing factor has in those problems. Some studies have shown that perception of one's own body appearance, rather than actual body size/weight, has a greater influence on individual's life (Ter Bogt et al., 2006; Muennig et al., 2008; Atlantis & Ball, 2008). More specifically, it was argued that the stress, as an aftermath of the disturbed body perception, is the main contributing factor to poor health (Muennig et al., 2008; Atlantis & Ball, 2008). Nevertheless, there is no consensus on the exact ratio between psychological, biological and social contributors in those problems. On top of that, considering the human disposition to misjudge their actual body size/weight and classify themselves as overweight when they're actually normal/underweight and vice versa (Donath, 2000), the question of the severe clinical problems in combination with disturbed body image and their consequences on physical and psychological functioning become even more difficult to untangle. Therefore, in order to obtain a clearer picture of the phenomenon, it is justified to investigate body image out of those complicated issues and assess its influence on daily functioning in non-clinical population.

In that matter, some studies investigated the relationship between body image and various aspects of quality of life. It was shown that people who are satisfied with their body appearance also experience a greater degree of subjective well-being (Stokes & Frederick-Recascino, 2003), better sexual functioning (Weaver & Byers, 2006) and have more positive perception of their life-style (Kwak et al., 2011).

Study conducted on a sample in Serbia has shown that body satisfaction has a moderating role between obesity and subjective well-being. With BMI controlled, body dissatisfaction was significantly correlated with higher level of emotional distress and lower

level of positive emotions. Authors concluded that satisfaction with one's own body represents more important factor for subjective well-being than a mere body weight (Brdaric et al., 2015).

Aim of this research is to build upon the existing knowledge on body image by illuminating its potential harmful effects on different and yet not sufficiently scrutinized aspects of psychophysical functioning.

Considering the popularity that body related themes have among general population (due to the omnipresence of idealized body commercials and displays) and the huge effect that those established body ideals have on people's perceptions of their own bodies, it is highly relevant to investigate all possible consequences of such preoccupation. Although there is a substantial body of work on the detrimental role body dissatisfaction has in some serious clinical problems (obesity, anorexia, bulimia), evident is the lack of studies that tackle those problems in otherwise healthy individuals. Purpose of this study was to determine if the satisfaction with one's own body appearance, as alone factor, can be a significant indicator of their psychophysical health in non-clinical sample of women.

## **Method**

This study was a part of larger research, conducted on the territory of Republic of Serbia, which originally included 2206 women, aged 19-76, with different socio-economic status. Questionnaires were administered through schools, kindergartens and gynecology offices (which assured that women without children were included) in larger cities as well as in villages and smaller towns. Participants took the questionnaires home, filled them out and returned them in closed envelopes. The participation was completely anonymous and voluntary.

For the purpose of this study, the number of included participants was reduced. In the original research, body dissatisfaction was assessed with 5-point Likert scale, which resulted in normally distributed data. As the main problem of this study was to determine potential differences in psychophysical health between women who are satisfied with their body appearance and women who aren't, we sought for a clearer distinction between those two groups. In order to obtain that, participants from the "middle" were excluded and only those who on the item: "I have attractive body." Answered either with "completely correct" and "mostly incorrect" or with "completely incorrect" were included in the analysis. This reduction resulted in the final sample of 393 women.

Psychophysical health was assessed with the Scale of Psychophysical Health (SPFZ; Majstorovic, 2011) which included 23 items with 4-point Likert scale ("no, I didn't", "yes, but rarely", "yes, often", "yes, daily") pertaining to the self perceived level of some of the symptoms of psychophysical health. Participants assessed how many times in the last four

weeks they have experienced some of the following symptoms: problems with physical health, fear and anxiety, depressive reactions, disturbance in social functioning and fatigue.

In order to determine the difference in psychophysical health between women who are satisfied with their body and those who are not, discriminative function analysis was applied.

### Results

In order to determine whether there is a statistically significant difference in psychophysical health status between people who are satisfied with their body appearance and those who are not, a discriminant analysis was conducted. Significant difference in means between groups is obtained on almost every psychophysical health status item ( $p < 0.05$ ). Canonical correlation of 0.45 shows that 20% of variance between groups is explained by the proposed model. Wilks' lambda (0.8) with  $p$  level  $< 0.01$  indicates significant discriminant function. In other words it suggests that there is a correlation between psychophysical health and body satisfaction. However, the high value of Wilks' lambda implies that 80% variability in discriminant scores is explained with factors other than differences in health status.

Items	Function
p124 You've noticed a slowdown in your work activities	.517
p117 You've had doubts in your work abilities	.495
p125 You've become impatient with others	.491
p128 You've noticed you quickly lose spirit	.465
p127 You've noticed that you're tired without any visible reason	.464
p120 You've felt that what you do makes sense no more	.429
p122 You've had a feeling that you're bothering others with your problems	.408
p116 You've been avoiding people	.391
p123 You've been enjoying talking to people(r)	.- 385
p108 You've had stomach problems or other problems with digestive system (gastritis etc.)	.342
p115 You've had troubles with usual activities in your household	.324
p119 You've felt that you're worth nothing	.311
p111 You've been nervous and uptight	.302

Table 1. *Excerpt from Structure Matrix*

Structure matrix (Table 1) shows bipolar discriminant function. Positive pole is defined by the experience of different aspects of poor psychophysical health such as digestive problems, nervousness and irritability, fatigue, anxiety, perception of poor productivity, lack of energy and depressive thoughts. Negative pole is determined by pleasure taken in conversation with others.

Discriminant function divides respondents by assigning negative value to the group of people who are satisfied with their body (-.44) and positive values to the group of people who are dissatisfied with their body (.58) (Figure 1). In other words, it suggests that people who are satisfied with their body appearance are healthier than those who are not satisfied.

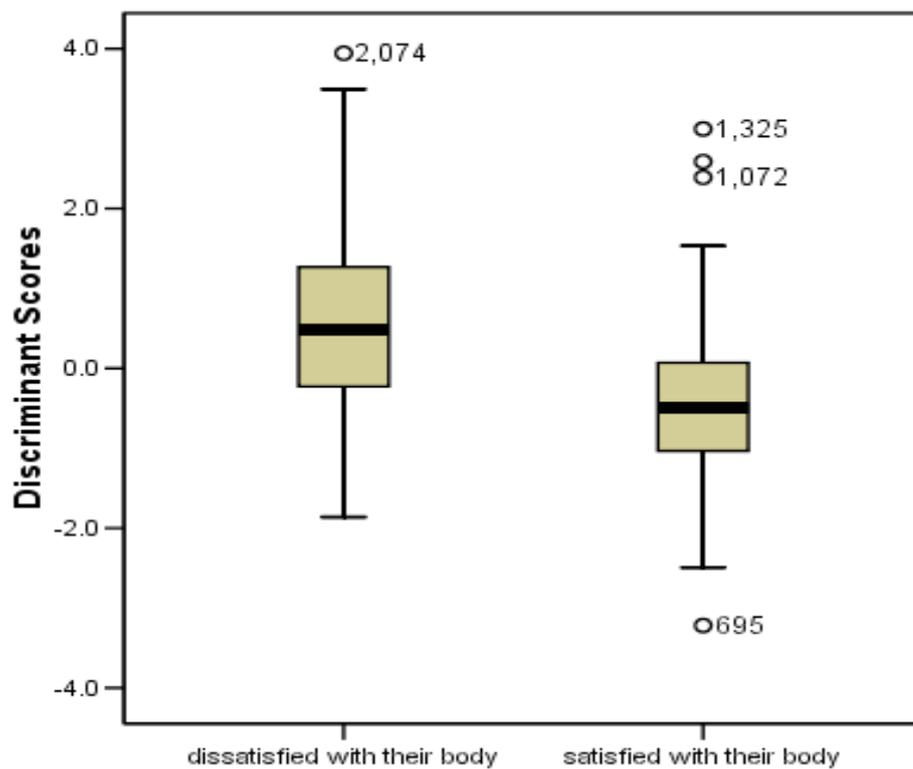


Figure 1. *Distribution of discriminative scores*

Classification results revealed that 71.2% of respondents were classified correctly with cases in satisfied group (75.4%) classified slightly more accurately than those in dissatisfied group (65.7%).

## Discussion

The results of this study suggest that there is a certain relationship between body satisfaction and perceived psychophysical health status. Namely, it appears that people who are satisfied with their body appearance feel better, in terms of psychophysical health, compared to the people who are not satisfied. These findings complement earlier studies

which revealed the importance body satisfaction has in the context of various health-related behaviours (Brown et al., 1989; Davis, 1992; Cargill et al., 1999; Lunner et al., 2000; Cooley & Toray, 2001; Davison et al., 2003; Markey & Markey, 2005; King et al., 2005; Carano et al., 2006; Neumark-Sztainer et al., 2006) as well as in a relation to some psychological difficulties (Archer & Cash, 1985; Rierdan & Koff, 1997; Stice & Bearman, 2001; Johnson & Wardle, 2005; Ali et al., 2010; Murray et al., 2011).

Considering studies which investigated body dissatisfaction as an incentive for unhealthy behaviour, it is reasonable to take that view as a possible framework for the results of this research. In other words, we can presume that dissatisfaction with body appearance can lead a person to take some physically and mentally exhausting actions (like eating restraint, excessive workouts, poor diet etc.) which can consequently cause their poor psychophysical health. At the same time, people who are satisfied with their body engage in healthy behaviours (to preserve that desired body image) and therefore have better psychophysical health.

Another possible explanation may lie in the amount of stress that people who are not satisfied with their body can experience. That stress, caused by constant preoccupation and feeling of incongruity with the socially desirable standards of body shape/weight, may consequently lead to poor psychophysical health (Muennig et al., 2008).

Conversely, the obtained results can be interpreted in a way that an exacerbation in psychophysical health can produce an overall feeling of discontentment, which implies, among other things, the discomfort in one's own body. Also, it is possible that some people, when experiencing some kind of psychophysical difficulty, resort to different unhealthy behaviours, due to the lack of energy or in order to make themselves feel better (e.g. excessive eating, sedentary activities), which can consequently lead to disturbed body image.

It should be taken into consideration that the relationship between body satisfaction and psychophysical health might be more complicated and that some additional variables should be included in order to get comprehensive image. Self-esteem, as hierarchical and multifaceted phenomenon (Shavelson et al., 1976), seems like a relevant factor for the better understanding of the results obtained in this study. On the one hand, self perception of physical appearance is often considered as one of the facet of global self-esteem (Sonstroem & Morgan, 1989; Fox & Corbin, 1989; Blascovich & Tomaka, 1991; Goldenberg et al., 2000). On the other hand, some studies show that there is a solid association between self-esteem and mental and physical health (McGee & Williams, 2000; Mann et al., 2004). Considering those findings, it seems justified, for future studies, to investigate a particular role that self-esteem might have in this context.

Obtained results serve as a good starting point for further examination of the relationship between body satisfaction and psychophysical health. It would be useful for future studies to assess the level of stress (caused specifically by poor body image) and possibly elucidate the obtained connection between body satisfaction and psychophysical health.

Although there is an impression of abundance of literature related to the body image, results of this study show that there are still some undiscovered aspects of the phenomenon that can strongly influence people's lives. It is often accentuated that dissatisfaction with body appearance has an important role in the context of obesity and eating disorders, but little is known about its adverse impact on otherwise healthy individuals. Considering the culturally imposed, almost unattainable ideal body figure and pervasive popularity of various fitness programs and diets, the pressure on average person to strive toward that ideal seems inevitable. In contrast to those ubiquitous messages, people are generally still dissatisfied with their body shape/weight which consequently creates a great discord between reality and desire and can lead to interior conflicts and adverse psychological outcomes. Considering that, the phenomenon of body image should be scrutinized in more depth, in non-clinical context, so its potential influence on different aspects of quality of life can be illuminated.

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