
Positive Body Image and General Health: A Mixed Methods Study

Pankaj Jain^{1*}, Gyanesh Kumar Tiwari²

ABSTRACT

The present study aimed to explicate the impacts exerted by positive body image on the general health including mental health of the participants. Sixty seven male and female students with age ranging from 20 years to 30 years pursuing their undergraduate and postgraduate programmes participated in the present study. The study was conducted in two phases using explanatory research design, a form of the mixed methods design. It uses quantitative study followed by qualitative study. In the first phase of the study, the positive body image and general health were measured by two distinct standardized psychological tools. The results of the study indicated that the female participants amassed higher mean score on Body Appreciation Scale as compared to their male counterparts. The participants also showed higher mean score on general health as compared to the male participants. The scores of the positive body image of the participants were positively correlated to the scores of their general health. In addition, the scores of the positive body image of the participants predicted their general health. In the second phase of the study, eight

¹ *Research Scholar, Department of Psychology, School of Humanities & Social Sciences, Doctor Harisingh Gour Vishwavidyalaya, Sagar, M. P., India*

² *Assistant Professor, Department of Psychology, School of Humanities & Social Sciences, Doctor Harisingh Gour Vishwavidyalaya, Sagar, M. P., India*

**Responding Author*

extreme scorers on Body Appreciation Scale were chosen for qualitative study involving semi-structured interview to find out the basic themes regarding the nature and significant correlates of positive body image. The thematic analysis of the qualitative data demonstrated that the low and high scorers on positive body image differed in their meaning and determinants for the positive body image. The results of the study have significant theoretical and practical implications for eating disorders, body dissatisfaction, general health and well-being. It will be equally important for psychotherapeutic and counseling purposes. The findings of the study would have noteworthy theoretical and practical contributions for the researchers, clinicians, government health policy makers, health professionals and administrators. It will equally attract the attention of the researchers of interdisciplinary disciplines. The results have been discussed in the context of current theories of positive body image and general health. The future directions for the researchers have also been given.

Keywords: *Positive Body Image, General Health, Eating Disorder, Self-Esteem, Well-being.*

The recent years have witnessed an upsurge in the scientific study of body image due to growing conviction about its implications in various aspects of human functioning and performance including mental and physical health. In the recent past, it has been reported that positive and negative body images of the individuals are strongly associated with different health, social and psychological outcomes such as eating disorder, unhealthy weight control behaviors, health habits, risky sexual practices, social relationships and self-esteem (Jain & Tiwari, 2016; Tiwari & Kumar, 2015; Tiwari, 2014; Tiwari, 2015) It has been significantly associated with mental and physical health and life satisfaction (Jain & Tiwari, 2016; Tiwari & Kumar, 2015). Health is the level of functional or metabolic efficiency and essential for productivity and performance for the individuals or communities to adapt and self-manage in the face of physical, mental or social

challenges. Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (World Health Organization, 1948). The major components of body image influencing the human functioning include desire to lose weight; look beautiful, healthy and energetic with productive and good performance. The body dissatisfaction or negative body image has been reported to play important role in the development of obesity, depression and psychological disturbances of various sorts. The relationship among obesity, psychosocial factors and depression was examined in a study of 2294 adolescents which indicated that adiposity accounted for 62% of the total effect of depressive symptoms through its association with pressure to be thin and body dissatisfaction in boys and girls (Chaiton et al., 2009).

Studies show that the Hispanics were found more depressed and had lower self-esteem than other racial-ethnic groups, a difference that remained after controlling the effect of body image. It was observed that African-Americans had positive body image. The impact of perceived pubertal timing on body image varied considerably with gender and racial-ethnic groups. Thus, it can be concluded that negative feelings about their bodies contributed to the higher prevalence of depressive symptoms and lower self-esteem among girls (Seigal, Yancey, Aneshensel, & Schuler, 1999). It was observed that women are less satisfied with their body and for many types of treatment or alteration and exhibited difficulty in taking decisions. It was found that body image is an important factor in taking treatment decisions for women. It was also argued that the women who received breast conservation had better body image two years after treatment than women who had mastectomies (treatment for removal of whole breasts) whereas the women who preferred breast conservation but received mastectomy had the poorest body image. Body image is important for the women of all age groups taking the treatment consistent with preferences about appearance associated with important long-term mental health outcomes (Figueiredo, Cullen, Hwang, Rowland & Mandelblatt, 2004). The research reported that personal connection with obesity, experience of childhood obesity or

overweight parent were significantly associated with a greater perception of disease risks. These conclusions were consistent with the findings of the previous studies which have shown that self-protective health practices tended to vary with personal experience with an undesirable life event (Gross, Gary, Browne & LaVeist, 2005)

Body image is closely associated with a number of unhealthy behaviors. For example, body image can affect the possibility that an individual will engage in, or avoid, exercise (Choi, 2000; Grogan, Evans, Wright, & Hunter 2004). Being dissatisfied with the way people look and feel fat of themselves can in some cases motivate them to involve in exercise (Grogan et al., 2004). Body dissatisfaction and size underestimation in men may also lead to use of anabolic steroids and other drugs to increase muscularity (Wright, Grogan, & Hunter, 2000) which increase the risks of blood-borne diseases liver, kidney and other health problems (Pope et al., 2000). Eating behaviors are important factors affecting the body image of the individuals that may influence whether they eat healthily or restrain our eating (Cooley & Toray, 2001; Stice, Presnell & Spangler, 2002). Body dissatisfaction and excessive investment in the body have been shown to be associated with unhealthy eating behaviors, including binge eating, restrictive dieting and self-induced vomiting (Levine & Piran, 2004). Body dissatisfaction and excessive body concerns can affect the decision of the individuals to quit smoking (King, Matacin, White, & Marcus, 2005). Body concerns and dissatisfaction can also lead to undertake unnecessary cosmetic surgery leading to health risks (Davis, 1995). Thus, it can be concluded that body dissatisfaction and body concerns are allied with many key health behaviors (Grogan, 2006).

The review of the literature demonstrated that negative feelings about body contribute to the higher prevalence of depressive symptoms and lower self-esteem. Negative feelings about their bodies contribute to the higher prevalence of depressive symptoms and lower self-esteem among girls (Seigal, Yancey, Aneshensel, & Schuler, 1999). It can be argued that body dissatisfaction and body concern are allied with many key health behaviors (Grogan, 2006). Many physical health conditions have also been associated with body image

dissatisfaction and lowered life satisfaction (Mudgal & Tiwari, 2015). The higher levels of psychological distress such as anxiety, depression and lowered self-esteem have been reported by people living in skin disease conditions (Tiwari, 2014). The individuals suffering with chronic disease like Cancer, HIV/AIDS etc. undergo and face many undesirable physical and psychological changes which affect the nature and level of their body image satisfaction which, in turn, determine the quality of life (Jain & Tiwari, 2016). The review clearly evinces that there is a dearth of studies showing the impacts of positive body image on general health of the individuals. This is the case with both Indian as well as Western and American societies. In addition, most of the previous studies have been conducted applying quantitative methods which lack sufficient insight and implications. The present study attempted to explore the nature and extent of the impacts of positive body image and gender on the general health of the participants. In addition, it also aimed to find out the major themes and mechanisms of positive body image which might be involved in shaping the general health of the participants using Mixed Methods Design which comprised both quantitative and qualitative methods of data collection and analyses.

Objectives

The present study was carried out with the following objectives to study the relationship of positive body image and general health:

1. To assess the impacts of positive body image on the general health of the participants,
2. To study the gender differences in positive body image on the general health of the participants,
3. To find out the major themes of positive body image of low and high scorers on Positive body image
4. To develop an understanding of the mechanisms through which positive body image shapes general health of the participants.

Hypotheses

The following hypotheses have been framed for the quantitative part of the study:

1. The female participants will show higher mean positive body image score as compared to the male participants.
2. The positive body image of the participants will be positively correlated with their general health.

METHODS AND PROCEDURE

Sample: Sixty seven male and female participants were recruited as the sample for the study. Out of this, 30 were males and 37 were females. All the participants were regular students of the different department of Doctor Harisingh Gour University, Sagar, Madhya Pradesh, India. Their age ranged from 20 years to 30 years. Most of them belonged to urban middle class Hindu families with different socioeconomic backgrounds predominantly lower middle class.

Tools: *The following tools were employed in the two phases of the study to collect and analyze the data of the study:*

a. Phase I: First part of the present study was quantitative in nature. To assess the degree to which participants had positive image towards their bodies, the Body Appreciation Scale (Tylka, 2006) was used. The scale was originally in English which was translated first in Hindi followed by retranslation in English. The scale consists of 13 items measuring the feelings, perceptions, and decisions of the body image of the participants which were rated on a 5-point scale (1 = Never, 5 = Always). The higher scores reflected greater body appreciation whereas lower scores showed lower body appreciation.

The General health of the participants was measured by the General Health Questionnaire (Goldberg & Hillier, 1979). The participants were asked to compare their recent psychological state with their usual state. For each item, four alternatives 1, 2, 3 and 4 available denoting not at all, no more than usual, rather more than usual and much more than usual, respectively. The total scale score ranged from 28 to 112. The higher the score the poorer it indicated the

physical and psychological health of the participants.

b. Phase II: Second part of the study was qualitative in nature in which semi-structured interviews were conducted that was audio-taped with the help of audiotape recorder. Its verbatim inscriptions were prepared to find out the major themes for positive body image using Thematic Analysis Method. The interview protocol was prepared after an in depth study of nine research articles on positive body image (Bailey, Gammage, Ingen & Ditor, 2015; Frisen & Holmqvist, 2010; Halliwell, 2015; Swami, Cass, Waseem & Furham, 2015; Swami, Hadji-Michael & Furnham, 2008; Tylka & Wood-Barcalow, 2015; Tylka & Wood-Barcalow, 2015; Tylka, 2012; Webb, Wood-Barcalow & Tylka, 2015; Wood-Barcalow, Tylka & Augustus-Horvatah, 2010). The researchers read these articles thoroughly and prepared a list of major attributes of positive body image. Then, this list of attributes was distributed among three researchers with the request to categorize the contents or the attributes in major categories followed by a conference to develop a consensus about the major attributes of positive body image. After the consensus was reached; the researchers prepared a list of items for semi-structured interview. Following are the items which were finally included in the interview protocol of the study:

1. What type of image you have in your mind about your body?
2. Do you respect and appreciate your body in spite of differences in your ideal and real body images?
3. Do you see beauty; feel comfort, confident and happiness from your body which is often expressed in your demeanor?
4. In what type of activities do you engage yourself to maintain positive body image?
5. Do male and female differ in their positive body image?
6. How do socioeconomic status and heredity affect positive body image?
7. How do media and society encourage/promote people to make their body image positive?
8. How do you perceive thin ideal body image portrayed by media?
9. Do you want to alter or modify shape of your body?

Procedure

After having been debriefed about the basic goals of the study, the participants submitted their written consent to take part in the study. It was made clear that their participation in the study was voluntary and they could withdraw themselves from the study at any point of time. The participants were made comfortable and the researchers established rapport with them followed by oral instructions about the methods of answering to the alternatives of the items of the scales. Then the participants were given a set of the two scales. Each item of the Body Appreciation Scale carried numbers 1, 2, 3, 4, and 5 on the right margin which signified Never, Seldom, Sometimes, Often and Always, respectively. The participants had to put the Circle (0) on the number denoting their closest meaning/feeling for the contents of each item. The mean, standard deviation (SD), t-test, Pearson Product Moment method of Correlation and regression analyses were carried out on the collected data of the study.

RESULTS

PHASE I

The results of the study demonstrated that female participants (M = 53.03, SD = 7.07) showed higher mean score on positive body image as compared to their male counterparts (M = 50.00, SD = 8.27) which was statistically significant (t = 2.10, p = .05).

S. No.	Gender	Positive Body Image		t	p	General Health		t	p	N
		Mean	SD			Mean	SD			
1.	Male	50.00	8.27	2.10	.05	59.00	9.60	.529	.603	30
2.	Female	53.03	7.07			60.87	12.07			37

Likewise the female participants again emitted higher mean score (M = 60.87, SD = 12.07) as compared to the male participants (M = 59.00, SD = 9.06) on the measure of general health. The mean score was not statistically significant (t = .529, p = .603). The same have been displayed in Figure 1.

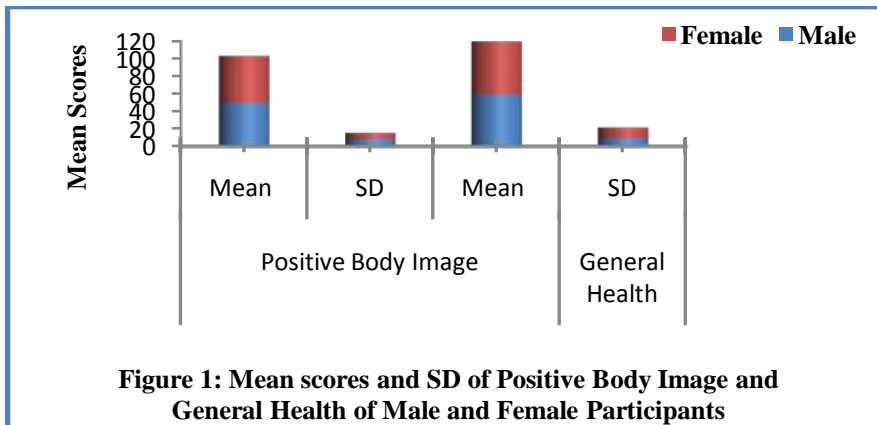


Figure 1: Mean scores and SD of Positive Body Image and General Health of Male and Female Participants

The scores of positive body image and general health were treated with Pearson Product moment method of correlation which showed that positive body scores of male ($r = -.241, p = .199$) and female ($r = -.201, p = .233$) participants were negatively correlated with their scores of general health. When the data of males and females were pooled the coefficient of correlation was also negative between the scores of positive body image and general health of the participants ($r = -.193, p = .118$).

The values of regression analyses showed that 5.8% of the variance in the scores of general of the male participants was predicted by their positive body image ($F = 1.73, df = 1, 28, p = .199$) whereas 4% of the variance was accounted for in the scores of general health of the female participants by their scores of positive body image ($F = 1.47, df = 1, 28, p = .233$). These results have important implications for research and practice. The data of general health and positive body image were pooled which evinced that 3.7% of the variance in general health of the female participants was contributed by their positive body image scores ($F = 2.51, df = 1, 65, p = .118$).

Phase II

Eight participants with equal number of male and female extreme scorers on Body Appreciation Scale (Tylka, 2006) were chosen for the semi-structured interview according to pre-developed plan. The data were audiotape recorded and verbatim inscriptions were

prepared and given to three researchers (including these two researchers) to sort out the major themes inherent in the inscriptions. The researchers independently gone through the inscriptions and came to their independent themes. Then, the themes so gathered were discussed in a conference of these three researchers to arrive at a consensus. After the thematic analysis, the major themes of the positive body image were emerged.

Low and high scorers on Body Appreciation Scale slightly differed in their conceptions of positive body image. The low scorer male and female participants expressed some minor concerns about the attributes of their body and showed some body dissatisfaction. They also longed for some modification in their body if opportunities could be available. On the other hand, the high scorer male and female participants reported an overall positivity, satisfaction and love towards their body. In addition, they did not desire to make any change in their body. The major theme emerged after the thematic analyses were:

Positive Affection, love and respect towards body: Most of the participants expressed positive feeling, love, affection and satisfaction toward their body. One male participant expressed as *“I respect my body and its parts because these give me immense pleasure and satisfaction in all respect. The illness is the major hurdle for maintaing positive body image.”* In her interview, a female participant expressed herself as *“I like my body very much because oveall it is my body.”* The positive body image also gave self-respect and confidence. The positive body image has also been found to generate happiness.

1. **Positive Cognitions:** The participants have shown positive attitudes, decisions and positive evaluations towards their body and its parts in spite of some lacks. One male participants expressed himself as *“My body makes me successful and it works well. I can work for long hours without any rest. Whenever I think about my body, it makes me happy. It is better than my friends’ body.”* One female replied as *“My body helps me to achieve the goals of my life. It is attractive and other people also extend positive comments for my body.”* The positive body image has reported to initiate optimism. The participants were

also found to be aware about their less attractive body attributes. They all showed a high acceptance and defensive attitude towards such attributes.

2. **Gender differences in Positive Body Image:** The male and female participants unequivocally pronounced that male and female differ in their body attributes. The female participants put importance on body structure and positive social impacts whereas males gave importance to muscular strength, vigour and stamina in comparison to females. One male participant commented as *“My muscles are my beauty and other things do not matter for me. It can generate fear in the mind of my friends.”* One female replied as *“My hairs, nose and colour of my body are attractive. These help to attract people of any age. A good body should be beautiful not very strong”*.

3. **Major Correlates of Positive body Image:** The thematic analyses evinced that all the participants gave weightage to socioeconomic factors, heredity, media, personality, psychological attributes, life satisfaction, optimism, social skills, leadership, age, gender, culture, race and regular exercise as the major antecedents and correlates of positive body image. One male expressed himself as *“It is the money, genetic heritage and gender which actually determine ones body image.”* The female participants emphasized more on wealth and social status and personality in the determination of ones positive body image. One female said as *“With the help of money, one can become physically good and attractive”*. The major activities that determine ones positive image are regular exercise, balanced diet and good relations. The participants accepted the role of media in shaping their positive body image.

4. **Spiritual/ Religious Component:** All the participants agreed that observing the spiritual and religious activities enhance ones positive body image. Some participants expressedly said that God made them beautiful and good. One male said as *“It is the God who has given everythig and my body also. I am no one to evaluate it negatively”*. The Yogic practices and other religious ceremonies help to acheieve positive body image. One female replied as *“Mother Godess has given all of us good body. All of us are beautiful .”*

5. **Health, Well-being and other Outcomes:** Majority of the participants showed consensus that positive body image has direct linkage to good physical and mental health. It made them happy, active and energetic for long. Good employment and business successes were said to be associated with the positive body image. Some accepted it to be a good reason to become successful in academic areas. The emotional and adjustment of the participants were found to be directly linked to their level of positive body image.

DISCUSSION

The results of the study demonstrated that positive body image and gender of the participants shaped the nature and extent of the general health of the participants. The female participants exhibited higher mean scores on positive body image and general health measures as compared to their male counterparts. It should be kept in mind that the higher scores of general health symbolized lower general health and the lower scores indicated better general health, the negative correlations exhibited that the higher scores of positive body image was indicative of better general health. The socioeconomic status, health awareness, easy availability of mass media, educational opportunities and adoption of good health habits and care from the parents might be some of the reasons behind the higher positive body image of the female students. There was statistically significant gender difference in positive body image of the male and female participants. Due to enhanced awareness and globalization, Indians also have become particular about their body image which has resulted in strong socialization in the Indian community favoring adolescents and adults for ideal shape of their body (Shah, Shaikh & Singh, 2012). These researchers also emphasized parental role in maintaining positive body image.

The results also evinced negative correlation between the scores of positive body image and general health of the male and female participants. In addition, the regression analyses showed that 5.8% of the variance in the scores of general of the male participants was predicted by their positive body image whereas 4% of the variance

in general health of the female participants was caused by their scores of positive body image. The pooled data also indicated 3.7% of the variance in general health accounted for by their positive body image. These results have important implications for research and practice. The persons with positive body image have a positive feeling and respect for their body, like to engage in exercise and feel satisfied, take or understand the importance of balanced diet which result in their good general physical and mental health. Such things were reported by the participants in qualitative study also.

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The results of the qualitative study showed that the low achievers on positive body measure had expressed some minor concerns about the attributes of their body and showed some body dissatisfaction and they also longed for some modification in their body. On the other hand, the high scorer participants reported satisfaction and love towards their body with the desire of no change in their body. Positive affection, love and respect towards body, positive cognitions, gender differences in positive body image, major correlates of positive body image, spiritual/ religious component and health, well-being and other outcomes were the major themes emerged after the thematic analyses of the qualitative data. Most of the participants expressed positive feeling, love, affection and satisfaction toward their

body with self-respect, confidence and happiness. The participants have shown positive attitudes, decisions and positive evaluations towards their body and its parts in spite of some lacks. The positive body image was also reported to nurture optimism. The participants were also found to be aware about their less attractive body attributes. They all showed a high acceptance and defensive attitude towards such attributes.

The male and female participants unequivocally pronounced that male and female differ in their body attributes. The female participants put importance on body structure and positive social impacts whereas males gave importance to muscular strength, vigour and stamina in comparison to females. The participants accepted the role of socioeconomic factors, heredity, media, personality, psychological attributes, life satisfaction, optimism, social skills, leadership, age, gender, culture, race and regular exercise as the major antecedents and correlates of positive body image. Regular exercise, balanced diet and good relations are the major activities in which the persons with high positive image remain involved. The participants accepted the role of media in shaping their positive body image. All the participants agreed that observing the spiritual and religious practices enhance ones positive body image. Majority of the participants showed consensus that positive body image has direct linkage to their good physical and mental health. The attractive employment and business successes were said to be associated with positive body image. Some accepted it to be a good reason to become successful in academic areas. The emotional and adjustment of the participants were found to be directly linked to their level of positive body image.

Thus, results of the present study empirically demonstrated that positive body image has important implications in general health and other aspects of human functioning and performance. Positive self-concept, motivation and positive cognitions are some of the characteristic features of the individuals with high positive body image. It was shown that positive body image has also important implications for academic success and achievements. Previous studies

have exhibited that the nature of the body image is important for people of all age groups bearing important and long-term mental and physical health outcomes (Figueiredo, Cullen, Hwang, Rowland & Mandelblatt, 2004; Jain & Tiwari, 2016; Tiwari, 2014). The positive body image can be viewed as the major protective factor for adolescents and adults to face adversities in the crises of their lives. The conclusions provide a base for recommending policy makers to incorporate body image awareness programme in existing physical and mental health services and projects for all age groups.

Implications and Directions for Future Research

The results of this study have significant implications for interventions to improve adherence to positive health behaviors. Obesity has become a big problem of our society and excessive use of technology has been resulting into poor health outcomes, obesity; eating disorders etc. Media is playing a vital role in the development of individuals' body image by portraying an ideal image that most of the people strive to achieve. The striving for ideal body has compelled the people engage in unhealthy behaviors like dieting, excessive exercising, surgical treatment and many other body alteration activities. The findings of the study would entail noteworthy theoretical and practical implications for the researchers, clinicians, government health policy makers, health professionals and administrators. The conclusions of the study will help people to choose their careers, develop personality, recover from illness, help tool development and also assist in furthering the research in the area of positive body image. In addition, the results of the study will also be helpful in the field of psychotherapy and counseling to develop intervention programmes for helping those having negative body image or other kind of body related problems. The body image constitutes an important non-academic self-concept along with mental health which has been reported to shape the academic success and performance of the adolescents and adults (Gujare & Tiwari, 2016). The yoga and yogic exercises have been reported to have positive impacts on the mental and physical health of the individuals (Tiwari, 2016). Thus, it has significant implications in academic area also. The

small sample, limited area of study and lesser number of variables are some of the important limitations of the study. The researchers are advised to generalize the findings carefully. Future researchers may involve large sample with diverse age groups and apply Mixed Methods Design and longitudinal approach in their studies to have a better understanding of the dynamics of positive body image and general health.

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Conflicts of interest

The authors have no conflict of interest with anyone.

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