

Body Image Dysphoria and its relation with Big Five factors of Personality

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Eating disorders are growing more prevalent among both men and women worldwide. One of the key risk factors for the development and maintenance of eating disorders is identified to be body dissatisfaction. The present research has been carried out on young Indian college going adults, N=100 studying in various departments of the Central University of Haryana, Mahendergarh, Haryana, India were selected for the present study. Age of students ranged from 18-26 years with the mean of 22 years. The samples were administered with NEO-FFI by Costa & Mc Crae and Multidimensional Body-Self Relations Questionnaire by Cash. Pearson Product moment correlation and Principal component Factor Analysis was applied in the present study. Previous researches suggest, personality traits like high levels of neuroticism, perfectionism, and impulsivity as well as self-esteem plays a significant role in mediating internalization of culturally impossible goals. The present research is conducted to highlight the issues with body image in the cultural setting of the Indian population. Results revealed significant correlation between different personality factors with body image along with five factors from Principal Component Factor Analysis.

Keywords: Body Image Dysphoria, Body complexes, Personality, Big - Five Factors.

Physical attractiveness is important in many facets of everyday life, from first impressions to mate selection (Swami & Furnham, 2008). Body size is a significant aspect of physical appearance. A number of studies have found that body size is the key predictor of beauty evaluations for bodies, both in the UK and across cultures (Smith, C.A., 2008, Swami and Tovée, 2005, Tovée et al., 2002).

The rising recognition that women have a diverse range of responses to media images has fueled research in discovering individual difference characteristics that may regulate the association between media image exposure and body dissatisfaction. High body weight (Henderson-King and Henderson-King, 1997), pre-existing body dissatisfaction (Stice, Spangler, & Agras, 2001), and contingent self-esteem (Patrick,

Neighbours, & Knee, 2004) tend to increase the risk that idealized images will harm self-image.

Regardless of actual body proportions, personality may be predicted to have a relationship with unfavorable body evaluations. For instance, those with higher levels of neuroticism are more likely to be self-conscious (Costa & McCrae, 1992), to value their appearance more (Davis, Dionne, & Shuster, 2001), and to compare themselves to others who are physically appealing (Roberts & Good, 2010).

The term body image is typically used to refer the perceptions and attitudes individuals hold about their bodies. Some researcher's also think that body image is a broader term, which encompasses

behavioral aspects, such as weight loss attempts, and other indicator of investment in appearance (Banfield & McCabe, 2002). According to Cash and Pruzinsky "Body image is the perceptions, thoughts and feelings associated with body and bodily experiences." Whereas Cash and Smolak (2011) defined body image as "The psychological experience of embodiment." This definition describes the significant role of body image in day to day life, self-respect, and overall life experiences of human.

Body Dysmorphic Disorder first described by an Italian psychiatrist, Enseo Morselli in 1891 with the name "Dysmorphobia" means 'Fear of Deformity'. There are many disorders related to body image Dysphoria, for example anorexia nervosa, Bulimia Nervosa, binge-eating disorder and body Dysmorphic disorder. But the main concern given to the body Dysmorphic disorder. Body image includes perceptual, attitudinal, and affective components, so it is a multidimensional concept. To describe the pervasive negative feelings that girls and women experience toward their body – the phrase "normative discontent" was first used almost two decades ago. The word Body Image as a construct, which is implicit, or covert, which belongs to our internal or personal schemas of the desired attributes of self, has now a day also turned into a part of external body image and self-esteem. Body Image, now a day popularized in terms of ornaments, tattoos, and impressive advertisements through media. People spent lot of money, time, and effort to peruse the beauty through apparels, hairstyles, grooming products, dieting, and fasting and body modification by cosmetic surgical procedures. Body image dysphoria is a psychological condition marked by a negative and distorted perception of one's own body. Significant distress and deficits in day-to-day functioning may result from it. (Cash, 2012; Gupta et al., 2001). Many people are dissatisfied with their bodies

because of the shape and size of their bodies. Most of fat or obese females wish to be thinner and males want to be muscular. The present research thus focuses on the personality factors those contribute in the development of body Image Dysphoria or body imperfection. One of the research done by Rasooli & Lavasani (2011) revealed significant positive correlation between neuroticism, agreeableness, and openness with body image and significant negative relation between conscientiousness and extraversion whereas Swami V. et al. (2013) investigated how personality of a person and individual differences affect body image and found that neuroticism was significantly associated with actual-ideal weight discrepancy (positively) and body appreciation (negatively). According to (John & Srivastava, 1999), the FFM is a well-known model for evaluating personality traits and has been extensively researched in relation to various psychological problems (Costa & McCrae, 1992). The purpose of this study paper is to look at the connection between the Big Five personality traits and body image distress.

The Etiology Of Body Image Dissatisfaction

Prevalence: "The survey of Psychology Today Magazine found that the majority of women (56%) and almost half of men (43%) were dissatisfied with their overall appearance." (David M. Garner (1997).

Specificity - Body image dissatisfaction can be specific. Overall appearance dissatisfaction reported highly in percentage. Greatest dissatisfaction is associated with highly body weight and individuals also show high level of dissatisfaction with their body shape. Rates of overweight and obesity are also high in western countries. Women with obesity were "most dissatisfied with their waist and abdomen." This also shows that dissatisfaction with the waistline may be independent on actual body weight.

Severity- Most of the individuals experience some degree of body image dissatisfaction that is believed to be as a motivator of appearance behaviours, including cosmetic and Fashion purchases, weight loss behaviours and aesthetic surgery. On the other end of the continuum, body image dissatisfaction maybe normative means some individuals some individuals body image dissatisfaction negatively influence their daily life behaviour. Body image dissatisfaction often negatively correlated with low self – esteem and depressive symptoms. Severe body appearance dissatisfaction is a symptom of a number of formally recognized psychiatric disorders. Disorders related to body image includes gender dysphoria, depression, eating disorders and body dysmorphic disorder.

Psychological Aspects Of Body Image Dysphoria

The word Body Image as a construct, which is implicit, or covert, which belongs to our internal or personal schemas of the desired attributes of self, has now a day also turned into a part of external body image and self-esteem. Body Image, now a day popularized in terms of ornaments, tattoos, and impressive advertisements through media. People spent a lot of money, time, and effort to peruse the beauty through apparels, hairstyles, grooming products, dieting, and fasting and body modification by cosmetic surgical procedures. Eating disorders and body image both are now a day's common disorders in the psychiatric practice and affecting men and women with the increment of a rapid rate.

Hartmann & Siegrist (2015) studied the' relationships between the big five personality traits and body size perception with longitudinal development of body size perception in relation to different personality traits. Results indicated that men and women

who perceived themselves as thinner one year later scored higher on conscientiousness and women who perceived their body size as larger one year later scored higher on neuroticism. In another study, Negative body image also associated with lower levels of conscientiousness, whereas Neuroticism associated with negative body image in men and women (Allen & Walter (2016). Rosenstrom et al. (2013) revealed in a study that physical looks dissatisfaction had link with chronically elevated Dysphoria. Sutin & Terracciano (2016) found in their study conscientiousness associated with healthier weight, Neuroticism among women was associated with higher adiposity and misperceived weightier mass and Extraversion among men was also associated with higher adiposity and misperceived taller and learner. Several personality traits significantly contributed to the prediction of male (high Neuroticism, low Conscientiousness) and female (high Neuroticism) body dissatisfaction beyond the influence of body mass index (BMI); Davis et al., (2017).

Soohindaet al., (2019) found a significant negative association between negative body and higher Body mass index, higher self-esteem, high neuroticism and high conscientiousness in the young women. Soohindaet al., (2020) has also analysed that high level of neuroticism related to body image dissatisfaction in the young men of India.

Another research of body image and personality relationship indicated higher neuroticism and higher extraversion were associated with negative attitudes toward persons with obesity and engagement in fat talk with their friends and around their children. Whereas, Higher Conscientiousness was associated with fewer negative attitudes, higher Openness, and higher Agreeableness were generally

associated with more positive attitudes and experiences. The associations of body mass index with Conscientiousness, Openness, and Agreeableness are relatively lower. Higher Neuroticism and lower Conscientiousness were further associated with the experience of weight discrimination, (Sutin & Terracciano, 2019).

Rosa et al., (2019) conducted a study on preadolescents to find out the relationship between body mass index, personality traits, socio-economic level and body image. Results indicated that body image strongly associated with body mass index whereas, agreeableness inversely associated with body mass index. Extraversion also related to body mass index but only in girls.

Fang et al., (2019) found that at baseline, participants with BDD displayed higher levels of neuroticism and lower levels of extraversion than a normed reference group.

(Allen & Robson, 2020; Allen & Celestino 2018) found in their study that neuroticism was associated with all components of body image and mental and physical health. Extraversion, openness, and conscientiousness were associated with some components of body image. Multiple mediator models identified body image discrepancy and appearance evaluation as mediating the association between personality (neuroticism, extraversion, and conscientiousness) and mental health.

Method

Sample

One hundred UG and PG students (N=100) studying in various Departments of the Central University of Haryana, Mahendergarh, India were selected for the present study. Age of students ranged from 18-26 years with the mean age of 22 years. Total sample (N=100) students (50 male and 50 female) participated in the present study. Participants were excluded those who had a

history of Psychiatric or medical conditions that could affect their body image or personality. Only those who volunteered were selected for the present study.

Measures

The selected subjects were tested on different measures viz. Multidimensional Body-Self Relations Questionnaire (MBSRQ) (F. Cash, 2000) and Five-Factor Inventory (Costa & Mc Crae, 1995). *The Multidimensional Body-Self Relations Questionnaire* (MBRSQ) is non-projective, objectively scorable and is developed through factor analytic technique for adults and adolescents (15 years or older). This questionnaire contains 69-item for the measurement of self-attitudinal aspects of the body-image. It contains 11 scales namely: Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation, Illness Orientation, Body areas satisfaction scale, Overweight preoccupation and Self classified weight.

The personality questionnaire NEO-FFI includes five factors namely: Openness, Conscientiousness, extroversion, Agreeableness and Neuroticism. This questionnaire has a number of versions like 240, 180, 96 or 60 items inventory. However, in the present study; 60 items questionnaire has been used.

Results and Discussion

After ascertaining that the obtained data meet the requirement of applying Product Moment Method of correlation, Pearson's correlations were calculated among all the 15 variables used in the study. Degree of freedom being 98 (N-2) the correlation coefficients are .195 and .254 are significant at .05 and .01 levels of significance respectively. Intercorrelations among five variables of NEO-FFI and ten variables of Multidimensional Body-Self Relations

Questionnaire are ranging from -.195 to .460. Inter correlation among five factors of personality are in general low ranging from -.195 to .367. Only 6 of total 10 are significant at or above .05 level of significance. The Inter correlations matrices were factor analyzed by applying Principal Component Method. Both

the inter-correlations and factors extracted from principal component analysis after Rotation have been reported and discussed. Perusal of intercorrelations matrix reveals that 15 scales have shared substantial amount of their variance among themselves. Intercorrelations are presented in Table -I

Table -I

Variables	N	E	O	A	C	AE	AO	FE	FO	HE	HO	IO	BASS	OP	SCW
N	-	-.280	-.107	-.148	-.195	-.079	.100	-.031	.243	-.161	-.112	-.181	.080	.108	.091
E		—	.309	.202	.187	.071	-.016	.287	.439	.112	.166	.186	.043	-.241	-.324
O			—	-.143	.229	.125	.006	.237	.154	.211	.254	.222	.000	-.016	-.137
A				—	.367	.077	-.166	.037	.183	.026	.034	.002	-.010	-.190	-.064
C					—	.376	.095	.198	.277	.172	.269	.103	.198	.000	.017
AE						—	.278	.348	.253	.301	.273	.169	.289	.191	.052
AO							—	.080	.182	-.112	.206	.193	.089	.323	.046
FE								—	.460	.081	.280	.196	.298	-.057	.000
FO									—	.174	.385	.285	.277	.010	-.144
HE										—	.264	.075	.082	.087	-.011
HO											—	.369	.290	.283	.009
IO												—	.147	.133	-.077
BASS													—	.051	.095
OP														—	.288
SCW															—

$r = .195p < .05$, $r = .254p < .01$

Table 2. Rotated Factor Matrix

Variables	Component					
	I	II	III	IV	V	h^2
N	.272	-.135	-.297	-.531	-.295	.550
E	.177	.068	.691	.254	.132	.596
O	.082	.163	.430	-.247	.611	.652
A	.062	-.184	.067	.798	-.170	.708
C	.288	.173	-.004	.545	.281	.489
AE	.509	.274	-.211	.255	.314	.542

Factor Analysis

15 x 15 intercorrelations matrix was factor analyzed by applying Principal Component Method of Factor Analysis. Five varimaxly rotated factors been extracted on the basis of Kaiser's (1960) criterion of eigen values greater than 1.00 were extracted which together has accounted for 58.96% of total variance. Eigen values are ranging from 1.091 to 3.276. The communalities are ranging from .434 to .708

AO	.136	.730	-.097	-.097	-.259	.637
FE	.730	.087	.291	-.012	.105	.637
FO	.472	.348	.416	.327	.051	.627
HE	.102	-.066	-.095	.152	.797	.682
HO	.313	.541	.051	.120	.356	.534
IO	.069	.612	.282	.088	.126	.483
BASS	.758	.050	-.124	.007	-.001	.592
OP	-.061	.616	-.521	-.115	.123	.683
SCW	.109	.033	-.647	.029	.046	.434
Eigen value	3.276	1.989	1.294	1.194	1.091	
% variance	21.840	13.262	8.629	7.961	7.271	
Cumulative %	21.840	35.102	43.731	51.692	58.963	58.963

First principal component accounts for 21.84% of total variance. The factor highly loads on five variables of Body area satisfaction scale namely Body Area Satisfaction Scale, fitness evaluation, appearance evaluation, fitness orientation, and health orientation all the significant loadings are positive. In terms of nature of markers, this factor is labelled as Body Image Satisfaction. Obtained structure hereby portrays the individuals having body area satisfaction, fitness evaluation, appearance evaluation, fitness orientation and health orientation. Such individuals in general tend to be oriented to maintain their body fitness, health and appearance up to the level of body image satisfaction. Temperamentally such individuals tend to be conscious, anxious, rule-bound and methodical towards the maintenance of health, fitness, appearance and body image satisfaction.

Factor II named as Appearance accounts for 13.262% of total variance. Obtained structure hereby portrays the individuals who tend to be having motivation to maintain appearance, overweight preoccupation, illness orientation, health orientation and

fitness orientation. This factor depicts a general motivation to maintain appearance, body weight, health and fitness. It is worth noting that none of the factors of personality has marked significant association with markers of this factor.

Factor – III is labelled as Extraverted Openness has accounted for 8.629% of total variance. Factor structure here depicts positive associations among extraversion, openness and fitness evaluation and their inverse relationship with self-classified weight, overweight preoccupation and neuroticism. Factorial combination of markers with significant loadings hereby suggest it to be a factor of extraverted openness. It partially resembles with one of the super factors of NEO-FFI. Obtained structure hereby posits that persons characterized as extraverted, open and emotionally stable tend to perceive themselves healthy and fitness oriented.

Factor – IV appears to be of Positive Valence. It has accounted for 7.961% of total variance. It has replicated one of the super factors of 5 factor model. Obtained structure hereby depicts that person characterized as agreeable, conscientious and emotional stable tend to be oriented to maintain their fitness, health and appearance.

Factor V is named as Healthy Perception of Body. It has accounted for 7.271% of total variance. Obtained structure hereby depicts that persons characterized as openness to experiences, emotionally stable and conscientious tend to have the positive perception of their appearance, and bodily health. It highlights the openness, conscientiousness and emotional stability to be personality correlates of positive perception of health and appearance.

Conclusion

Body dysmorphic disorder is a complex condition that has been a diagnostic

challenge since Morselli (1891), changing multiple times before being reclassified as Obsessive Compulsive and Related Disorders (OCDs) in DSM-5 and forthcoming ICD-11 (Phillips & Stein, 2015). BDD clients have an extraordinary fixation with body image, which they only disclose when pressed. They frequently seek unneeded cosmetic procedures and present to mental health professionals quite late. They also tend to have a high suicide rate, which is most likely mediated by comorbid depression (Shaw et al., 2016). More researches on the experiences of both men and women with regards to body image dysphoria and its relationship with personality is required because the present research has been done with population of college going students. The results of our study confirms with those of previous studies. The present research matches with the study by Rasooli & Lavasani (2011) depicting positive correlation of body image with neuroticism, agreeableness and openness, and negatively with extraversion. Which found in our result also. Health Evaluation and Fitness Evaluation both are positively correlated with openness, whereas overweight preoccupation showed a negative correlation with extraversion. Neuroticism was significantly associated with actual-ideal Weight Discrepancy (positively) and Body Appreciation (negatively) Swami et al. (2013).

Thus, it is important to further take larger sample to be able to generalize the present results. The present sample are drawing consistent correlations between various personality traits and body dissatisfaction. The present research also focus on important finding i.e. is the absence of the well-known link between personality and disordered eating in men. Further, the research suggests early diagnosis and referral to mental health professional followed by cognitive behavior therapies for the management of Body Dysmorphic disorder. TMS, web-based CBT,

and targeted neurosurgery are some of newly developed treatments which can also be prescribed depending upon the severity and condition of the BDD client.

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