

## The Relationship with Self Esteem, Anxiety and Depression Controlling for Body Mass in Adolescents and Young Adults with Perceived Body Image Dissatisfaction

Ms. Nurish Malik<sup>1</sup>, Dr. Nazia Ali<sup>2\*</sup>

### ABSTRACT

The aim of the present study was to find the relationship between perceived body image dissatisfaction (PBID) and all psychological well-being measures i.e., Self Esteem, Anxiety and Depression in the age group of 15-25 years. Assessment tools used were The Rosenberg Self-Esteem Scale (RSES), The Hamilton Anxiety Rating Scale (HAM-A), The Beck Depression Inventory (BDI-II), The Eating Attitude Test (EAT-26), Body Satisfaction Questionnaire (BSQ), and Body Mass Index. All psychological well-being measures were seen as significantly associated with all proportions of PBID. Self-esteem was found to be negatively correlated with PBID. Depression scores were found to have a strong positive correlation with PBID. Anxiety and abnormal eating behavior were seen to have a moderate positive correlation with PBID. Males were found to have higher level of self-esteem and lower levels of depression and anxiety than females. Females reported larger body image dissatisfaction as compared to males.

**Keywords:** *Perceived Body Image, Body Mass, Self Esteem, Anxiety, Depression*

**B**ody image dissatisfaction is defined as the negative perceptions and feelings a person has about their body and is influenced by factors such as body shape and appearance, attitudes towards weight gain, and cultural norms in relation to an ideal body. Self-body image is how do we see ourselves, our body, and our attention to our body. Often our perception and the visual image are not how our actual frame looks like. An example could be that a person may see himself as overweight and wants to lose weight, but isn't physically overweight, this is called perceived body image dissatisfaction (PBID). The way we feel about our physical appearance is called our affective body image. This is the level of pleasure or dissatisfaction we have regarding our shape, weight, and body parts. The way we think about our physical appearance or body is called our cognitive body image which can lead to an obsessiveness or preoccupation of our body form and size. When we are dissatisfied with our body image it may show in our behavior. If an individual is dissatisfied with his body image, he might isolate himself because he feels uncomfortable

<sup>1</sup>BOT Intern, Department of Rehabilitation Sciences, Jamia Hamdard, New Delhi, India.

<sup>2</sup>Assistant Professor (Occupational Therapy), Department of Rehabilitation Sciences, Jamia Hamdard, New Delhi, India.

\*Corresponding Author

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with how he looks. Positive body image then again is the point at which an individual can accept, and love their body.

The concept of PBID being a normal component of a female life was introduced long before. The societal pressure has led women to be preoccupied with the thought of being thinner. Promotion of dieting and sexual attractiveness, then promotion of attractiveness as being equated with thinness, all this led to psychological distress in women who perceived themselves fat.

Investigation into the connections among PBID and mental prosperity factors, for example, depression and self-esteem, has been constrained. Those examinations that have researched the mental profile of teenagers who report elevated levels of PBID demonstrate a somewhat perplexing example of connections between these two builds.

Body image is considered as a potential mediator of the relationship between over-weight and psychological distress.

Research examining the relationships between psychological well-being variables and perceptions of body image has not resulted in any conclusive understanding of the nature or extent of relationship between these constructs. Koff, Rierdan, and Stubbs (1990) after detailed study proposed that a higher level of body satisfaction was associated with a higher level of self-esteem, in both males and females. Thompson and Altabe (1991) also reported that body dissatisfaction was negatively correlated with self-esteem, particularly for females. In contrast to the above findings, Silberstein, Streigel-Moore, Timko, and Rodin (1988) found no significant differences between the self-esteem scores of college women who wanted to be thinner and college women who reported satisfaction with their present figures. Self-perception is firmly identified with an individual's confidence. A person's self-concept and self-esteem is at times based on desirability and attractiveness and this is more common in women so they are under greater pressure than men to lose weight. A person's body image is made up by their own beliefs, thoughts and attitudes as well as ideals in society. Body image is the picture that a person makes up of their body in their mind. This may or may not depend on the actual appearance. Physical appearance has different meaning and importance for males and females; concerns surrounding body weight and shape also differ. Most of the women aim to be slimmer being overweight is viewed negatively.

Self-esteem is utilized to portray an individual's general feeling worth, how much an individual acknowledges and likes oneself. Anxiety is body's natural response to stress. It's a feeling of fear or apprehension. Depression is a psychological wellness issue that is portrayed a low state of mind and lost enthusiasm for exercises.

PBID is closely linked to eating disorders. Eating disorders are serious and can be a threat to a person's life. Eating disorders can happen due to a variety of factors. These causes can be genetical or some personality trait. Other potential causes of eating disorders can be perceived pressure to be thin, cultural preferences, and exposure to media promoting such ideas. It is a very common misconception that eating disorders are a lifestyle choice. Eating disorders are mental disorders characterized by severe disturbances in peoples eating behaviors and related thoughts and emotions. Different types of eating disorders are

1. Anorexia nervosa
2. Bulimia nervosa

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3. Binge eating disorder
4. Pica
5. Rumination disorder
6. Avoidant/strictive food intake disorder

Other than these types there is purging disorder, night eating syndrome and other specified feeding or eating disorder.

No clear data is available for incidence and prevalence of eating disorders. Incidence study on eating disorders hardly exist in most parts of the world. Prevalence investigations of eating disorders are generally led in the high-chance populace of youthful females. Over the last several years much research has been directed towards evaluating the nature and correlates of eating disorders. One factor that seems to be common to adolescents diagnosed as suffering from clinical levels of eating pathology is a high level of perceived body image dissatisfaction (PBID).

Of significance, PBID has also been reported to be highly prevalent within non-eating disordered populations of adolescents, particularly females. It's also linked with socially accepted restricted dietary. These findings made researchers to think that there may be an incremental process or line of continuum in the development of eating pathology, with "normative" levels of PBID and preliminary dietary behaviors at one end, extending into clinical eating disorders at the other (Attie & Brooks-Gunn, 1989; Killen et al., 1994; Wertheim et al., 1992).

### ***Occupational therapy***

#### **Body image**

In the 1960s body image was a topic that was famous with medico/social journals but recently, it is more commonly seen in occupational therapy journals. Some of the popular ways of assessment of body image in occupational therapy are given below-

1. "Draw a Person" tests are frequently used by occupational therapists to assess an individual's perception of body image.
2. The test of body scheme.
3. Drawings of self with blindfold.
4. There are other more specific tests devised by psychologists for assessing body image in particular for diagnoses such as anorexia nervosa.

Shontz (1974) suggests that where body image disturbance is reversible, i.e., it does not have a neurological, surgical or deep-seated neurotic foundation, then a programme of behavioral rehabilitation should be considered. He suggests four types of treatment:

1. Developing basic sensory-motor capacities to facilitate specific behaviors, i.e., courses of exercise to increase strength, dexterity and co-ordination, and training in body awareness.
2. Teaching specific skills or functional activities, including speech, ambulation, self-care, activities of daily living, vocational and recreational activities in order to increase the value of self.
3. Assisting personality reorganisation through interpersonal relations with others having similar problems. Shontz suggests self-help groups are particularly valuable in this area.

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4. Including personality growth through psychotherapy. When body image disturbance is caused by or exacerbated by personality dysfunction it is then dealt with through fantasy and self-disclosure.

### **Self-Esteem**

An occupational therapist measures a person's self-esteem and then uses different interventions to increase it, thus boosting his or her confidence.

### **Depression**

A good deal of theoretical and empirical work supports the notion that occupational engagement is associated with a reduction in depressive symptoms. Because of its explicit focus on roles, behaviours, and adaptive skills, occupational therapy can play a key role in the treatment of depression. Outcome studies are needed that indicate when, during the depressive episode, or inter-episode, occupational therapy intervention is most effective, along with the study of variables, such as types of interventions and with what age groups. Occupational therapists are moving further toward practice policy and are drafting guidelines toward this effort. These are done by therapists who ate, develop, test, and implement clinical guidelines.

### **Anxiety**

Occupational therapy treatment has a significant job in helping people with anxiety, deal with their condition and limit its effect on their everyday life. Occupational therapy specialist will work with a patient with anxiety to recognize how the condition is influencing them and what their future objectives are. The following are a few different ways that an occupational therapist might have the option to help.

# **Self-awareness skills**- helping a patient to increase a comprehension and familiarity with their own bodies when anxiety levels are rising, and how to make up for this.

# **Pacing techniques** - uneasiness can be debilitating and an occupational therapist can show a patient how to take on a steady speed during the day to save their vitality.

# **Graded exercises** - when there is an occasion or situation that causes tops in anxiety, an occupational therapist can work with the patient to develop to and survive

### ***Rationale of the study***

Research into the relationships between perceived body image dissatisfaction and psychological well-being variables, such as depression, anxiety and self-esteem, has been limited. Those studies that have investigated the psychological profile of adolescents who report high levels of PBID indicate a rather complex pattern of relationships between these two constructs. Studies held earlier didn't give a clear view of relationship between perceived body image dissatisfaction and depression, anxiety and self-esteem.

Thus, research examining the relationships between psychological well-being variables and perceptions of body image has not resulted in any conclusive understanding of the nature or extent of relationship between these constructs. The purpose of the present study was to examine this issue further.

### ***Aims and objectives***

The aim of the present study was to find the relationship between perceived body image dissatisfaction (PBID) and all psychological well-being measures i.e., Self Esteem, Anxiety and Depression.

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The objective was to determine the extent of body weight and body shape dissatisfaction in a group of females as compared to males.

### METHODOLOGY

- **Study Design** – Survey
- **Sample Size** – 80 subjects
- **Source of Study** –Community
- **Population** – Indian Population
- **Sampling Method** –Convenience
- **Inclusion Criteria** –Any person within the age group 15-25 years dissatisfied with his or her body image in context of body mass.
- **Exclusion Criteria** –
  - Adolescent diagnosed with any psychiatric condition.
  - Adolescent having a medical condition of long-term nature (epilepsy, and others)
- **Withdrawal Criteria** –
  - Adolescent not willing to participate.
  - Adolescent who does not complete the protocol due to any reason.

#### *Assessment Tools Used*

**The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)**, a widely used self-report instrument for evaluating individual self-esteem. The Rosenberg self-esteem scale, developed by the Morris Rosenberg, is a self-esteem measure used in social-science research. It uses a scale of 0–30 where a score less than 15 may indicate a problematic low self-esteem. The RSES is designed similar to the social-survey questionnaires. A 10-item scale measuring global self-worth by both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

**The Hamilton Anxiety Rating Scale (HAM-A)** was one of the first rating scales developed to measure the severity of anxiety symptoms, and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0–56, where <17 indicates mild severity, 18–24 mild to moderate severity and 25–30 moderate to severe.

**The Beck Depression Inventory (BDI-II)**, created by Aaron T. Beck, is a 21-question multiple-choice self-report inventory, one of the most widely used psychometric tests for measuring the severity of depression. Its development marked a shift among mental health professionals, who had until then, viewed depression from a psychodynamic perspective, instead of it being rooted in the patient's own thoughts. The BDI-II contains 21 questions, each answer being scored on a scale value of 0 to 3. Higher total scores indicate more severe depressive symptoms. The standardized cut-offs used differ from the original:

- 0–13: minimal depression
- 14–19: mild depression
- 20–28: moderate depression
- 29–63: severe depression.

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**The Eating Attitude Test (EAT-26)** given by David M Garner is the most widely used standardized measure of symptoms and characteristic of eating disorder. It has been particularly used as a screening tool to assess “eating disorder risk” in high school, college and other special risk samples like athletes.

The EAT-26 form three subscales-

- a) Dieting
- b) Bulimia and food preoccupation
- c) Oral control

The subscale scores are computed by adding all the items assigned to the particular scales. Even though it is widely used as a screening tool of high-risk groups of eating disorder, it is not a diagnostic tool. A diagnosis can only be made by a qualified health care provider.

**Body Satisfaction Questionnaire (BSQ)** is a self-report measure of the body shape preoccupations typical of bulimia nervosa and anorexia nervosa. The BSQ was designed for use with women but Melanie Bash (nee Taylor, lead developer of the BSQ) has recently confirmed approved changes to three items allowing the BSQ to be used with men given the increasing prevalence of, and recognition of, eating disorders and body shape concerns, in men. The changes are:

Item 9 now reads - "Has being with thin men made you feel self-conscious about your shape?"

Item 12 now reads - "Have you noticed the shape of other men and felt that your shape compared unfavourably?"

Item 25 now reads - "Have you felt that it is not fair that other men are thinner than you?"

There are 34 items. Each item is scored 1 to 6 with "Never" = 1 and "Always" = 6 and the overall score is the total across the 34 items, i.e., a theoretical score range from 34 to 204.

**Body Mass Index - Body Mass Index (BMI)** is the ratio of body weight to height in normal build people [BMI= weight (kg)/height(m); Keys, Fidanza, Karonen, Kimura, & Taylor, 1972]. Originally defined by Quetlet in 1869, BMI has become accepted as a highly convenient, valid, and reliable indicator of obesity. Garrow and Webster (1985) found that BMI provided a measure of fatness that corresponds highly with specialised laboratory methods, and provides an estimate of size that is more useful than percentage of fat. Normative ranges for Quetlets' Indices} BMI are defined as:

- (1) <15—emaciated;
- (2) 15–19—underweight;
- (3) 20–24—normal
- (4) 25–29—overweight; and
- (5) >29—obese.

In consideration of the normal changes in body proportions that accompany age, in the present study, BMI was adjusted for adolescents by dividing the actual body mass by expected body mass (based upon calculation of expected weight for age) then multiplied by 100 to derive a Body Mass (Coates, Boyce, Muller, Mearns, & Godfrey, 1980). Body mass percentile ranks, for the purpose of this paper, have been defined as:

- (1) Below 90% - Underweight;
- (2) 90%–110% - Normal;

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- (3) 111%–120% - Overweight;
- (4) above 120% - Obese.

**Environment** –A disturbance free environment for the participants while filling the questionnaires.

### *Participants*

The study was carried out in a co-educational College in the South District of Delhi. The objectives of study were explained and students were requested to participate. A brief introduction about the objectives of the study was given to the subjects. Confidentiality was assured. A total of 80 subjects participated in the study. Information on age, class, marital status, place of origin, current place of stay, family type and income; and clinical details such as history of physical and psychiatric illness, menstrual history, family history of physical and psychiatric illness, details of family outlook, emphasis on physical appearance and family preference for health foods was obtained.

The participants in this study were a sample of convenience, predominantly recruited through personal and professional networks. The sample included 80 subjects (40 females, 40 males). All the participants were of Indian origin. The participants were selected on the basis of an inclusion criterion. The average age of respondents was 19.5 years (males: M=20, SD=2.9; females: M=20, SD=2.5). Prior to data collection, the purpose of the study was described, and consent was obtained. Participants were assured of anonymity and confidentiality.

### *Procedure*

The study was presented to the participants as an investigation of psychological well-being in person with PBID. Consent forms were distributed. Questionnaires were distributed. All respondents completed the questionnaires on an anonymous and voluntary basis. All questionnaires took approximately 30 mins to complete. Students were given the option of receiving the results of their assessment. Weight was measured using a mechanical weighing scale which was placed in a secluded area of the room, and each student was ensured complete privacy. The height was measured using a measuring tape. Shoes were removed prior to weighing and measuring.

## **RESULTS**

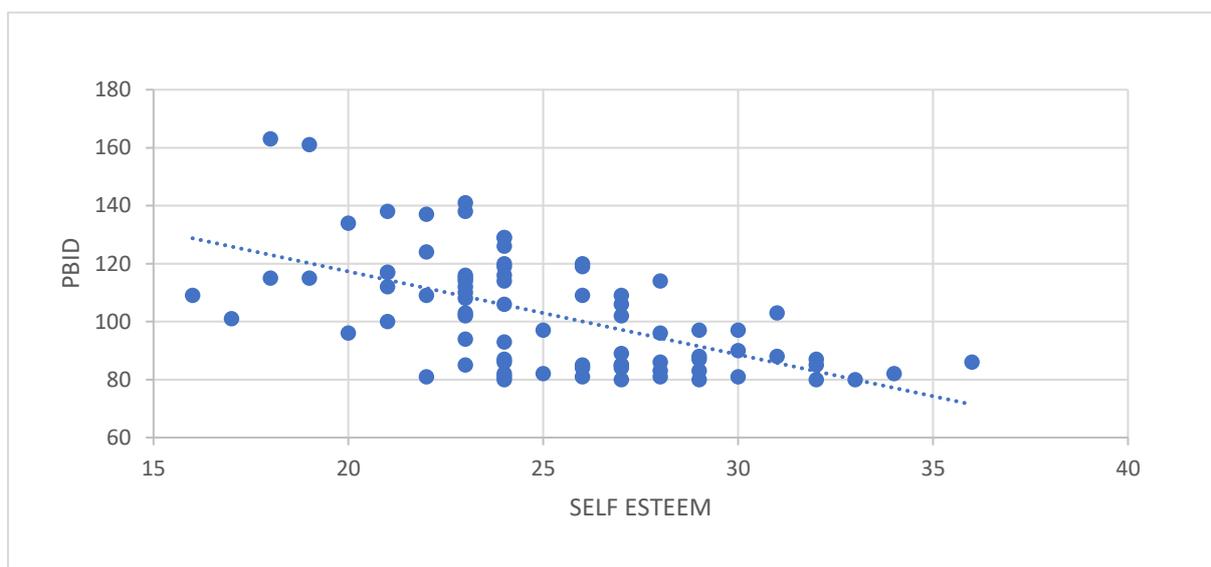
The results of this study are presented in 2 sections. The first section reports findings relating to psychological well-being. In this section we report Pearson's correlations for anxiety, depression, self-esteem and eating behavior with body image. The second section reports stepwise multiple regression analyses with gender (recorded as 1 male and 2 female), body mass, self-esteem, depression, and anxiety entered as independent variables and PBID as the dependent variable.

**Table 1: Pearson's Correlation Coefficients between Perceived body image dissatisfaction, and Psychological Well-being variables**

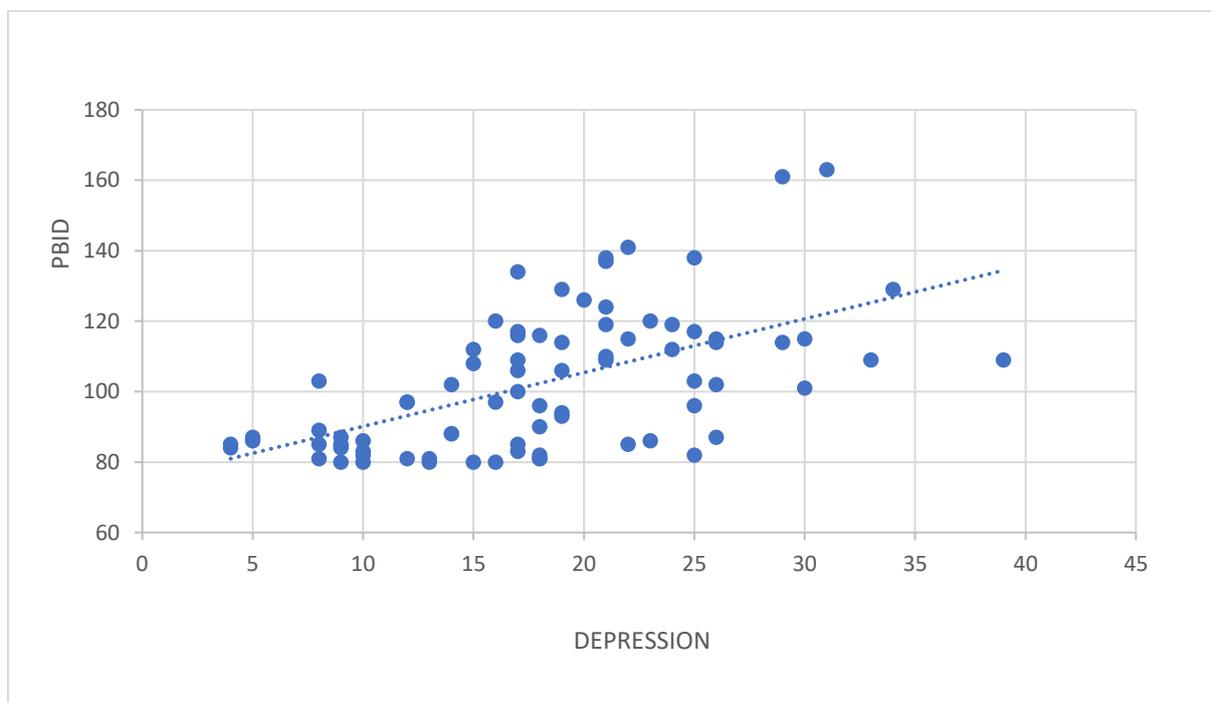
	Mean	Standard Deviation	P value
Self esteem	25.13	4.001	-.582
Depression	18.15	7.392	.573
Anxiety	16.55	6.467	.435
Eating behaviour	13.01	8.985	.344

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Co relational analyses were used to examine the relationship between PBID and psychological well-being variables. As seen in table 1, all psychological well-being measures were seen as significantly associated with all proportions of PBID (as per BSQ). Self-esteem (as per RSES) was found to be negatively correlated with PBID (with  $r = -.582$  and a  $p$  value at 0.01 level). Depression scores (as per BDI-II) was found to have a strong positive correlation with PBID (with  $r = .573$  and  $p < 0.01$ ). Anxiety (as per HAM-A) and abnormal eating behaviour (as per EAT-26) were seen to have a moderate positive correlation with PBID. For anxiety and PBID correlation coefficient 'r' was found to be 0.435 and  $p$  value was found to be at 0.01 level. As for abnormal eating behaviour  $r = 0.344$  and  $p < 0.01$ .

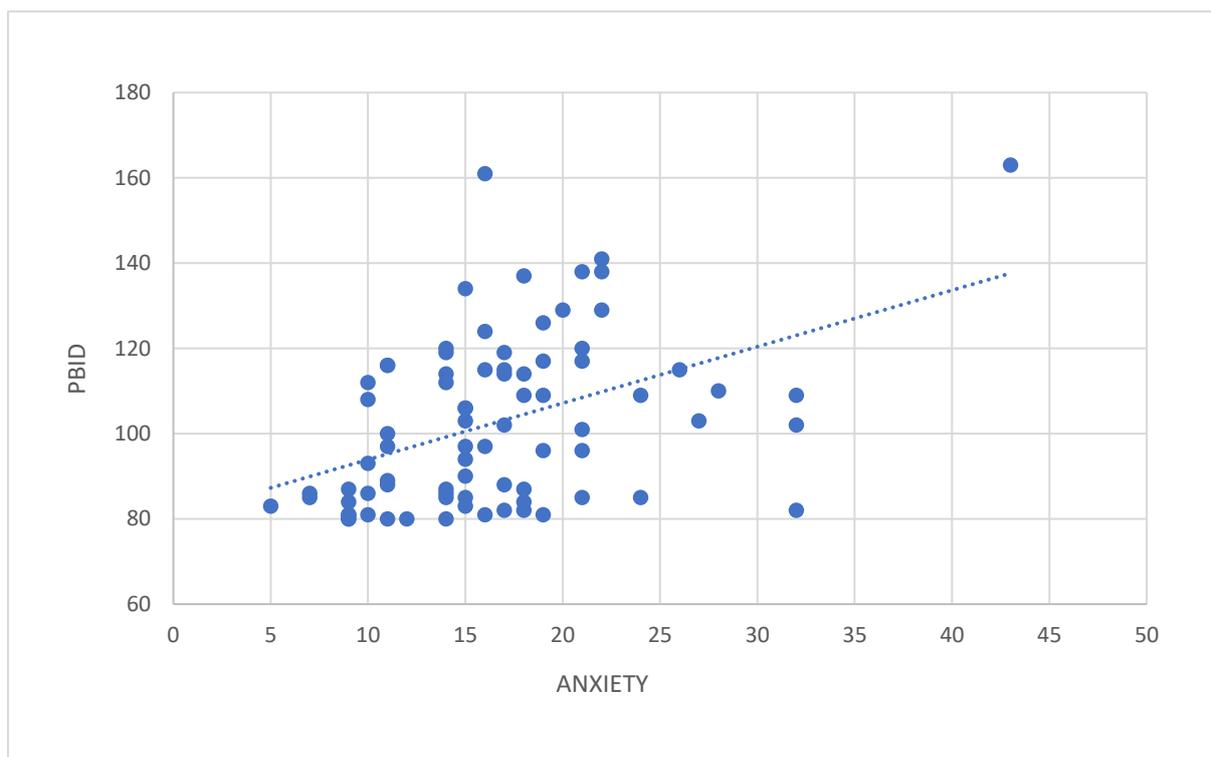


**Graph 1-Correlation between PBID and Self-Esteem.**

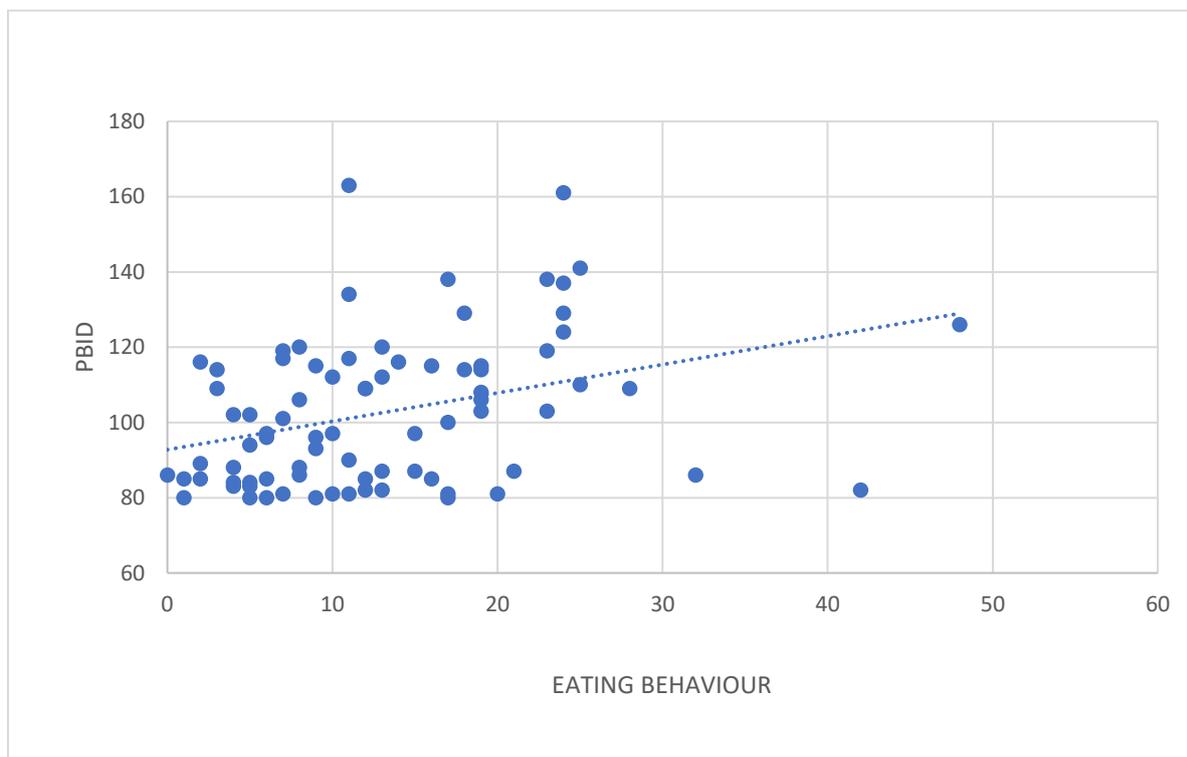


**Graph 2- Correlation between PBID and Depression.**

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**Graph 3- Correlation between PBID and Anxiety.**



**Graph 4- Correlation between PBID and Eating Behavior.**

Second section of the results shows analyses for self-esteem, depression, and anxiety entered as independent variables and PBID as the dependent variable in context with gender (recorded as 1 male and 2 female), and body mass.

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Means and standard deviations for body mass for different categories are presented in Table 2. It indicated that the majority of adolescents fell within prescribed “healthy” weight for height ranges.

**Table 2 - Means and Standard Deviations for different Categories of Body Mass Index by Gender**

	N	Mean	SD
Under Weight	01	18.30	0.00
Healthy Weight	47	23.52	1.33
Over Weight	30	26.59	1.13
Obese	02	30.30	0.20

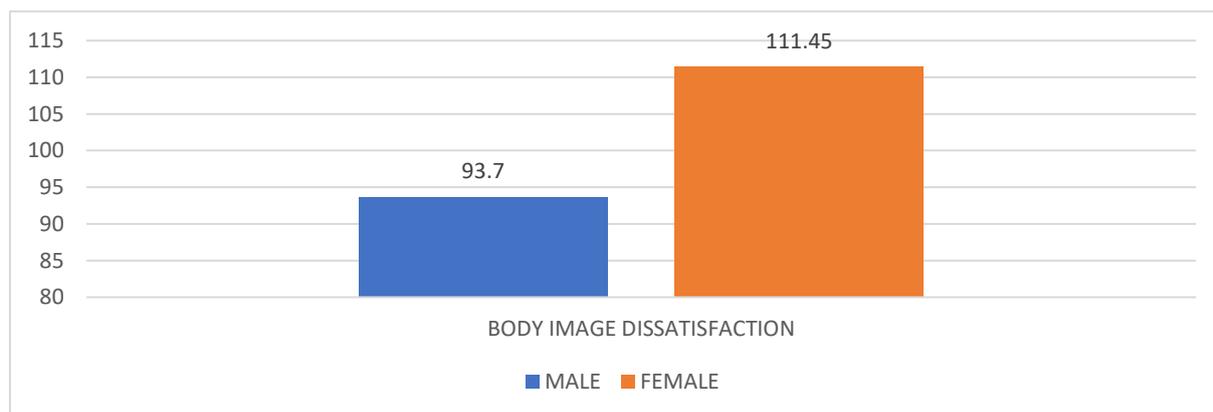
**Table 3 - Means and Standard Deviations for self-esteem, depression, anxiety and eating disorder by Body Mass**

	Under weight -Mean -SD	Healthy weight -Mean -SD	Over weight -Mean -SD	Obese -Mean -SD
<b>Self -Esteem</b>	19 0	25.57 4.18	24.80 3.52	11.00 6.00
<b>Depression</b>	16 0	18.38 7.39	18.00 7.08	102.00 15.00
<b>Anxiety</b>	26 0	16.23 6.02	16.66 7.01	17.50 3.50
<b>Eating behaviour (Ab)</b>	9 0	13.02 8.10	13.06 10.28	14.00 7.00

**Gender differences-PBID**, as measured on the body satisfaction questionnaire (BSQ), indicated that females reported a mean PBID level 17.75 points greater than males. The main effect for gender was found on the body dissatisfaction. No significant difference was seen in relationship of PBID with anxiety, depression and anxiety in context to gender.

**Table 4: Means and Standard Deviations for Body Dissatisfaction as Measured with the body satisfaction questionnaire by Gender**

	Mean	Standard Deviation
MALE	93.70	12.611
FEMALE	111.45	21.587

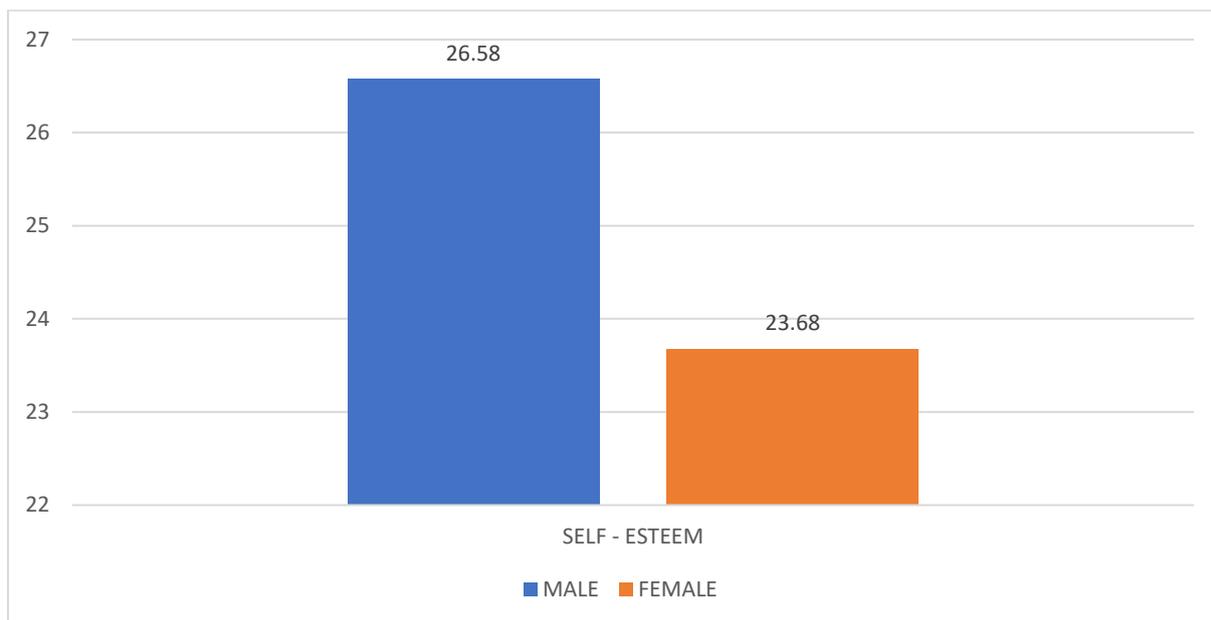


**Graph 5- Gender Difference in Body Image Dissatisfaction (as per mean)**

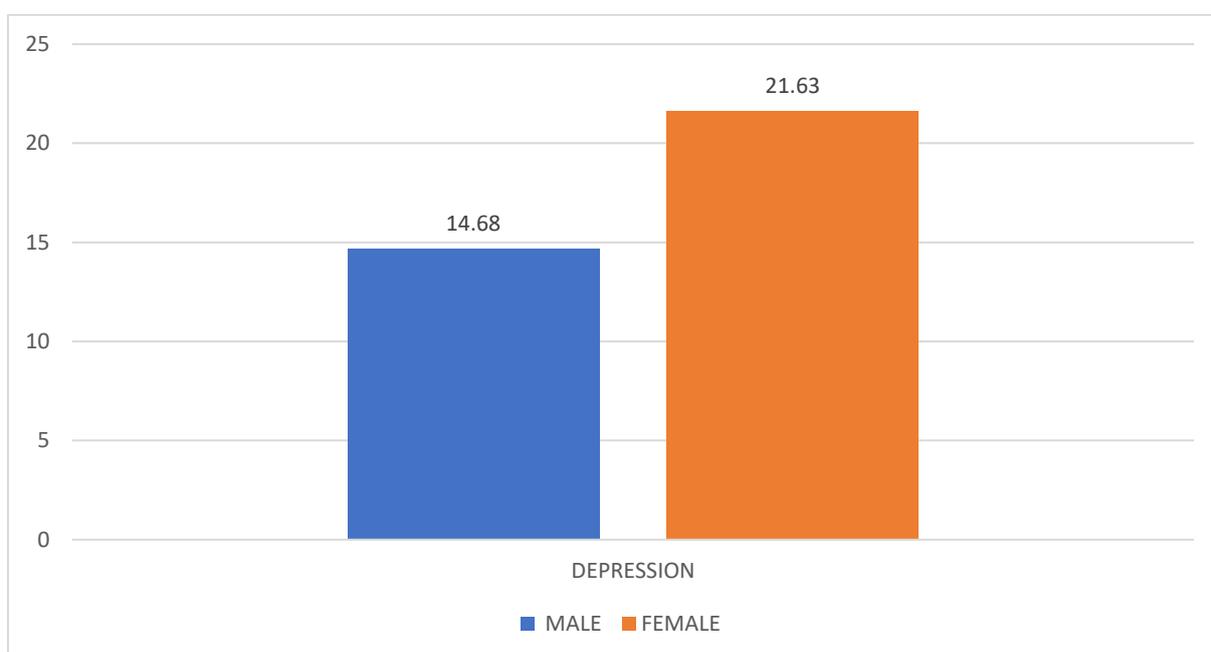
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**Table 5: Means and Standard Deviations for various psychological variables by Gender**

	Male		Female	
	Mean	Standard Deviation	Mean	Standard Deviation
Self Esteem	26.58	3.388	23.68	4.079
Depression	14.68	5.757	21.63	7.263
Anxiety	14.08	5.493	19.03	6.479
Eating Behaviour	10.03	5.727	16.00	10.602

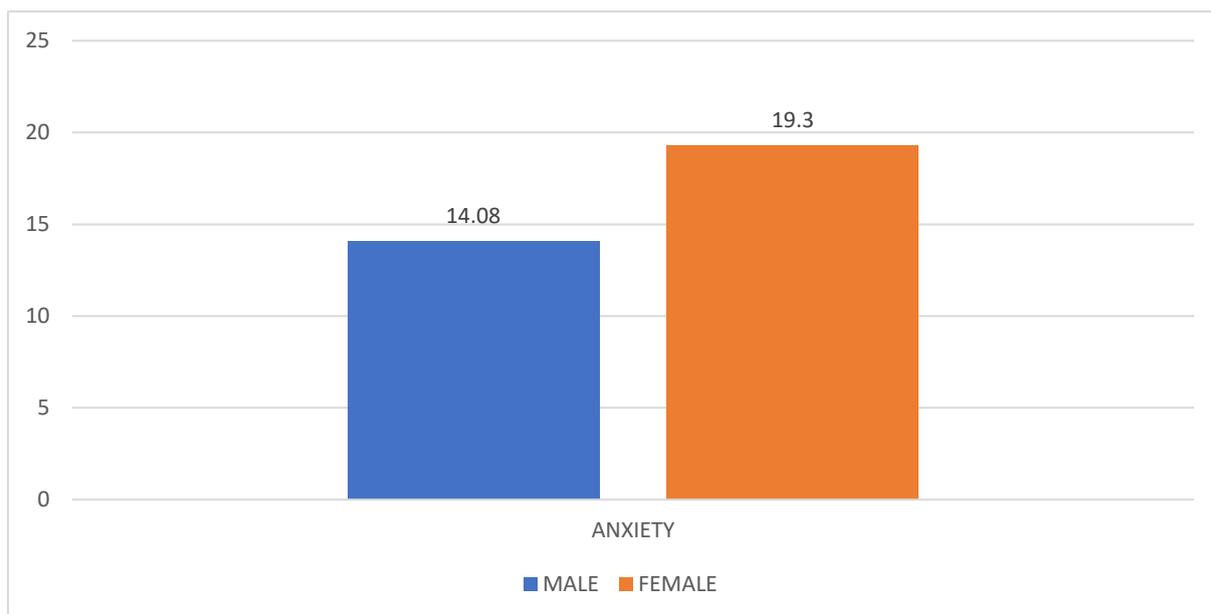


**Graph 6- Gender Difference in Self-Esteem (as per mean)**

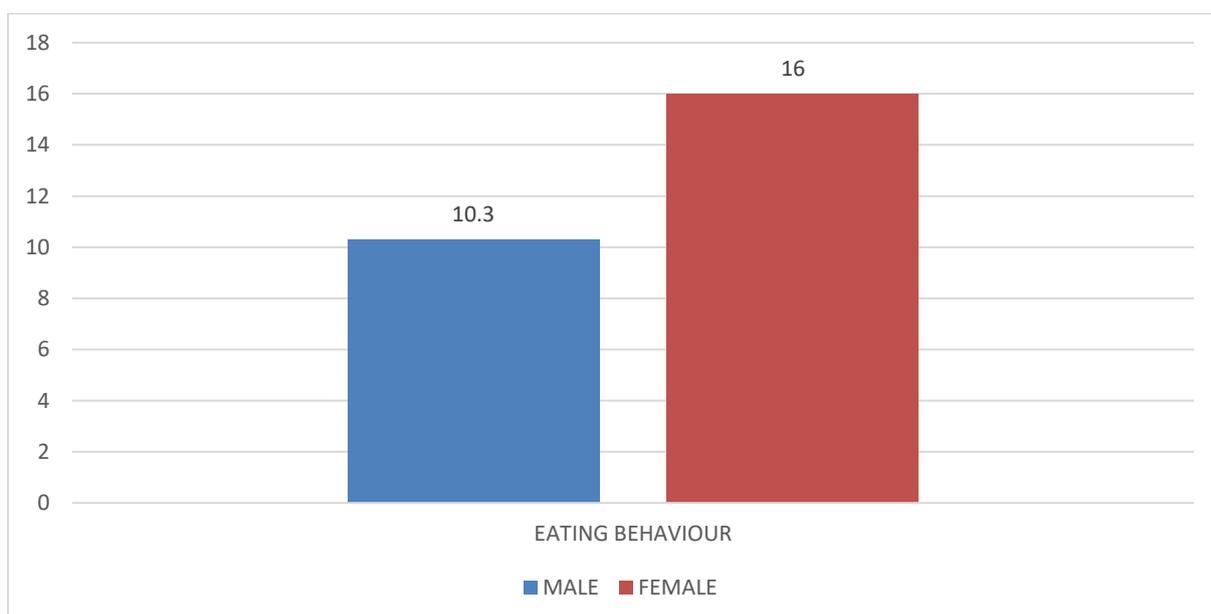


**Graph 7- Gender Difference in Depression (as per mean)**

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**Graph 8- Gender Difference in Anxiety (as per mean)**

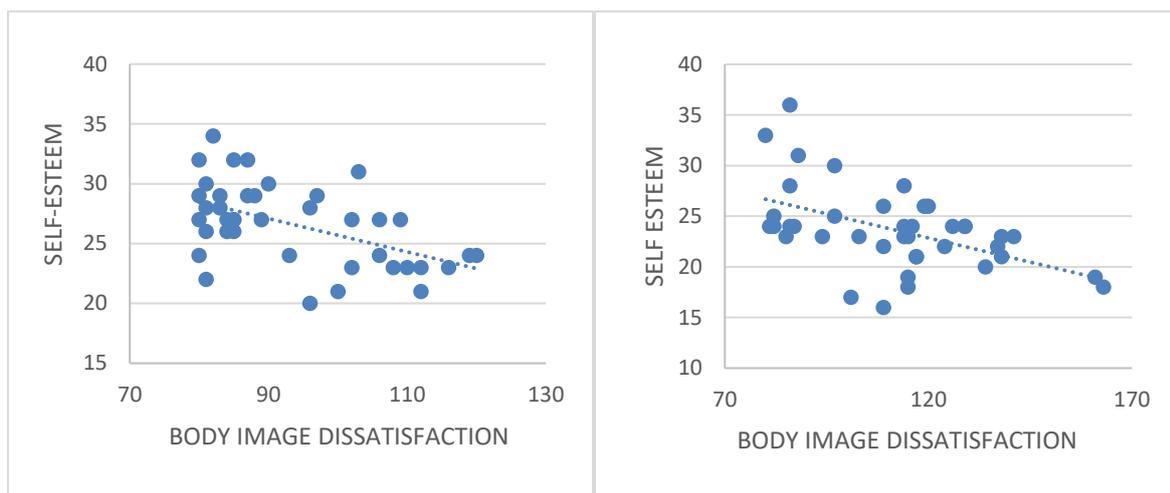


**Graph 9- Gender Difference in Eating Behaviour (as per mean)**

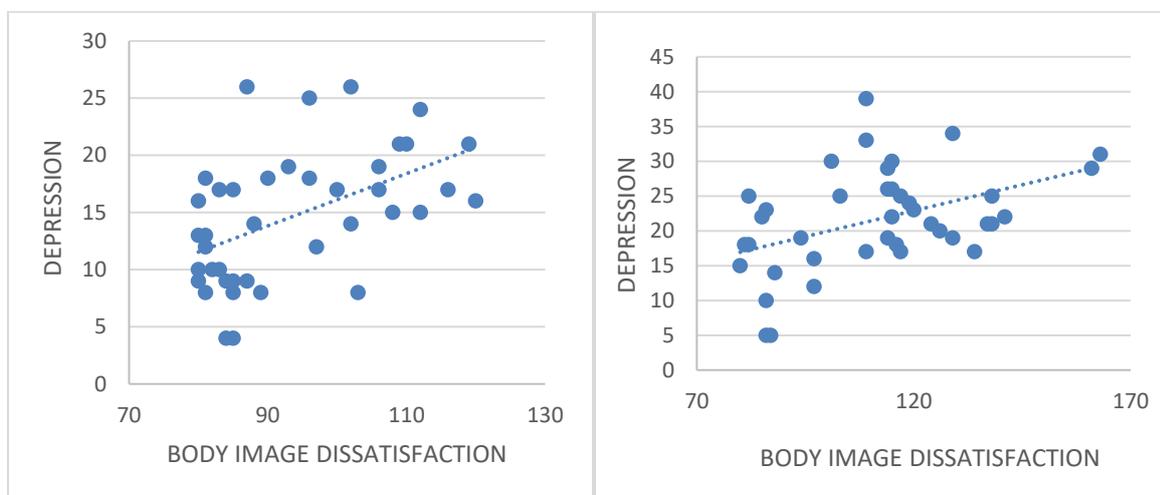
**Table 6: Pearson’s Correlation Coefficients between Perceived body image dissatisfaction, and Psychological Well-being variables by gender**

	Male	Female
Self-esteem	-.518	-.505
Depression	.501	.442
Anxiety	.284	.339
Eating behaviour	.317	.201

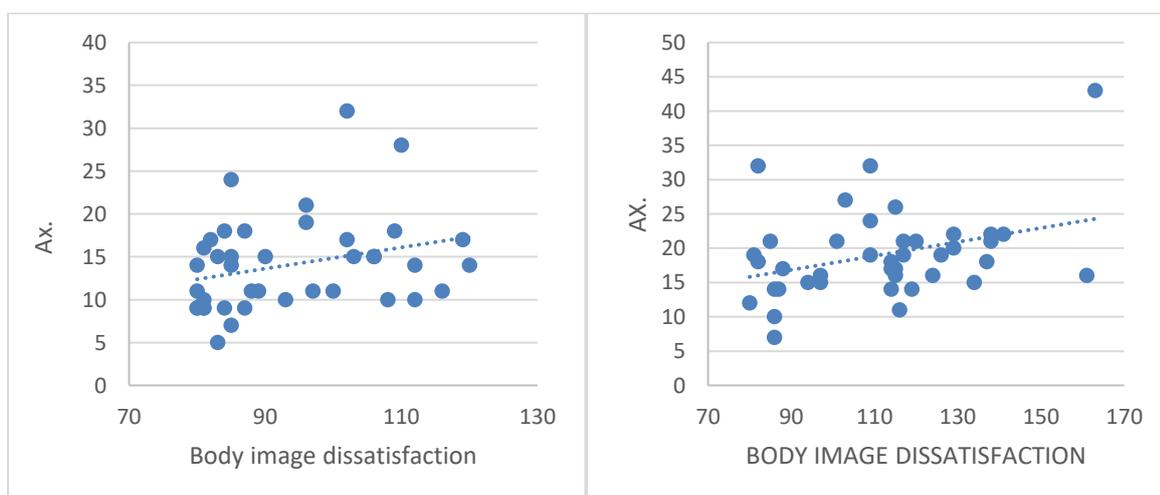
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**Graph 10- Gender differences in correlation between PBID and Self-Esteem, Male (L) Female (R)**

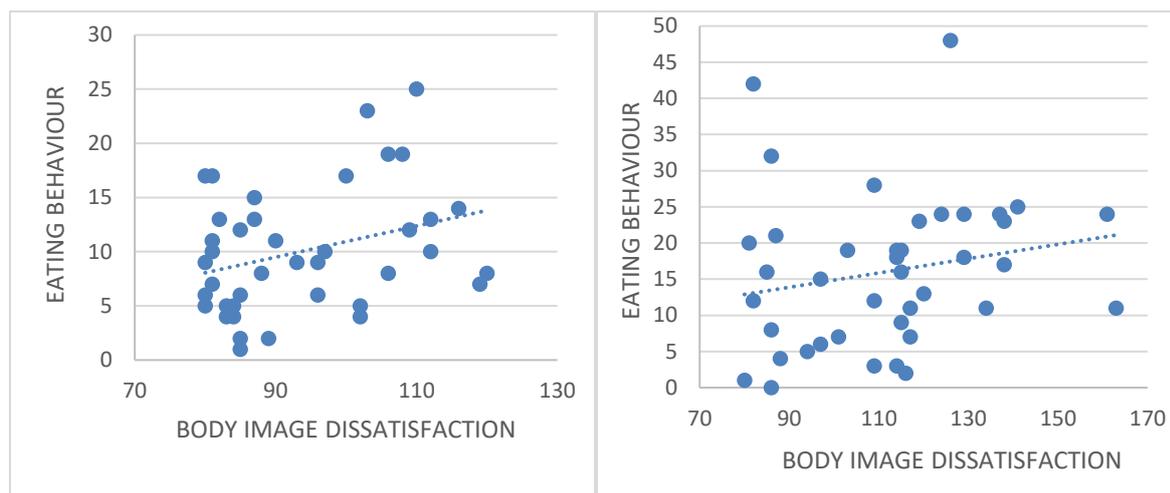


**Graph 11- Gender differences in correlation between PBID and Depression, Male (L) Female (R)**



**Graph 12- Gender differences in correlation between PBID and Anxiety, Male (L) Female (R)**

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**Graph 13- Gender differences in correlation between PBID and Eating behaviour, Male (L) Female (R)**

**DISCUSSION**

In our sample of young adults, all psychological well-being measures were seen as significantly associated with all proportions of PBID. Self-esteem was found to be negatively correlated with PBID. Depression scores were found to have a strong positive correlation with PBID. Anxiety and abnormal eating behavior were seen to have a moderate positive correlation with PBID. The result of our study was found to be comparative with previous studies of Kostanski, M., & Gullone, E. Done in 1998.

The growth spurt and increase in body fat that occurs with puberty may predispose the young adults to weight preoccupation, body shape dissatisfaction and harmful weight control practices. Dieting during the early adulthood years has been associated with anxiety, depression, and low self-esteem, nutritional deficiencies, impaired concentration, as well as inhibited growth. In extreme cases, dieting has been linked to the development of eating disorders. In this study disturbance in perception of body Image was associated with young adulthood, as in earlier studies that have pointed out that body weight, shape and size preoccupation was pronounced in early adulthood.

In the present study 37.5% of the subjects were overweight (BMI), while only 1.25% perceived themselves to be either slim or thin and 58.75% were healthy. These results suggest that subjects were preoccupied with their appearance, body weight and shape as also observed in earlier studies. In most cultures being overweight is viewed negatively in females. It was noted in the study that females reported larger body image dissatisfaction as compared to males similar to the study of Kostanski, M., & Gullone, E. (1998). This is particularly interesting in light of research that has indicated that perceptions of “fatness” in other individuals is a pertinent issue in defining their status (Tiggeman & Rothblum, 1988). We found that males reported a higher level of self-esteem and lower levels of depression and anxiety than females as similar to the findings by all good- Merten et al., 1990; Kaplan et al., 1988; and W. M. Reynolds, 1987. The present study did not find a correlation between BMI and self-esteem as was same with the results found by Latha KS et al in 2006. The results were unlike the observations made in previous studies. This could be a Type 2 error as the present sample had very few thin and obese subjects.

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In this present study, most subjects had high scores on anxiety, depression and eating behaviors which suggests that young adults are in the phase of turmoil, uncertainties and mood instability. Recent researches have shown that more than twenty percent of young adults in the normal population have emotional problems and 1/3<sup>rd</sup> of young adults attending psychiatric clinics have depression. Despite this, depression in this age group is greatly under diagnosed.

### LIMITATIONS

- Sample was taken from only Jamia Hamdard which cannot be generalized to other settings.
- Sample size for finding the relationship was small, therefore results could not be generalized to masses.
- No Intervention was given.

### Recommendations

- Further studies with a larger sample size and more specific instruments to tap depression and other common mental disorders in this population should be done.
- Scales with more reliability can be used for better results.
- Study was a survey. The design can be changed to pre-post experimental design or comparative so that results can be seen with distinction.
- Further studies are needed to give intervention to these subjects.

### FURTHER IMPLICATIONS

Hence, the study has implications for health education of the adolescents. Adolescents with a distorted perception of body weight may set unrealistic goals and choose unhealthy behaviors to control their weight. As an **Occupational Therapist** we need to educate adolescents about their normal weight range and methods to maintain appropriate weight through proper diet and exercise. In addition, OT needs to help them attain a realistic, positive perception of their weight in order to prevent depression and lowered self-esteem. Professionals should also encourage and support healthy eating patterns and physical activity while encouraging adolescents to recognize personal strengths not related to physique.

### CONCLUSION

- It was found that all psychological well-being measures i.e., Self Esteem, Anxiety and Depression were seen as significantly associated with all proportions of Perceived Body Image Dissatisfaction.
- Males were found to have higher level of self-esteem and lower levels of depression and anxiety than females.
- Females reported larger body image dissatisfaction as compared to males.

### REFERENCES

- Adrian Furnham, Nicola Badmin & Ian Sneade (2002) Body Image Dissatisfaction: Gender Differences in Eating Attitudes, Self-Esteem, and Reasons for Exercise, *The Journal of Psychology*, 136:6, 581-596.
- Benedikt R, Wertheim EH, Love A. Eating attitudes and weight-loss attempts in female adolescents and their mothers. *J Youth Adolesc* 1998; 27:43-57.

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Adolescents and Young Adults with Perceived Body Image Dissatisfaction**

- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of social psychological attitudes*, Vol. 1. *Measures of personality and social psychological attitudes* (p. 115–160).
- Bruch H. Developmental considerations of anorexia nervosa and obesity. *Can J Psychiatry* 1981; 26:212-217.
- Davis, C., Shapiro, C. M., Elliott, S., & Dionne, M. (1993). Personality and other correlates of dietary restraint: An age by sex comparison. *Personality and Individual Differences*, 14(2), 297–305
- Elizabeth D., Michael C. The Role of Occupational Therapy in the Management of Depression, *American Journal of Occupational Therapy*, February 1992, Vol. 46, 175-180
- Felts M, Tavasso D, Chenier T, Dunn P. Adolescents' perceptions of relative weight and self-reported weight-loss activities. *J School Health* 1992; 62:372--376.
- Franklin C. Shontz, *Body Image and its Disorders*, December 1, 1974, *The International Journal of Psychiatry in Medicine*, Volume: 5 issue: 4, page(s): 461-472
- Friedman, Kelli & Reichmann, Simona & Costanzo, Philip & Musante, Gerard. (2002). *Body Image Partially Mediates the Relationship between Obesity and Psychological Distress*. *Obesity research*. 10. 33-41
- Gavin AR, Simon GE, Ludman EJ. 2010 Dec. The association between obesity, depression, and educational attainment in women: the mediating role of body image dissatisfaction. *Journal of psychosomatic Research*;69(6):573-81.
- Gralen, S. J., Levine, M. P., Smolak, L., & Murnen, S. K. (1990). Dieting and disordered eating during early and middle adolescence: Do the influences remain the same? *International Journal of Eating Disorders*, 9(5), 501–512.
- Gardner RM, Friedman BN, Jackson NA. Body size estimations, body dissatisfaction and ideal size preferences in children six through thirteen. *J Youth Adolesc* 1999; 28:603--618.
- Jacqueline A Pesa, Thomas R Syre, Elizabeth Jones. (May 2000). Psychosocial differences associated with body weight among female adolescents: the importance of body image. *Journal of Adolescent Health*. 26(5).330-7.
- Kim O, Kim K. Comparisons of body mass index, perception of body weight, shape satisfaction and self-esteem among Korean adolescent. *Percept Motor Skills* 2003; 97:1339-1346.
- Kostanski, Marion & Gullone, Eleonora. (2007). The Impact of Teasing on Children's Body Image. *J Child Fam Stud*. 16. 307-319
- Kostanski, M., & Gullone, E. (1998). Adolescent Body Image Dissatisfaction: Relationships with Self-esteem, Anxiety, and Depression Controlling for Body Mass. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 39(2), 255-262.
- Latha KS et al (2006) .Body Image, Self-Esteem and Depression in Female Adolescent College Students. *J. Indian Assoc. Child Adolesc. Ment. Health*; 2(3): 78-84
- Maude, D., Wertheim, E. H., Paxton, S., Gibbons, K., & Szmukler, G. (1993). Body dissatisfaction, weight loss behaviours, and bulimic tendencies in Australian adolescents with an estimate of female data representativeness. *Australian Psychologist*, 28(2), 128–132.
- McGuinness, Sarah & Taylor, J. E. (2016). Understanding body image dissatisfaction and disordered eating in midlife adults. *New Zealand Journal of Psychology*. 45. 4-12.
- Mckinley N. M. and Hyde J. S. (1996), the objectified body consciousness scale, development and validation. *Psychology of Women Quarterly*, (20) 181-215.

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- Mond, J., van den Berg, P., Boutelle, K., Hannan, P., & Neumark-Sztainer, D. (2011). Obesity, body dissatisfaction, and emotional well-being in early and late adolescence: findings from the project EAT study. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine*, 48(4), 373–378.
- Paquette MC, Raine K. Socio-cultural context of women's body image. *Soc Sci Med* 2004; 59:1047- 1458.
- Peat CM, Peyerl NL, Muehlenkamp JJ. Body image and eating disorders in older adults: a review. *Journal of General Psychology*. 2008 Oct;135(4):343-58.
- Post, G., Crowther, J.H. Variables that discriminate bulimic from non-bulimic adolescent females. *J Youth Adolescence* 14, 85–98 (1985)
- Rosen, J. C., & Gross, J. (1987). Prevalence of weight reducing and weight gaining in adolescent girls and boys. *Health Psychology*, 6(2), 131–147
- Ross CE. Overweight and depression. *J Heath Soc Behav* 1994; 35:63-79.
- Silberstein, L. R., Striegel-Moore, R. H., Timko, C., & Rodin, J. (1988). Behavioral and psychological implications of body dissatisfaction: Do men and women differ? *Sex Roles: A Journal of Research*, 19(3-4), 219–232.
- Sheslow D, Hassink S, Wallace W, Delancey E. The relation between self-esteem and depression in obese children. *Ann NY Acad Sci* 1993; 699:289-291.
- Stice, Eric & Hayward, Chris & Cameron, Rebecca & Killen, Joel & Taylor, C. (2000). Body-Image and Eating Disturbances Predict Onset of Depression Among Female Adolescents A Longitudinal Study. *Journal of abnormal psychology*. 109. 438-44.
- Tiggemann, M., & Rothblum, E. D. (1988). Gender differences in social consequences of perceived overweight in the United States and Australia. *Sex Roles*, 18, 75–86.

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