

**ROLE OF BODY-IMAGE ON SELF-ESTEEM, MENTAL HEALTH AND
INTERPERSONAL RELATIONSHIPS OF YOUNG ADULTS**

A

Thesis submitted

In the partial fulfillment of the requirement for the degree of

MASTERS OF ARTS

IN

PSYCHOLOGY

(CLINICAL)



THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

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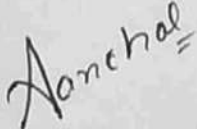
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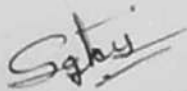
May 2019

CERTIFICATE

This is to certify that this thesis entitled “**Role of Body-image on Self-esteem, Mental health and Interpersonal Relationships of Young Adults**” being submitted in partial fulfillment of requirements for the award of degree of **Masters of Arts in Psychology in the School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology , Patiala** is a bona fide work carried out by **Ms. Aanchal Meadh** under the supervision of **Dr. Sangeeta Yadav**, Lecturer School of Humanities and Social Sciences, Thapar Institute of Engineering and Technolgy, Patiala and that no part of this project has been submitted for the award of any other degree.


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This is to certify that above statement made by the student concerned is correct and true to the best of my knowledge



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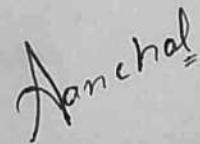
CANDIDATE'S DECLARATION

I, Aanchal Meadh, hereby affirm that work presented in the thesis entitled **“Role of Body-Image on Self-esteem, Mental Health and Interpersonal Relationships of Young Adults”** being submitted in the partial fulfillment of requirements for the award degree of **Masters of Arts in Psychology, in the School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology, Patiala** is authentic record of my own work carried under the supervision of **Dr. Sangeeta Yadav**, Lecturer School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology, Patiala and refers other researcher's work which are duly listed in the reference section.

The matter embodied in the thesis has not formed the basis for the award of any other degree of this or any other university.


Dated: May 2019

Place: Patiala



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ABSTRACT

The present study had been designed to investigate the role of body-image on self-esteem, mental health and interpersonal relations on young people. For this purpose, a sample of 200 students (100 males and 100 females) of the age range 17-30 years from Thapar Institute of Engineering and Technology, Patiala took part in this study. Dresden body-image scale, Rosenberg self-esteem scale, Depression, Anxiety, Stress Scale (DASS-21) and relationship scales questionnaire (Griffin & Bartholmew, 1994) were used to measure body image, self-esteem, mental health and interpersonal relations respectively. The data were analyzed using descriptive statistics, correlation, regression and t-test. The results indicate body image and self-esteem share positive association. While body-image with mental health shares inverse relationship. To understand relation in more depth the relation between sub-components of body-image with self-esteem, depression, anxiety, stress which are components of mental health and interpersonal relations was also found

List of Abbreviations

BI- Body-Image

S.A- Self aggrandizement

V-Vitality

S.S- Sexual Satisfaction

P.C- Physical Contact

D- Depression

A- Anxiety

S- Stress

S.E- Self-esteem

IR(S) - Interpersonal Relationship (Secure)

IR (F) – Interpersonal Relationship (Fear)

IR (P) – Interpersonal Relationship (Pre-occupied)

IR (D) – Interpersonal Relationship (Dismissing)

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Chapter 1

INTRODUCTION

1.1. Body Image

In today's time body image is a very important topic and it's all about attractive and unattractive body images. Attractiveness has a huge impact on our society. Society has certain stereotypes about the attractive people, such as individuals who are attractive are considered as intelligent and are assumed to be more fit in. They are considered to be active, healthy and that if have a positive image about their body that further leads to positive attitude towards life. On the other hand people who are not happy with their body image and are not attractive they may experience anxiety, fear or eating problems feel insecure in society and stay conscious about themselves. Even in many professional areas, such as modeling or acting, attractive people are preferred more over not very attractive people.

Image about body of oneself in person's mind is what body image is. This image formation is influenced by past experiences, comparison towards height, weight and shape of others resulting in a judgment about their own body. This comparison with others lead to making people feel that their body is not according to standards which make them suffer from lot of problems. Nowadays cosmetic surgery, diets to reduce unhealthy food eating and drugs usage to get perfect body has increased a lot.

In the process of body image formation mass media plays a crucial role. Mass media set or decides norms of the ideal body image in a given society. These ideal body image standards are set by celebrity culture that plays a crucial role in it. Surveys have been done on ideal body image in which women have scored higher. There is an increase in eating disorders for perfect

body dream of males and females today. Excessive exercise, dieting and supplements are taken to get that perfect body.

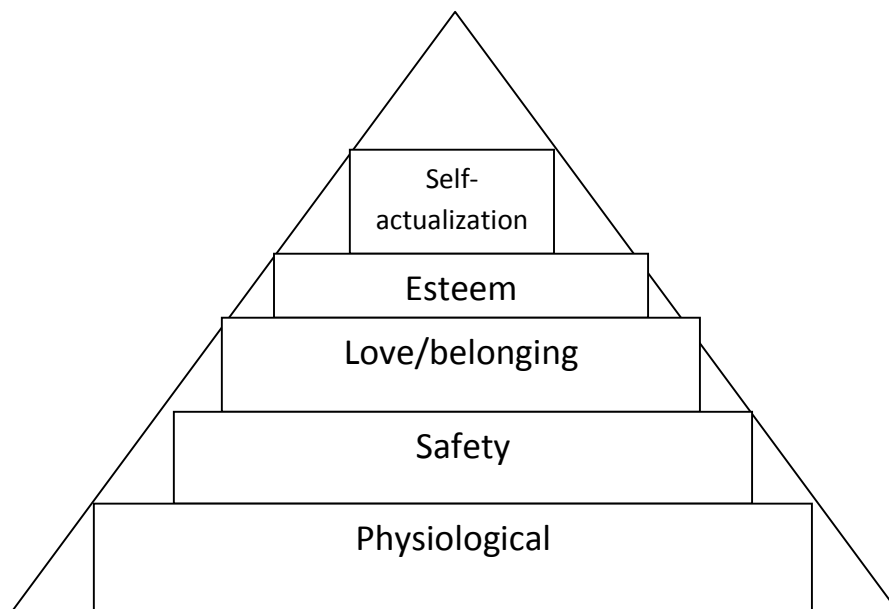
As per study of Thornton (1997) eating disorder is more common in female dancers, models as compared to other females. He found that women are idealized with a thin figure and if they are not able maintain this it leads to decrease self-esteem and becoming more self-conscious about their physique and have more anxiety regarding their looks. Females who are underweight are considered as less sexy and unattractive, and females who are overweight are considered that they will have problem with reproduction. Today there is increase in the business of fitness industry like gyms and yoga studios because for people getting the perfect body image has become so important that they spend excessive amount of money in order to get perfect shape that they idealize to be in. Even gym clothes business is high on increase because these clothes bring the perfect look of body people think, that's why every celebrity wears such type of clothes during their workout sessions.

1.2. Self-esteem

Self-esteem is an overall sense of self-value of a person or how much a person appreciates himself/herself. It involves various kinds of beliefs about oneself, such as one's own appearance, emotions and behavior. Self-esteem is important because it plays a role in motivating and making life successful. Individuals having lower sense of self-esteem have low level of confidence thus they hold back himself/herself in achieving in life. By contrast when an individual has higher self-esteem it leads them to achieve. With the positive they are able to achieve goals.

Abraham Maslow (1943) proposed hierarchy of needs theory which explains that self-esteem is one of the basic human motivation. According to Maslow people need esteem from others as

well as inner self-respect also. For a person to grow both the needs must be fulfilled. One of the pivotal factors that influence self-esteem is experience which is the foundation of self-esteem. People who get negative comments from close and significant ones are likely to experience low self-esteem. Along with this one's thought process, age, disabilities or physical problems are also important determinants of self-esteem.



Erikson in 1968 gave the concept of self-esteem. He defined it as a function of development of identity that takes place when tasks associated with each developmental life-stage are successfully addressed. When tasks are successfully done that leads to increase in person's worth. One with a healthy active personality is able to achieve and can perceive the life in a good way.

1.3. Mental health

It is a state in which a person knows about his or her abilities and is able to cope with daily stressors. When person is able to work in a productive manner and is able to contribute to community then they are considered to be mentally healthy. Factors that affect one's mental health are genetics, lifestyle, work place stress, personal stress, coping skills, and physical health. When stress in one's life increases and the person is not able to cope with the stress their mental health gets affected. For example,; due to excessive work pressure inability to take care of a close family member for a longer period of time can be taxing for mental health. There are various aspects of mental health, however in the interest of brevity I will discuss the following components of mental health.

1.4. Stress

In any threatening situation body gives certain reactions that are automatic and it is called 'stress response'. It is the way body's way to alarming and protecting the individual. It helps to stay alert and focused and to meet challenges in life. An optimum level of stress is essential for an individual because it makes them realize their capacity to handle things in life and to bring out the best in them. However, when the level of stress increases after a certain point it starts affecting the normal life. Stress is like a necessary evil, an optimum level of stress helps to flourish the individual while an excessive level of it can deteriorate their functioning. When students take education as a challenge then stress brings them capacity to learn more but with large amount of exam stress puts the student in such a stressful situation that their learning capacity decreases. It's all about the balance amount of stress to be taken. The Yerkes-Dodson Law (1908) says excessive stress is harmful for students' performance.

1.5. Anxiety

An uncomfortable feeling of worry about things happening or may happen is anxiety. Similar to stress, when the level of anxiety is mild then it is easy to handle and helps to improve one's performance but severe anxiety affects everyday life. During funeral a person is burnt once but with more amount of anxiety a person burns from inside every day. The American Psychological Association defines anxiety as "an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure" (p.26).

There is difference between normal anxiety and anxiety disorder which requires medical attention and intervention. Whenever danger is near body gives the reaction or alarm like increased heartbeat, sweating, and increased sensitivity. Reaction is caused by rush of adrenaline which is called 'fight-or-flight' response. It prepares humans to physically confront any threats.

1.6. Depression

The American Psychological Association defines depression as an "a common and serious medical illness that negatively affects how you feel, the way you think and how you act." It is a state that affects a person negatively about how they think and act. In depression feelings of emptiness, sadness, and loss of interest in daily activities are common. Factors responsible for it are Biochemistry, genetics, personality, environmental factors. For treating depression medication, psychotherapy, and Electroconvulsive therapy are used for treatment. Major depression and dysthymic depression are two major type of depression. Symptoms of major depression occur for longer than two weeks and they occur repeatedly or once but they are severe.

1.7. Interpersonal relationships

Relationships in which two or more than two persons interact to fulfill physical or emotional needs are interpersonal relationships. Relationships which are close and emotional connection to face or anonymously. Interpersonal relationships could be with friends, strangers, co-workers, based may reduce stress and lead to good health. People can interact in many ways such as face doctors, family or clients. When people who completely satisfy each other are emotional and physical needs they have strong interpersonal relationship. For example, a mother completely fulfills her child's maximum needs. It is a relationship which is weak if it only completes modest needs of an individual. Interpersonal relationship could only occur in people who fill each other needs most of the times. Strength of any relationship depends on how much efforts are being put by the individuals involved into that relationship. Problems in relationships start when one involved individuals start ignoring the other.

Chapter 2

Literature review

2.1. Self-esteem and Mental Health

Minn, Clemens.Housman, SchaalmaanddeVries (2014), in their research investigated that self-esteem leads to better health and behavior and poor self-esteem is associated with a broad range of mental disorders and social problems and in their results has a great effect on adjustment, satisfaction and happiness. Low self-esteem actually leads to depression and anxiety level happen. Similarly,

Battle (1978) in his study took 129 males and females to find correlation between self-esteem and depression in college students and Canadian self-inventory was used for that. Results indicated that students who had higher self-esteem scored low in depression.

Abouserie(1994) researched stress level and locus of control relationship with self-esteem in university students. Results showed significant negative correlation between self-esteem and stress which indicates students with higher self-esteem have less amount of stress.

Sari, Bilek, andCelik (2017) studied on test anxiety and self-esteem on exam basis among senior high school students. Results showed thatest anxiety and self-esteem are negatively correlated. It was observed that female students were having more test anxiety than male student and who have more test anxiety have lower self-esteem. Other factors like family awareness,education quality are to be considered for such possibilities.

Zhou and Zhen (2017) investigated on PTSD (Post traumatic stress disorder) and PTG(Post traumatic growth) in a combined form were examined to see their effect on self-esteem and hope

in relation to social support. Results indicated that social support was negatively related to PTSD because social support boosts the self-esteem which reduces traumatic stress.

2.2. Interpersonal Relationships and Mental Health

Huh, Kim, Yu, and Chae (2014) in their research found that problems of interpersonal relationships due to childhood trauma may lead to onset of depression and anxiety and results show that due to child emotional trauma in adults' interpersonal relationships leads to depression and anxiety in them. Eng and Heimberg (2006) investigated that undergraduate students interpersonal functioning in relation to General Anxiety Disorder (GAD) and according to results anxiety students showed negative relationship with parents and with friends no significant relationship showed. Stoetzer et al. (2009) researched about interpersonal relationship at work. Results showed that if there are problems in interpersonal relations at work then it leads to depression. Beverly (1983) studied that interpersonal relations leads to increase the stress of medical students when working in team.

2.3. Body Image and Mental Health

Wallis and Hetherington (2009), Habhabetal. (2009) and Kandiah et al. (2006) in their work found that people eat more when they are stressed specially sweets which lead to less consumption of balanced food and change in body shape of the person. Results show that there is negative correlation between stresses.

Hamilton(2008) conducted a study on women having body image issue with relation to depression. Participants completed with MBSRQ and BDI. Results showed that overall body image has no relation to depression but its subscales have the relation which affects the depression according to results. Brown and Dittmar (2005) studied on ideal perception of body of

women in relation to anxiety and in that there were three groups (thin, average and normal) body image. Results showed that average and normal body image women showed more anxiety than thin body image.

2.4. Body image and self-esteem

Furnham, BadminandSneade(2002) investigate on eating attitude, self-esteem, exercise reasons and on body shape. They predicted boys body shape to be heavier and few girls also wanted to be heavier. Only girls face the body image problems which lower their self-esteem according to results.

2.5. Gender Differences and Self-esteem

Quatman and Watson (2001) studied gender relations of adolescence in relation to self-esteem and it was aimed that boys will score higher than girls. Results showed that boys have slightly higher self-esteem than girls.

2.6 Gender differences and Body-image

Laus, Costa,Sebastiao, and Almeider (2015) investigated to find gender difference in body size accuracy and dissatisfaction in undergraduates and ideal body perception. Results showed that women are more affected by body dissatisfaction as compared to boys.

2.7. Gender Differences and Interpersonal Relationships

Clark and Rieker (1986) studied medical and law students to fin stress source in relation to personal relationships. Results showed women faces more stress than men due which they feel difficulty with partners and end relationships more than men.

2.8. Research Gap

As research have been done before on body-image and self-esteem but my purpose of doing this research is that what is not present in earlier researches. Most of the studies are done on adolescents where as in my research I am going to cover young adults also as their view of perceiving things is different as compared to adolescents. Many studies have focused on the relationship between body image and self-esteem during adolescence. As research has been done on body image and interpersonal relationships but they are more in the context of western culture where as in Indian culture topics like interpersonal relations are still not much discussed. Hence, I decided to explore it through the current work. So my research is going to even contribute theoretically and practically to the earlier researches done and will be helpful in exploring human in a wider way.

Chapter 3

Motivation, Objectives, Rationale, Hypotheses, and Significance of the Study

3.1 Motivation of the Study

The purpose of this study is to explore how body image and its sub components influence self-esteem, mental health and interpersonal relationships. The construct of this study is interesting because either these variables are studied individually or with one or two of them but as sub-components they are not researched in a combination according to my knowledge.

3.2 Objectives

1. To investigate the role and predictive abilities of body image in self-esteem, interpersonal relationship and mental health (anxiety, stress, and depression).
2. To study the role and predictive abilities of each component of body image (self-aggrandizement, vitality, physical contact and sexual fulfillment) in self-esteem, interpersonal relationship and mental health (anxiety, stress, and depression).
3. To investigate the effect of gender (male, female) on body image, self-esteem, anxiety, stress, depression and interpersonal relationship.

3.3. Rationale and Hypotheses

Body image is how a person perceives himself through his or her body shape and mental health is at what level or state person is facing problems mentally. Self-esteem is self-worth of a person and interpersonal relations are relationship between individuals. Based on above literature following hypotheses has been formed:

Hypothesis 1: Body image and its components have a negative relation with depression.

Jackson,Dugan, Appelhans, Kazlauskaite, Janssen, Karavalas, Kravitz (2014) that how depression hits the mid-age women when their body perception due to age starts changing. Results show that middle age women if have a poor body image then depression hits them significantly

Hypothesis 2: Body image and its components has a negative relation with anxiety

Brown and Dittmar (2005) studied on ideal perception of body of women in relation to anxiety and in that there were three groups (thin, average and normal) body image. Results showed that average and normal body image women showed more anxiety than thin body image.

Hypothesis 3: Body image and its components have negative relation with stress.

Wallis and Hetherington (2009), Habhabetal. (2009) and Kandiah et al. (2006) in their work found that people eat more when they are stressed specially sweets which lead to less consumption of balanced food and change in body shape of the person. Results show that there is negative correlation between stresses

Hypothesis 4: Body image and its components have a positive role in self-esteem.

Furnham, Badmin&Sneade.(2002) investigate on eating attitude, self-esteem, exercise reasons and on body shape. They predicted boys body shape to be heavier and few girls also wanted to be heavier. Only girls face the body image problems which lower their self-esteem according to results.

Hypothesis 5: Body image and its components have a positive role in interpersonal relations.

Kross (2014) studied on interpersonal relations affect on body-image of first year students (women). In this study how relationships and peer group affects the person's body image was

studied. Results show women whose peers and close one have a positive image about them had positive body-image about themselves.

Hypothesis6: Males have higher level of self-esteem than females.

Quatman and Watson (2001) studied gender relations of adolescence in relation to self-esteem and it was aimed that boys will score higher than girls. Results showed that boys have slightly higher self-esteem than girls

Hypothesis 7: Females have more concern of body-image than males.

Laus, Costa, Sebastiao, and Almeider (2015) investigated to find gender difference in body size accuracy and dissatisfaction in undergraduates and ideal body perception. Results showed that women are more affected by body dissatisfaction as compared to boys.

Hypothesis 8: Females experience more anxiety issues than males.

Lenzo, Toffle, Tripodi, and Quattrepani (2016) investigated on anxiety and depression among males and females for which 64 students were taken. Results showed them significant relations and females face a bit higher anxiety and depression than males.

Hypothesis 9: Female experiences more symptoms of depression than males.

Lenzo, Toffle, Tripodi, and Quattrepani (2016) investigated on anxiety and depression among males and females for which 64 students were taken. Results showed them significant relations and females face a bit higher anxiety and depression than males.

Hypothesis 10: females score higher in stress than males.

Clark and Rieker (1986) studied medical and law students to find stress source in relation to personal relationships. Results showed women face more stress than men due to which they feel difficulty with partners and end relationships more than men.

Hypothesis 11: females experience more difficulty than men in interpersonal relations

Clark and Rieker (1986) studied medical and law students to find stress source in relation to personal relationships. Results showed women face more stress than men due to which they feel difficulty with partners and end relationships more than men.

Significance of the study

The present study focuses on exploring the influence of body image and its subcomponents on self-esteem, interpersonal relationships, and mental health (depression, anxiety and stress). Study is going to help us find the relationships between these components. In addition gender differences have also been examined.

Chapter 4

Method

4.1. Sample

A total of 200 students from different courses of undergraduate and postgraduate of Thapar Institute of Engineering and Technology, Patiala were selected using purposive sampling technique. Out of Total participants 100 were males and 100 were females with an age range of 17-30 years.

4.2. Design

Correlation Design was used in which independent variables were body-image and dependent variables were mental health (anxiety, depression and stress), self-esteem, and interpersonal relationship.

4.3. Procedure

The participants were informed in detail about the study protocols and written consent was obtained from them. The subjects were informed about the procedure and were given instructions. The instructions given were – “You have to fill three questionnaires, which will measure some behavioral patterns. Do not think too hard, as there is no right or wrong answer. The first answer that comes to your mind is generally right. The information collected from you will be kept confidential”. The subjects were seated comfortably.

4.5. Tools used

Dresden Body Image Questionnaire (DBIQ) in English version: It is a 35-item scale which is reversely coded. There are five subscales- Body acceptance, Vitality, Physical contact, Sexual fulfillment and self-aggrandizement. Scored on 5-point likert scale from 1=not at all to 5= fully. High scores lead to positive body image. Sub-scales for reliability are internal consistency and test-retest reliability. For validity construct validity is used. So it is a valid and reliable instrument

Rosenberg Self-esteem scale for measuring self-esteem: Developed by Morris a sociologist in the year and its scale is from 0-40 and score less than 15 is a problem to self-esteem. It is a 10 item likert scale on four point scale from strongly agrees to strongly disagree. 5 items have positive statements and 5 have negative statements. Respondents on current feelings respond. Reliability is tested by using internal consistency and test-retest reliability. Convergent validity is assessed for assessment

Depression Anxiety Stress Scale (DASS) 21: It is a 21-item scale and each set contains 7 items which are divided into subscales. Scores are calculated by summing up. Division of items is on depression, anxiety and stress sub scales. It measures the mental health of individual. For reliability discriminative, concurrent and convergent properties are found. For validity concurrent and convergent validities.

Relationship Scales Questionnaire to measure Interpersonal Relationship: Griffin and Bartholmew (1994) designed it and it includes 30 items and it is measure on a four factor model which is secure, pre-occupied, dismissing and fearful) on these subscales it is

measured. For reliability test-retest and internal consistency scales are there. Convergent validity is the property for validation.

4.6 Statistical Analysis

Statistical Package for Social Science (SPSS 20) was used to analyze the data. Mean, Standard Deviation, t-test, Correlation and Regression were used.

Chapter 5

Results

Table 1: Mean and Standard deviation and t-test table of males and females for body-image, self-esteem mental health and interpersonal relations.

Variables		Mean	Standard Deviation	t
Body image	Females	181.13	31.46	-4.48 ^{NS}
	Males	200.34	28.94	
Self-aggrandizement	Females	44.47	9.30	-.42**
	Males	44.97	7.20	
Vitality	Females	24.30	4.47	-1.37 ^{NS}
	Males	26.83	5.15	
Sexual satisfaction	Females	13.77	4.30	-8.25 ^{NS}
	Males	19.36	5.21	
Physical contact	Females	16.07	4.16	-3.60 ^{NS}
	Males	18.02	3.56	
Depression	Females	15.63	4.22	1.00 ^{NS}
	Males	15.00	4.57	
Anxiety	Females	15.76	3.48	0.07 ^{NS}
	Males	15.72	4.03	
Stress	Females	16.02	3.42	0.54 ^{NS}

	Males	15.76	3.41	
Self-esteem	Females	22.22	4.01	-0.80 ^{NS}
	Males	22.74	5.05	
Interpersonal relations (secure)	Females	15.65	2.61	-0.42 ^{NS}
	Males	15.81	2.87	
Interpersonal relations (fear)	Females	15.81	3.21	0.59 ^{NS}
	Males	12.69	3.51	
Interpersonal relations (preoccupied)	Females	12.97	2.44	2.02**
	Males	11.89	3.20	
Interpersonal relations (dismissing)	Females	12.71	3.29	-1.37 ^{NS}
	Males	17.57	3.88	

Mean of males is 44.97 and females is 44.47 so level of self aggrandizement is more in males as compared to females where as t-value is -.42 statistically which shows little significance.

Mean of males is 12.97 and females are 11.89 so level of pre-occupation in interpersonal relations is more of females where as t value shows 2.02 statically difference.

** $p < .01$; * $p < .05$, NS= Not significant

Table2:Correlation between body-image (self-aggrandizement, vitality, sexual satisfaction and physical contact), self-esteem, mental health (depression, anxiety and stress) and interpersonal relationship (secure, fear, pre-occupied and dismissing).

	BI	S.A	V	S.S	P.C	D	A	S	S.E	IR(S)	IR(F)	IR(P)	IR(D)
BI	1												
S.A	.84**	1											
V	.70**	.49*	1										
S.S	.71**	.38*	.32**	1									
P.C	.66**	.40*	.29**	.46*	1								
D	-.27**	-.23*	-.37**	-.06	-.14	1							
A	-.09	.07	-.31**	.09	.04	.59**	1						
S	-.12	-.12	-.23**	.04	-.04	.51**	.59**	1					
S.E	.23**	.22*	-.13**	.02*	.15*	.160*	.19**	.16**	1				
IR(S)	.20**	.13	.20**	.17*	.11	.005	.04	.005	-.06	1			
IR(F)	-.05	-.05	.13	.20*	.17*	.11	.02	-.05	-.004	-.15*	1		
IR(P)	-.10	-.13	-.15**	.012	.012	.08	.19	.079	-.06	.03	.42**	1	
IR(D)	.07	.09	.016	.055	.046	.007	-.06	.007	.02	.35**	.35**	.00	1

** Correlation is significant at 0.01 levels (2 –tailed)

* Correlation is significant at 0.05 levels (2 tailed)

BI- Body-Image S.A- Self aggrandizement V-Vitality S.S- Sexual Satisfaction

P.C- Physical Contact; D-Depression; A-Anxiety; S-Stress; SE-Self-esteem; IR(S)-Interpersonal Relationship (Secure) IR (F)–Interpersonal Relationship(Fear), IR (P)–Interpersonal Relationship (Pre-occupied,) IR (D) – Interpersonal Relationship (Dismissing)

In Table 2 Mental health component Depression with overall Body-image shows significant correlation and shows an inverse relationship. Depression with body-image sub component self aggrandizement and vitality shows a significant inverse correlation. So our first hypotheses have been partially accepted. Anxiety with body-image component vitality has significant correlation. Mental health component stress with vitality has significant correlation and inverse relationship. Whereas both mental health components depression and anxiety are positively correlated, so our second and third hypotheses have been rejected.

Self-esteem has a significant positive correlation with over all body-image and with mental health components (depression, stress and anxiety). Self-esteem with self aggrandizement and vitality has significant correlation with inverse relationship. So our fourth hypotheses has been accepted.

Interpersonal relationship component secure have significant correlation with body-image and its components vitality and sexual-fulfillment. Interpersonal Relationship component has significant correlation with body-image component sexual fulfillment. Interpersonal relationship component pre-occupation has significant correlation with inverse relationship. Our fifth hypotheses have been rejected.

Table no 3: Linear regression analysis of body-image and its components with self-esteem, mental health and interpersonal relationship

Independent Variable	Dependent Variable	B	Std Error	Beta	t-value	Adjusted R²
Body image	Anxiety	-.019	1.46	.08	-1.22	.002
	Depression	-.07	1.67	-.27	-3.96**	.06
	Stress	-.024	1.32	-.12	-1.69	.009
	Self-esteem	-.063	.018	-.23	-3.39**	.05
	Interpersonal(secure)	.033	.011	.20	2.91**	.03
	Interpersonal(Fear)	-.01	.01	-.04	-.69	.003
	Interpersonal(pre-occupied)	-.01	.01	-.10	-1.40	.005
	Interpersonal (Dismissing)	.016	.015	.07	1.05	.001
Self-aggrandizement	Anxiety	-.03	.032	-.06	-.96	.00
	Depression	-.12	.03	-.22	-	.04
					3.28**	
	Stress	-.04	.02	-.11	-1.64	.009
	Self-esteem	-.12	.03	-.22	-3.24**	.04
	Interpersonal(secure)	.04	.02	.12	1.81	.01
Interpersonal(Fear)	-.003	.02	-.008	-.11	.005	
Interpersonal(pre-occupied)	-.04	.02	-.13	-1.86	.01	

	occupied)					
	Interpersonal	.03	.03	.08	1.21	.002
	(Dismissing)					
Vitality	Anxiety	-.23	.05	-.31	-4.60**	.09
	Depression	-.32	.05	-.37	-5.60**	.13
	Stress	-.15	.04	-.22	-3.30**	.04
	Self-esteem	-.30	.06	-.33	-5.04**	.11
	Interpersonal(secure)	.11	.03	.20	2.87*	.03
	Interpersonal(Fear)	-.08	.04	-.12	-1.77	.01
	Interpersonal(pre-	-.08	.04	-.14	-2.06*	.01
	occupied)					
	Interpersonal	.01	.05	.01	.22	.005
	(Dismissing)					
Physical	Anxiety	.035	.067	.037	.52	.001
contact	Depression	-.15	.07	-.13	-1.9*	.01
	Stress	-.03	.06	-.04	-.58	.003
	Self-esteem	-.16	.08	-.14	-2.09**	.01
	Interpersonal(secure)	.07	.04	.11	1.57	.007
	Interpersonal(Fear)	-.03	.06	-.03	-.54	.004
	Interpersonal(pre-	.009	.05	.01	.16	.005
	occupied)					
	Interpersonal	.04	.06	.04	.65	.003
	(Dismissing)					

Sexual- fulfillment	Anxiety	.06	.04	.08	1.25	.003
	Depression	-.05	.05	-.06	-.90	.001
	Stress	.02	.04	.04	.58	.003
	Self-esteem	.018	.05	.02	.31	.005
	Interpersonal(secure)	.08	.03	.17	2.48**	.02
	Interpersonal(Fear)	.001	.04	.001	.018	.005
	Interpersonal(pre-occupied)	.006	.037	.012	.17	.005
	Interpersonal (Dismissing)	.03	.04	.05	.77	.002

** $p < .01$; * $p < .05$, NS= Not significant

Table 3 shows linear regression analysis of body-image, self-esteem, mental health and interpersonal relationship. It can be seen that 6% variation in depression can be attributed to body-image; t-value and B value both are significant. The B value specifies 1 unit increase in body-image will result in .07 decrease in depression. It can be seen that 5% variation in self-esteem can be attributed to body-image; t-value is significant. The B value specifies 1 unit increase in body-image will result in .063 decrease in self-esteem. 3% variation in secure component of interpersonal relationship can be attributed to body-image; t-value is significant. The B value specifies 1 unit increase in body-image will result in .003 increase in secure component.

It can be seen that 4% variation in depression can be attributed to body-image component self aggrandizement; t-value and B value both are significant. The B value specifies 1 unit increase in self aggrandizement will result in .12 decrease in depression. It can be seen that 4% variation in self-esteem can be attributed to body-image component self-aggrandizement; t-value is significant. The B value specifies 1 unit increase in self-aggrandizement will result in .12 decrease in self-esteem.

It can be seen that 9% variation in anxiety can be attributed to body-image vitality; t-value and B value both are significant. The B value specifies 1 unit increase in vitality will result in .23 decrease in anxiety. It can be seen that 13% variation in depression can be attributed to body-image component vitality; t-value is significant. The B value specifies 1 unit increase in vitality will result in .32 decrease in depression. 4% variation in stress can be attributed to vitality; t value is significant. 1 unit increase in vitality will result in .15 decrease in stress. It can be seen that 11% variation in self-esteem can be attributed to body-image vitality; t-value and B value both are significant. The B value specifies 1 unit increase in vitality will result in .30 decrease in self-esteem.

It can be seen that 1% variation in depression can be attributed to body-image component physical contact; t-value is significant. The B value specifies 1 unit increase in physical contact will result in .15 decrease in depression. 1% variation in self-esteem can be attributed to body-image component physical contact; t-value is significant. The B value specifies 1 unit increase in physical contact will result in .16 decrease in depression. 2% variation in interpersonal relationship component secure can be attributed to sexual fulfillment. The B value specifies 1 unit increase in sexual fulfillment will result in .08 decrease in secure level in interpersonal relationship.

CHAPTER 6

DISCUSSION

The research had been designed to determine how body-image affects the self-esteem, mental health and interpersonal relations. The present findings indicate body-image is negatively related to depression. There are various studies that say body-image is negatively associated with depression. In a research done by Jackson, Dugan, Appelhans, Kazlauskaite, Janssen, Karavalas, Kravitz (2014) that how depression hits the mid-age women when their body perception due to age starts changing. Results show that middle age women if have a poor body image then depression hits them significantly. The findings of present study are similar to previous findings, hence our first hypotheses, i.e., body-image and its components have negative relation with depression has been partially accepted because overall body-image score is negatively associated with depression. However out of components of body-image only two components are showing negative relation with depression.

Body-image is negatively related to anxiety but our present findings indicate that body-image has no negative relationship with anxiety. Kornapalli, Marcharapu, Kumar, Maleepalli and Babu (2017) investigated body-shape problems that adolescents in India face and its effects on self-esteem, social anxiety was done. So our second hypotheses say that body-image and its components have negative relationship with anxiety but according to our present findings our hypotheses has been rejected. The reason could be that if a person has a very good body image then the fear of losing that body-image leads to increase in anxiety level so maybe they both have a positive relationship. Whereas only one component of body-image has shown a negative significant relationship so it is explainable that overall covers that components only because of which there is no negative relationship between them.

From table 2 it can be seen that body-image have no negative relationship with stress and in its components only one component have the negative relationship. According to a study on stress Noble (2012) researched that how media leads to an image formation in person mind which leads to stress increase to that body image forms. This study was done on undergraduate women and it gave the results those women who watched the celebrities type commercials had higher stress as compared who watched commercials which were involving simple models. According to present findings have hypotheses 3, i.e. body-image and its components have negative relationship with stress has been rejected. Reason of this result could be that when person has that perfect body-image then stress of losing that body-image leads to increase in stress level of the individual.

According to a study by Furnham, Badmin and Sneade(2002) on eating attitude, self-esteem, exercise reasons and on body shape. They predicted boy's body shape to be heavier and few girls also wanted to be heavier. Only girls face the body image problems which lower their self-esteem according to results.

According to our present findings also body-image and self-esteem have a positive relationship whereas body-image some components have positive and some have negative relationship with self-esteem. Our hypotheses 4, i.e. body-image and its components have positive role with self-esteem and its components has been partially accepted because overall body-image is positively related to self-esteem as well as one of its sub-components. However three of body-image components are negatively associated with self-esteem.

The present study says that positive body-image does not leads to positive effect on interpersonal-relations. According to some findings by Howard (2007) a relationship study on college women in relation to body-image was done. Results show as body satisfaction goes down

interpersonal relations quality increases. According to previous findings our fifth hypotheses, i.e. body-image plays a positive role in interpersonal relations has been rejected.

In table 1 present findings males scored more than females and in relation to it a study is there by Quatman and Watson (2001) studied gender relations of adolescence in relation to self-esteem and it was aimed that boys will score higher than girls. Results showed that boys have slightly higher self-esteem than girls. Our sixth hypotheses, i.e. males have higher self-esteem than females have been accepted.

Body-image score of males is higher as compared to females in the present study. There is a study related to this Shaikh,Shahi, Khan, Tayeb(2008) investigated on Pakistani students effect of Body dysmorphic Disorder(BDD) and gender difference was found. It showed males were showing more fear of being thin than females showing if being fat.

In the present study female's experiences more anxiety than males and study related to this is

Lenzo, Toffle, TripodiandQuattrepani (2016) investigated on anxiety and depression among males and females for which 64 students were taken. Results showed them significant relations and females face a bit higher anxiety and depression than males. Our eighth hypotheses,i.e females experiences more anxiety than males has been accepted.

In the present study females experiences symptoms of depression than males and study related to this is Lenzo, Toffle, Tripodi&Quattrepani (2016) investigated on anxiety and depression among males and females for which 64 students were taken. Results showed them significant relations and females face a bit higher anxiety and depression than males. Our eighth hypotheses nine, i.e. females experience more symptoms of depression than males have been accepted.

In the present study females score higher in stress than males and study related to this is

Clark and Rieker (1986) studied medical and law students to find stress source in relation to personal relationships. Results showed women face more stress than men due to which they feel difficulty with partners and end relationships more than men. Our hypotheses 10, i.e. female's scores higher than males have been accepted.

According to present findings there is no difference between males and females in relation to secure, fear, pre-occupied and dismissing components of interpersonal relations. A study done by Trinkka (2013) researched on feelings of anger in interpersonal relations of boys and girls. Results showed males show equal anger conflicts as females in relationships. Our hypotheses 11, i.e. females experience more difficulty than males in interpersonal relations has been rejected because females are higher in pre-occupied and fear component and males in secure and dismissing so both are on equal bases.

CONCLUSION

The present study findings indicate that overall body-image has positive relationship with self-esteem. Whereas its some sub-components have negative relationship with self-esteem. Body-image with mental health has only negative relationship with depression and not with stress and anxiety. There is no interpersonal relationship between body-image. Lastly gender difference was found in self-esteem, body-image and mental health.

Implications

Professionals dealing in mental health can use this research to make them aware about how body-image influences self-esteem, depression level and interpersonal relation of college

students and this information will help them to work with college students who have issues related to their body.

Limitations-

Participants are not representing the whole population as it was a purposive sampling. So this leads to decrease generalizability of results. All the measures were self-reported and participants might have manipulated certain answers. General rule of sample is 350 whereas number of sample present research findings was not adequate.

Scope for future Research-

- 1) Sample of different cities, age groups should be used to find the location difference.
- 2) Longitudinal research design could be used to see more about relationship in these variable.

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APPENDIX A

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

2. At times I think I am no good at all.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

3. I feel that I have a number of good qualities.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

4. I am able to do things as well as most other people.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

5. I feel I do not have much to be proud of.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

6. I certainly feel useless at times.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

8. I wish I could have more respect for myself.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

10. I take a positive attitude toward myself

1) Strongly Agree 2) Agree 3) Disagree 4) Strongly Disagree

APPENDIX B

1.a	I move gracefully.
2.v	I often feel physically run down. (R)
3.v	I lack energy and motivation. (R)
4.s	I experience intense and pleasurable feelings during sex.
5.p	Physical contact is important for me to express closeness.
6.v	I often feel physically exhausted. (R)
7.a	There are lots of situations in which I feel happy about my body.
8.v	I am physically fit.
9.s	I am very satisfied with my sexual experiences.
10.a	Other people find me attractive.
11.p	I look for physical intimacy and affection
12.a	I like my body.
13.a	I find it pleasant and exhilarating when someone looks at me attentively.
14.v	I have lots of energy.
15.a	I choose clothing that hides the shape of my body. (R)
16.s	I think sex is an important part of life.
17.v	I am in good physical condition.
18.a	I often feel uncomfortable about my body. (R)
19.p	I do not like people touching me. (R)
20.a	I feel more valued when someone pays attention to my body.
21.s	I am able to lay aside my inhibitions in sexual situations.
22.p	I like it when people put their arms around me.
23.a	I wish I had a different body. (R)
24.p	I consciously avoid touching other people. (R)
25.a	I am satisfied with my appearance.
26.v	I quickly reach my physical limits. (R)
27.s	I am able to enjoy my sexuality.
28.a	If I could change something about my body, I would do it. (R)
29.a	My body is expressive.
30.p	I only allow a few people to touch me. (R)
31.a	I use my body to attract attention.
32.v	I am physically strong and resilient.
33.a	I like showing my body.
34.a	I like to be the centre of attention.
35.s	My sexual experiences are satisfying.

Note: R = scored in the reversed direction. a = subscale self-aggrandizement; b = subscale body acceptance; p = subscale physical contact; s = subscale sexual fulfillment; v = subscale vitality.

a. Dresdner Körperbildfragebogen (DKB-35), original version in German; for Dutch version, see [S1 Table](#).

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APPENDIX C

Instructions- Mark the items best suits you	Not at all like me		Somewhat like me	Very much like me	
I find it difficult to depend on other people.	1	2	3	4	5
It is very important to me to feel independent.	1	2	3	4	5
I find it easy to get emotionally close to others.	1	2	3	4	5
I want to merge completely with another person.	1	2	3	4	5
I worry that I will be hurt if I allows myself to become too close to others.	1	2	3	4	5
I am comfortable without close emotional relationships.	1	2	3	4	5
I am not sure that I can always depend on others to be there when I need them.	1	2	3	4	5
I want to be completely emotionally intimate with others.	1	2	3	4	5
I worry about being alone.	1	2	3	4	5
I am comfortable depending on other people.	1	2	3	4	5
I often worry that romantic partners don't really love me.	1	2	3	4	5
I find it difficult to trust others completely.	1	2	3	4	5
I worry about others getting too close to me.	1	2	3	4	5
I want emotionally close relationships.	1	2	3	4	5
I am comfortable having other people depend on me.	1	2	3	4	5
I worry that others don't value me as much as I value them.	1	2	3	4	5
People are never there when you need them.	1	2	3	4	5
My desire to merge completely sometimes scares people away.	1	2	3	4	5
It is very important to me to feel self-sufficient.	1	2	3	4	5
I am nervous when anyone gets too close to me.	1	2	3	4	5
I often worry that romantic partners won't want to stay with me.	1	2	3	4	5
I prefer not to have other people depend on me.	1	2	3	4	5
I worry about being abandoned.	1	2	3	4	5

I am somewhat uncomfortable being close to others.	1	2	3	4	5
I find that others are reluctant to get as close as I would like.	1	2	3	4	5
I prefer not to depend on others.	1	2	3	4	5
I know that others will be there when I need them.	1	2	3	4	5
I worry about having others not accept me.	1	2	3	4	5
Romantic partners often want me to be closer than I feel comfortable being.	1	2	3	4	5
I find it relatively easy to get close to others.	1	2	3	4	5

APPENDIX D

DASS		<i>Name:</i>	<i>Date:</i>
Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you <i>over the past week</i> . There are no right or wrong answers. Do not spend too much time on any statement.			
<i>The rating scale is as follows:</i>			
0 Did not apply to me at all			
1 Applied to me to some degree, or some of the time			
2 Applied to me to a considerable degree, or a good part of time			
3 Applied to me very much, or most of the time			
1	I found myself getting upset by quite trivial things	0	1 2 3
2	I was aware of dryness of my mouth	0	1 2 3
3	I couldn't seem to experience any positive feeling at all	0	1 2 3
4	I experienced breathing difficulty (eg, excessively rapid breathing, <input type="checkbox"/> breathlessness in the absence of physical exertion)	0	1 2 3
5	I just couldn't seem to get going	0	1 2 3
6	I tended to over-react to situations	0	1 2 3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1 2 3
8	I found it difficult to relax	0	1 2 3
9	I found myself in situations that made me so anxious I was most <input type="checkbox"/> relieved when they ended	0	1 2 3
10	I felt that I had nothing to look forward to	0	1 2 3
11	I found myself getting upset rather easily	0	1 2 3
12	I felt that I was using a lot of nervous energy	0	1 2 3
13	I felt sad and depressed	0	1 2 3
14	I found myself getting impatient when I was delayed in any way <input type="checkbox"/> (eg, lifts, traffic lights, being kept waiting)	0	1 2 3
15	I had a feeling of faintness	0	1 2 3
16	I felt that I had lost interest in just about everything	0	1 2 3
17	I felt I wasn't worth much as a person	0	1 2 3
18	I felt that I was rather touchy	0	1 2 3
19	I perspired noticeably (eg, hands sweaty) in the absence of high <input type="checkbox"/> temperatures or physical exertion	0	1 2 3
20	I felt scared without any good reason	0	1 2 3
21	I felt that life wasn't worthwhile	0	1 2 3