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LITTLE

A Comparative probe into
the self-esteem of overweight
and non-overweight adults

Introduction :

According to the World Health Organization (WHO), worldwide obesity has nearly tripled since 1975. In India alone, 135 million people are obese, as per the Indian Journal of Community Medicine. Furthermore, the National Centre for Biotechnology Information (NCBI) estimates that by the year 2030, 27.8 percent of worldwide obesity would be dictated by Indians, which would account for 5 percent of global population. Obesity stigma, a form of social discrimination, is responsible for a host of negative psychological and physiological effects on individual well-being. Research indicates that self-esteem incidents of weight-based discrimination have increased in the last few decades. The media has long portrayed the largest individuals as unattractive, unappealing, and as objects of ridicule. As such, these "fat-shaming" stereotypes perpetuate weight stigma in our culture. These media's negative portrayals of obesity often lead to deleterious consequences not only for the stigmatized target individuals, but also for others who are exposed. These frequent negative media portrayals promote the belief that individuals with obesity lack self-discipline. In addition, highest exposure to mass media outlets is positively correlated with stigmatizing attitudes towards obese children. Most importantly, research

(2) (2)

Research indicates that the most significant predictor of stigmatizing attributions, and these are significantly more media references alluding to personal responsibility rather than social determinants or attributions of responsibility. Even when overweight people are included in television, they often play minor, stereotyped roles. Weight bias translates into inequities in employment settings, health-care facilities, and educational institutions, often due to widespread negative stereotypes that overweight. There is also evidence that especially young adults and adolescents experience weight stigma on social media. For example, a study suggests that adolescents' patients with obesity experience derogatory comments about weight and visual self-presentation in their online social networks. The study found that this was particularly evident among girls and that they avoided showing weight-related images on social media. In the educational setting, those who are overweight as youth often face peer rejection and are bullied more. Overweight children have poorer school performance if they experience weight-based teasing. Weight stigma can lead to difficulty obtaining a job, worse job placement, lower wages and compensation, unjustified denial of promotions, harsher discipline, unfair job termination and

Commonplace derogatory jokes and comments from coworkers and supervisors. Weight-based teasing in childhood and adolescence has been associated with a variety of damages to psychosocial health, including reduced self-esteem and lower self-concept, higher rates of depression and anxiety disorders, and even greater likelihood of entertaining suicidal thought. According to world health Organisation obesity is defined as normal or excessive fat accumulation that present to health. And also obesity can be regarded as a state of excessive chronic fat storage (Besthoud and Morrison 2008). Obesity is defined on the basis of statistic called the Body Mass Index (BMI). People with a BMI below 18.5 are considered underweight 18.5 to 24.9 is considered normal 25 to 29.9 is overweight and obesity is defined as having a BMI above 30. It should therefore come as no the surprise that the world Health Organisation recognise obesity as one of the top 10 Global health problem. People who are overweight are often harassed by others. They are routinely ridiculed, discriminated against and stigmatized (Cassir & Friedman 2005). self-esteem is a term in a psychology to reflect a persons overall evaluation or appraisal of his or her own worth self esteem encompasses beliefs 'I am competent, I am worth and emotions such as triumph, despair, pride and shame.

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A person with low self esteem may show some symptoms like chronic indecision, excessive will to please, perfectionism, neurotic guilt, defensive tendency. According to Maslow, self esteem is included in his hierarchy of needs. Without the fulfilment of the self esteem need, individuals will be driven to seek it and unable to grow and obtain self actualisation. According to Rogers every human being, with no exception, for the mere fact to be it, is worthy of unconditional respect of everybody else; he deserves to esteem himself and to be esteemed. During the past two decades, a large number of studies on gender difference in self esteem have found that men may report higher levels of self-esteem because they are lower in neuroticism, lower in agreeableness, or higher in self enhancement. A powerful source of this is the media which perpetuated weight based stereotype and often defeat people who are overweight in a very negative light. Not only in media but also weight bias is even found in Healthcare professional who may blame patients who are overweight individual and having weight related health problem (Mold and Forbes 2011). But being overweight may not be the personal choice that many have people believe it is. Overweight individuals still experience discrimination, which may have detrimental implications in relation to both physiological and psychological

health. These issues are compounded by the significant negative physiological effects that are already associated with overweight. Individuals may feel ostracized and excluded from normal weight group activities. So this study shows light on this issues of weight stigma. The aim of the present study is to be whether there is any significant difference between the overweight youth and no-overweight youth and also whether there exist any gender difference among them with respect to self-esteem.

Literature review :

> GLOBAL STUDIES

1. A study by Bark (2019) focused on difference in self-esteem between normal-weight & overweight white females adults. The study was conducted on 4594 females adults of American & mean, SD, t statistics were used. Results showed that white females with overweight presented with relatively poor self-esteem.

2. Perouin and Larsen (2010) did an important study on difference in self-esteem between overweight males and overweight females. 6,427 males and 6,574 females taken from schools, colleges of America and mean, SD, t statistics were used. Results showed overweight

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females tend to have lowest self esteem than overweight males.

3. Grasley, Laitwin & Stagg (2010) focused on difference self esteem between obese & non-obese children. The study was conducted on 462 children and mean, SD, t statistics were used. No significant differences were found between obese & non-obese children.

4. Cooper, Page, Fox & Mission (2000) did an important study on the impact of body weight on self esteem in adults in males & females. On 108 adults from companies in Bristol & Cardiff and mean, SD, t statistics were used. Results showed that no significant differences between males & females.

5. A study by Pop (2016) focused on difference in self esteem between normal body and overweight body females adults. The study was conducted on 160 female students of University and mean, SD, t statistics were used. Results showed that overweight females are low self-esteem.

Indian Studies :

1. A study by Singh (2020) focused on relationship between body image and self-esteem among medical undergraduate students from Gurgaon Haryana. A semi structured questionnaire was used to collect data. Results showed low self-esteem was observed among 21.6% of students.
2. A study by Rao (2014) focused on difference in self-esteem between obese and normal weight adolescents. The sample consisted of 54 obese and 54 normal weight of school going adolescent & mean, SD, t statistics were used. Results showed that obese adolescents with low self-esteem.
3. Ashraf, Ahmad & Iqbal (2018) did an important study on difference in self-esteem obese & non-obese metabolic patients. Studies on 280 metabolic patients and conducted mean, SD, t statistics. Found out that no significant differences between obese & non-obese metabolic patients.
4. A study by Ajmal (2019) focused on the impact of body image on self-esteem in adolescents in males & females. 290 students were taken from schools, colleges and university. She administered Rosenberg scale. Results indicated that females report more conscious feelings about their weight as compared to male.

5. A study by Agarwal (2013) focused on the impact of Body image on self-esteem in males & females. On 300 adults were taken from schools. Results indicated that no significant differences between males & females.

Methodology :

The first of any research is to draw up a design of the research. This includes deciding the aim of study, choosing the test and deciding the procedure to be followed in the administration, scoring and interpretation of the result of the study consistently the project looks at the impact of self-esteem in the obese and non-obese among students.

1. Aim of the study :

- > To find out difference in self-esteem between the overweight youth & their non-overweight counterparts.
- > To find out whether there exist any gender difference among the youth with respect to self-esteem.

2. Operational Definition :

- > self-esteem - self-esteem means you feel good about yourself. self-esteem is the positive or negative evaluations of the self, as in how we feel about it.
- > Overweight - The terms "overweight" refer to body weight that is greater than what is considered normal or healthy for a certain height. Overweight is generally due to extra body fat. However, overweight may also be due to extra muscle, bone or water.
- > Non-overweight - The term's "non-overweight" refer to body weight that is less than what is considered overweight. non-overweight is generally due to less body fat.
- > BMI (Body Mass Index) - It is a measure of body fat based on your weight in relation to your height. It is more of an indicator than a direct measurement of a person's total body fat. as the BMI score increases, so does the person's total body fat increases.

Underweight	⇒	< 18.5
Normal weight	⇒	18.5 - 24.9
Overweight	⇒	25.0 - 29.9
Obese	⇒	≥ 30

3. Hypotheses :

> Null hypotheses

H₀₁ ⇒ There would be no significant difference in self-esteem between the overweight youth & nonoverweight youth.

H₀₂ ⇒ There would be no significant gender difference with respect to self-esteem.

> Alternative hypotheses

H₀₁ ⇒ There would be a significant difference in self-esteem between the overweight youth & non-overweight youth.

4. Tools used :

General Information Schedule

General Health Questionnaire

Rosenbergs self-esteem Questionnaire (1965)

5. Description of the tools :

(i) General information Schedule -

Information schedule was especially prepared for this work with a view to elicit the following information :

Personal information - such as name, age, sex, educational qualification, mother tongue, address, religion, history of major physical, Psychological and neurological illness.

Information Pertaining to Family - type of family, family size, approximate family income, number of earning members in the family.

Information pertaining to Parents - name of parents, occupation of parents.

The investigator can explain the question if the respondent faces any difficulty. It contains direct questions as well as question in tabular form.

(ii) General Health Questionnaire -

The GHQ is a self-administered screening test, which is sensitive to the presence of psychiatric disorders in individuals presenting in primary care settings and non-psychiatric clinical settings. GHQ is provide a measure of overall psychological health or wellness. There are several versions of the GHQ. The Original GHQ containing 60 items was derived from factor analysis of a checklist of 140 items. Short versions of the GHQ have been developed from the GHQ-60, the most widely used being the GHQ-30, although there is also an even shortest version containing 12 items; the GHQ-12. There is also a GHQ-28 which provides four specific subscales: somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. Reliability and validity GHQ is a widely used measure of Psychological health. The GHQ has reasonable test-retest reliability. The reliability coefficients are higher in are higher in studies in which there is a high

prevalence of disorder and in which the GHQ is a high administered within a relatively short period of time and range from .85 to .90. The test-retest GHQ has both content validity and construct validity.

The GHQ has been translated into 38 languages and used in diverse cultural groups.

instructions: Please read this carefully. We would like to know if you have had any medical complaints and how your health has been in general over the past few weeks. Please answer ALL the questions on the following pages simply by underlining the answer, which you think most nearly applies to you. Remember that we want to know about present and recent complaints not those that you had in the past. It is important that you try to answer ALL the questions. Thank you very much for any cooperation.

scoring: The questionnaire is scored 0-0-1-1
Any 3 or positive scores on GHQ-60 identify a probable case. 5 positive answers for GHQ-28.
score for A scale = SUM (Points for 7 questions A)
score for B scale = SUM (Points for 7 questions B)
score for C scale = SUM (Points for 7 " C)
score for D scale = SUM (Points for 7 " D)

(iii) Rosenberg self-esteem questionnaire (1965)

self-esteem is a positive or negative orientation toward oneself; an overall evaluation of ones worth or value. people are motivated to have high self-esteem, and having it only ~~are~~ indicates positive self-regard, not egotism. self-esteem is only one component of the self-esteem, which Rosenberg defines as "totality" of the individuals thoughts and feelings with reference to himself as an object." Beside self-esteem, self-efficacy or mastery, and self-identities are important parts of the self-concept. The ten items are answered on a four point scale ranging from strongly agree (1) agree (2) disagree (3) strongly disagree (4) The scale has high reliability: test-retest correlations are typically in the range of .82 to .88 and Cronbach's alpha for various samples are in the range of .77 to .88.

scoring: To score the items, assign a value to each of the 10 items as follows:

- > For items 1, 2, 4, 6, 7: Strongly agree = 3
Agree = 2, Disagree = 1 and Strongly disagree = 0
- > For items 3, 5, 8, 9, 10: Strongly Agree = 0
Agree = 1, Disagree = 2 and strongly disagree = 3.

Interpretation: The scale ranges from 0-30, with 30 indicating the highest score possible. Other scoring options are possible. For example, you can assign values 1-4 rather than 0-3; then scores will range from 10-40.

6. Inclusion criteria

- Age Range - 18 yrs to 30 yrs
- Socio-economic status - Middle class
- General intelligence - Average.
- Education level - Passed higher secondary.
- Absence of any severe physical, psychological and neurological illness.
- BMI (Body Mass Index) - Between 18.5 & 25 (for non-overweight group) BMI - above 25 (for overweight group).

7. Exclusion criteria

- Age range - Below 20 & above 30 years.
- Socio-economic status - Upper & lower.
- General ~~high~~ intelligence - Below average.
- Education level - Below higher secondary
- BMI (Body Mass Index) - less than 18.5.

8. Procedure of data collection

The data was taken from the adults from the areas of Hooghly, Howrah, Kolkata and Burdwan with the permission of the institution. The adults who would satisfy the inclusion criteria, were approached.

The boys and girls (18-30 yrs) were interviewed by the investigator before the administration of questionnaire with the aim of establishing rapport in addition to gaining baseline information.

The interview lasted about 5-10 minutes and the administration type, in some cases the investigator asked the questions to the adolescents. The subjects were provided with instructions, for each questionnaire, repeatedly if necessary, to make them understand the procedure of answering the questions. The subjects were told not to skip any item. The subjects were also told that all data were to be confidentially treated, that no individual details were identified by the other persons except the investigator.

All the subjects were strictly fit within the sample criteria:

> The inclusion and exclusion criteria should be adhered to while choosing

Subjects for the study.

- > It should be ensured that the subjects have given the necessary informations on the informations blank.
- > It should be ensured that the subjects answer each test according to specific instructions given before that particulate.
- > Scoring should be done by following the respective norms for each test.

9. Statistics :

In this study 40 males, 55 female and 49 non-overweight, 46 over-weight adults respectively. Since the number of subjects were greater than 30. Since the number overweight groups and male and females groups were two individual group and this two group have separate unequal score. That's why we use "Large independent sample unequal size". In t-value we use the critical value of t 0.05 & 0.01 level.

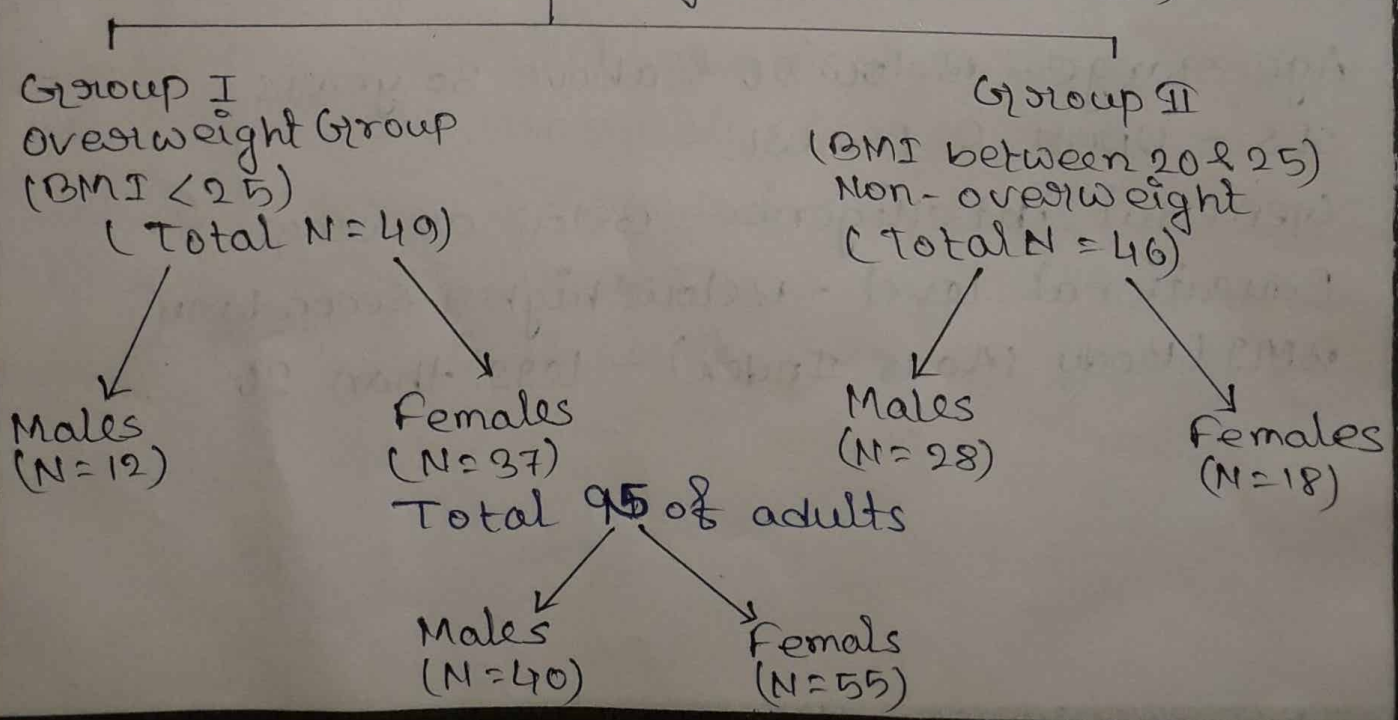
Sampling Technique

Since the target population was youth (overweight & non-overweight) at first purposive sampling was employed data were taken from the different areas of Hooghly, Howrah, Kolkata, Burdwan to gather information from the youths who would satisfy the inclusion criteria and thus be appropriate subject for the study. The snowball sampling technique was used in order to obtain sufficient numbers of sample for the study.

1. Sample

Sample distribution : The sample is composed of a total number of 95 adults aged between 18 & 30. Among them 12 males & 37 females belong to overweight (BMI < 25) category, 28 males & 37 females belong to non-overweight (BMI between 20 & 25)

BMI (Aged between 18 & 30)



12. Scoring :

Scoring of all scales was done following the scoring procedure written in manual as mentioned briefly in the section 'Description of the tools'.

13. Tabulation :

The investigator collected the data personally from adults males & females. The data were then tabulated as per the plan of the study. The raw data of each questionnaire was calculated based on the respective scoring procedure of the scale used. Then the following statistical treatments of the data proceed in order to test the hypotheses presented before. In order to determine the central tendency & the variability of the scales, the mean & standard deviation (SD) were calculated. For testing the significance of the difference between means of scores of all the groups on each dimension of information, self-esteem, & males & females, overweight & non-overweight the suitable statistical techniques were done.

Data Collection :

95 individuals responded to this study. Out of 95 ~~males~~ respondents, 40 were males and 55 were females. and 49 were overweight & 46 were non-overweight.

Males	
SL No	score
1	18
2	12
3	27
4	14
5	26
6	17
7	21
8	15
9	10
10	20
11	24
12	15
13	15
14	25
15	21
16	13
17	16
18	18
19	12
20	16
21	21
22	18
23	14
24	22
25	20
26	16
27	20
28	20
29	18
30	21
31	18
32	16
33	22
34	15
35	22
36	28
37	17
38	20

Females	
SL No	score
1	26
2	16
3	11
4	20
5	17
6	21
7	11
8	21
9	19
10	24
11	19
12	16
13	20
14	21
15	25
16	21
17	19
18	17
19	23
20	18
21	17
22	17
23	15
24	16
25	13
26	16
27	19
28	17
29	15
30	27
31	12
32	14
33	10
34	27

Overweight	
SL No	score
1	28
2	18
3	17
4	18
5	15
6	16
7	13
8	16
9	21
10	19
12	17
13	15
14	27
15	12
16	18
17	16
18	14
19	10
20	22
21	27
22	12
23	23
24	17
25	16
26	16
27	16
28	15
29	12
30	17
31	19
32	22
33	23
34	18

Non-overweight	
SL No	score
1	18
2	12
3	27
4	26
5	14
6	26
7	17
8	16
9	21
10	11
11	15
12	10
13	20
14	17
15	20
16	24
17	21
18	15
19	11
20	21
21	15
22	25
23	19
24	21
25	24
26	13
27	16

Males	
SL No	score
39	27
40	20

Females	
SL No	score
35	12
36	13
37	17
38	16
39	16
40	16
41	12
42	17
43	19
44	22
45	18
46	19
47	24
48	19
49	28
50	19
51	15
52	16
53	23
54	17
55	12

Overweight	
SL No	score
35	28
36	17
37	19
38	24
39	19
40	20
41	28
42	19
43	15
44	27
45	16
46	20
47	23
48	17
49	12

Non-weight	
SL No	score
28	18
29	12
30	16
31	21
32	18
33	19
34	14
35	16
36	20
37	21
38	25
39	22
40	20
41	21
42	19
43	16
44	20
45	20
46	17

Overall overweight & overall non-overweight

N	Mean	SD
46	18.47	4.25
49	18.38	4.43

Formula used :

"Large independent sample unequal size"

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

$$t = \frac{18.47 - 18.38}{\sqrt{\frac{(4.25)^2}{46} + \frac{(4.43)^2}{49}}}$$

$$= \frac{0.09}{\sqrt{\frac{18.06}{46} + \frac{19.62}{49}}} = \frac{0.09}{\sqrt{0.39 + 0.40}}$$

$$= \frac{0.09}{\sqrt{0.79}} = \frac{0.09}{0.88} = 0.102$$

$$\therefore df = (N_1 + N_2 - 2)$$

$$= 46 + 49 - 2$$

$$= 93$$

Males & Female :

N	Mean	SD
40	18.77	4.38
55	18.18	4.30

Formula used :

Large independent sample unequal size

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

$$= \frac{18.77 - 18.18}{\sqrt{\frac{(4.38)^2}{40} + \frac{(4.30)^2}{55}}}$$

$$= \frac{0.59}{\sqrt{\frac{19.18}{40} + \frac{18.49}{55}}}$$

$$= \frac{0.59}{\sqrt{0.47 + 0.33}} = \frac{0.59}{\sqrt{0.8}}$$

$$= \frac{0.59}{0.89} = 0.66$$

$$\therefore df = (40 + 55 - 2)$$

$$= 93$$

Results :

Table - 1 : 't' test results showing the difference between overweight & non-overweight.

t-test	df	critical value	
0.102	93	0.05	0.01
		1.98	2.63

Table - 2 : 't' test results showing the difference between males & females.

t-test	df	critical value	
0.66	93	0.05	0.01
		1.98	2.63

From the above table-1, it can be seen that, the obtained value of t in overweight & non-overweight is 0.102. The critical value of t in overweight & non-overweight at 0.05 level is 1.98 and at 0.01 level is 2.63 respectively against df 93.

The obtained value of t in overweight & non-overweight is lowest than the critical value of t at 0.05 level. So it can be said that the obtained values of t in overweight & non-overweight is not significant at 0.05 level. Hence, there is no significant difference in self-esteem test between overweight & non-overweight at

0.05 level.

The obtained value of t in over weight & non-over weight is lower than critical value of t at 0.01 level.

Hence, there is no significant difference in self-esteem test between over weight & non-overweight at 0.01 level.

From the above table-2, it can be seen that, the obtained value of t on Males & Females is 0.66. The critical value of t on Male & Female at 0.05 level is 1.98 and at 0.01 level is 2.63, respectively against df 93.

The obtained value of t on Males & Female is lower than the critical value of t at 0.05 level. So it can be said that the obtained value of t on Males & Females is not significant at 0.05 level against df 93, so null hypothesis is accepted and alternative hypothesis is rejected at 0.05 level. Hence, there is no significant difference in self-esteem test between Male & Female at 0.05 level.

The obtained value of t on Males & Females is lower than the critical value of t at 0.01 level. So it can be said that the obtained value of t on Male & Females is not significant at 0.01 level against df 93.

Hence, there is no significant difference in self-esteem test between Male & Females at 0.01 level.

Discussion :

The basic aim of the study is to probe into the self-esteem of the overweight & non-overweight group.

To fulfill this aim it was felt necessary to consider two groups of youths and to find out how being overweight might have an impact in their self-esteem. In the selected samples. One group comprised of overweight individuals (having BMI of 25 & more) and one group being non-overweight (having BMI of 20-25). Theoretically, observations it was expected that overweight adults, being bullied & stigmatized for their weight, are more prone to have low self-esteem compared to their non-overweight counterpart. Since many earlier studies suggest being overweight or body image has a detrimental impact on persons' mental health. Such as it might lower the self-esteem of the individual.

Descriptive statistics —

Group difference with respect to self-esteem

Fig. 1. Graph

The above figure shows that the mean is more for non-overweight youth than the overweight youth with respect to the self-esteem variable. This findings can be corroborated with the study by French

et. al (1995) which suggests lower self-esteem in children & adolescents. Questions Information schedule showed the similar trend where most of the persons with obesity reported similar views. give the particular questions. The reason behind this might be due to fact that having a long history of obesity/being overweight, provides a dissatisfaction about their body image while growing up (Grilo et. al. 1994), have poorer self-esteem. They have experienced many negative comments and have become the victim of stigma & discrimination. As a results, young adults are characterized by a lower level of self-esteem (Niespialowski et al. 2016).

This findings can be corroborated with the study by Gong et. al (2012).

Cooper, Page, Fox, & mission (2000) did an important study on the impact of body weight on self-esteem in adults in males & females. on 108 adults. Results showed that no significant differences between males and females.

There is no significant difference between males & females with respect to self-esteem. Reason can be manifold. In present days females are no longer considered to be weaker. The picture is changing in our society. They have become more achievement oriented.

As a result, the two groups are not significantly different with respect, ~~significantly~~

Ashraf, Ahmad & Dqbal (2018) did an important study on difference in self-esteem obese & non-obese metabolic patients. Found out that no significant differences between obese & non obese metabolic patients.

Inferential Statistics

Group Difference with respect to self-esteem
 No significant mean difference has been found between overweight & non-overweight samples with respect to self-esteem. This might be attributed to the fact that most of them had a long history of obesity. They have ~~acquired~~ obesity from their going years. as a result they might get habituated with the treatment they receive from others for their weight issues. As a result, it might they might get habituated with the treatment they receive from others for their weight. self-esteem is an evaluation of self or regard for self, part of which is composed of how others evaluate see them. Adolescence is a valuable stage, when they are more conscious about how others view them or they are more conscious about how others view them or they are more conscious about their appearance or body image.

But with maturity, adult people are no longer that sensitive regarding their body image. They have developed their own identity for other positive factors (such as careers). This might be one reason why there is not much difference between the two groups with respect to self-esteem.

Gender difference with respect to self-esteem
Fig-2 Graph - Gender & self-esteem

The above figure shows that mean of male is higher than the females with respect to their self-esteem. Many earlier studies reflect this similar trend when self-esteem is higher in men than in women (Kling et al 1999) and it increases from adolescents to adulthood. (Outh & Roberts, 2014).

The reason behind this might be attributed to the fact that more emotional supports are available for helping the male by the society. Their achievements in general are openly appreciated by focusing on the whole. The expected picture is that being a male ought to be strong, sharp, bold which are the features of masculinity. Thus their openness in character is more and they have high regard & better evaluation about themselves, proves the findings by Dukes et al (1994) that males have higher global self-esteem than females.

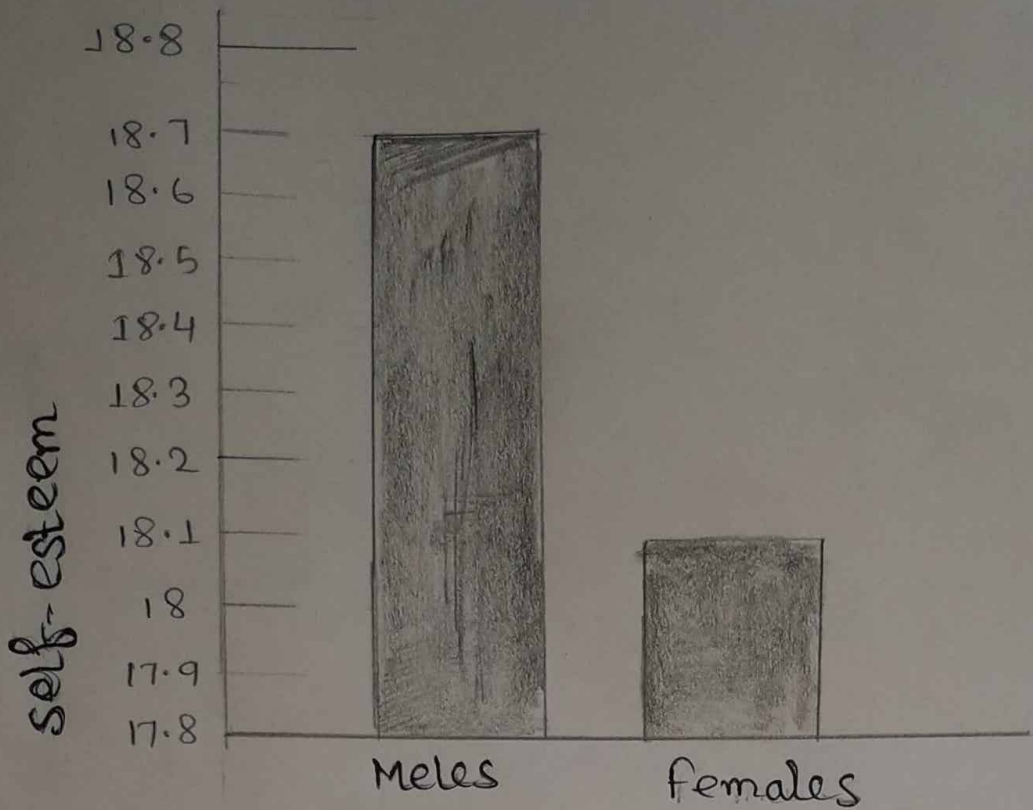
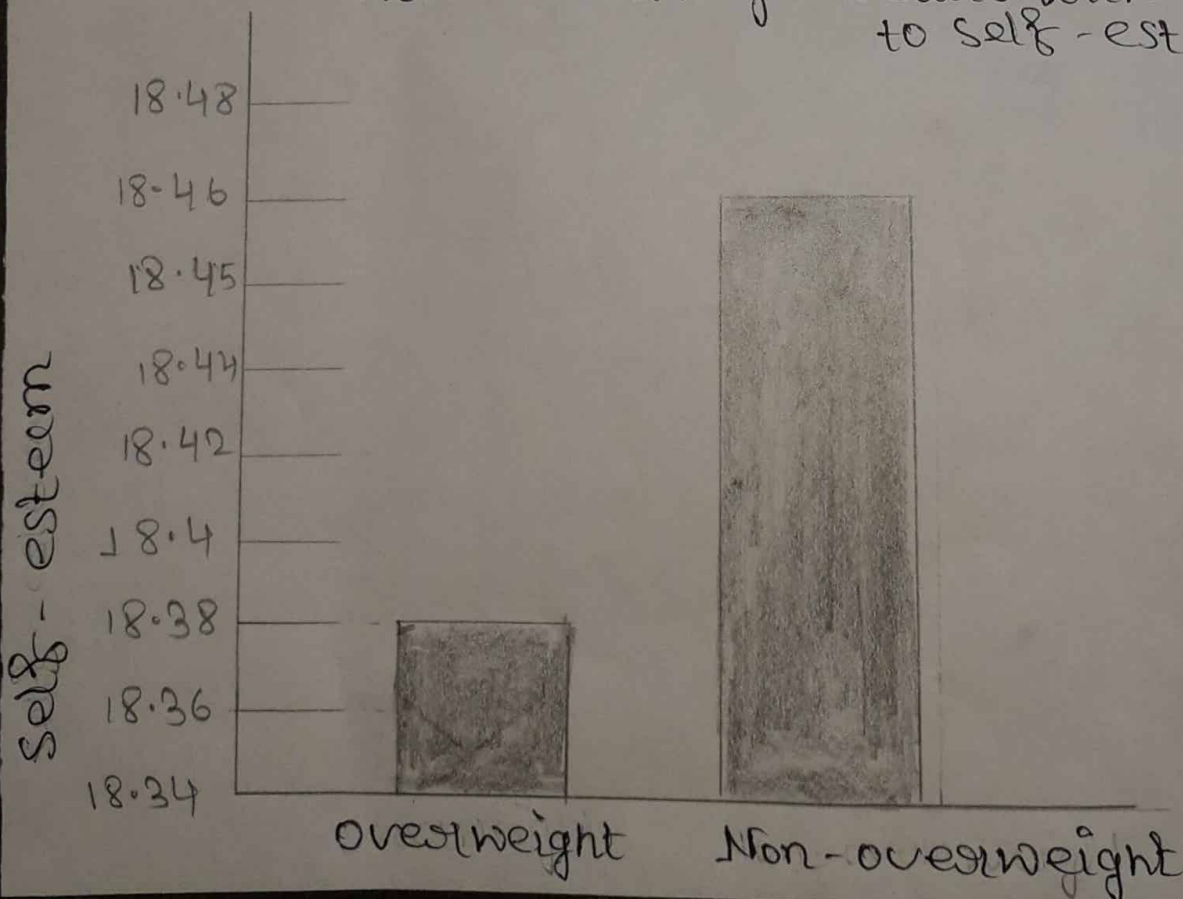


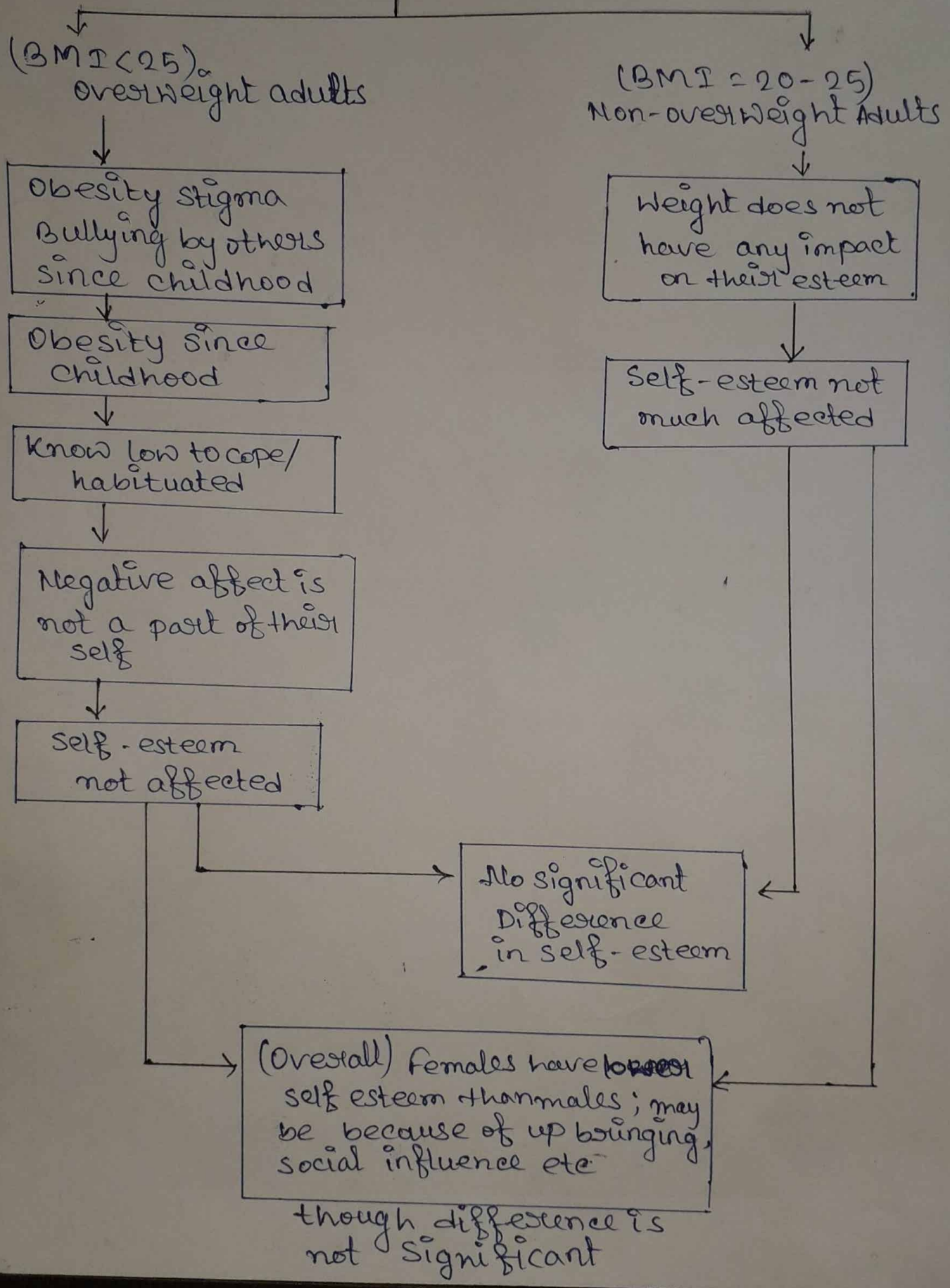
Fig-2 graph showing means of males & females non-adults with respect to self-esteem.

Fig-2 graph showing means of overweight & non-overweight adults with respect to self-esteem.



Schematic Representation of the study

Sample



Conclusion :

On the basis of the findings of the study, the following conclusions may be arrived at :

1. There is no significant difference between the overweight & non-overweight youth group with respect to their self-esteem.
2. There is no significant gender difference with respect to the self-esteem of the young adult individuals.

However, on the basis of the above findings it can be summarized that overweight youth have poor self-esteem compared to their non-overweight counterparts (though not significant). Moreover, women scored poorer than men group with respect to self-esteem (though not significant).

Implications :

These findings may be helpful for better understanding of the self-esteem of the persons with overweight Body Mass Index.

This study shows light on the issues of weight stigma, because of which obese individuals become subjected to stigma & face prejudice & discrimination. There is a continued bias toward the slim body type, considered to be 'ideal', hence reinforced as more desirable and overweight are less

desirable. This 'fat' 'shaming' & belittling the 'fat' persons are growing day by day which inturns lead to self-esteem, lack of confidence negative body image perception. So, to find out self-esteem of the overweight person we will get an insight, so that it will aid to future awareness of the society to stop 'obesity stigma'. So that it ~~wont~~ get negatively reinforced. And poorer self-esteem can be handled professionally, if needed, to help them attain healthy mental growth.

Limitation of the study :

1. The results obtained in the present work are based on urban & sub-urban population only.
2. The sample size (N=95) is too small for the results to be generalized, thus suppositing the ideographic approach.
3. In this study, individuals from middle class socio-economic status have been included. Inclusion of other SES would have given a different result.
4. Questionnaires could not eliminate chances of faking or giving socially desirable responses on the part of the subjects.
5. Cause & effect relationship among the included variable was not examined.

- 6. All the subjects belonged to the age group of 18-30 years. Therefore, their results cannot be generalized for those belonging to the age group below or above it.
- 7. Data had been collected from the individuals with BMI from 20-25 (i.e normal BMI) and BMI more than 25 (i.e overweight & obese) BMI below 20 or underweight individuals were not considered. Comparison between the two would have been given a different result.
- 8. Effect of groups, gender & interaction could not be observed since only 't' test had been computed, which shows the difference between two mean scores, not more than that.

Suggestions for further Research :

There is a need for a follow up study which would give a clearer picture of psychological factors related to this area.

Research can also be done on other personality factors such as - quality of life, subjective well being, life satisfaction etc. Research can be done to see the difference between groups of young adults with BMI of different categories (such as underweight, overweight, normal BMI)

Research can also be done to compare the self-esteem of the groups with respect to their BMI & gender & their interaction effects.

Further exploration can be done with body image issues along with the existing variables.

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