

**PERCEIVED STRESS AND SELF ESTEEM AMONG OBESE AND
NON- OBESE ADOLESCENTS**

*Dissertation submitted to Christ College (Autonomous) in partial fulfilment of
the requirements for the award of the degree of Bachelor of Science in
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BONA-FIDE CERTIFICATE

This is to certify that the dissertation entitled, **“PERCEIVED STRESS AND SELF ESTEEM AMONG OBESE AND NON- OBESE ADOLESCENTS”** is a bona-fide record of research work carried out by Ms. **NEELIMA T S**, Register no: **CCASSPY029**, during the sixth semester of B.Sc. Psychology of the academic year 2018-2021.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

DECLARATION

I hereby declare that the dissertation work entitled “**PERCEIVED STRESS AND SELF ESTEEM AMONG OBESE AND NON-OBESE ADOLESCENTS**” submitted to the University of Calicut, in partial fulfilment of the requirement for the award of the Degree of Bachelor of Science in Psychology is the record work done by me under the supervision of Ms. Christina Tony, Assistant Professor, Department of Psychology, Christ College (Autonomous) Irinjalakuda. This is not formed as the basis for the award of any degree/diploma (Associate ship) fellowship or other similar title to any candidate of any university.

Place: Irinjalakuda

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“Gratitude is the healthiest of all human emotions. The more you express gratitude for what you have, the more likely you will have even more to express gratitude for”

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-Neelima T S

CONTENTS

CHAPTER	TITLE	PAGE NO
	LIST OF TABLES	
	LIST OF APPENDICES	
	ABSTRACT	
I	INTRODUCTION	
II	REVIEW OF LITERATURE	
III	METHOD	
IV	RESULT AND DISCUSSION	
V	SUMMARY AND CONCLUSION	
	REFERENCES	
	APPENDICES	

LIST OF TABLES

4.1	Means, standard deviation, t-value and level of significance obtained by obese and non-obese adolescents in perceived stress	
4.2	Means, standard deviation, t-value and level of significance obtained by obese and non-obese adolescents in self esteem	
4.3	Correlation between the variables perceived stress and self esteem	

LIST OF APPENDICES

APPENDIX	TITLE	PAGE NO
I.	PERSONAL DATA SHEET	
II.	PERCEIVED STRESS SCALE (PSS)	
III.	ROSENBERG'S SELF ESTEEM SCALE (RSES)	

ABSTRACT

The present study was conducted to identify the perceived stress and self-esteem among obese and non-obese adolescents. The data was collected from 60 adolescents. The group included 30 obese and 30 non-obese adolescents. The main tools used include perceived stress scale and Rosenberg's self-esteem scale. The statistical methods used were t-test and Pearson correlation coefficient. Results reveal that there is significant difference in perceived stress among obese and non-obese adolescents, there is no significant difference in self-esteem among obese and non-obese adolescents and also there is significant relationship between the variables.

CHAPTER I
INTRODUCTION

POPULATION

Adolescence can be explained as a period of transition from childhood to adulthood. It mainly occurs between 13 and 19. Adolescence is a period of emotional turmoil, mood swings, gloomy thoughts, heightened and sensitivity. A cycle of physical changes climaxes in reproductive maturity. During adolescence individuals experience a growth of sexual feelings. It is during adolescence that they learn to control and direct their sexual urges. Some argue that the difficulties of adolescents are being exaggerated and that for adolescents the process of maturation is peaceful and untroubled. Some others consider adolescence to be a stressful developmental period characterized by specific types of behaviour. Young people experience many physical and social changes, making it difficult for them to understand how to behave properly. During puberty young bodies grow stronger and filled with hormones that stimulate their desire appropriately. Ultimately these drive individuals to pursue the tasks of earning a living and having a family.

A thorough understanding of adolescence in society depend on information from various perspectives, including psychology, biology, history, sociology education and anthropology, within all of these perspectives, adolescence is viewed as a transitional period between childhood and adulthood, whose cultural purpose is the preparation of children for adult roles.

Cognitive advances encompass both increase in knowledge and in the ability to think abstractly and to reason more effectively. Individual variation in pubertal changes is substantial adolescence show considerable interest in their body images with girls having more negative body images than boys do.

Adolescents is a critical juncture in health because many of the factors related to poor health habit and early death in the adult years begin during adolescents. Poor nutrition, lack of exercises and inadequate sleep are concerns.

Overweight and obesity are among the most important of the new health challenges. The term obese is used for very overweight people who have high percentage of body fat. Normal weights have been variously referred to as "ideal" or "desirable" or "healthy" (Judith and Alexandra 1943), obesity has recognized as a major public health problem and one of the most important cause of the burden of disease worldwide. Obesity is generally defined as a body mass index (BMI) of 30kg/m² and higher. Body

mass index is a measure of weight in relation to height. Environmental factors such as diet, physical activity and metabolic status are major contributors to obesity, and intron are influenced by genetic traits. Excess body fat results from a long-term imbalance between energy intake and energy expenditure.

BRAIN DAMAGE FACTORS: Destruction of the ventromedial hypothalamus can produce obesity in animals, but this is probably a very rare cause of obesity in humans.

PHYSICAL ACTIVITY FACTORS: The marked decreased in physical activity in affluent societies seems to be the major factor in the rise of obesity as a public health problem. Physical inactivity restricts energy expenditure and may contribute to increased food intake.

HEALTH FACTORS: In only a small number of cases is obesity the consequences of identifiable illness. Such cases include a variety of rare genetic disorders such as Pradar - Willi syndrome as well as neuroendocrine abnormalities.

PSYCHOLOGICAL FACTORS: Although psychological factors are evidently crucial to the development of obesity, how much psychological factors result in obesity is unknown. The food regulating mechanism is susceptible to environmental influence, and cultural, family and psychodynamic factors have all been shown to contribute to the development of obesity. Some have suggested that personality structure, family histories or unconscious conflicts cause obesity. Many obese patients are emotionally disturbed.

VARIABLES

PERCEIVED STRESS

Stress is part of our everyday lives but people tend to experience a higher level of stress during major life changes.

Stress is a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioral changes that are directed either towards altering the stressful event or accommodating to its effect (Shelley. E. Taylor, Health psychology, 10th Edition).

Perceived stress is defined as the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period.

Perceived stress incorporates feelings about the uncontrollability and unpredictability of one's life, how often one has to deal with irritating hassles, how much change is occurring in one's life, and confidence in one's ability to deal with problems or difficulties. It is not measuring the types or frequencies of stressful events which have happened to a person, but rather how an individual feels about the general stressfulness of their life and their ability to handle such stress. Individuals may suffer similar negative life events but appraise the impact or severity of these to different extents as a result of factors such as personality, coping resources, and support. In this way, perceived stress reflects the interaction between an individual and their environment which they appraise as threatening or overwhelming their resources in a way which will affect their wellbeing (Lazarus & Folkman, 1984). Perceived stress is commonly measured as the frequency of such feelings via a questionnaire such as the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983).

Types of stress

According to APA, there are three types of stress. Acute stress, episodic acute stress and chronic stress. Acute stress includes those stress which is occurred due to current or upcoming situation. It is brief. Episodic acute stress occurs when people experience acute stress frequently, it will lead to health issues including high blood pressure and heart disease. Chronic stress is long term and most harmful type of stress. It can be caused due to childhood traumatic experience. If chronic stress left untreated, it will lead to major physical and mental problems.

FACTORS THAT MAKE EVENTS STRESSFUL

Negative events are undesirable or unpleasant experience which includes the death of a family member, getting divorced, rejection from others or experiencing daily conflicts. It produces more psychological and physiological problems when compared to positive events.

Less stress is felt by people when they are exposed to controllable or predictable events. If they are exposed to uncontrollable and unpredictable events, it may lead to increased stress.

When ambiguous events are experienced by a person, he/she will use his energy to understand the stressors rather than to take an action. It can be time consuming. In the case of clear-cut events, the person will take necessary action without any lag. If a person can take confrontative action, they may experience less stress as well as better coping strategy. A person experiences high stress when he feels overloaded. A person with overloaded task may experience more discomfort than that of fewer tasks.

APPRAISAL OF STRESS

Stress appraisal refers to the individual's ability to evaluate and cope up with the stressful situation. It includes primary appraisal and secondary appraisal. Primary appraisal is a process in which individuals understand the situation. People mainly appraise their harm, threat and challenge. Harm refers to evaluation of the damage that has already been done. Threat refers to the assessment of damage that will occur in the future. Challenge refers to the assessment of one's ability to overcome stress.

Secondary appraisal refers to the assessment of availability of one's personal resources and whether it is enough to meet the environmental demands. If a person has sufficient resources enough to meet the demands, he experiences less stress. If a person does not have sufficient resources, he experiences high stress.

COPING WITH STRESS

Coping with stress is the process by which a person consciously attempts to master, minimize or tolerate stressors and problems in life.

COPING STYLES

- Approach versus avoidance
- Problem – focused and emotion focused coping
- Emotional approach coping
- Proactive coping

SELF ESTEEM

Self-esteem refers to a person's overall subjective emotional evaluation of his or her own worth. It is a judgement of oneself as well as an attitude toward the self. Self-esteem includes beliefs and emotions such as pride, triumph, shame and despite.

The most and frequently used definition of self-esteem within psychology is Rosenberg's (1965), who described it as a favorable or unfavorable attitude toward the self. Dr. Morris Rosenberg who defines self-esteem as the attitude one holds toward themselves as an object. Among the most popular and well utilized measures of self-esteem are the Rosenberg's self-esteem scale (1965).

Many early theories suggested that self-esteem is a basic human need or motivation. American psychologist Abraham Maslow included self-esteem in his hierarchy of human needs. He described two different forms of esteem. The need for respect from others in the form of recognition, success and admiration, and the need for self-respect in the form of self-love, self-confidence, skill, or aptitude. Respect from others was believed to be more fragile and easily lost than inner self esteem. According to Maslow, without the fulfillment of the self-esteem need, individuals will be driven to seek it and unable to grow and obtain self-actualization.

Self-esteem is important because it shows ourselves how we view the way we are and the sense of our personal value. Thus, it affects the way we are and act in the world and the way we are related to everybody else.

HIGH SELF ESTEEM

People high on self esteem

- Are able to act according to what they think to be the best choice, trusting their own judgement, and not feeling guilty when others do not like their choice.
- They trust in their capacity to solve problems, not hesitating after failures and difficulties. They ask others for help when they need it.
- Understand how they are an interesting and valuable person for others, at least for those with whom they have a friendship.
- Are able to enjoy a great variety of activities.
- Admit and accept different internal feelings and drives, either positive or negative revealing those drive to others only when they choose.

LOW SELF ESTEEM

Low self-esteem can result from various factors, including genetic factors, physical appearance or weight, mental health issues, socio economic status, peer pressure or bullying. A person with low self-esteem may show some characteristics:

- Heavy self-criticism and dissatisfaction
- Hypersensitivity to criticism with resentment against critics and feelings of being attacked.
- Perfectionism
- Neurotic guilt
- Some depend on the approval and praise of others when evaluating self-worth.

Our self-esteem evolves throughout our lives as we develop an image of ourselves through our experiences with different people and activities. Experiences during childhood play particularly large role in the shaping of self-esteem. When we are growing up, our successes, failures and how we were treated by our family, teachers, coaches, religious authorities and peers, all contributed to the creation of our self-esteem. Childhood experiences that contribute to healthy self-esteem include: being listened to, being spoken to respectfully, getting appropriate attention and affection, having accomplishments recognized and mistakes or failures be acknowledged and accepted. Childhood experiences that may lead to low self-esteem include: being harshly criticized, being physically, sexually or emotionally abused, being ignored or teased, being expected to be perfect all the time.

In adolescence self-esteem can be affected by the physical and hormone changes, and most importantly by how they look. Young people who have a goal in life often do a bit in the self-esteem stakes, so these families are there to support them, belonging to a group of friends is also very important to adolescent's self-esteem.

The first important step in improving self-esteem is to challenge the negative messages of the critical inner voice. Start to believe in our self. Never generalize our experience to as a whole life. Practicing self-compassion, treating yourself with the same empathy you would show others. Rather than focusing on evaluating yourself, instead you can acknowledge when things are difficult and try to nurture and care for yourself in these times especially. Try to be gentle with ourself rather than critical of our self when things don't go as we planned/hoped. As human we all make mistakes, and we are all impacted by external factors that we can't control. Forgive yourself when you don't do all that you hoped to do.

NEED AND SIGNIFICANCE

This study focuses on comparison of perceived stress and self-esteem among obese and non-obese adolescents. Obesity is an increasing condition worldwide. There are many studies that highlight effects of obesity on adolescent's psychological well-being. Some of the previous studies have reported associations between adolescent obesity and some forms of psychopathology such as depressive symptoms, attention-deficit/hyperactivity disorder, stress disorder symptoms and low self-esteem. Stress has been also seen as an important psychosocial contributor to obesity and stressed adolescents are more prone to indulge in emotional overeating. Self-esteem is a multi-dimensional construct and has been found to be associated with adolescent obesity. It is evident from several studies that adolescents with obesity have low self-esteem. Some studies report similar or normal levels of self-esteem between obese and non-obese children. This study helps us to find out differences in perceived stress and self-esteem among obese and non-obese adolescents. So based on this study we have to educate students and people in reducing stress and also increasing self-esteem.

OBJECTIVES

- To understand the influence of perceived stress among obese and non-obese adolescents.
- To understand the influence of self-esteem among obese and non-obese adolescents.
- To understand the relationship between perceived stress and self-esteem.

HYPOTHESIS

- There is no significant difference in perceived stress among obese and non-obese adolescents.
- There is no significant difference in self-esteem among obese and non-obese adolescents
- There is no significant relationship between perceived stress and self-esteem

EXPLANATION OF KEY TERMS

1. Adolescents: The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. Adolescence can be explained as a period of transition from childhood to adulthood.

2. Obesity: Obesity is defined as abnormal or excessive fat accumulation that presents a risk to health. A body mass index (BMI) over 30 is obese.
3. Perceived stress: The feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period.
4. Self-esteem: It reflects a person's physical self-image, view of his or her accomplishments and capabilities, and values and perceived success in living up to them, as well as the ways in which others view and respond to that person.

CHAPTER II
REVIEW OF LITERATURE

- Aastha Jain and Dr. Sarika Boora (2020) conducted study on Emotional autonomy and self-esteem in teenagers: in association with authoritative parenting style. The purpose of this study is to examine whether the relationship between teenager's emotional autonomy and their self-esteem is mediated by parenting style. The sample of the study consisted of 50 adolescent boys and 50 adolescent girls who were selected from Delhi through convenience sampling. All the participants were aged between 14 to 19 years old. It was made sure that all the participants were living with both their parents. The following tools were used in this study; Emotional Autonomy Scale – Steinberg And Silverberg (1986), “Rosenberg Self-Esteem Scale” developed by Rosenberg (1965) and “Parental Authority Questionnaire (PAQ)” – Bury (1991). Pearson's Product Moment correlation coefficient was used to analyse the data. The present study concluded that significant relationship exists between authoritative parenting style and self-esteem and the emotional autonomy of the adolescents.

- Amenah Rashid, Dr. Syeda Razia Bukhari, Syeda Ishrat Fatima, Farhana Saba and Firdous Afzal (2017) conducted a study on Self Esteem among Male and Female Adolescents. The aim of present study is to examine difference in the level of self-esteem among male and female adolescents. A total of 200 participants (100 male and 100 female) with age limit 11 years to 15years) (mean age = 14.16, SD = 0.740) were selected from different schools of Karachi, Pakistan, through convenient sampling technique. First the ensured about the confidentiality of their demographic information then Urdu version of Rosenberg Self Esteem Scale (Rosenberg, 1965) was administered on them. Results depicted that there is difference in the level of self-esteem among male and female adolescents ($t(198) = 2.837, P < .05$). It is concluded that there is gender difference in the level of self-esteem among adolescents.

- Anirudh Ramesh and Vandana Jain (2018) researched on Self Esteem Among Pre-University Students. The study aims at examining the self-esteem among Pre-University students. The study consists of 360 students, who are pursuing Pre-University course in Karnataka who are in adolescence phase. the samples were taken from urban and rural Pre-University Colleges in Karnataka a total of 360 students out

of which 180 samples were taken from Bangalore and Ujire each. group consist of 90 boys and 90 Girls respectively. Purposive sampling was adopted; the students were administered with Rosenberg Self Esteem Scale (RSE 1965). The objective of the study was to find out significant difference in the level of self-esteem among the Pre university students with respect to gender and geographical location. Descriptive statistics and independent sample t-test were estimated using SPSS 16.0 According to the results acquired, there is a significant difference in the level of self-esteem between students of urban colleges and students of rural colleges, there was no significant difference in the level of self-esteem between the Urban and Rural Pre university students and Gender.

- Kalpana Anand presented a study on Perceived Stress as Predictor of Psychological Well-being among Indian Youth. study seeks to explore perceived stress and psychological wellbeing among college students and their interrelationship. A total of 281 college students (Males=174, Females= 107) in the age range of 18-24 years, participated in the study. They were administered Perceived Stress Scale and Ryff's Scale of Psychological Wellbeing. Results revealed that perceived stress had significant negative relation with all the six dimensions of psychological wellbeing. Perceived Stress accounted for a large variance in all the dimensions of psychological wellbeing. Perceived Stress came out to be one of the major contributors to psychological health and wellbeing.

- Maanya Tewatia (2017) conducted a study on Relationship between Body Image and Self Esteem: A Study on the Male Undergraduate Students of Delhi University. The purpose of this study was to examine how body image and self-esteem are related in a sample of Indian male students. The sample consisted of 132 males ranging from 18 to 21 years of age. Body image was assessed using the Appearance Evaluation subscale of the Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS), while self-esteem was assessed using the Rosenberg Self-Esteem Scale. Using the scores on these scales, correlation values were computed. The results of the study concluded that higher self-esteem is associated

with a higher satisfaction with body image, as there was a significant positive correlation between the two (+0.45). However, it was a moderate correlation.

- Marie Pearson and John Beer (1990) conducted a study on Self-Consciousness, Self-Esteem and Depression of Gifted School Children. 38 gifted students from north central school districts were administered the Coopersmith Self-esteem Inventory--Short Form, the Self-consciousness Scale, and the Children's Depression Inventory. The gifted students' mean score on depression was below the cut-off and so did not indicate depression while their mean score on self-esteem was within average range. The Pearson correlation for self-esteem and lie scores was significant and positive, indicating, if the lie scores are high, the self-esteem scores tend to be high. The General Self-consciousness mean was low; students spend time examining their own behaviour and thought. The Private Self-consciousness mean was low and suggests, however, these students tend to avoid thinking about themselves and are not so overly concerned with self-examination that this interferes with everyday function. On Public Self-consciousness a borderline low mean score allows the inference that these students display little concern about how others will react to them in social settings, how they appear to others, that is, they show some insensitivity associated with high self-confidence. The mean on Social Anxiety was within the normal limits.

- Mubeen Akhtar, Sadia Maroof and Shamyle Rizwan Khan (2020) conducted a study on Estimates of gelotophobia and perceived stress among obese individuals. The present research was carried out to estimate gelotophobia among obese individuals. Perceived stress and differences on socio-demographic factors were also studied. The survey design cross-sectional study was conducted from January to June in 2018. A sample of 70 consenting participants (men = 22, women = 48) with BMI ≥ 25 were recruited through purposive sampling. The instruments of Geloph<15> and Perceived Stress Scale (PSS) were used to assess the level of gelotophobia and level of stress in the sample. Results: The estimate of gelotophobia among obese individuals in the current study showed that 45(64.2%) majority sample had moderate level of gelotophobia, while 7(10%) of the sample had high level of gelotophobia. Statistically significant

differences were observed in the level of gelotophobia among individuals having different levels of socio-economic status ($p < .05$) and with history of being ridiculed by peers ($p < .05$). However, the present study did not show any significant demographic difference in perceived stress ($p > .05$). Conclusions: The findings of the study could provide evidence in favour of developing and implementing suitable intervention programmes to help control risk of gelotophobia among obese individuals. The study could also assist in creating awareness and understanding about harmful consequences of bullying and nurturing a healthier narrative of conversations and humour among the youth.

- Muskan Hossain (2020) conducted a study on perceived stress among young adults during social isolation. The objective of the study is to find and compare the perceived stress among the young adults of Kolkata during social isolation. Materials and Method: The study was conducted on the age group of 18-25-year-old ($N=100$) of Kolkata by using two versions of PSS Item Inventory (Perceived Stress Scale by Sheldon Cohen) -PSS 10 and PSS-14, which was emailed to them. The scores were then calculated after which the Mean and Standard Deviation was compared between males and females; students and working individuals. Results: The study shows that females have higher perceived stress than men in both of the versions of PSS (10 and 14). It was also seen that working individuals have more perceived stress than students. Conclusion: Stress among young adults is not out of the ordinary these days and with the effect of social isolation it can have a havoc on one's mental and physical health.

- Muzamil Jan and Afiya Ashraf (2008) in their study present relation of age, family income and family type with self-esteem among women. The study reveals highly significant relation of family type with self-esteem in personal life of women. Significant differences are also found among women in joint, nuclear and extended families, concerning their self-esteem in family relations, career life and overall self-esteem. Family income has also shown significant association with women's self-esteem in family relations.

- Ozmen (2012) conducted a study on the association of self-esteem, depression and body satisfaction with obesity among Turkish adolescent. It was a cross-sectional survey of 2001 tenth-grade Turkish adolescent aged 15-18. Body mass index was calculated using weight and height measures. The overweight and obesity were based on the age and gender specific BMI cut-off points of the International Obesity Task Force values. Self-esteem was measured using the Rosenberg Self-Esteem Scale and depression was measured using Children's Depression Inventory. Logistic regression analysis was used, 9% of the students were overweight and 1.1% was obese. The results of this study suggest that school-based adolescents in Turkey have a lower risk of overweight and obesity than adolescents in developed countries. The findings of this study suggest that psychological well-being of adolescents is more related to body satisfaction than actual and perceived weight status is.

- Priyanka Pareek and Mehta Neha (2020) conducted a research on Perceived Stress and Dietary Behaviour of Adolescent Girls.
Objectives The study was designed to examine the relationship between stress and dietary behaviour of female students (15–18 years).
Methods A total of 300 adolescent girls (15–18 yrs.) were selected from Junior college, Hyderabad. A structured questionnaire had been used to collect the general profile of the adolescent girls. Height and weight of the subjects were measured by standardized methods. The food frequency questionnaire and 24-hour recall (3 days) has also been taken. Perceived stress scale was used to assess the stress levels among the adolescent girls.
Results Over half of the students were found some level of stress, 13% were suffering from severe stress levels, 30.0% had moderate stress and another 15.6% had mild stress. Students who have experienced severe to moderate levels of stress were more likely to eat cereal products ($P < 0.05$), fried items and the highly processed food items ($P < 0.05$). The mean intake of fruits and vegetables was significantly low ($P < 0.05$) among the students having severe and moderate stress. The carbohydrate and fat intake were found significantly ($P < 0.05$) higher among the severe and moderately stressed students.
Conclusions: These results

show a clear difference in food selection patterns between stressed and non-stressed female students with stress being a more significant predictor of unhealthy food selection.

- Sandhya Bhatt (2018) studied on the topic Role of Self Esteem & Self Efficacy in Achievement Motivation among College Students. The main objective of the study is to find the correlation between self-esteem, self-efficacy and achievement motivation among college students. For this purpose, data from 400 students of four different colleges of Lucknow were taken. Among the colleges, two colleges were from the private sector, whereas two were government colleges. 200 students from B. tech Courses and 200 students from B.A, BSc. and B.com were selected for data collection. Three tests were administered, General Self Efficacy Scale to measure self-efficacy, Rosenberg self-esteem scale to measure self-esteem and Achievement Motivation Scale by Dr. Asha Mohan and Prof. Pratibha Deo were used. Results indicate a strong correlation between student's self-efficacy and self-esteem. A weak, yet positive correlation was also found between self-efficacy, self-esteem and achievement motivation.

- Urvashi and Prashant Srivastava (2017) conducted study on Self Esteem and Well Being among University Going Adolescents: A Gender Perspective. Aims & Objectives: To assess and compare gender differences among university going adolescents in terms of self-esteem and well-being. Method: 100 university going adolescents (50 male respondents & 50 female respondents) have been included purposively in the study. Semi- Structured Socio Demographic datasheet was used to collect the relevant socio demographic information followed by Rosenberg Self Esteem Scale and PGI General Well Being Measure. Data collected was analysed using Statistical Package for Social Sciences (SPSS- 20 version). Result: The study findings highlights significant gender differences among university going adolescents in terms of self-esteem and well-being. Result found

that female university going adolescents has less self-esteem and well-being as compared to their male counterparts.

- Vishal Dogra (2020) conducted the study on Perceived stress among adolescents. This study attempts to assess the level of perceived stress among adolescents studying in college Jammu. The sample consisted of 100 students (50 males & 50 females). Age range of the subjects was selected from (17-19) years and were selected through random sampling technique. For assessment Perceived stress scale (PSS) was used. The informed consent was taken from all the participants. Male adolescents were more prone to the stressful situations than the female adolescents and the reasons for stressful situations because of career security, academic work load, economic issues in the family, burden of responsibility with increasing age, environmental, social as well psychological changes.

CHAPTER III
METHODOLOGY

This chapter describes about the samples and sampling procedures, the tools used, the procedure adopted for data collection and the statistical method used to analyze collected data.

AIM

- To understand the perceived stress and self-esteem among obese and non-obese adolescents.

SAMPLE

The sample used for this research include 60 adolescents. It comprises of both 30 obese and 30 non-obese adolescents.

SAMPLE	NUMBER	PERCENTAGE
Obese	30	50%
Non- Obese	30	50%
TOTAL	60	100%

INCLUSION CRITERIA AND EXCLUSION CRITERIA

Inclusion criteria

- Those within the age group of 13-19 years.
- Both boys and girls were included.
- Adolescents within Kerala state.
- Adolescents who were literate

Exclusion criteria

- Those belonging to age below 13 and above 19.
- Adolescents outside Kerala state.
- Adolescents who were illiterate.

TOOLS

Perceived stress scale (PSS) and Rosenberg's self-esteem scale (RSES) were used in this study. A personal data sheet was also used to gather relevant information.

Personal data sheet

This was prepared to get relevant information from adolescents regarding their height and weight to calculate their BMI and categorise into obese and non-obese adolescents.

Perceived stress scale

The Perceived Stress Scale (Cohen, Kamarch, and Mermelstein, 1983) is one of the more popular tools for measuring psychological stress. It is a self-reported questionnaire that was designed to measure "the degree to which individuals appraise situations in their lives as stressful". The PSS items evaluate the degree to which individuals believe their life has been unpredictable, uncontrollable, and overloaded during the previous month. The assessed items are general in nature rather than focusing on specific events or experiences. There are three versions of the PSS. The original instrument is a 14-item scale (PSS-14) that was developed in English (Cohen et al., 1983), with 7 positive items and 7 negative items rated on a 5-point Likert scale. Five years after the introduction of the PSS-14, it was shortened to 10 items (PSS-10) using factor analysis. A four-item PSS (PSS-4) was also introduced as a brief version for situations requiring a very short scale or telephone interviews (Cohen & Williamson, 1988). The PSS is currently translated into 25 languages other than English.

This scale consists of 10 items. The respondents answered these statements as never, almost never, sometimes, fairly often or very often.

Scoring

PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items.

Reliability

Cohen and Colleagues (1983;1988) reported the following reliability coefficients for the three versions of the PSS: the 14-item version- alpha 0.75; the 10-item version – alpha 0.78; and a 4-item version – alpha 0.60.

Validity

Correlates in a predicted way with other measure of stress.

Rosenberg's self esteem scale

The Rosenberg Self-Esteem Scale, a widely used self-report instrument for evaluating individual self-esteem, was investigated using item response theory. A 10-item scale that measures global self-worth by measuring 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. It was developed by Morris Rosenberg. The original sample for which the scale was developed consisted of 5,024 high-school juniors and seniors from 10 randomly selected schools in New York State. The Rosenberg self-esteem scale is considered a reliable and valid quantitative tool for self-esteem assessment. The RSES has been translated and adapted to various languages, such as Persian, French, Chinese, Italian, German, Portuguese, and Spanish. The scale is extensively used in cross-cultural studies in up to 53 different nations.

Scoring:

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

Reliability and validity

The Rosenberg Self-Esteem Scale presented high ratings in reliability areas; internal consistency reliability ranges from 0.77 to 0.88. Test-retest reliability for the RSE range from 0.82 to 0.85. The criterion validity was found to be 0.55. The construct validity of this scale is correlated -0.64 with anxiety and -0.43 with depression. The RES is closely connected with the Coopersmith Self-Esteem Inventory.

ADMINISTRATION

Data were collected from adolescents by providing the questionnaires through google from platforms and allowed the respondents to complete it and submit the google forms. The participants were asked about their

willingness to participate in the study. Instructions were clearly given and ensured that confidentiality will be maintained.

STATISTICAL ANALYSIS

Correlation and t-test were used to analyse the data.

Correlation

It is a measure of relationship between two variables in forms of strength of relationship, the value of Correlation coefficient varies between +1 and -1. A value of +1 or -1 indicates a perfect degree of association between two variables. As the Correlation coefficient value goes towards 0, the relationship will be weaker. The sign of the Correlation indicates the direction of relationship. If both variables tend to increase or decrease together the coefficient is positive. If one variable increase as other decrease, the coefficient is negative.

t-test

The t-test is one of many tests used for the purpose of hypothesis testing in statistics. It is used for the comparison of the difference between the means of two groups. It is suitable to test whether the mean of the two sets of scores are significantly different or not. The t-test is based on t-distribution and is considered as an appropriate test for finding the significance of difference between the means of two samples in case of small samples when population variance is not unknown. If the value exceeds a cut-off point depending on degree of freedom the difference in mean is considered significant when t value is below the cut-off the difference is said to be not significant.

CHAPTER IV
RESULT AND DISCUSSION

Table no: 4.1

Means, standard deviation, t-value and level of significance obtained by obese and non-obese adolescents in perceived stress

Variable	Group	Number	Mean	S. D	t-value	Significance
Perceived stress	Obese	30	22.43	2.897	3.894	0.01
	Non-obese	30	17.87	5.734		

Table 4.1 indicates the mean, standard deviation, t-value and the level of significance among obese and non-obese adolescents. From the table it is seen that the t-value is 3.894 and the level of significance is 0.01 which indicates that there is significant difference between the scores of obese and non-obese adolescents. Thus, we reject the null hypothesis.

The result shows that obese and non-obese adolescents show different levels of perceived stress. Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given period of time. Adolescence being a transitional stage from childhood to adulthood they experience several psychological distresses including stress. Stress has been also seen as an important psychosocial contributor to obesity and stressed adolescents are more prone to indulge in emotional overeating. From the results obtained we can also say that obese adolescents undergo higher stress than non-obese adolescents.

Table no: 4.2

Means, standard deviation, t-value and level of significance obtained by obese and non-obese adolescents in self esteem

Variable	Group	Number	Mean	S. D	t-value	Significance
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Self esteem	Obese	30	31.87	3.998	9.325	.102
	Non-obese	30	20.77	5.151		

Table 4.2 indicates mean, standard deviation, t-value and level of significance obtained by obese and non-obese adolescents. From the table it is seen that t-value is 9.325 and the level of significance is .102 which indicates there is no significant difference between self-esteem among obese and non-obese adolescents. Thus, we accept the null hypothesis.

The results thus indicate that both obese and non-obese adolescents show no significant difference in self-esteem. Self-esteem refers to a person's overall subjective emotional evaluation of his or her own worth. It is a judgement of oneself as well as an attitude toward the self. Self-esteem includes beliefs and emotions such as pride, triumph, shame and despire. Since adolescence is a period of transition from childhood to adulthood it is also a stage of developing their own self-esteem. Self-esteem is also affected by both internal as well as environmental factors. Therefore, the result of no significant difference between self-esteem among obese and non-obese adolescents can be due to these reasons.

Table no: 4.3

Correlation between the variables perceived stress and self esteem

Variables		Self esteem	Perceived stress
Self esteem	Pearson Correlation	1	.482**
	Sig. (2-tailed)		.000
	N	60	60
Perceived stress	Pearson Correlation	.482**	1
	Sig. (2-tailed)	.000	
	N	60	60

The table 4.3 shows the correlation between perceived stress and self-esteem of obese and non-obese adolescents. The adolescents have obtained

.482 as correlation between perceived stress and self-esteem, which is a positive correlation. Thus, the null hypothesis is rejected. The increase in score on perceived stress scale shows an increase in score of self-esteem and an increased score on self-esteem scale shows an increased score in perceived stress. Thus, when perceived stress increases, self-esteem also increases and as perceived stress decreases, self-esteem also decreases.

A person with high self-esteem has the ability to focus on and face a stressful situation than a person with low self-esteem. Therefore, as self-esteem increases, it can also be said that perceived stress also increases.

CHAPTER V
SUMMARY AND CONCLUSION

Several studies have been conducted in the area of obese and non-obese adolescents and their characteristics. The present study was conducted to assess the perceived stress and self-esteem among obese and non-obese adolescents.

The sample for the present study consisted of 60 adolescents from different districts of Kerala. The sample consisted of both obese and non-obese adolescents. Personal data sheet, perceived stress scale, and Rosenberg's self-esteem scale were used to collect the data required for the study. The collected data were analyzed using t-test and person correlation coefficient.

Tenability of the hypotheses

HYPOTHESIS	TENABILITY
➤ There is no significant difference in perceived stress among obese and non-obese adolescents	REJECTED
➤ There is no significant difference in self-esteem among obese and non-obese adolescents	ACCEPTED
➤ There is no significant relationship between perceived stress and self-esteem.	REJECTED

Implications of the study

Adolescence is a critical juncture in health because many of the factors related to poor health habit and early death in the adult years begin during adolescence. Obesity is one of the most important of the health challenges. It can be defined as a condition of abnormal or excess body fat accumulation in adipose tissue or a body mass index (BMI) OF 30kg/m² and higher. These health issues may affect their psychological wellbeing. Several studies have found mental health problems in adolescents with obesity. Higher rates of stress, anxiety, depression, social withdrawal, lower self-esteem etc. have been found among these adolescents. Obesity may make the person feel odd from surroundings and awkward and at that instance they might get more stressed. There can be a chance to occur some situation like because of their obese condition they could not do a task they wished to do better. At such situations they may feel worthless, and

will lead to lower self-esteem. But now since the importance of mental health have grown at a higher pace, even obese people have started to recognize their own worth and their self-esteem have risen.

Prevention of obesity should commence very early in life. It requires some psychological interventions too. There are various methods available to reduce or treat obesity as obese adolescents have a chance to risk of psychological problems when compared to non-obese adolescents. The finding of the result provides an insight about our current health and related psychological problems among adolescents.

Limitations of the study

There are several limitations for the present study:

- Sample size was comparatively small and so cannot be generalized.
- Another limitation is that it was limited to an area. If the sample size could be improved and a wide sample from different areas could be considered, then a greater chance of more effective reliable study.
- The number of variables is limited
- Sample response of the participants may not be genuine as there is high chance of faking of responses since the data were collected through google forms.
- Lack of interest from the respondents.

Scope for further research

- Further studies could incorporate new and more variables.
- This study focused on obese and non-obese adolescents with limited sample. If the population as well as sample size increases, there is a chance for getting more appropriate results.
- Mode of administration could be direct rather than through google forms for more accurate and genuine responses.

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APPENDICES

PERSONAL DATA SHEET

Dear respondent, This data collection is for my BSc psychology project. The data collected will only be used for academic purpose and confidentiality will be maintained. Thanking you in advance for your cooperation.

Name:

Age:

Height:

Weight:

Gender:

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name _____ Date _____

Age _____ Gender (Circle): **M** **F** Other _____

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

- | | | | | | |
|--|---|---|---|---|---|
| 1. In the last month, how often have you been upset because of something that happened unexpectedly?..... | 0 | 1 | 2 | 3 | 4 |
| 2. In the last month, how often have you felt that you were unable to control the important things in your life? | 0 | 1 | 2 | 3 | 4 |
| 3. In the last month, how often have you felt nervous and "stressed"? | 0 | 1 | 2 | 3 | 4 |
| 4. In the last month, how often have you felt confident about your ability to handle your personal problems? | 0 | 1 | 2 | 3 | 4 |
| 5. In the last month, how often have you felt that things were going your way?..... | 0 | 1 | 2 | 3 | 4 |
| 6. In the last month, how often have you found that you could not cope with all the things that you had to do? | 0 | 1 | 2 | 3 | 4 |
| 7. In the last month, how often have you been able to control irritations in your life?..... | 0 | 1 | 2 | 3 | 4 |
| 8. In the last month, how often have you felt that you were on top of things?.. | 0 | 1 | 2 | 3 | 4 |
| 9. In the last month, how often have you been angered because of things that were outside of your control?..... | 0 | 1 | 2 | 3 | 4 |
| 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? | 0 | 1 | 2 | 3 | 4 |

Please feel free to use the *Perceived Stress Scale* for your research.

Mind Garden, Inc.

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www.mindgarden.com

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ROSENBERG SELF ESTEEM SCALE

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

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. On the whole, I am satisfied with myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. At times I think I am no good at all.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I feel that I have a number of good qualities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am able to do things as well as most other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel I do not have much to be proud of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I certainly feel useless at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I feel that I'm a person of worth, at least on an equal plane with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I wish I could have more respect for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. All in all, I am inclined to feel that I am a failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I take a positive attitude toward myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>