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Research Article

Relationship Between Eating Attitude and Body Mass Index Among Adolescents in Selected College, Kancheepuram District

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ABSTRACT

Objective: The objective of the present study was to determine the relationship between Eating attitude and Body Mass Index among Adolescents in selected college. Methodology: Quantitative approach and descriptive co-relational design was adopted for the present study. The study was conducted in SRM College of Nursing , Kattankulathur. The sample size for the present study was 160 adolescents. Non-probability Purposive sampling technique was adopted to select the samples for the study. The tool used for the data collection were 5 point rating scale to assess the eating attitude among adolescent girls and WHO - BMI scale to assess the Body Mass Index. Results: The present study findings revealed that most of the adolescents 135(84.4%) reported good eating attitude, none of them reported poor and very poor eating attitude and majority of the adolescents 90(56.3%) samples were in normal range of BMI . 48(30%) samples were in the category of underweight. 21(13.1%) samples were in the category overweight and none of them belong to the category of severe and very severe status. Further the results revealed that there was no significant correlation between eating attitude and Body mass Index. Conclusion: The results reflects that the present adolescents are more conscious about their health , hence they engage themselves in good eating behavior to maintain their weight which promotes their health. This attitude can be motivated by conducting periodic health camps and healthy Nutrition clinics for the adolescents.

Keywords: Eating attitude, Body mass index, Eating behavior, Adolescents, Nutrition.

INTRODUCTION

Adolescence is characterized by significant physical, emotional and intellectual changes, and changes in social roles, relationships and expectations. This is a time of growth, which is characterized by the change in body proportion, size, weight and body image, emotional changes, new sleep patterns and needs, development of sexuality and reproductive functions. These changes are a normal transition from childhood to adulthood. Adolescents are experiencing these changes in different ways. Adolescent girls are often concerned about their bodily appearance, express dissatisfaction with their appearance, weight and want to lose weight Eating disorders are more common in women. Especially teenage girls and young women are at greater risk of eating disorders, because they are preoccupied with their body shape, weight and diet[1].

Approximately 17% of children and adolescents are overweight with a BMI (weight in kg/height in m^2 at or above the 95th percentile for age and sex. Childhood overweight is associated with an increased risk of is ordered eating symptoms including excessive shape and weight concerns, dieting and other unhealthy weight control methods, and binge eating[2]

There exists at present enormous concern amongst the population regarding being overweight and obesity. This concern is generally justified by alleging health motives. The deeper motivation is, however, to a considerable extent, aesthetic. It is a slim body that is considered an attractive body in our society, amongst other things because, in a context of nutritional overabundance, it is more and more difficult to maintain a normal weight[3]. In this cultural context all kinds of strategies to lose weight have flourished: hypocaloric diets, restrictive eating habits, nutritional compounds, pharmaceutical products and such extreme measures as skipping certain meals. Thus, we find ourselves in the situation where more than 70% of the population of the western world admits that they are attempting either to lose weight or to maintain their present weight[4,5].

Recent prospective studies[6,7] show that attempts to lose weight seem to be associated in some subjects with a subsequent greater increase in weight (equal to or greater than 2 kg). Finally, weight and food can be the cause of great worry in some people[8,9].

It may seem a contradiction that "oral control", which implies not eating meals when hungry and controlling the amount eaten during meals, should be associated with a high BMI. It would appear, however, that in some subjects this attempt to control eating habits frequently fails and is correlated with conducts of lack of control and behavioral patterns which in the long term can lead to their initial weight surplus being maintained or even to it increasing. In fact, in the women in the overweight group, a significant

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Table 1: Frequency and percentage distribution of demographic variables of adoleoscent girls. N=160

Demographic variables	Category	Frequency	Percentage
Age	17-18 Years	40	25.0
	19-20 Years	81	50.6
	> 20 Years	39	24.4
Gender	Male	5	3.1
	Female	155	96.9
Type of Family	Nuclear Family	137	85.6
	Joint Family	21	13.1
	Extended Family	2	1.3
Dietary Pattern	Vegetarian	15	9.4
	Non Vegetarian	145	90.6
Religion	Hindu	126	78.8
	Muslim	7	4.3
	Christian	25	15.6
	Others	2	1.3
Mother's Education	Illiterate	17	10.6
	Primary School Certificate	41	25.6
	Middle School Certificate	42	26.3
	High School Certificate	36	22.5
	Intermediate Or Post High School Diploma	5	3.1
	Graduate Or Post Graduate	19	11.9
Family Income per month	Rs 1590-4726	21	13.1
	Rs 4727-7877	34	21.2
	Rs 7878-11876	22	13.8
	Rs11817-15753	45	28.1
	Rs 15754-31506	16	10.0
	Rs >31,507	22	13.8

Table 2: Assessment of eating attitude among adoloscents.

Eating attitude	Frequency	Percentage
Very Poor Eating Attitude	0	0
Poor Eating Attitude	0	0
Moderate Eating Attitude	14	8.7
Good Eating Attitude	135	84.4
Very Good Eating Attitude	11	6.9

Table 3: Assessment of body mass index among adoloscents.

Body mass index	Frequency	Percentage
Underweight - Low	48	30.0
Normal Range - Average	90	56.3
Overweight – Pre obese	21	13.1
Obese Class I - Moderate	1	0.6
Obese Class II - Severe	0	0
Obese Class III - Very Severe	0	0

relationship was observed between skipping meals and BMI. This type of behavior tends to lead to a subsequent compensatory ingestion of food, characterized by a certain lack of control and during which a far higher number of calories are consumed than in a normal meal[10-12].

METHODS AND MATERIALS

Quantitative approach and descriptive co-relational design was adopted for the present study. The variables studied are study variable and demographic variables. The study variable were eating attitude and Body Mass Index , whereas the demographic variables includes age, gender, type of family, dietary pattern, religion, Mothers education and family monthly income. The study was conducted in SRM College of Nursing ,Kattankulathur . The accessible population includes the adolescent girls who were studying B.sc .Nursing in SRM College of Nursing Sample consisted of adolescent girls who fulfilled the inclusion criteria. The sample size for the present study was 160. Non-probability Purposive sampling technique was adopted to select the samples for the study. The tool used for the data collection comprises of 3 sections. Section A- Structured questionnaire to elicit the demographic data of adolescent girls. Section B- 5 point rating scale to assess the eating attitude among adolescent girls. Section C: WHO - BMI scale to assess the Body Mass Index. Standardized weighing scale and inch tape was used to assess the weight and height respectively. The content of the tools were established on the basis of opinions of Nursing experts. Suggestions were incorporated in the tool. The reliability of the tools was established by split half method for eating attitude scale and rater inter rater method was used for Body Mass Index scale. The r value was 0.80 and 0.9 respectively which indicated a positive co-relation to proceed for the main study.

Ethical considerations

The study was approved by the dissertation committee of SRM College of Nursing, SRM University,

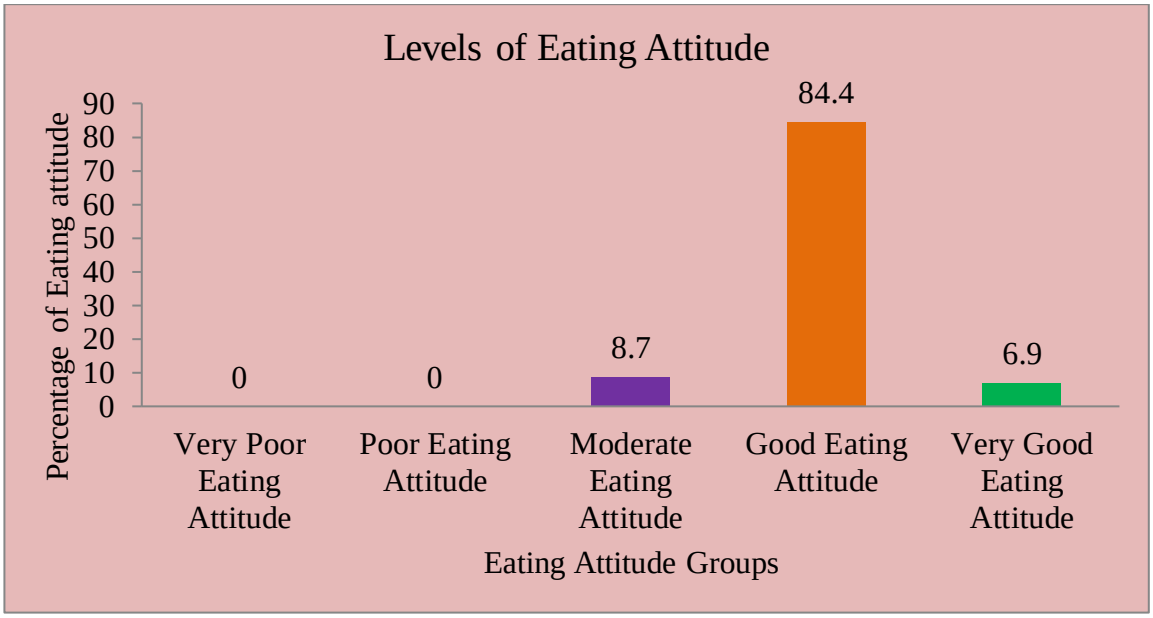

Figure 1: Frequency and percentage distribution of Eating Attitude among Adolescents.

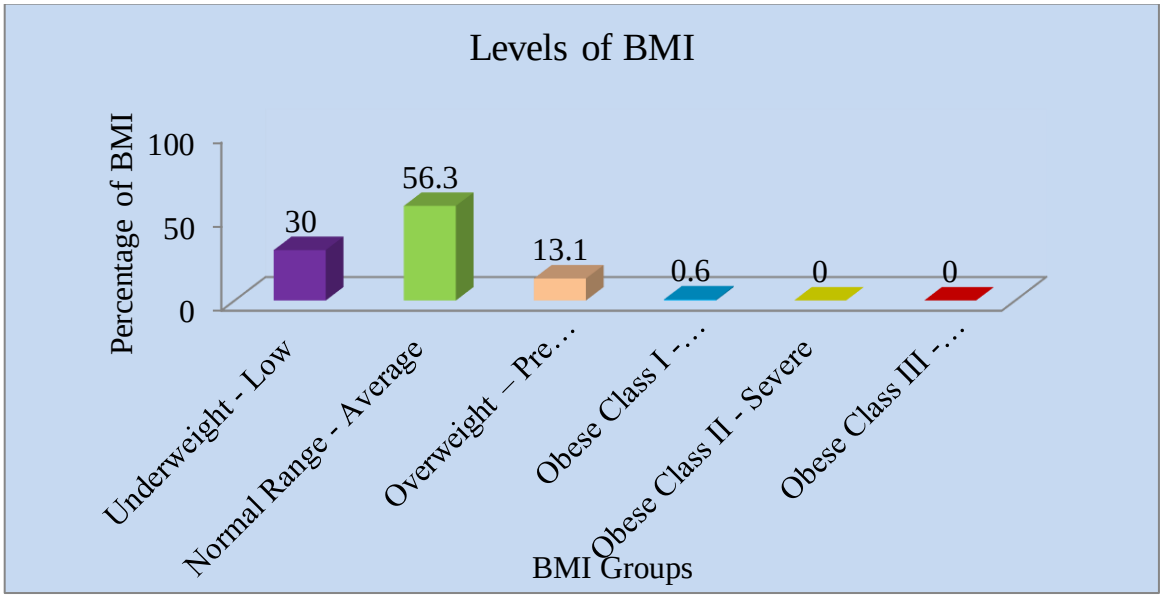

Figure 2: Frequency and percentage distribution of Body mass Index among adolescents.

Kattankulathur, Kancheepuram District. Permission was obtained from the Dean, SRM College of Nursing and informed consent was obtained from each participant for the study before starting data collection. Assurance was given to the subjects that anonymity of each individual would be maintained and they are free to withdraw from the study at any time. The investigator explained the objectives and methods of data collection. Data collection was done within the given period of 2 weeks The data collection was done during the day time. Self-introduction about the researcher and details about the study was explained to the samples and their consent was obtained. Eating attitude was assessed among adolescent girls by using the 5 point rating scale and the body mass index was assessed using standard weighing machine and inch tape. The confidentiality about the data and finding were assured to the participants. Statistical analysis was performed using SPSS software version 16.

RESULTS

Table 1 depicts that majority of the adolescent girls 81(50.6%)were in the age group of 19-20 years , 155(96.9%) adolescents were females. Majority 137(85.6%) of them belong to Nuclear family.145(90.6%) samples were Non vegetarians. Majority of the adolescents were Hindus. Considering education majority of their mothers educational status were primary and middle school level. Majority 45(28.1%) samples family monthly income was between Rs.11817-1575. Table 2 reveals that most of the adolescents 135(84.4%) reported good eating attitude And none of them reported poor and very poor eating attitude. Table 3 reveals that majority of

Table 4: Co-relation between eating attitude and body mass index.

Variables	Pearson Correlation (r)	P Value
Eating Attitude Body Mass Index	0.042	0.597 NS

the adolescents 90 (56.3%) were in normal range. 48(30%) samples were in the category of underweight. 21(13.1%) were in the category overweight and none of them belong to the category of severe and very severe status. Table 4 depicts that there was no significant correlation between eating attitude and Body mass Index.

DISCUSSION

The complex relationships between Body Mass Index (BMI) and eating behaviour have become an important research. Many adolescents' especially female adolescents suffer from disturbed eating behaviours such as excessive dieting and striving for thinness. The association between body image dissatisfaction may or may not be associated with elevated body mass. Each of the these variables is linked to self satisfaction and to their effects on eating pathology, eating attitudes, elevated BMI, and low self esteem. They also affect many areas of psychological function in adolescents including depression and anxiety, leading to lack of confidence, teasing and impairment in social functioning.

The present study revealed that most of the adolescents 135(84.4%) reported good eating attitude, none of them reported poor and very poor eating attitude and majority of the adolescents90(56.3%) were in normal range of BMI . 48(30%) samples were in the category of underweight. 21(13.1%) were in the category overweight and none of them belong to the category of severe and very severe status. Further the results revealed that there was no significant correlation between eating attitude and Body mass Index.

Nur Syuhada Zofiran, MJ., Kartini, I.,Siti Sabariah, B., and Ajau, D.(2011) conducted a similar study on - The relationship between eating behaviours, body image and BMI status among adolescence age 13 to 17 years in Meru, Klang, Malaysia. The purpose of this study was to examine how body image, Body Mass Index (BMI), and eating attitudes were related among adolescence age 13 to 17 years old. The samples were made up Of 356 adolescents, where 165 (46.3%) were male while 91(53.7%) were female. Body image was assessed using the Figure Rating Scale (Stunkard et al.1983), BMI was calculated based on measures of height and weight, and eating behavior was assessed using Eating Behaviour Patterns Questionnaire (EBPQ). This study has contributed to the knowledge on the relationship between eating behaviour, and BMI among adolescence age 13 to 17 years old. This study found that, for relationship between eating behavior and BMI status, only snacking and convenience as well as emotional eating is associated with BMI status. This study underlines the importance of being aware of the relationships between body image, BMI, and eating behavior[13].

Another similar study was conducted by Zhuoli Tao, Wenfang Zhong in 2010 on Eating attitudes and weight concern among Chinese middle-age women: A comparison between different age and BMI groups. Participants were a sample of 236 Chinese women aged 30-52. Outcome measures were various symptoms related to eating disorders, the weight concern and psychological characteristics subscales of the Eating Disorder Inventory-2 questionnaire (EDI-2). Independent variables were age, education level and BMI. ANOVA-Test and Linear Regression were performed. Results revealed that A group of women (N = 132, 78%) with normal weight ($19 \leq BMI \leq 24$) showed dissatisfaction with their weight and wanted to reduce it. Overweight and obese women scored significantly higher on the subscale Body Dissatisfaction on the EDI-2 than women with lower BMI. In comparison to the older group (50-59), the younger group (30-39) and middle-aged group (40-49) expressed the desire to lose weight with a lower BMI. In comparison to age, the BMI had a stronger impact on the psychological and behavioral traits related to the eating disorders among a group of middle-aged Chinese women[14]

The present study also reports that there was no significant association found with eating attitude and Body mass Index with demographic variables among the adolescents.

CONCLUSION

The study concluded that most of the adolescents 135(84.4%) reported good eating attitude, none of them reported poor and very poor eating attitude and majority of the adolescents 90(56.3%) were in normal range of BMI . 48(30%) samples were in the category of underweight. 21(13.1%) were in the category overweight and none of them belong to the category of severe and very severe status. Further the results revealed that there was no significant correlation between eating attitude and Body mass Index .With regard to association there was no significant association found with eating attitude and Body mass Index with demographic variables among the adolescents.

The results reflects that the present adolescents are more conscious about their health , hence they engage themselves in good eating behavior to maintain their weight which promotes their health. This attitude can be motivated by conducting periodic health camps and healthy Nutrition clinics for the adolescents.

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