iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 **Issue:** VI **Month of publication:** June 2018

DOI: http://doi.org/10.22214/ijraset.2018.6043

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue VI, June 2018- Available at www.ijraset.com

Study and Awareness on Over Weight and Non-over Weight Behaviors among Adolescents

Ayesha Siddiqua[1], Tanveer Fatima[2]
[1]*Student of M.Sc nutrition and dietetics, Anwar Ul Uloom, PG College, Affiliated to Osmania University, Hyderabad, India .*
[2]*Assistant Professor, Department of nutrition and dietetics, Anwar Ul Uloom, PG College, Affiliated to Osmania University.*

Abstract: ***Overweight adolescents are at risk for a number of weight-related physical and psychosocial consequences. Overweight adolescents may be at higher risk for using unhealthy weight control strategies than normal weight adolescents. overweight female and male adolescents are at a higher risk for dieting and binge eating As compared to non overweight female adolescents, overweight female adolescents are more likely to engage in both healthy weight control behaviors (healthy eating and exercise) and unhealthy weight control behaviors (fasting, skipping meals, laxative/diuretic use, diet pill use, vomiting, and increase in smoking. The subject data was be collected through questionnaire and subjected to the statistical analysis through chi-square test. The present study was undertaken to assess the prevalence of overweight and obesity in adolescent boys and girls. The study was conducted with sample size of 150 among which 67 were boys and 83 were girls in the age group of 13-20 years were screened for overweight and obesity from height and weight and BMI, an interview schedule was derived to gather information regarding dietary habit, physical activity, and lifestyle changes in form of questionnaire, Prevalence rate of overweight and obesity was calculated according to the limits of body mass index (BMI). The data collected was statistically analyzed between BMI, family history, health condition, consumption of breakfast, consumption of junk foods, consumption of functional foods, physical activity, and was compiled and subjected to chi square test to find out the significance. The values obtained for family history and physical activity were found to be significant. The results were siginificant at p<0.05.***
Keywords: Overweight adolescents, dietary habits, height, weight and BMI, consumption of junk foods, consumption of functional food physical activity etc.

I. INTRODUCTION

Adolescence represents a pivotal stage in the development of positive or negative body image. Many influences exist during the teen years including transitions (eg, puberty) that affect one's body shape, weight status, and appearance. Weight status exists along a spectrum between being obese (Ie, where one's body weight is in the 95th percentile for age and gender) to being underweight. Salient influences on body image include the media, which can target adolescents, and peers who help shape beliefs about the perceived body ideal. Internalization of and pressures to conform to these socially prescribed body ideals help to explain associations between weight status and body image. The concepts of fat talk and weight-related bullying during adolescence greatly contribute to an overemphasis on body weight and appearance as well as the development of negative body perceptions and dissatisfaction surrounding specific body parts. This article provides an overview of the significance of adolescent development in shaping body image, the relationship between body image and adolescent weight status, and the consequences of having a negative body image during adolescence.

Adolescence is a period of immense change. It involves a transition from childhood Dependency to adult self-sufficiency.

Adolescents make significant developments in physical growth, cognition, identity, family, peers, and sexuality in order to achieve emancipation, identity formation, and assumption of functional roles.

A. Overweight And Obesity

1) *Overweight:* It Is A Condition Where Fat Deposition Is Seen In Person And The Person Will Be Having 10% More Weight Compare With The Person Ideal Body Weight
2) *Obesity:* It is a condition where a person has accumulated so much body fat that it might have a negative effect on health. If a person body weight 20% higher than the ideal body weight then he/she is considered to be obese

B. Classificaton Of Obesity

It is divided into three grades

©IJRASET: All Rights are Reserved

GRADE 1-If the BMI of the person is 25-29.9kg/m^2 is considered as grade 1 obese
GRADE 2-If the BMI of the person is >30-35kg/m^2 is considered as grade 2 obese
GRADE 3-If the BMI of the person is <35kg/m^2 is considered as grade 3 obese

C. Dietary Guidelines

1) Engaging in moderate physical activity, progressing to 30 minutes or more on most or preferably all days of the week.
2) Cutting back on dietary fat can help reduce calories and is heart-healthy. But reducing dietary fat alone- without reducing calories-will not produce weight loss.
3) Patients should utilize lifestyle therapy for at least 6 months before considering drug therapy.
4) Water can be consumed in unlimited quantity. Carbohydrate and sweetened beverages should be avoided. Fruit juice. Coffee and tea can be consumed without sugar. Alcohol should be restricted. Foods giving empty calories should be avoided
5) Red meat should be avoided. Fatty portions of chicken should be discarded. One should learn to enjoy preparation using little fat. Fish can be included in the diet. Restricted amount of eggs can be included
6) Skim milk should be used in diet. Probiotics with low fat can be included. Butter, cream and ice cream should be avoided. Cheese can be sparingly used
7) Plenty of colourful vegetables and fruits should be included in the diet. Green vegetable should be a part of every meal. This will ensure to meet the requirement of antioxidants on a low calorie diet
8) The diet should be rich in fibre. Meal should be started with salads. Diet should include whole grain, sprouted grams, unprocessed foods and natural foods can be included in raw form. Fruits can be taken as a part of snack item.

II. AIMS AND OBJECTIVES

A. To find the prevalence of overweight, non over weight in adolescence.
B. To find the weight related concern and behaviours in adolescence though questionnaire
C. To assess the nutritional status through anthropometry.
D. To elicit the information on physical activity.
E. To educate people about over weight and obesity and to implement healthy eating habits.
F. To examine the relationships between body weight perceptions, estimated body mass index, gender, and weight control behaviours in adolescents

III. MATERIALS AND METHODS

Methodology is a significant part of any research study, which enables the research to project a blue print of the research undertaken.

A. Research Design
non experimental research design.

B. Research Apporach
descriptive survey.

C. Inclusion Criteria
13-20 years old girls and boys.

D. Selection of Area:
sample was collected from government high school mallepally, sri chaitanya school tappachabutra, sri gayatri college mehndipatnam

E. Sampling
Random sampling procedure will be adopted to collect the data. An attempt was made to cover150. The sample was drawn from various school and college will be selected.

©IJRASET: All Rights are Reserved

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue VI, June 2018- Available at www.ijraset.com

F. Duration Of The Study

The study was carried for a period of 3 months ie,: during the month of janurary 2018 to march 2018.

G. Collection Of Data

it will be done by using the following methods.

H. Instruments Used

weighing scale and stadiometer.

I. Anthropometric Measurements-[Annexure-2]

it provides information on gross body size, skeletal and soft tissues development. these methods are non-invasive, inexpensive, and universally applicable and reflect nutrition and health status. following measurements were taken for each subject and bmi was calculated.

J. Questionnaire:[Annexure-1]

the content of the questionnaire contain general information, anthropometric measurement, diet information, lifestyle information, physical activity. the questionnaire contains both open ended and close ended questions.

K. General Information

it was collected to get the following details from both the groups like the personal information of the respondent i.e, name, age, gender, literacy level and occupation.

1) Food habits of the subject.
2) 24 hours dietary recall of the subject.Dietary practice.
3) questions
4) History of any disease condition.

Chi square was applied, whose formula is given below

$$X^2 = \sum_{i=1}^{r} \sum_{j=1}^{c} \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}.$$

Where,

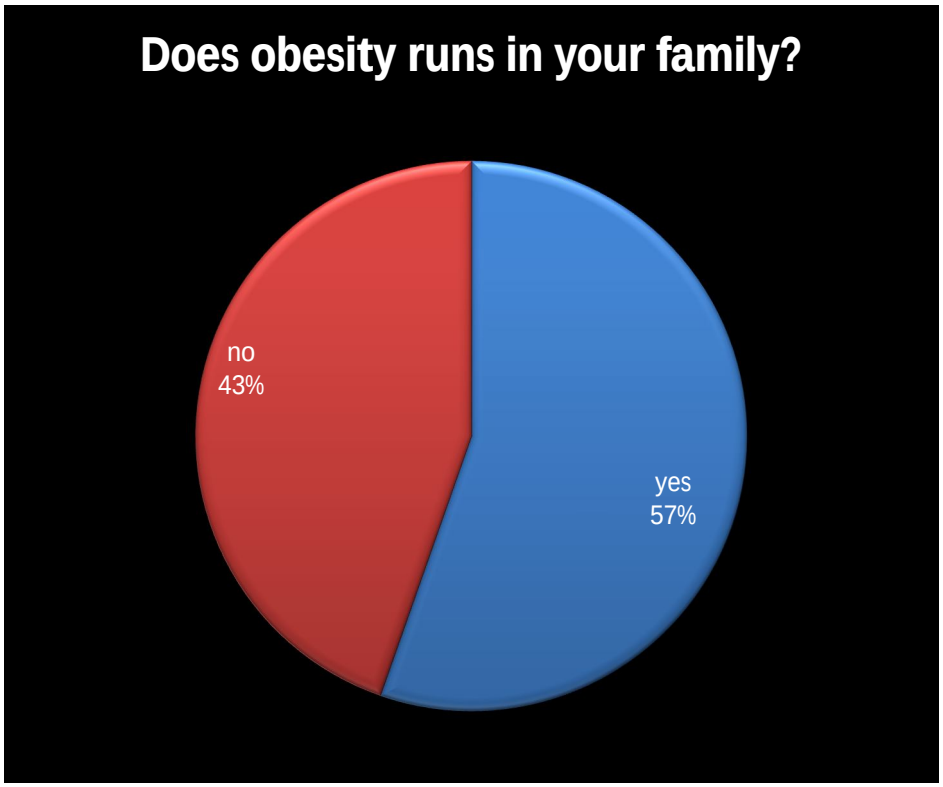
0-observed value E=Excepted value Eij= R×C÷N.

IV.RESULTS AND DISCUSSION

TABLE NO: 1.1Distribution of subjects according to their family history

CATEGORY	FREQUENCY	PERCENTAGE%
YES	82	57%
NO	68	43%
TOTAL	150	100

©IJRASET: All Rights are Reserved



A. Discussion

The above graph shows that the family history of the subjects 57% of the subjects family are suffering from obesity and 43% are free from obesity.

Category	yes	no	*Row Totals*
boys	30 (24.51) [1.23]	13 (18.49) [1.63]	43
girls	27 (32.49) [0.93]	30 (24.51) [1.23]	57
Column Totals	57	43	100 (Grand Total)

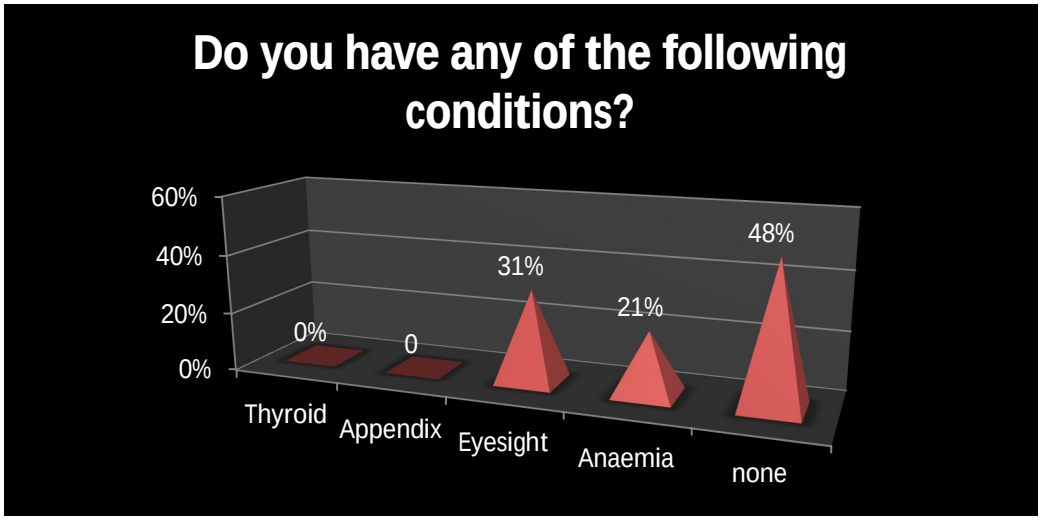
B. Note

The chi-square statistic is 5.0172.The p-value is .025097.The result is significant at <.05

Table No: 1.2 Distribution of subjects according to their health conditions

CATEGORY	FREQUENCY	PERCENTAGES%
THYROID	NIL	NIL
APPENDIX	NIL	NIL
EYESIGHT	47	31%
ANAEMIA	31	21%
NONE	72	48%
TOTAL	150	100

©IJRASET: All Rights are Reserved

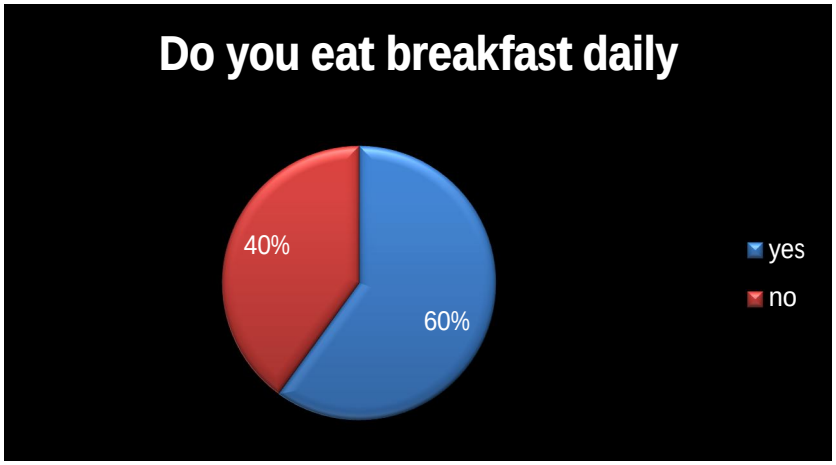


The above graph represents the health conditions of their subjects,48% is having none of the disease conditions,31% is having eyesight problem,21%are suffering from anaemic problem and none of them are suffering from any disease condition.

Category	eyesight	anaemia	none	*Row Totals*
boys	16 (15.81) [0.00]	5 (10.71) [3.04]	30 (24.48) [1.24]	51
girls	15 (15.19) [0.00]	16 (10.29) [3.17]	18 (23.52) [1.30]	49
Column Totals	31	21	48	100 (Grand Total)

Table no. 1.3 distribution of subjects according to consumption of breakfast

CATEGORY	FREQUENCY	PERCENTAGES%
YES	90%	60%
NO	60%	40%
TOTAL	150	100



discussion: the above graph represents the consumption of breakfast on daily basis out of which 60% of the subject does not skip their breakfast, and 40% skips their breakfast.

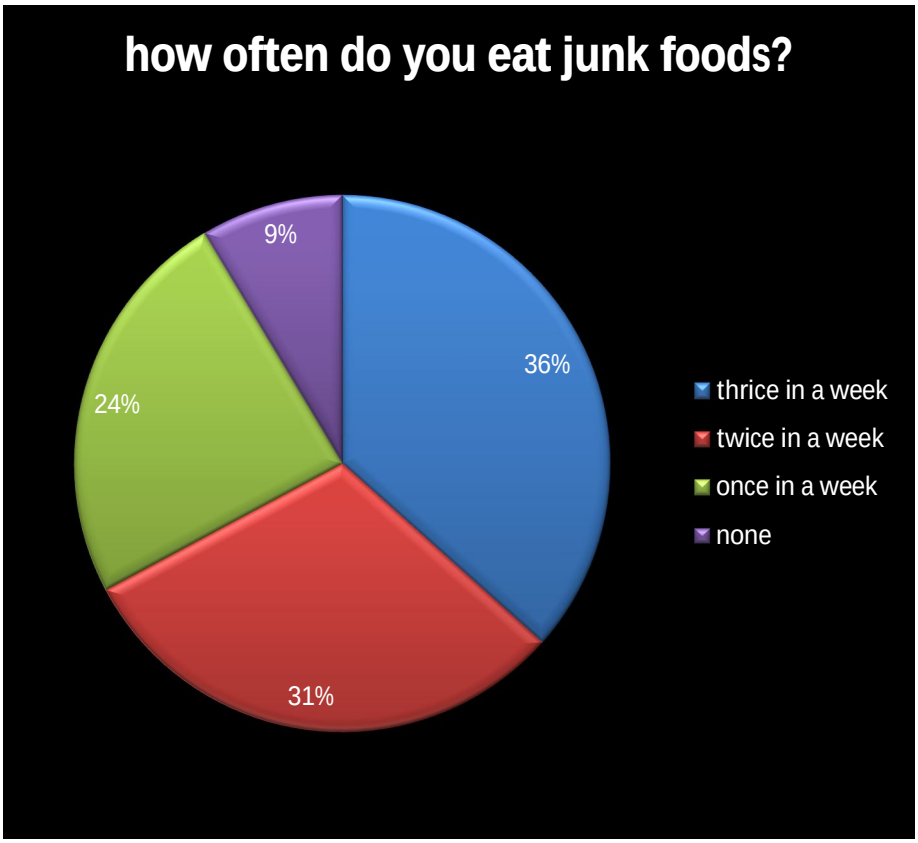
©IJRASET: All Rights are Reserved

CATEGORY	YES	NO	*ROW TOTALS*
boys	30 (36.00) [1.00]	30 (24.00) [1.50]	60
girls	30 (24.00) [1.50]	10 (16.00) [2.25]	40
Column Totals	60	40	**100 (Grand Total)**

note: the chi- square statistic is 6.25. the p- value is 0.12419. the result is significant at p<.05.

Table no: 1.4 Distribution of subjects according to consumption of junk foods

CATEGORY	FREQUENCY	PERCENTAGES%
Thrice in a week	55	36%
Twice in a week	46	31%
Once in a week	36	24%
None	13	9%
TOTAL	150	100



discussion: graph shows the consumption of junk foods in which 36% eats junk foods the in a week,31% eats twice in a week,24% eats once in a week,9% does not consume junk food at all

©IJRASET: All Rights are Reserved

Results						
Category	Thrice in a week	twice in a week	once in a week	none		*Row Totals*
boys	30 (22.68) [2.36]	15 (19.53) [1.05]	12 (15.12) [0.64]	6 (5.67) [0.02]		63
girls	6 (13.32) [4.02]	16 (11.47) [1.79]	12 (8.88) [1.10]	3 (3.33) [0.03]		37
Column Totals	36	31	24	9		100 (Grand Total)

Note: The Chi-Square Statistic Is 11.017.The P-Value Is 0.11634.The Result Is Significant At P<.05

Table no: 1.5 distribution of subjects according to their physical activity

CATEGORY	FREQUENCY	PERCENTAGES
YES	90	60%
NO	60	40%
TOTAL	150	100

Category	yes	no	*Row Totals*
boys	30 (20.00) [5.00]	20 (30.00) [3.33]	50
girls	10 (20.00) [5.00]	40 (30.00) [3.33]	50
Column Totals	40	60	**100 (Grand Total)**

Note the chi-square statistic is 16.6667 .the p-value is ..000045. The result is significant at p<0.5.

IV. SUMMARY

The increasing prevalence of obesity worldwide is a serious health hazard.Which is gaining increase importance globally and is a rapidly emerging disease in the developed world. It is a chronic condition characterized by accumulation of body fat. The present study was aimed to assess awareness among adolescents regarding high risk of becoming overweight and obesity through a well designed questionnaire which included their BMI, life style, dietary habits, physical activity,sleep pattern etc. this study was conducted to know the prevalence of weight related concern among overweight and non over weight among adolescents.

The study was conducted on adolescents and the sample size was 150 including both boys and girls,out of which 67 were boys and 83 were girls

It was found that 57% out of total sample was having normal weight, 15% were overweight, 20%underweight, 8%severely underweight, 0.6% were obese that is only 1 subject falls under obese1.

27% of the subjects lives a sedentary life were as 40% were moderate,33% were living active. 68% of the subjects considered themselves as normal were as 19% considered themselves as over weight,13% considered themselves as underweight.

It was also found that 55% of the subjects family members were having obesity,45% subjects family members were free from obesity.

The results included that 48% of the subjects were free from the disease conditions,21% were anaemic,31% were suffering from the eye sight, and none of them were having thyroid and appendix.

In present study focused their analysis on type of diet, junk food, frequency of eating pattern and eating behavior when outside home etc. because they have special role in obesity. The dietary indulgency in high fatty foods intake and sedentary life style are well known causes for overweight and obesity

It was also found 24% of the subjects eats every 2 hours, 43% eats every four hours,33% eats for six hours.60% of the subjects does not skip their morning meal (breakfast), and 40% skips their breakfast very often.

It was also found that 23% subjects eats two meals daily,47% subjects eats three meals daily,20% eats 4 meals every day,10% eats their meals more than four times.

©IJRASET: All Rights are Reserved

It was known from the results that the 36% eats junk food three times in a week,31% eats junk food twice in a week,24% eats once in a week and 9% does not eat junk food. And the stastical analysis were significant for consumption of junk food the p- value was $p<0.5$.

According to the results 42% of the subjects eats sweets daily,37% eats weekly 2-3 times, 13% eats once or twice in a week and 8% eats monthly once or twice

The percentage of additional physical activity says that 35% boys and 5% girls does physical activity were as 20% boys and 40% girls does not do so and .The chi-square statistic is 28.4512.the p-value is .61924.the result is <.00001. significant at $p<0.5$

It was found that none of the subjects is not following any treatment or using pills for weightloss

The percentage of intake of nutrition supplements includes 30% uses bournvita,21% uses horlicks, 20% uses boost, 14% uses complain,15% uses none of the nutritional supplements

The percentage of the intake of functional foods shows that 53% uses nuts, 31% uses none of the functional foods,9% uses chia seeds, 5% uses kalongi,2% ses fenugreek seeds in their diet.

It was found that 40% sleeps for 6-7 hours,27% subjects sleeps for five hours,23% sleeps for eight hours,10% sleeps for more than eight hours

It was found that the according to the mood swings it effects on the adolescents dietary habits as it was seen from the results that 37% of the subjects does not eat when their feel bore, frustrated,sad etc,30% eats more when their feel anger,10% feels eats more when their feel sad,10% eats more when their feel bore etc.

V. CONCLUSION

The present study was conducted with the objective to study the prevalence of overweight and non overweight adolescents and to create the awareness about the increasing risk of overweight and obesity in adolescents. The study was carried out by well defined questionnaire. Thus the present study concluded that prevalence of overweight and obesity is due to improper eating habit, irregular exercise, consumption of high calorie foods and junk food, due to skipping of meals, mostly due to lack of nutrient in diet and in some subject it is due to thinking that obesity is not a potentially health problem and it can be reduce my skipping of meals. Overweight was more prevalence in boys were as in girls grade 1 The study has highlighted that there is need to improve the awareness of overweight and obesity and also the risk of being underweight by educating them and explaining about the physical activity and also by making lifestyle modification like practicing healthy habit and changing dietary habit which is also essential.

From the present study we found that there is 20% underweight adolescents and 15% overweight, and 0.6% obese grade I

The World Health Organization (WHO)defines obesity as a global epidemic. Overweight and obese children are at higher risk foe developing long term chronic diseases like hypertension.

Adolescents are expected to multiple risk factors including obesity, diet, academic stress, lack of physical work apart from hereditary risk factors

The awareness was created using posters and pamphlets among the subjects that they should maintain healthy eating habits, meals should be taken on time, small and frequent meals should be taken and adequate amount of water they need to drink. The pamphlet also included five food groups and a well balanced diet plate

VI. ACKNOWLEDGEMENT

Gratitude cannot be seen or expressed; it can be felt deep in heart and is beyond description.

Although thanks are poor expression of debt of gratitude one feel, yet there is no way to express it.

A formal statement of acknowledgement will hardly meet the ends of justice in the matter of expression of my deeply felt sincere and heartiest gratitude to my research guide Ms Tanveer Fatima assistant professor, Department of Food and Nutrition Anwarul uloom college for constant encouragement, painstaking efforts in suggesting designing and improving the quality of study throughout the entire research work and consummating this manuscript.

I am very much thankful to principal, Mohd Mazher Uddin and head of the department, Ms Zoya Nureen Anwarul Uloom College for the academic support and the facilities provided to carry out the research work at the Institute. for providing me their valuable advises and constant encouragement. Not to be forgotten is my family and friends who were supportive all the way. To them I can only offer my deep appreciation for their willingness and patience.

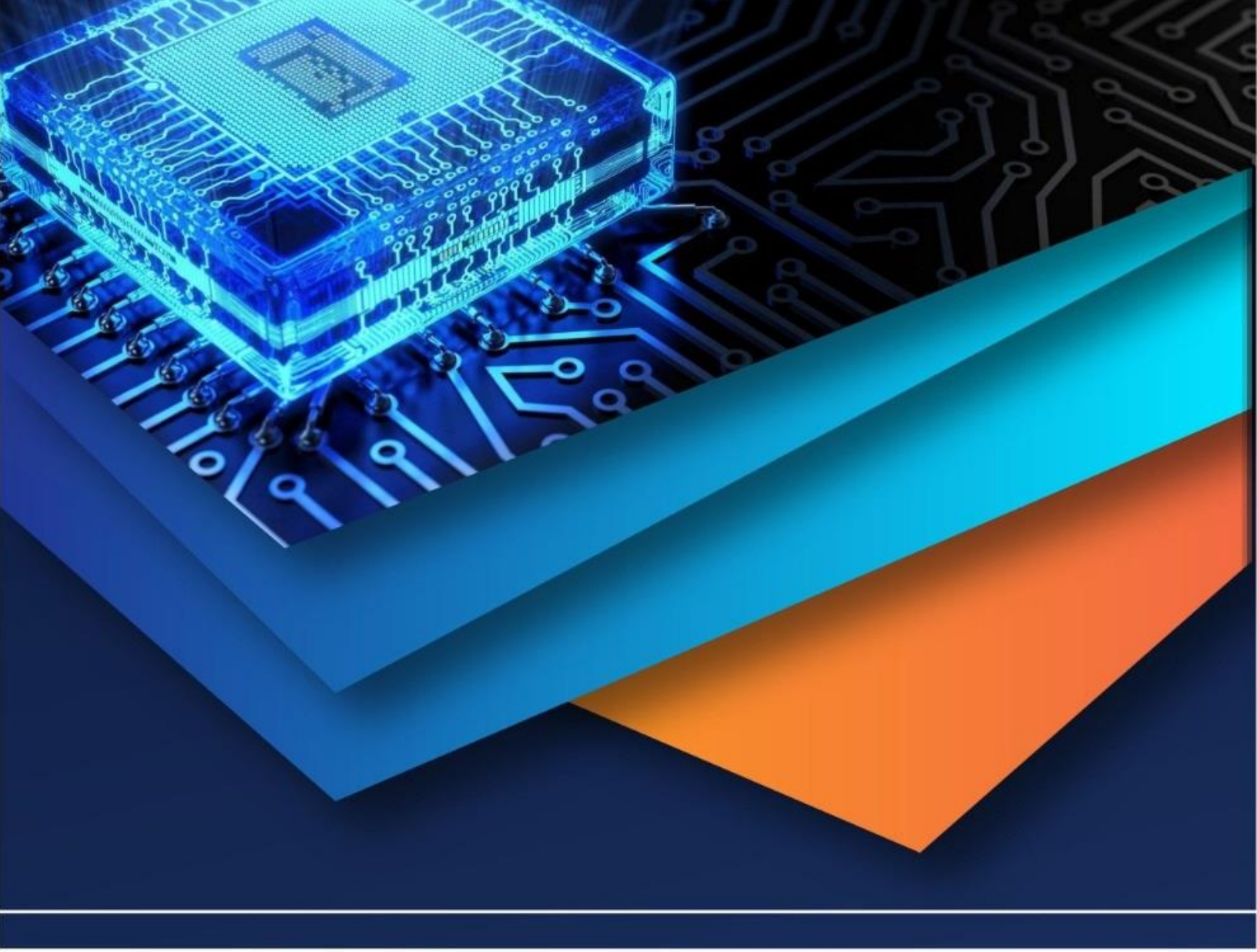
I am sincerely thankful to my parents for their constant support in all my endeavours besides being a source of inspiration and encouragement to me.

©IJRASET: All Rights are Reserved

REFERENCES

[1] Childress, A., Brewerton, T., Hodges, E., & Jarrell, The Kids' Eating Disorders Survey (KEDS): Journal of the American Academy of Child and Adolescent Psychiatry 1993 154(6):569-577
[2] French, S.A., Perry, C. L., Leon, G., & Fulkerson, Food preferences, eating patterns, and physical activity among adolescents J. A. Journal of Adolescent Health1994. Vol .27
[3] French, S. A., Perry, C. L., Leon, G. R., & Fulkerson Dieting behaviors and weight change history in female adolescents. Health Psychology1995. Vol.111/Issue
[4] B.Srilaksmi MSC, MED, MPHIL, dietetics Seventh edition published in 2014 pg(103-107)
[5] Aggarwal T 2008 prevalence of obesity among adolescents in Punjab school of Ludhiana Indian pediatrics 45:500-502.
[6] Amal sendhi ,P. shetty, A.O Musaigir2003 Prevalence of overweight and obesity among Bahraini adolescents European journal of clinical nutrition 57:471-474.
[7] Antal M, Peter S, Biro L, Nagy K, Regoly-Merei A, Areto G, Szabo C, Martos E,2005 cross section study on prevalence of obesity among boys and girls in Budapest Hungary January Annal of nutrition & metabolism 54 :171-176.
[8] Aula Laxmaian, BalakrishnaNagalla, KamasamuduramVijayaraghavan and Mohanam Nair, September2012, factors affecting prevalence of overweight among (12-17 years) urban adolescents in Hyderabad, obesity 15(6)
[9] Subramanyam V, R.J, Rafi M in kanchikanakoti child trust hospital Chennai study conducted in year 1981 and 1998 and cross section in years among prevalence of obesity,Indian pediatrics 41(2):200.
[10] Susan chin and Roberto J Rona 1974-1994 trends in overweight and obesity by cross-section study in England school and Scotland, BJM 322:211.
[11] Thakkar HK, SK Misra, SC Gupta SK Kausal, 2009 prevalence of obesity among college going girls of Agra dsistrict U.P, Department of community medicine DOI: 10.410310972870

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)