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A study to assess the knowledge regarding obesity among obese adolescent at S.K.D.J. higher secondary school in chennai.

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Abstract
*Obesity is a major public health problem and becomes an important epidemic in both developed and developing countries .Most of the studies conducted regarding to obesity . The present study was conducted to a quasi-experimental study to assess the knowledge regarding obesity among school students in S.K.D.J Hr. Secondary school.A study to assess the knowledge regarding obesity among obese adolescent at S..K.D.J. higher secondary school in thiruverkadu chennai". **Methodology:** A descriptive research design was adopted to assess the knowledge regarding obesity among adolescent school students. A total of 30 samples who fulfilled the inclusion criteria were selected convenient sampling technique.**Results :** The study revealed that,Amongst the adolescents students, the table 2 show that in the result ,7(23.33%), had inadequate knowledge,20 (66.7 %)had moderate level of knowledge an 3 (10.00%) had adequate knowledge regarding obesity among adolescent school students.The know the test score knowledge was 26.93(1.05).The mean difference score of 10.0.The calculated paired 't'test value of t=0.84 was found to be statistically highly significant at p<0.001 level. This clearly infers that administration of structure teaching program among adolescent students was found to be effective in improving the level of knowledge regarding obesity .Association of existing knowledge score with the selected demographic variables revealed that note of demographic variables (age, gender, education, type of family, food pattern has a significant association with the level of knowledge. **Conclusion :** The present study assessed the knowledge regarding obesity among obese adolescent school students and found that all 30 (100%)had adequate knowledge regarding obesity.*

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I. Introduction

Obesity is a major public health problem and becomes an important epidemic in both developed and developing countries .Since an increase in the risky lifestyles. Obesity is a global problem, affecting on estimated 300 million people worldwide and its prevalence in the recent decade had a rapid increase (178%).Obesity substantially increase in the risk of several major cancer especially post-menopausal breast cancer and endometrial cancer. Moreover, studies indicated that overweight and obesity are associated with an increase in mortality and a considerable reduction in life expectance.Obesity is among the easiest medical condition to recognize, but most difficult to treat. The health consequences of obesity will have considerable effect on future burden on health cost and services The prevalence of childhood obesity is increasing rapidly worldwide. It is associated with several risk factors for later heart disease and other chronic illness including hyper lipidaemia, hyper insulin anemia, hypertension and early atherosclerosis. There risk factors may operate through the association between child and adult obesity, but they may also act independently.

The Tamilnadu (2021) The overall prevalence rate of overweight \ obese among adults was 52.4%.More over females overweight \obese was 22.8% -34.8% and in males overweight\obese was 23.4-22%.Prevalnce of obesity\overweight (BMI)age, gender , medical status, occupation, income ,and snacks consumptions .Abdominal obesity increased in female 78.5 % than male 49.6 % .In bivariate analysis result shows age between 18 -34 were 1.55times more littlie to be obese than those who are greater than or equal to 50 years.

In 2020, Worldwide it is estimated that more than 22 million children under five year old are obese or overweight, and more than 17 million of them are in developing countries. Each of the children are at increased risk of developing type 2 diabetes, say the World Health Organization and International Diabetes Federation.

Globally in 2020 ,the number of overweight, under the age of five is estimated to be over 42 million. Close to 35 million of these are living in developing nations. Overweight as well as obesity are largely preventable .Therefore Prevention of childhood obesity needs high priority.

According to **WHO (2020) ,** it is estimated that 300 million obese people worldwide and the data from 79 developing countries and a number of industrialized countries suggest that about 22 million under five children are overweight. There is also evidence that this problem is increasing in the USA, the percentage of overweight children aged 5-14 years has doubled in the last 20 years from 15 % to 32%.

Bhatia et. al (2019), Study shows that over all incidence of obesity in the study group was 3.4% with no significant difference between boys and girls. A significantly greater number of boys (15%) as compared to girls (10.2%)were overweight more than half of the adolescents in the study group, 57.2% of boys and 52.8% of girls, spent 4 hours / day viewing TV or sitting at the computer out of the total obese children significant percentage 82.3% were non vegetarian where as only8.8% of vegetarians and non vegetarians were obese. The prevalence of obesity and overweight was 3.4% and 12.7% respectively in affluent adolescent from Ludhiana.

In Chennai (2019) obesity is defines as a condition where excess body fat negatively effects on health. WHO estimates ,41 million children under 5 years and more than 340 million adolescent in the age group of 14-19 years were having overweight or obesity in the year 2019.The increased rates of obesity among adolescent are dramatically reducing the quality of lifes in obesity adolescent are associated with complications like. Poor self-esteem ,depressive disorders sleep apnea, hypertension, artherosclerosis, types 2 diabetic mellitus and the list goes on .

II. Material and Methods

Research methodology is a way of systematically solve the research problems formulation of hypothesis ,methods adopted for data collection and statistics techniques used for data collection and statistics techniques used for analyzing data with logical reason behind it. The study was conducted with the purpose of assessment of knowledge on obesity among adolescent.

Research apporach: the aim of study research as to describe the relationship between the variable rather than to interfere the causes and effects relationship. in this study the investigator adopted an quantitative approach.

Research design: descriptive study

Research setting: The study was conducted at s.k.d.j higher secondary school at thiruverkadu.

Research population:Target population: the target population for this study was all adolescent students.

Sample and sample size: 1.the samples consist of adolescent students of s.k.d.j higher secondary school.**2.**the sample size 30 students of s.k.d.j higher secondary school.

Sampling techniques: a study sample that fulfilled the inclusive and exclusive criteria from the samples who have studying in selected school by using conveniene sampling techniques .

Criteria for sample selection: Inclusive criteria(the students who are willing to participate in the study.**&**the students only from adolescents.) **Exclusive criteria(**students who are not present at the time of data collection).

Variables of the study

Dependent variables: dependent variables is obese adolescent students

Independent variables. independent variables is knowledge regarding obesity.

Demographic variables: age, sex, religion, educational qualification, socio economic status and food pattern. the tool for the present study was developed by the investigator based on the review of related literature and expert opinion of faculty members as it was found appropriate tool for data collection from adolescents.

Description of the tool:**part 1:** screening for bmi assessment **part 2:** demographic consisted of variables includes, age, sex, religion, educational qualification, socio economic status and food patters. **part 3:** it consist of knowledge regarding obesity , thirty questions related to knowledge of obesity. Score 1 was allotted to each correct answer.Score 0 for wrong answer.

Scoring and Interpretation:

Part 1: screening was done

Part 2: it consists of demographic variables.

Part 3: it includes 30 questions each correct answer carrying 1 mark and each wrong answer carrying 0 marks.

S.NO.	KNOWLEDGE	SCORE	LEVEL OF KNOWLEDGE
1.	1-10	1-30%	Inadequate knowledge
2.	11-20	35-65%	Moderate knowledge
3.	21-30	70-100%	Adequate knowledge

Content validity of the tool: Content validity of tool was determined by the opinion of experts from the field of community health nursing the experts were asked to gave opinion on the revelance , clarity and appropriateness of the tool valuable suggestion were in corporated in the tool after discussion with guide .

Data collection procedure:: the data collection period was 3 days . Permission was obtained from the principal for conducting the S. K. D. J .higher secondary school. Using the convenient sampling technique (30 students) who fulfilled the inclusive criteria sample was selected. The purposes of the study were explained. Students were given opportunity to decline from the participation in between the study. All ethical were followed. The pre- test was conducted by the tool on knowledge regarding obesity .during data collection all the students were comfortably seated and that was administered for 30 students using self – structured questionnaires .

Data analysis:

- Data analyses is the systematic organisation of research data and the findings of the results using these data . The data obtained were analysed by using both descriptive and inferential statistics on the basis of objective and hypothesis of the study.
- The data obtained from 30 samples were analysed by using descriptive and inferential statistics as follows ,
    - Descriptive statistical method such as frequencies , percentage mean and standard deviation were used for demographic data .
    - Inferential statistical method such as level of knowledge and chi square were used to find the effectiveness and association or significance .

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II. Data Analysis

This chapter Deals with analysis and interpretation of the data collected from30.adolescents students. The data was organised , tabulated and analysed according to the objectives .The findings are presented under the following topics.

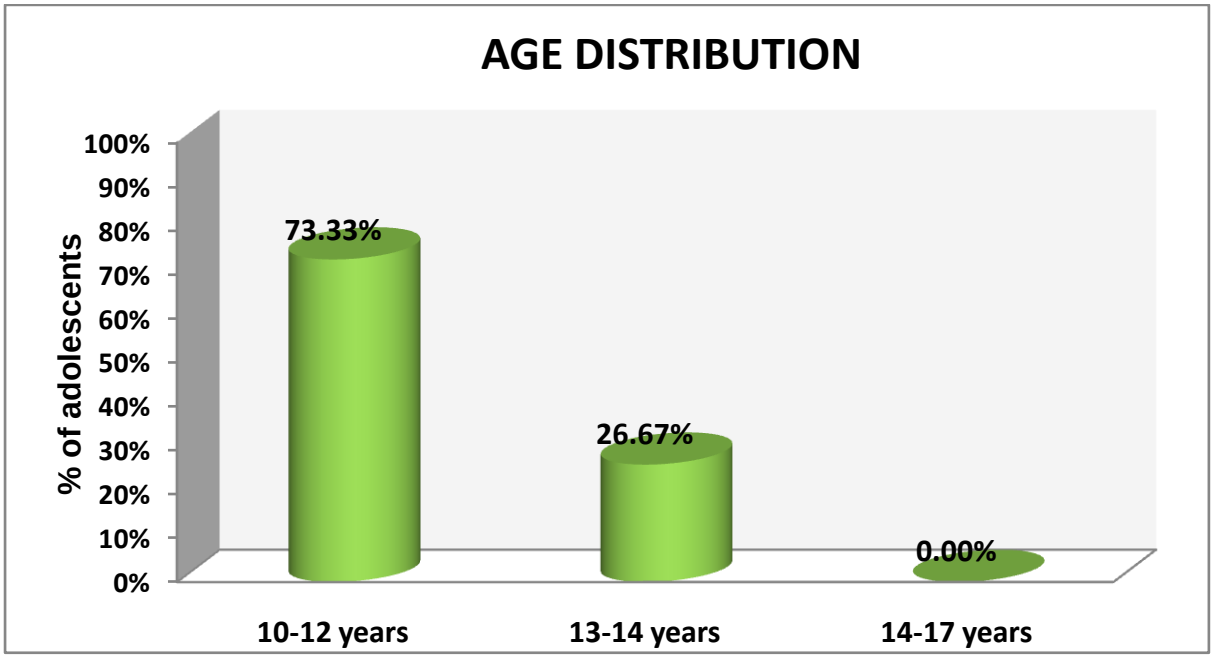
ORGANISATION OF THE DATA

1. Description of the demographic variables among adolescent students.
2. Assessment of level of knowledge regarding obesity among adolescent students.

1.DESCRIPTIONOF THE DEMOGRAPHIC VARIABLE OF ADOLESCENT STUDENTS

Table 1: Frequency and percentage distribution of demographic variables of adolescents.

Demographic variables		Number of adolescents	%
Age	10-12 years	22	73.33%
	13-14 years	8	26.67%
	14-17 years	0	0.00%
Gender	Male	14	46.67%
	Female	16	53.33%
Religion	Hindu	27	90.00%
	Muslim	2	6.67%
	Christian	1	3.33%
SocioEconomicStatus	Below poverty	0	0.00%
	Low	9	30.00%
	Middle	21	70.00%
	High	0	0.00%
Food pattern	Vegetarian	9	30.00%
	Non Vegetarian	21	70.00%
Type of family	Joint Family	8	26.67%
	Nuclear Family	22	73.33%
Educational status	7-8 standard	22	73.33%
	8-9 standard.	8	26.67%
	9-10 standard.	0	0.00%
	10-12 standard	0	0.00%



2.**ASSESSMENT OF LEVEL OF KNOWLEDGE REGARDING OBESITY AMONG ADOLESCENT STUDENTS**

Table2 :Frequency and percentage distribution of level of knowledge regarding Obesity among adolescents student.

Knowledge	Inadequate (1-10)		Moderate (11-20)		Adequate (21-30)	
	No	%	No	%	No	%
Pre test	7	23.33%	20	66.67%	3	10.00%

Table No.2shows the percentage level of knowledge score among adolescents. In general, 23.33% of the adolescents are having inadequate level of knowledge score, 66.67% of them having moderate level of knowledge score and 10% of them are having adequate level of knowledge score regarding obesity among adolescent students.

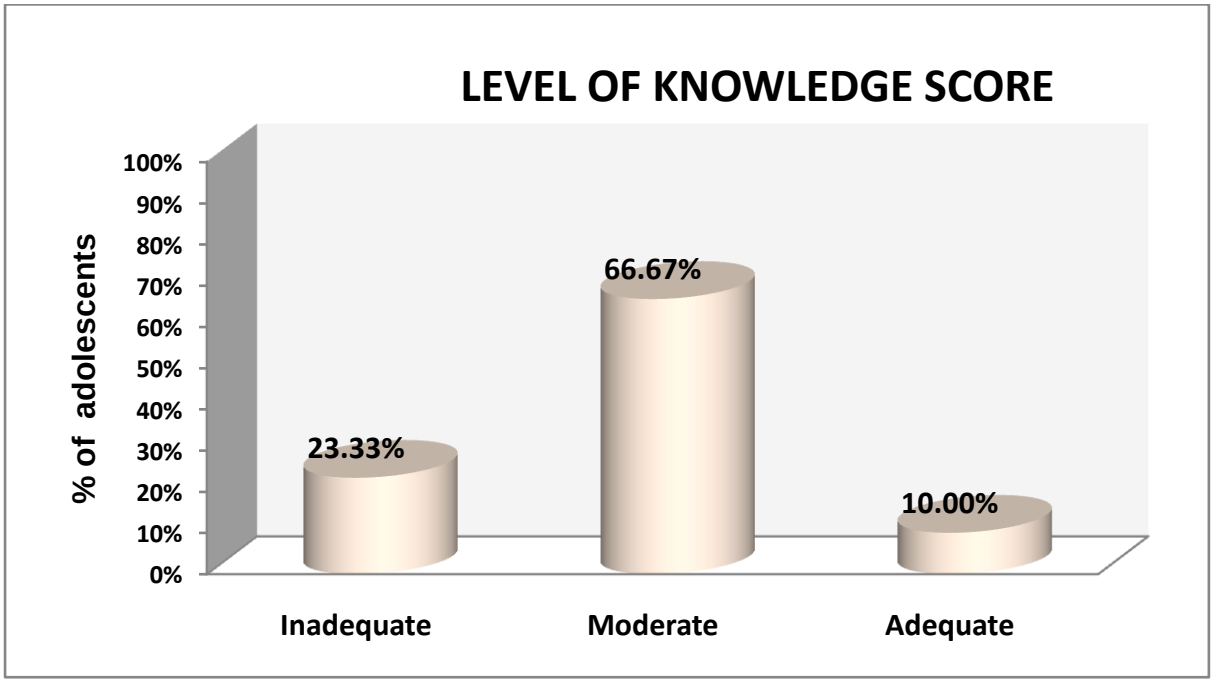


Figure no: 2thepercentage distribution of level of knowledge regarding obesity among adolescent students.

3.**TO KNOW THE LEVEL OF KNOWLEDGE REGARDING OBESITY AMONG ADOLESCENT STUDENTS.**

Table 3: To know the level of knowledge regarding obesity among adolescent students.

	Max score	**Mean score**	**% of Knowledge score**	**Mean Knowledge score with 95% Confidence interval**	**Percentage of Knowledge score with 95% Confidence interval**
Knowledge score	30	18.97	63.23%	18.97(17.88 –20.06)	63.23%(59.60% – 66.87%)

Table no 3 shows the generalization of Obesity knowledge score among adolescents. Adolescents average management knowledge score is 63.23% Generalization of knowledge score was calculated using mean with 95% CI and proportion with 95% This clearly infers that administration of knowledge among adolescent students was found to be effective in improving the level of knowledge regarding obesity among adolescent students.

SECTION B : ASSOCIATION BETWEEN LEVEL OF OBESE KNOWLEDGE SCORE AND ADOLESCENT DEMOGRAPHIC VARIABLES.

Association of level of knowledge regarding obesity among adolescent among demographic variables.

Demographic variables		Level of knowledge score				n	Chi square test
		Inadequate		Moderate/Adequate			
		n	%	n	%		
Age	10-12 years	6	27.27%	16	72.73%	22	χ2=0.72 p=0.40(NS)
	13-14 years	1	12.50%	7	87.50%	8	
	14-17 years	0	0.00%	0	0.00%	0	
Gender	Male	1	7.14%	13	92.86%	14	**χ2=3.85 p=0.05*(S)**
	Female	6	37.50%	10	62.50%	16	
Religion	Hindu	7	25.93%	20	74.07%	27	χ2=1.01 p=0.60(NS)
	Muslim	0	0.00%	2	100.00%	2	
	Christian	0	0.00%	1	100.00%	1	
Socio Economic Status	Below poverty	0	0.00%	0	0.00%	0	**χ2=7.46 p=0.01**(S)**
	Low	5	55.56%	4	44.44%	9	
	Middle	2	9.52%	19	90.48%	21	
	High	0	0.00%	0	0.00%	0	
Food pattern	Vegetarian	3	33.33%	6	66.67%	9	χ2=0.72 p=0.40(NS)
	Non Vegetarian	4	19.05%	17	80.95%	21	
Type of family	Joint Family	0	0.00%	8	100.00%	8	**χ2=5.19 p=0.05*(S)**
	Nuclear Family	7	31.82%	15	68.18%	22	
Educational status	7-8 standard	7	31.82%	15	68.18%	22	χ2=3.32 p=0.07(NS)
	8-9 standard.	0	0.00%	8	100.00%	8	
	9-10 standard.	0	0.00%	0	0.00%	0	
	10-12 standard	0	0.00%	0	0.00%	0	

$p \leq 0.05$ significant $p \leq 0.01$ highly significant

Figure no: 10-12, Table 5 shows the association between the level of obesity knowledge score and adolescents demographic variable. Male adolescents , joint family adolescents and middle income adolescents are having more knowledge score than others. Statistical significance was assessed using chi square test.

IV. Results

The results out of 30 samples,7 (23.33%) had inadequate knowledge, and 20 (66.7%) had moderate level of knowledge an 3 (10.00%)had adequate knowledge regarding obesity among adolescent. The demographic variables of age had shown statistically significant association with the level of knowledge regarding obesity among adolescent students at $p < 0.05$level.And there is no association between the age, educational status, gender, religion, socio-economic status, food pattern, type of family .

- ✓ Subjects belonged to the age of 10-12 years had more knowledge (73.33%)were aged when compared to the other age group.
- ✓ Subjects belonged to the religion of hindu had more knowledge (90.00%)were hindus when compared to other religion.
- ✓ Subjects belonged to the type of family had more knowledge (73.33%)belonged to nuclear family when compared to other type.

V. Conclusion:

The present study assessed the knowledge of obesity .the study findings revealed to that there was significant improvement. the significant at $p<0.05$ shows that the effectiveness of level of knowledge. the findings of the study demonstrated that on educate session increase the knowledge and compliance.

References

BOOKS

[1]. American Academy of Pediatrics (1999), **"Pediatric Education for Pre hospital Professional"**, Second edition, USA, Jones and Barlett Publishers.
[2]. AnupamSacdev , A k Dutta (2012) **"Advance in pediatrics"** 2nd edition , volume -2 Jaypee Brothers publishers New Delhi Pp 1694-1701.
[3]. Ball WJ, Binder RC (2009), **"Pediatric Nursing Caring for Children",** fourth edition , NewDelhi , Dorling Kindersley Pvt Ltd.
[4]. Basanvanthappa .B.T. (2001)**"Nursing Theories",** first edition, New Delhi, Jaypee Brother Medical Publishers.
[5]. Basanvanthappa. B.T.(1998) **"Nursing Research" ,** first edition, New Delhi, Jaypee Brother Medical Publishers.
[6]. Dorothy. R. Marlow Barbara A(1997). Redding,**" Text book of pediatric Nursing" ,**6th edition Reed Elsevier India Pp 1101-1104.
[7]. Dr.Subbarao,(2002) **"Psychology and sociology for paramedicals"** ‗jaypee brothers , 1st edition Pp 12-13.
[8]. Kasturisundar Rao (2000), **"Introduction to community Health Nursing",** 3rd edition kuv Mathew for BI: Chennai, Pp 479-80.
[9]. Kliegman. Behrman Jenson. Stanton (2008) **"Nelson Textbook of pediatrics"** Volume1 Part I- XVI 18th edition, Reed Elsevier India Pp 38-59.
[10]. Mahajan. BK, (2010), **"Methods in Biostatistics for Medical Students and Research Workers",** 7th Edition, New Delhi, Jaypee Publications, and Pp: 130 – 174.
[11]. Manivannan.C (2010), " **Text Book Of Pediatrics",** 2nd edition, EMMESS Medical Publishers, Banglore, Pp 378-383.
[12]. Marilyn J. Hokenberry .David Wilson.(1999) **"Essentials of pediatric Nursing"**, 8th edition Elsevier Publication Haryana, Pp 42, 560, 327.
[13]. OP Ghai Vinod k. Paul Arvind Bagga, (1982), **"Essentials pediatrics seventh Edition"**, CBS publishers NewDelhi Pp35- 39.
[14]. Parul Dutta (2009) **"Text book of pediatric Nursing"**, 2nd edition Jaypee brother's Pp 186-189.
[15]. Polit& Beck, (2012), **"Nursing Research",** 9th Edition, New Delhi, Wolters Kluwer, Pp: 73 – 433.
[16]. Potter and Perry, (2005), **"Fundamentals of nursing",** ‗6th Edition, New Delhi, Elsevier publications, Pp: 25-9.
[17]. Suresh K Sharma, (2011), **"Nursing Research & Statistics",** India, Elsevier Publications, Pp: 110 – 112,351 -354.
[18]. Suresh K Sharma, (2011), **"Nursing Research & Statistics",** India, Elsevier Publications, Pp: 110 – 112,351 -354.
[19]. Terri kyle (2009) ‗**"Essentials of pediatrics Nursing"**, Second Edition Wolters Kluwer, New Delhi Pp 148, 156-157, 179- 180.
[20]. Tambulwadkar, (2005), **"Pediatric Nursing"**, First edition, VoraMedicalPublishers.

JOURNAL REFERENCE

[21]. Ancy Paul (2012), " Prevalence of obesity among school children", **Kerala Nursing Forum**, Vol. 7(1); Pp: 36-43.
[22]. Edna Sweerie (2013), "Effectiveness of educative supportive intervention (esi) on prevention of childhood obestiy among school children", **TNNMC**, Vol. 1(2); Pp: 16-18.
[23]. Beg (2013), "Obesity", **current medical journal of India**, Vol. XIX(5); Pp:4452
[24]. Kamatchi(2010), "Terminals of obesity among school children", **The Nurse**, Vol.2(2); Pp:14-16.
[25]. JuliceVarughese (2012), "Eating behaviour in obese and non-obese school children", **The Nurse**, Vol.4(5); Pp: 13-16.
[26]. SudhaKhurana (2013), "Diet and obesity", **Current Medical Journal of India**, Vol.XIX(9); Pp:49-52.
[27]. "Obesity"(2014), **Health**, Vol.92(7), Pp:36,37.
[28]. Physical activity in children(2014), **Health**, Vol.92(3); Pp: 28-31.
[29]. TulayKuzlu (2010), " Factors of obesity ", **Iranian red crescent medical journal**, vol.5(8); Pp: 18.
[30]. Theenaxavier (2011), Tv viewing and obesity", **Journal of obesity**, vol.20(15); Pp: 1-7.
[31]. Rajaat Vohra (2011) , "Overweight and obesity among school children",
[32]. **Journal of family and community medicine**, vol.7(4); Pp: 5-8.
[33]. M. ShasidharKotian (2007), "Prevalance of obesity and overweight among school children", **Indian journal of community medicine**, vol.16(4); Pp:18-22.
[34]. Parvaneh Reza Soltani (2012), "Obesity in school children", **Iranian journal of nursing and midwifery**, vol.5(3); Pp: 22-26.
[35]. Mrs.J. Edna Sweenie (2013) , "Effectiveness of Educative supportive interventions on prevention of childhood obesity among school children ", **Journal of Pediatric Nursing**, vol.1(2), Pp: 16-1
[36]. Dorothy Jaganathan (2014), "Dietary pattern of obese children", **Journal of obesity**, vol.13(3), Pp: 8-12.

[37]. SasikalaJavali (2012)," Relationship of childhood and parental obesity", **Food**
[38]. **Science Research Journal**, vol.12 (3),Pp: 24-26.
[39]. MichiyoYamakawa(2013), "Breast feeding and overweight" **Journal of**
[40]. **pediatric sciences**", vol.1(3), Pp: 6-10.

NET REFRENCE

[41]. http://www.ncbi.nlm.nih.gov/pubmed/19556887
[42]. www.google.com
[43]. www. Springerlink.com □http:// onlinelibrary.wiley.com
[44]. www. pubMed.com.http://static.Pubmed

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