

**A STUDY TO ASSESS THE NUTRITIONAL STATUS AMONG
ADOLESCENT GIRLS AT SELECTED SCHOOL,CHENGALPET
DISTRICT.**



**A PROJECT WORK SUBMITTED TO SATHYABAMA INSTITUTE
OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
CHENNAI**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN NURSING
2019-2023**



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**BY
MATHAVAN.M
SWARNALAKSHMI.G**

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2019 - 2023

BONAFIDE CERTIFICATE

This is a bonafide work done by **Mathavan M** and **Swarnalakshmi G**
B.Sc (N) III Year, Sathyabama College of Nursing, Sathyabama Institute
of Science and Technology , Chennai, submitted in partial fulfilment for the
Degree of Bachelor of Science in Nursing under the Sathyabama Institute of
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ENDORSEMENT BY THE RESEARCH GUIDE

This is to certify the project work entitled “A study to assess the nutritional status among adolescent girls at selected school, Chengalpattu district.” is a bonafide research work done by Mathavan.M and Swarnalakshmi.G in partial fulfillment of the requirement for the degree of Bachelor of science in nursing.



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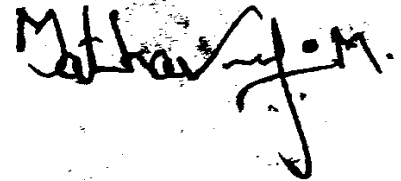
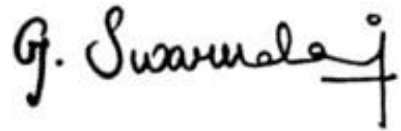
DECLARATION

We hereby declare that the present project report entitled “A study to assess the nutritional status among adolescent girls at selected school, chengalpet district”. Is the outcome of the original research work undertaken and carried out by us under the guidance of Mrs.thivya Msc (N), Sathyabama College of Nursing, Chennai.

We also declare that the material of this project report as not formed in anywhere, the basis for the award of any degree in this university or any other university.

BY

(Sathyabama college of nursing)

A handwritten signature in black ink, appearing to read 'M. Thivya', with a stylized flourish at the end.A handwritten signature in black ink, appearing to read 'G. Suresh', with a stylized flourish at the end.

ACKNOWLEDGEMENT

“He makes all things beautiful in his time”

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ABSTRACT

The world population is believed to have reached over 6.6 billion, 19% of world's populations-around 1200 million persons are between 10-19 years of age. This proportion of population faces a series of serious nutritional challenges not only affecting their growth and development but also their livelihood as adults¹. Yet adolescents remain a largely neglected, difficult-to- measure, and hard-to-reach population, in which the needs of adolescent girls in particular are often ignored. Adolescence is a particularly unique period in life because it is a time of intense physical, psychosocial, and cognitive development. Increased nutritional needs at this juncture relate to the fact that adolescents gain up to 50% of their adult weight, more than 20% of their adult height, and 50% of their adult skeletal mass during this period. Caloric and protein requirements are maximal. Increased physical activity, combined with poor eating habits and other considerations, e.g. menstruation and pregnancy, contribute to accentuating the potential risk for adolescents of poor nutrition. The main nutrition problems affecting adolescent populations worldwide include under nutrition, Iron deficiency and anemia; Iodine deficiency; Vitamin A deficiency; Calcium deficiency and other specific nutrient deficiencies like zinc, foliate, and obesity

A study to assess the nutritional status among adolescent girls at selected school, Chengalpattu district, Tamilnadu. The objectives are to assess the nutritional status among adolescent girls at selected school and to associate the nutritional status of selected demographic variables of girls of 10-16 years, age group, a sample of 30 girls were selected in school by using simple random sampling fulfilled the inclusion criteria were selected for the study. An extensive review of literature and guidance by experts formed the foundation to the development of the study. The data collection tool was validated and reliability was established. The data collection for the study was done from the collected data was tabulated and analysed. The frequency distribution in the study shows that majority 16() were belongs to underweight, 10() of them are normal and 4() of them are obese. There is a significant association of assessment of nutritional status among adolescent girls with demographic variables like age, religion, type of family, educational status, occupational status, monthly income, dietary habits, height in cm and weight in kg.

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CHAPTER -1

INTRODUCTION

“The food you eat can be either the safest and most powerful form of medicine or the slowest form of poison”

‘Let food be the medicine and let the medicine be food’

Nutrition has an important bearing on age at menarche. Adolescents gain 50% of adult weight and more than 20% of their adult height during this period. Menarche is attained earlier by well nourished adolescents¹ A minimal amount of body fat is essential for initiation of menarche.

The prevalence of malnutrition among adolescent girls is high in India. Adolescence is the transition period between childhood and adulthood where rapid Physical, mental, emotional and social development takes place. Nutritional status during adolescence plays an important role in the human lifecycle that influences growth and development.

There has been an increased interest in adolescent girls' nutrition and health as an entry point to improve maternal and child nutrition pre-pregnancy, and in order to break the cycle of malnutrition and growth failure . Undernourished and stunted mothers are at risk of restricted growth of the fetus and giving birth to undernourished offsprings. These children are then at risk of becoming stunted themselves . Moreover, the nutritional status of the mother will not only affect the nutritional status of her child, but possibly also the health of her future grandchildren.

Adolescent girls are at greatest risk for nutrition deficiency and it badly affects their overall development. Malnutrition has long term effects on the physical and mental health of adolescents. This period is characterized by an exceptionally rapid rate of growth. The peak rates of growth are exceeded only during the fetal life and early infancy. Adolescents are the best human resources. But for many years, their health has been neglected because they were considered to be less vulnerable to disease than the young children or the very old. Their health attracted global attention in the last decade only. Unfortunately assessment of nutritional status of adolescent girls has been the latest explored area of research particularly in rural India. The findings of studies on school children can not be extrapolated to adolescent

girls, as their school enrollment as well as sustenance are less than that of boys. It is likely that girls not attending schools belonged to disadvantaged section of society and contribute significantly in domestic and peridomestic activities, thereby jeopardizing their health.

Adolescence as the age group of 10-19 years. They are considered as a nutritionally vulnerable stage and distinguished from other stage of the life cycle with features of rapid growth and development. Several studies throughout the world indicated a high prevalence of malnutrition in this stage, either as a form of overweight or underweight.

Now it is well documented that being overweight and obese during childhood and adolescence is a risk factor in long-term health problems such as diabetes, cardiovascular diseases and premature death, whereas inadequate diet during adolescent years can result in many nutrition related disorders.

Addressing the nutritional needs of adolescents could be an important step towards breaking the vicious cycle of intergenerational malnutrition. Nutritional requirements during this period increase tremendously compared to preceding years of growth. The nutritional status of adolescent girls, the future mothers, contributes significantly to the nutritional status of the community. The present study was aimed to assess the current nutritional status of the adolescent girls.

In India urban population is about 28% out of which around 45% are living in metropolitan cities. About 30% of the metropolitan population is living in slum clusters and resettlement colonies. Neglect of this huge population will have major repercussions in the future.

The United Nations' Sub Committee on Nutrition meeting held in Oslo in 1998 concluded that more data on health and nutrition of school age children are needed to assess their scale of problem. It also believed that the scale of nutritional problems may have been previously under estimated.

Adolescent girls thus need to be adequately nourished to ensure their own optimal growth and maturation, in preparation for their future reproductive capacity during this crucial period. The physical and psychosocial changes occurring during childhood and adolescence make this age group more vulnerable to health and nutrition concerns compared to others. Because of pubertal growth and menarche during this period, the adolescents are requiring the highest quantity and quality nutrients. Consequently, if those requirements and quality of nutrients

for adolescents are not met, malnutrition happens, which influences growth, development, and health of adolescents

Traditionally, the main health indicator used by health planners has been mortality rates. Adolescents have the lowest mortality among the different age groups and have therefore received low priority. However, recent studies have shown that the prevalence of malnutrition and anemia is high in these age groups(3-5). The present study was done with the objective of assessing the nutritional status of adolescent children attending a school in rural north India.

Under-nutrition among adolescent girls is a major public health problem leading on impaired growth (Kalhan et al,2010). Nutritional deficiencies has far reaching consequences, especially in adolescent girls. If their nutritional needs are not met, they are likely to give birth to undernourished children, thus transmitting under nutrition to future generations (Mulugeta et al, 2009) Under-nutrition among adolescent girls is a major public health problem leading on impaired growth (Kalhan et al,2010).

BACKGROUND OF THE STUDY

Adolescence is an important stage of growth and development in the lifespan.

Unique changes that occurs in an individual during this period are accompanied by progressive achievement of biological maturity.

This period is very crucial since these are the formative years in the life of an individual when major physical, psychological and behavioural changes takes place .Adolescent may represent a window of opportunity to prepare nutritionally for the healthy adult life.

Adolescent girls, constituting nearly one tenth of Indian population ,form a crucial segment of the society.

NEED OF THE STUDY

In India, malnutrition in adolescent girls is a big challenge .According to UNICEF,13.56% of girls are affected with anaemia –a form of malnutrition. The national family health surveys reported that about 41.9% adolescent girls were underweight while 4.2% girls were overweight 15 whereas about 57.2%

women in the age group of 15-49 years {including adolescent girls} were anaemic.16 addressing the burden of malnutrition among adolescent girls is important to support effective intervention to achieve the sustainable development goal of ending malnutrition by 2030.

Stunting in adolescence is 32% in India, 36% in Bangladesh, and 47% in Nepal, and low body mass index (BMI) is 53% in India, 50% in Bangladesh, and 36% in Nepal. In Bangladesh, 25–27% of adolescent girls are anaemic (haemoglobin <12 g/dL), and 30% in the age-group of 14–18 years are iron-deficient (serum transferrin saturation [TS] <15%). Half (47–54%) of school going children are vitamin A-deficient. The level of zinc deficiency in adolescence is unknown. The average per-capita energy intake by rural adolescent girls is 81% of the recommended dietary allowance (RDA) for age. Protein, iron, and calcium are important for growth spurt and skeletal development in adolescence. More than 60% of schoolgirls aged 10–16 years in Dhaka city consume protein, iron, and calcium less than 75% of the RDA for age . The high prevalence of chronic energy and micronutrient deficiencies of today's adolescent girls is directly linked to the quality of the next generation. Without addressing these deficiencies, the vicious cycle of inter-generational under nutrition, chronic diseases, and poverty perpetuates.

STATEMENT

“a study to assess the nutritional status among adolescent girls at selected school,chengalpattu district”

OPERATIONAL DEFINITION

ASSESS:

It is a process by which information is obtained relative to some known objective or goal.

{or}

It is the process of documenting usually in measurable terms, knowledge , skills, attitudes and beliefs.

NUTRITION:

The process of taking in food and using it for growth, metabolism and repair.

The process of nourishing or being nourished, especially the process by which a living organism assimilates food and uses it for growth and for replacement of tissue.

ADOLESCENT:

Adolescence is a transitional stage of physical and mental development the occurs between childhood and adulthood.

Period of life between 10-19 years.

OBJECTIVES

- To assess the nutritional status of adolescent girls in selected school,chengalpet district
- To associate the nutritional status in selected demographic variables.

CHAPTER -2

REVIEW OF LITERATURE

SHARJA PHULJHELE{2021} The prevalence of malnutrition among adolescent girls is high in India. Malnutrition has long term effects on the physical and mental health of adolescents. To find out the prevalence of underweight, thinness, 36.04% had thinness and 9.37% were overweight. 28.12% had conjunctival pallor (anaemia), 4.80% had dental caries, 1.46% had vitamin B complex deficiency and 1.04% had signs of vitamin A deficiency. More than half of the (57.92%) late adolescent school girls were stunted, 43.33% were having some form of thinness and 28.12% had clinical anaemia. Effective implementation of overweight and stunting and correlate with a dietary pattern, sociodemographic profile and prevalence of clinical anemia and signs of vitamin and mineral deficiency. This is a community-based cross-sectional observational study conducted for 1 year (Jan 2019 – Dec 2019), including a total of 480 adolescent girls who were attending government high school. 480 girls were interviewed. As per WHO nutritional measurement criteria, adolescent girls were classified as per their anthropometric criteria, 50.63% of girls were moderately stunted and 7.29% had severe stunting. 7.29% of girls were in the category of severe government programs such as the RKSK and Sabla Yojana program will be a paradigm shift from the existing clinic-based services to promotion and prevention and reaching adolescents in their environment, such as in schools, families and communities. Skills-based nutrition education for the family and effective infection control and routine health assessment of school-going girls should be done.

GEBREHIWOT HADUSH{2021} A body of evidences showed that adolescent under nutrition is a serious public health problem in developing countries including Ethiopia. Adolescence period is the last chance for curbing the consequences of under nutrition and breaking the intergenerational cycle of malnutrition and poor health. Despite this fact, they have been considered as a low-risk group for poor health and nutrition problems than the young children or the very old. This study aimed to assess prevalence of nutritional status and associated factors among adolescent girls in Afar, Northeastern Ethiopia, 2017. A school-based cross-sectional study design was conducted among 736 adolescent girls from February 15 to March 05, 2017 in Afar, Northeastern Ethiopia, 2017. Multi-stage sampling technique was used to select study participants. A pretested and structured interviewer-administered questionnaire and anthropometric measurements was used to collect the data. The collected data were entered in to Epi Data version 3.1 and exported to SPSS version 20.0

for further statistical analysis. Body Mass Index for age (thinness) and height for age (stunting) was used to assess under nutrition of adolescent girls by using the new 2007 WHO Growth Reference. Data were analyzed using bivariate and multivariable logistic regression. The degree of association between dependent and independent variables were assessed using odds ratio with 95% confidence interval, and variables with p value < 0.05 were considered significant. The study revealed that the prevalence of thinness and stunting were 15.8% (95% CI 13.3–18.5%) and 26.6% (95% CI 23.5–29.9%), respectively. Being at an early adolescent age (AOR = 2.89, 95% CI 1.23–6.81) for thinness and being at an early adolescent age (AOR = 1.96, 95% CI 1.02–3.74), household food insecure (AOR = 2.88, 95% CI 1.15–7.21), menstruation status (AOR = 2.42, 95% CI 1.03–5.71), and availability of home latrine (AOR = 3.26, 95% CI 1.15–4.42) for stunting were the independent predictors among the adolescent girls. The prevalence of thinness and stunting is above the public health importance threshold level. Thus, Multi-sector-centered nutrition interventions to improve nutritional status of disadvantaged adolescent girls through providing comprehensive nutritional assessment and counseling services at community, school, and health facility levels, and creating household's income-generating activities are recommended before they reach conception to break the intergenerational cycle effect of malnutrition.

KENDA CUNNINGHAM {2020} conducted study on nutritional status and knowledge, beliefs, practices and access to services among adolescent girls. Despite growing recognition of the importance of the adolescent period for health and nutritional well-being, scant evidence exists to inform interventions. Beyond limited understanding of adolescents' knowledge and practices, gaps in adolescent research also include limited understanding of how best to reach them with programs and policies and how the contexts in which they live present barriers and opportunities. Given that most studies on adolescent health and nutrition have used data from surveys of women of reproductive age, this study also sought to understand variation among younger and older adolescents and those who were already mothers. The prevalence of underweight was highest in younger adolescents, whereas the prevalence of overweight/obesity in mothers was double that of the other 2 groups. More younger adolescents were in school, but fewer owned a mobile phone or had radio access. Exposure, knowledge, and behaviors across thematic areas also differed by stage of adolescence. These findings have implications for Suaahara and other programs and policies aiming to support the health and nutritional well-being of adolescent girls. Heterogeneity

among adolescent girls should be considered when identifying which interventions are needed and have the most potential for each subpopulation

MOLLAHAHSSAY{2020} Adolescence is an essential stage in the human life cycle, a transition period between childhood and adulthood that is characterized by rapid growth spurt in which nutritional requirement is high. Adolescents are risk groups for malnutrition, but they are not part of a target in many intervention strategies. Hence, this study was aimed at assessing nutritional status of adolescent girls and its associated factors. Institutional based cross-sectional study design was employed among randomly selected 348 school going adolescent girls. Data were entered into Epi Info and transported to SPSS version 20 for further analysis. Binary logistic regression analysis was used to identify predictors of nutritional status of adolescent girls at value <0.05 and 95% confidence level. This study revealed that 22.9% and 8.82% of school adolescent girls were stunted and thin, respectively. Being at early adolescent age (14-15 years) [AOR = 1.4, 95% CI (1.04–4.28)], ownership of phone [AOR = 3.3, 95% CI (1.55–7.02)], and dietary diversity score of <4 food groups [AOR = 2.2, 95% CI (1.4–4.54)] were some of the potential predictors of stunting. Similarly, dietary diversity score of <4 food groups [AOR = 1.8, 95% CI (1.14–4.38)] and low food consumption [AOR = 3, 95% CI (1.15–7.90)] were some of the potential predictors of thinness. The prevalence of both stunting and thinness is a public health problem in the study area. Early adolescent age (10–14 years), ownership of phone, and dietary diversity score of <4 food groups were independent predictors of stunting. Dietary diversity score of <4 food groups and eating less than usual were independent predictors of thinness. An integrated nutritional intervention and health related services that meet the needs of adolescent girls in the school community have to be established and strengthened. Since adolescent age is period of growth and development in which growth spurt and nutritional requirement are high, adolescents should be provided with enough meals and diversified foods.

RAGINI KULKARNI{2019} conducted study on nutritional status of adolescent girls in tribal blocks of Maharashtra. Under nutrition among adolescents in tribal areas is an area of concern in India. This study aims to assess nutritional status of adolescent girls and to study their hygienic practices and awareness regarding adolescent program. Two blocks (Palghar and Dahanu) in Palghar district of Maharashtra. The present study was a community-based cross-sectional study conducted among 240 unmarried adolescent girls in ten villages of the study area. The mean age of adolescent girls was 14.5 ± 1.62 years. Mean body mass index was 18.13 ± 7.11 kg/m²; 55% of them were wasted and 67% were stunted. Mean hemoglobin

was 9.57 ± 1.4 g/dl and 81.6% had moderate anemia. Ninety-two percent reported hand washing with soap after defecation. Only 2.5% had awareness regarding adolescent government program. The present study indicated very poor nutritional status among tribal adolescent girls. Interventions to reduce the prevalence of malnutrition and anemia in this age group is the need of the hour.

POMPY KONWAR {2019} conducted study on nutritional status of adolescent girls belonging to the garden estates of Sivasagar district. Any deficiency or inadequate dietary pattern can lead to poor nutrition which can further influence both growth and development throughout from infancy to adolescence. Since adolescents represent the next generation of parents, it is important to monitor their nutritional status at this crucial stage. Thus, this study aimed to explore the factors associated with nutritional status among adolescent girls belonging to these tea gardens. The objective of this community-based cross-sectional study was to assess the nutritional status of adolescent girls belonging to the tea garden community and the association of the socio demographic factors with it. Anthropometric measurement was taken among adolescent girls in the tea estates of Nazira subdivision of Sivasagar district, Assam. The pattern of dietary intake among adolescents was also studied. The statistical analysis was done using SPSS version 15. The prevalence of thinness and stunting across 265 adolescent girls was 49.4% and 50.6%, respectively. Calorie and protein deficits were found to be 76.60% and 65%, respectively. Majority of the respondents, i.e., 66.80% of the participants, had a poor intake of essential food constituents. Moreover, 76.21% of the respondents were anemic. The association of different socio demographic factors with thinness, inadequate protein intake, and anemia were found during the study. Thinness and stunting along with protein–energy malnutrition and inadequate intake of important food groups were prevalent in adolescent tea community girls. Overall, the public health burden of malnutrition is still a persisting health problem in the tea gardens of Assam.

FATIMA WASEEM{2019} conducted study on assessment of nutritional status and its related factors among female adolescent girls. The objective of the present study was to assess the nutritional status of adolescent girls and to investigate its association with socio-economic status, eating and physical activity pattern. A cross-sectional survey was conducted among adolescent girls (15 and 19 years) and stratified random sampling technique was done in 4 schools of Arar city, KSA. Subjects were asked to fill pre-tested questionnaire about socio-economic status, dietary and physical activity pattern and their height and weight were measured and BMI (kg/m^2) was calculated. SPSS version 22 (2017) was used in entering,

managing survey data and to analyze the obtained data. A $p\text{-value} < 0.05$ was considered statistically significant for individual variables. The final study sample consisted of 322 adolescent girls (response rate of 90.96%), with a mean age of 17.14 ± 1.15 years. More than one-fifth of the study population was overweight and obese, moreover, about three-fifth of the study population were of normal weight, while 19.2% were underweight. A significant relationship was observed between nutritional status with the mother's occupation and education, family size, and a number of meals taken per day. Adolescent's populations face two contrasting nutrition situations, under and over nutrition. This study will help in generating imperative data and recommendations for managing nutrition-related problems in adolescent girls in Saudi Arabia.

TONEBERG {2018} conducted study on nutritional status of adolescent girls ,Malnutrition is widespread among disadvantaged people in low-income countries like Uganda. Children and adolescents living in children's homes are considered an especially vulnerable group, and malnutrition among girls is of particular concern since it has intergenerational consequences. Virtually no information exists about the nutritional status of adolescent girls living in children's homes in Uganda. We therefore conducted a cross-sectional study to assess the nutritional status by evaluating anthropometric indicators, body composition and dietary patterns. Forty-four girls aged 10–19 years living in five children's homes participated in addition to a reference group of 27 adolescent girls from three boarding schools; both in the Ugandan capital Kampala. Height and weight were measured to assess anthropometry. Body composition data was obtained by bioelectrical impedance analysis. Dietary intake was evaluated with a food frequency questionnaire, calculation of dietary diversity score, and a 24-h dietary recall. The adolescent girls living in children's homes suffered from stunting (18.6%), overweight or obesity (18.6%), and were at risk of insufficient intakes of multiple micronutrients, especially of vitamins A, B₁₂, C, D, E and calcium. They also had a low intake of essential fatty acids. Dietary diversity was low with a median score of 3 out of 9 food groups. Animal products were rarely consumed. The majority of girls in children's homes consumed a less adequate diet compared to the reference group, thus being at risk of nutrient deficiency-related disorders.

ABHILASHA NAIR{2017} conducted study on nutritional status of adolescent girls in a rural areas in maharashtra. Mean age of the study population was 13.95 ± 2.48 years. The prevalence of underweight and stunting in this study was 36.54% and 48.37% respectively. statistically significant association was found between underweight and

marital status of adolescent girls. The association of age group, religion and educational status with stunting was statistically significant. mean BMI of the total 583 study subjects was $17.66 \pm 2.42 \text{ kg/m}^2$. The prevalence of thinness was 18.87% in this study, significantly associated with religion, type of family and socio-economic status. since the prevalence of under nutrition was high among adolescent girls in this study, appropriate health education and nutrition intervention should be directed towards them to improve their nutritional status.

KEDIR TEJI{2016} Nutritional status during adolescence plays an important role in the human lifecycle that influences growth and development and during this period nutrient needs are the greatest. The objective of this study is to assess anaemia and nutritional status of adolescent girls in the Babile district, Eastern Ethiopia. Data were collected from 547 adolescent aged 10-19 years by cross sectional study design. WHO Anthro-plus software was used to analyse Nutritional statuses of adolescents and magnitudes were determined using WHO 2007 references point. Haemoglobin was measured on site by hem cue machine. Descriptive and inferential statistical analysis was carried out depending on the nature of variables. The result of the study show that 21.6% thin, 4.8% were over weighted and 1.1% was obese, 32% were anaemic and 15% of adolescents were stunted/ short stature than normal. Nutritional status of adolescent were low both in urban and rural adolescents, but severe thinness were higher among of rural (39.3%) compared to urban (37.5%) adolescents. Factors independently associated with stunting were place of residence, father occupation source of drinking water and age of the adolescents. Nutritional status of adolescent girls contributes to the nutritional status of the community. There is a need to initiate intervention measures to improve the nutritional status of adolescent girls who are the future 'mothers-to-be'. Hence, there is a need to create awareness among adolescents and their family about nutrition and health.

KABIR HOSSEN{2016} conducted study on nutritionl status of adolescent girls in Bangladesh. poverty, large population, socio- economic inequalities and inadequate access to proper health care facilities are the key causes of under nutrition in Bangladesh. Adolescents are the most vulnerable group for under nutrition and having great consequence as they will be parent in future. Studies on nutritional status of adolescent girls are fewer in number and have great effect for intervention. The objective of this study was to assess the nutritional status and predisposing factors of under nutrition among the adolescent girls in Bangladesh. A community-based cross-sectional survey was carried out from July to December 2013. Adolescent girls were the study population. Data was collected by face to face interview at

household level. According to BMI category (kg/m²) the prevalence of under-weight (BMI<18.5) was found 65.9% and as per Gomez Classification (Weight for age), the prevalence of malnutrition was 48.2% (mild), 23.5% (moderate) and 2.8% (severe) categories and finally, as per Water Low Classification wasting found 16.6% (mild), 3.5%(moderate) and 0.2% severe categories. On the other hand, stunting found 39.6 % (mild), 9.2% (moderate) and 2.3% (severe) categories. Prevalence of under nutrition was found much higher (82.3%) among younger age group (<12 years). Higher prevalence of under-nutrition also found among the functionally illiterate adolescent girls, it was 75.8% and 51.3% among illiterate and literate group respectively. In both of the cases difference was statistically significant ($p<0.001$). The prevalence of illness found higher among under-weight adolescent girls in last two weeks compare to healthy adolescent girls both in rural and urban settings. This difference also found statistically significant ($p<0.001$). Under nourishment found higher among younger and low literate girls. Prevalence of other symptoms is also found higher among them.

ROBA KT{2016} conducted study on nutritional status and its associated factors among school adolescent girls in Adama city. Adolescence is a period of rapid growth and maturation in human development that demands extra nutrients and energy to support growth. Focusing on adolescents' nutrition, especially girls, provides a unique opportunity to break the intergenerational cycles of malnutrition. But, there is little information about nutritional status of school going adolescent girls in central Ethiopia. Institutional based cross-sectional quantitative study was employed among school going adolescent girls in Adama city. Survey was conducted among 726 samples which were selected by using stratified cluster random sampling procedures. Data was entered into Epi Data and transferred to SPSS (version 16) for analysis. WHO Anthro plus software was used to calculate body mass index for age z-score and height for age z-score. Multivariable logistic regression was used to measure the association between the dependent variable and independent variables with 95% confidence interval. This study found that 21.3% of adolescent girls were underweighted, 3.3% were overweight, 1.0% was obese and 15.6% were stunted. Of the adolescents, 41.2% of them received minimum dietary diversity (MDD), but 73.0% of the underweighted adolescent's did not receive minimum dietary diversity in 24 h before the survey. The proportions of wasting, stunting and low dietary diversity were higher among subjects from government schools compared to those from private schools. The predictors of under-nutrition among adolescent girls were: being born from uneducated parents (father and mother), their fathers'

occupation of being a merchant, adolescents with low dietary diversity, monotonous diet and adolescents attending government schools. Malnutrition affects one out of five female adolescent in this community and was associated with poor dietary diversity and parent demography which demands appropriate health information disseminations to the target group.

MOLLA MESELE WASSIE{2015} conducted study on predictors of nutritional status of Ethiopian adolescent girls. Malnutrition is a major health issue affecting children, women and adolescents globally and developing countries in particular. Adolescence is a time of enormous physiological, cognitive, and psychosocial change but it remain a neglected, difficult-to-measure and hard-to-reach population. The critical role of adolescent nutrition in the intergenerational cycle of Growth failure has not been well addressed in Ethiopia. Hence, this study assesses level of low BMI-for- age and height-for- age and their associated factors among adolescent girls in northwest Ethiopia. Community based cross-sectional quantitative study was employed. A total of 1281 adolescent girls were included in the study. Multistage cluster sampling method was used. Pretested questionnaire were used to collect the data. The collected data were entered in to Epi Info version 3.5.3 and exported to SPSS version 20.0 software packages for further statistical analysis. The data were analyzed using bivariate and multivariate logistic regression. The degree of association between dependent and independent variables were assessed using odds ratio with 95 % confidence interval and variables with p-value ≤ 0.05 were considered significant. The prevalence of girls with BMI-for-age Z-score < -2 were 13.6 % and height-for-age Z-score < -2 were 31.5 %. Being in the age group 10–14 years (AOR = 5.83, 95 % CI: 3.26, 10.44), being in the age group 15–17 years (AOR = 2.06, 95 % CI: 1.09, 3.89), with poor dietary diversity score (AOR = 2.48, 95 % CI: 1.60, 3.84), utilizing community based nutrition service (AOR = 0.67, 95 % CI: 0.47, 0.95) were factors significantly associated with thinness in adolescent girls. Being on the age group 10–14 years (AOR = 6.07, 95 % CI: 4.00, 9.22), being on the age group 15–17 (AOR = 1.39, 95 % CI: 1.93, 2.09), had nutrition and health information (AOR = 1.94, 95 % CI: 1.46, 2.57), living in food secured households (AOR: 0.65, 95 % CI: 0.50, 0.84) were factors affecting low height-for-age in study subjects. Finding of this study indicated that prevalence of adolescents with low BMI-for-age and low height-for-age Z-score < -2 were high. Age, dietary diversity score and community based nutrition service utilization were factors affecting low BMI-for-Age in adolescent girls. Age, food insecurity and Nutrition and health information were factors affecting low height-for- age in adolescent girls. Improving

community based nutrition service utilization, food security specially in young adolescents is highly recommended.

SHELOJ JOSHI{2014} conducted Amongst all adolescent girls 69% suffered from under nutrition. Only 31% girls had normal nutritional status. Majority i.e. 87.20% of adolescent girls belonging to the age group of 10-14 years were undernourished . Majority of rural adolescent girls were under nourished. There was significant association between socio-economic status and nutritional status of adolescent girls. Nutritional status has profound effect on health and school performance of adolescent girls.

SULAKSHANA S BALIGA{2014} conducted study on nutritional status of adolescent girls in community-based cross-section. Adolescence is a period of transition between childhood and adulthood. Nutritional requirements during this period increase tremendously compared to preceding years of growth. The nutritional status of adolescent girls, the future mothers, contributes significantly to the nutritional status of the community. The present study was aimed to assess the current nutritional status of the adolescent girls. This one-year community-based, cross-sectional study was undertaken at a village Peeranwadi of District Belgaum, Karnataka among 400 adolescent girls of 10 to 19 years. Information on socio-demographic variables was collected by an interview using pre-designed and pre-tested questionnaire. A 24-hour recall method was used to assess nutrient intake. The nutrient intake was calculated using tables of nutritive value of Indian foods. For the comparison of anthropometric data, National Center for Health Statistics and National Health and Nutrition Examination Survey standards were used. The mean age among the study population was 12.9 ± 2.06 years. Majorities (73.5%) of them were Hindus, 98.5% were literate, and 90% were currently studying. Adolescent girls between 10 and 14 years were more stunted (63.82%) as compared to 15 to 19 years (40.84%) ($P = 0.0003$) and thin (60.79% vs. 39.43%; $P = 0.0009$). Overall, the mean calorie intake was observed to be 1272.20 ± 133.28 kcal/day, protein intake was 40.99 ± 3.32 gm, and iron intake was 14.42 ± 2.58 mg. Overall, majority of girls were having dietary intake less than 50% of RDA, and almost three fourth of girls were anemic.

J.P SINGH{2014} Adolescence, a period of transition between childhood and adulthood, occupies a crucial position in the life of human beings. The primary causes of under nutrition in India are its large population, socio-economic differences and inadequate access to health facilities. Nutritional assessments among adolescents are important as they are the future

parents and constitute a potentially susceptible group. Studies on the assessment of nutritional status of adolescents are less in number and a National database has not yet been developed. The present hospital based cross sectional study was conducted in year 2013 among 344 rural adolescents of 10-19 years age (166 boys and 178 girls) attending the outpatient department at rural health training centre (RHTC) Dhaura Tanda, district Bareilly, Uttar Pradesh, belonging to the Muslim and Hindu caste communities. The nutritional status was assessed in terms of under nutrition (weight-for-age below 3rd percentile), stunting (Height-for-age below 3rd percentile) and thinness (BMI-for-age below 5th percentile). Diseases were accepted as such as diagnosed by pediatrician, skin specialist and medical officer. The prevalence of underweight, stunting and thinness were found to be 32.8%, 19.5% and 26.7% respectively. The maximum prevalence of malnutrition was observed among early adolescents (28%-47%) and the most common morbidities were URTI (38.6%), diarrhea (16.8%), carbuncle / furuncle (16%) and scabies (9.30%). The study concluded that the most common morbidities among adolescents were related to nutrition and personal hygiene. Regular health programmes should focus to educate and promote health among adolescent.

CHAPTER-3

RESEARCH METHODOLOGY:

- ☐ Research approach: Quantitative non-experimental –Evaluative approach
- ☐ Research Design: Non-Experimental- Descriptive research design
- ☐ Population: The Accessible Population of the present study is adolescent girls at selected school in chengalpet District.
- ☐ Sample Size: Sample size $n = DEFF * Np(1-p)1/ [d2/z2 /2*(N-)+p(1-p)]$ (Schaefer. RL et all1990).

The Sample size of 30 school children will be selected

- ☐ Research setting: The study will be collected in the Selected Schools at Kancheepuram District, Tamilnadu.
- ☐ Sampling Technique: Simple random sampling.

Sample Criteria:

Inclusion Criteria:

Children who are studying between 6th std to 12th standard.

Children who are present at the time of the study

Exclusion Criteria:

Children who are willing to participate in the study

Children who are having any Physical illness.

METHOD OF COLLECTING DATA:

Data Collection Instrument: Structured interview schedule was used for data collection.

Data Collection Method: Interview was conducted between 8.30 am to 4 pm depending upon the availability of the sample.

SELECTION AND DEVELOPMENT OF STUDY INSTRUMENT:

As the study aimed at assess the nutritional status, the researcher was constructed demographic variables preform, & to assess the nutritional status..

SELECTION AND DEVELOPMENT OF STUDY INSTRUMENT

1. Demographic variables

SECTION A

It consist of demographic data which includes age in year ,sex, educational status ,type of family ,religion ,socio economic data, weight and height of children.

DATA COLLECTION PROCEDURE

The researcher has planned to collect data from factors influencing childhood obesity among school children and demographic data from adolescent girls. The corresponding answers obtained are marked on the data sheet by the researcher.

METHOD OF SCORING

SL.NO	PERCENTAGE	INFERENCE
1	50%	Underweight
2	30%	Normal weight
3	20%	Overweight

ETHICAL CONSIDERATION

Obtained clearance from community health nursing department

UG committee clearance was obtained

Institutional human ethical committee clearance was obtained from chettinad academy of research and education

Written permission was obtained from Dean and H.O.D Department of community medicine

Written consent was obtained from the study participants

PLAN FOR DATA ANALYSIS

Analysis and interpretation was done based on objectives of the study. The data was analysed using descriptive statistics frequency, percentage descriptive mean and standard deviation and inferential statistics like chi-square test. The significant finding were expressed in the form of tables and figures

CHAPTER-IV

DATA ANALYSIS AND INERPRETATION

The data deals with the description of the sample, analysis and interpretation of data collected and the achievement of the objectives of the study, analysis of the data is a process by which quantitative information is summarized, organised, evaluated, interpreted and communicated in meaning full way.

Analysis is the categorizing, ordering, manipulating and summarizing the data to obtain answer to research question. The purpose of analysing is to reduce data to intelligible and interpretable form so that the relation of research problem can be studied and tested. This chapter deals with the analysis and interpretation of the data collected from 30 sample of assessment of nutritional status among adolescent girls in selected school chengalpet dist.

OBJECTIVES:

To assess the nutritional status among adolescent girls at selected school.

To associate the nutritional status of selected demographic variables.

HYPOTHESIS

H1: There is will be thinness was significantly higher in adolescent girls.

ORGANIZATION AND PRESENTATION OF DATA:

The data gathered was tabulated, analysed and interpreted using inferential statistics. Based on the objectives the collected data was presented under the following headlines:

SECTION- A: Distribution of demographic variables of the school children.

Table- I frequency and percentage distribution of demographic variable of factors influencing childhood obesity among school children.

Sl.NO	CHARACTERISTICS	CATEGORY	FREQUENCY	PERCENTAGE
1	Age in years	10-12 years	5	16.6%
		12-14 years	11	36.6%
		14-16 years	14	46.6%
2	Religion	Hindu	14	46.6%
		Christian	8	26.6%
		Muslim	8	26.6%
3	Type of family	Nuclear family	14	46.6%
		Joint family	16	53.3%
4	Educational status	6th std	5	16.6%
		7th std	12	40%
		8th std	13	43.3%
5	Occupational status of father	Unemployed	4	13.3%
		Govt. job	6	20%
		Private job	10	33.3%
		others	10	33.3%
6	Family monthly income	Below 5000	3	10%
		5000-10000	12	40%
		Above 10000	15	50%
7	Dietary habits	Vegetarian	4	13.3%
		Non vegetarian	26	86.6%
8	Height in cm	135-145cm	3	10%
		145-155cm	17	56.6%
		155-170cm	10	33.3%
9	Weight in kg	35-45kg	20	66.6%
		45-55kg	6	20%
		55-70kg	4	13.3%
10	Standard BMI	Underweight	16	53.3%

		Normal	10	33.3%
		Obese	4	13.3%

- ❖ figure1: shows that majority 14(46.6%) were belongs to the age between 14-16 years,11(36.6%) of them between 12-14 years and 5(16.6%) of them are between 10-12 years.
- ❖ Figure 2: shows that majority 14(46.6%) were belongs to hindu,8(26.6%) of them belongs to christian and 8(26.6%) were belongs to muslim.
- ❖ Figure 3: shows that majority 16(53.3%) were belongs to join family and 14(46.6%) were belongs to nuclear family.
- ❖ Figure 4: shows that majority 13(43.3%) were studying 8th std school children,12(40%) were studying 7th std and 5(16.6%) were studying 6th std.
- ❖ Figure 5: shows that majority 10(33.3%) were working in private job and other job,6(20%) were working in govt. job and 4(13.3%) were unemployers.
- ❖ Figure 6: shows that majority 15(50%) were earning more than Rs.10000,12(40%) of them are earning between Rs.5000-10000 and 3(10%) of them are getting below Rs.5000.
- ❖ Figure 7: shows that majority 26(86.6%) were non-vegetarian and 4(13.3%) were vegetarian.
- ❖ Figure 8: shows that majority 17(56.6%) were belongs to children between 145 - 155cm,10(13.3%) of children between 155-170cm and 3(10%) were between 135-145cm.
- ❖ Figure 9: shows that majority 20(66.6%) were belongs to children between 35-45kg,6(20%) were between 45-55kg and 4(13.3%) were between 55-70kg.
- ❖ Figure 10: shows that majority 16(53.3%) were underweight ,10(33.3%) were normal and 4(13.3%) were obese.

Figure 1: frequency distribution of age

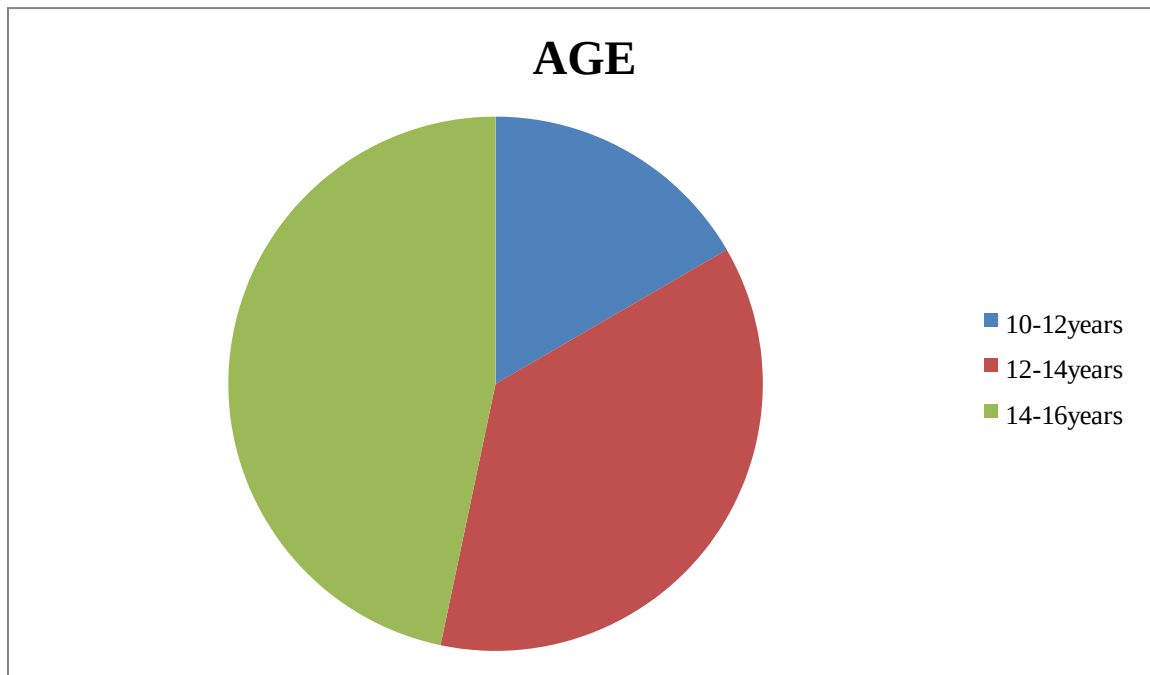


figure1: shows that majority 14(46.6%) were belongs to the age between 14-16 years,11(36.6%) of them between 12-14 years and 5(16.6%) of them are between 10-12 years.

Figure 2: frequency distribution of religion

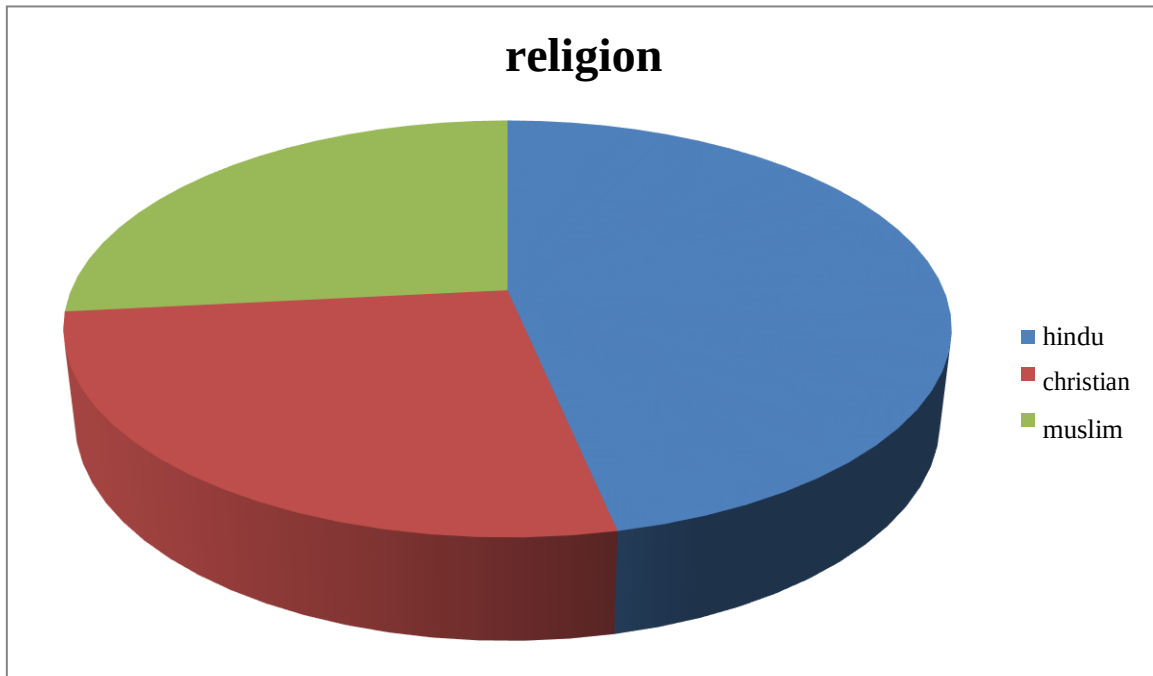


Figure 2: shows that majority 14(46.6%) were belongs to hindu,8(26.6%) of them belongs to christian and 8(26.6%) were belongs to muslim.

Figure 3: frequency distribution of type of family

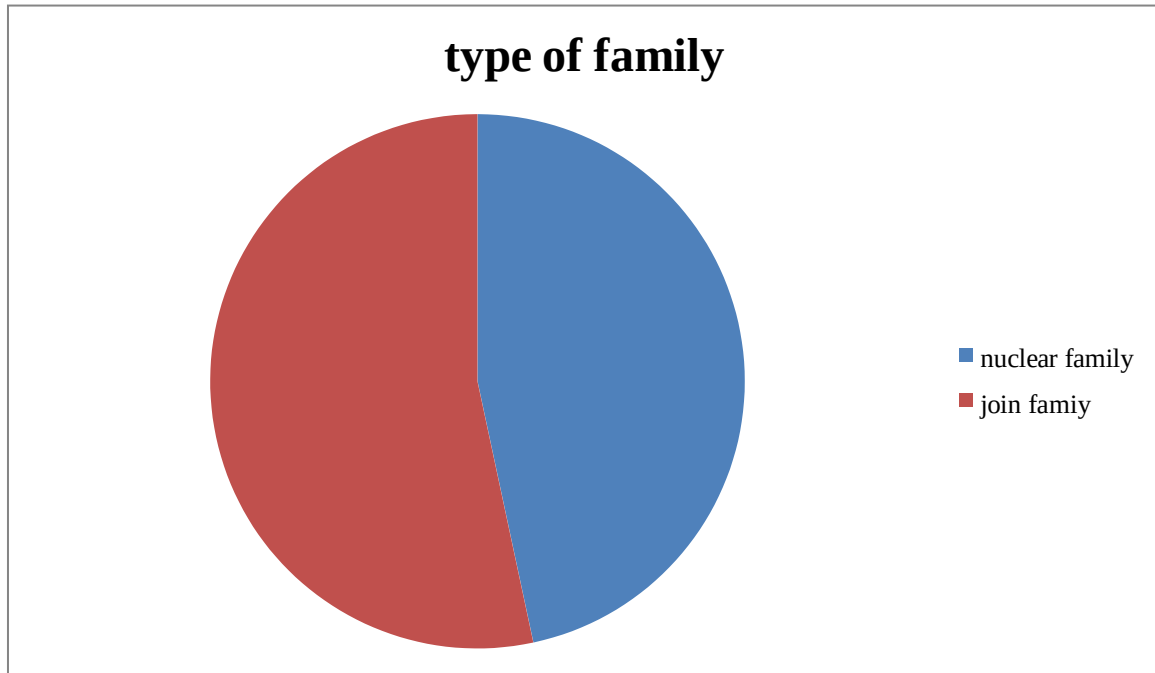


Figure 3: shows that majority 16(53.3%) were belongs to join family and 14(46.6%) were belongs to nuclear family.

Figure 4: frequency distribution of educational status

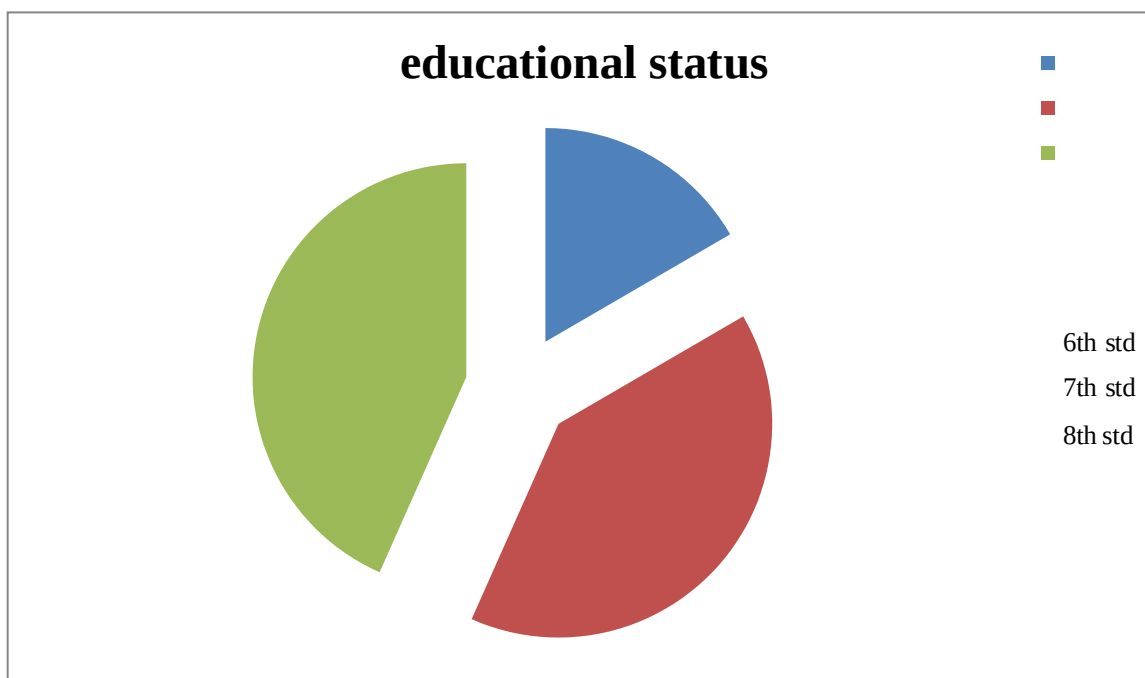


Figure 4: shows that majority 13(43.3%) were studying 8th std school children, 12(40%) were studying 7th std and 5(16.6%) were studying 6th std.

Figure 5: frequency distribution of father's occupation status

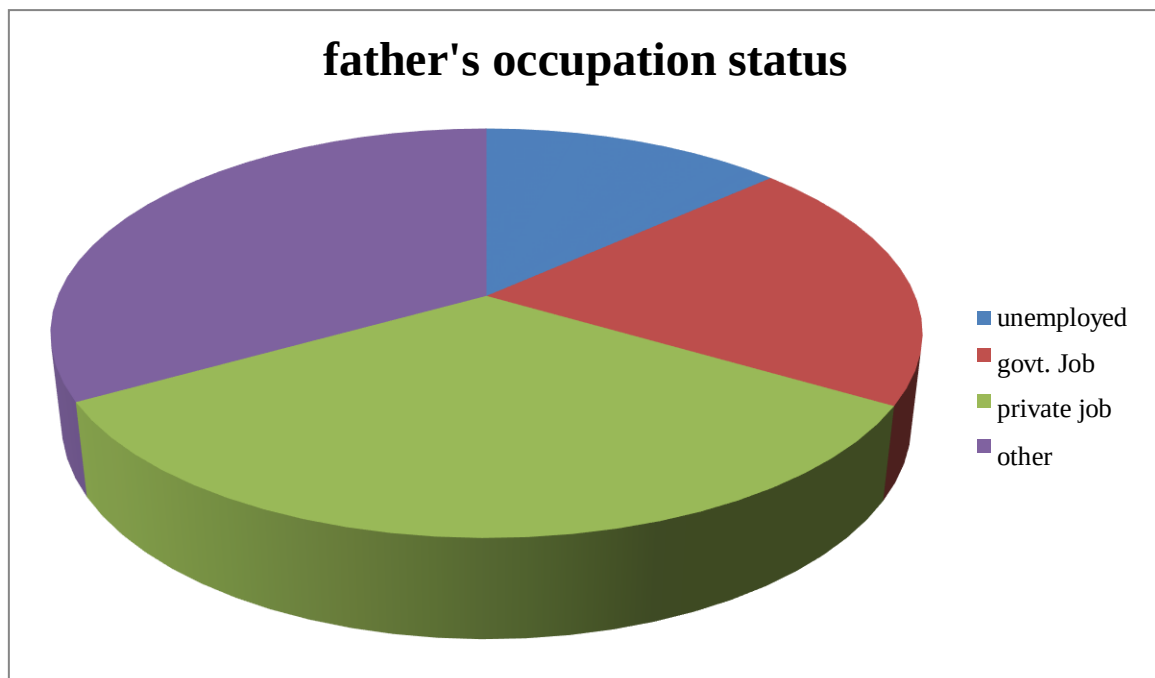


Figure 5: shows that majority 10(33.3%) were working in private job and other job,6(20%) were working in govt. job and 4(13.3%) were unemployers.

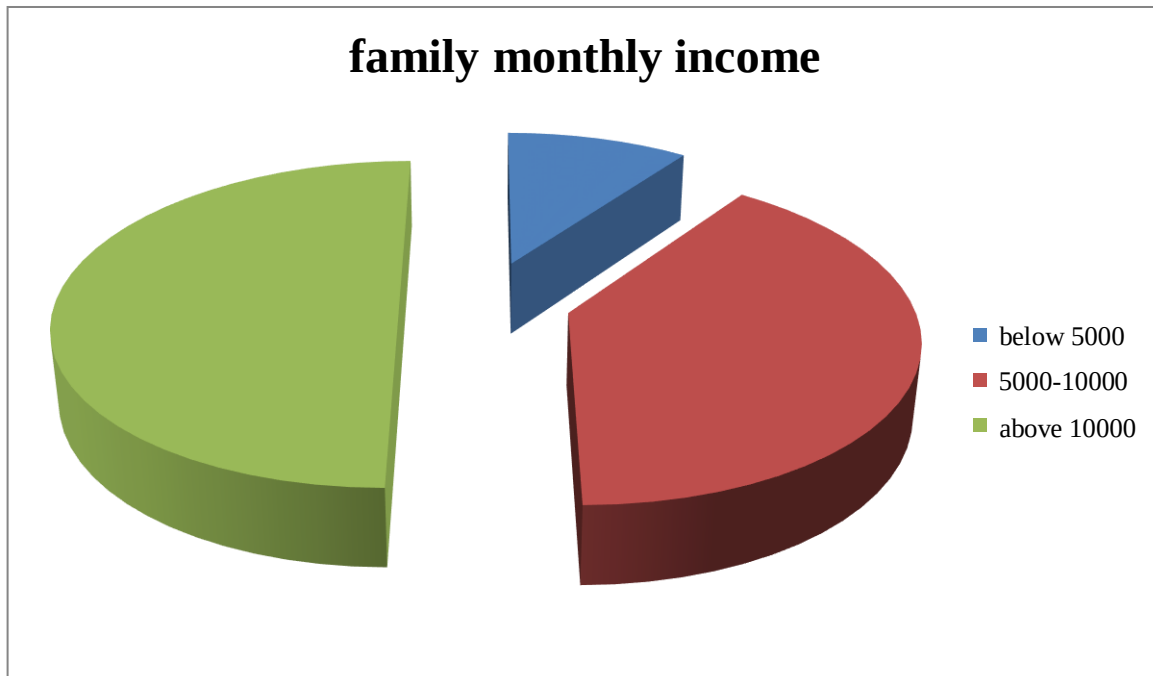


Figure 6: shows that majority 15(50%) were earning more than Rs.10000,12(40%) of them are earning between Rs.5000-10000 and 3(10%) of them are getting below Rs.5000.

Figure 7: shows that majority 26(86.6%) were non-vegetarian and 4(13.3%) were vegetarian.

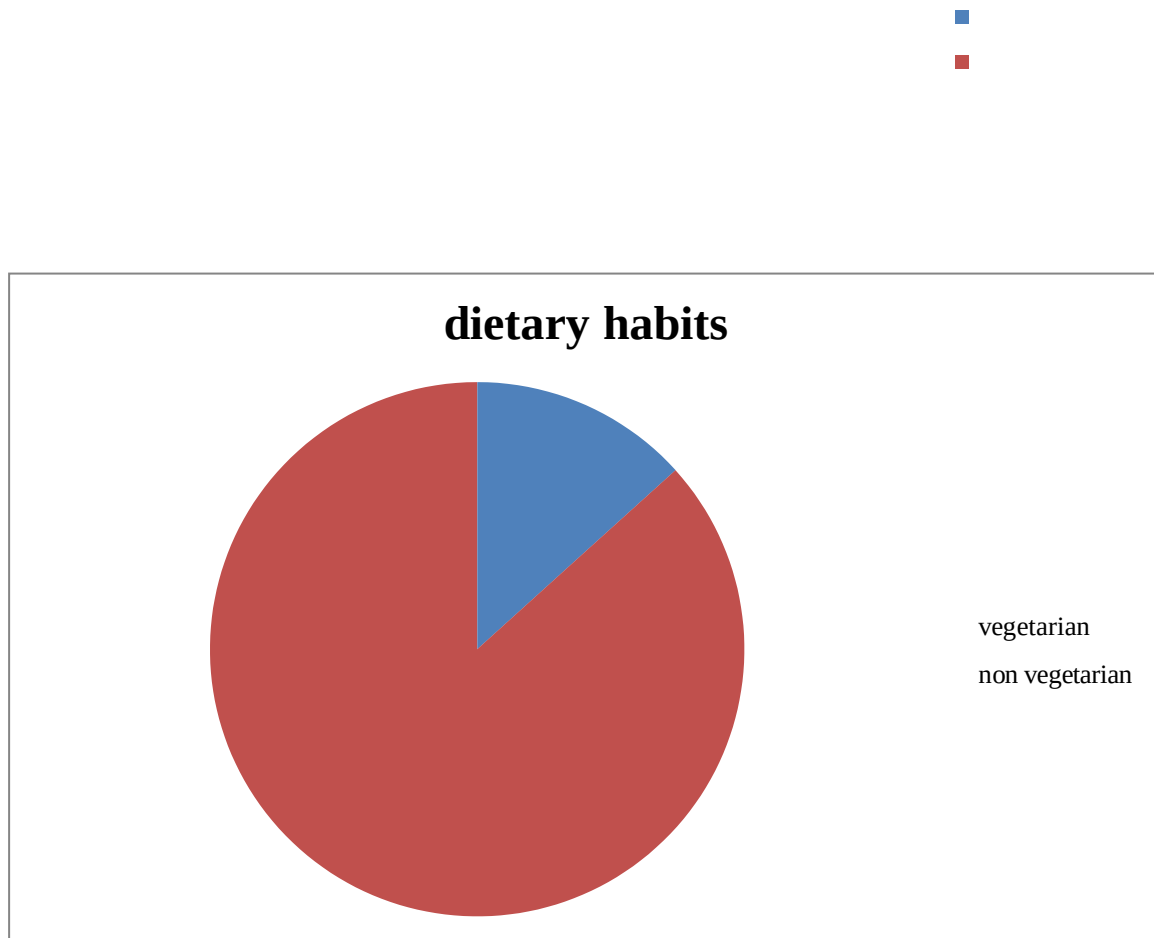


Figure 8: frequency distribution of height in cm

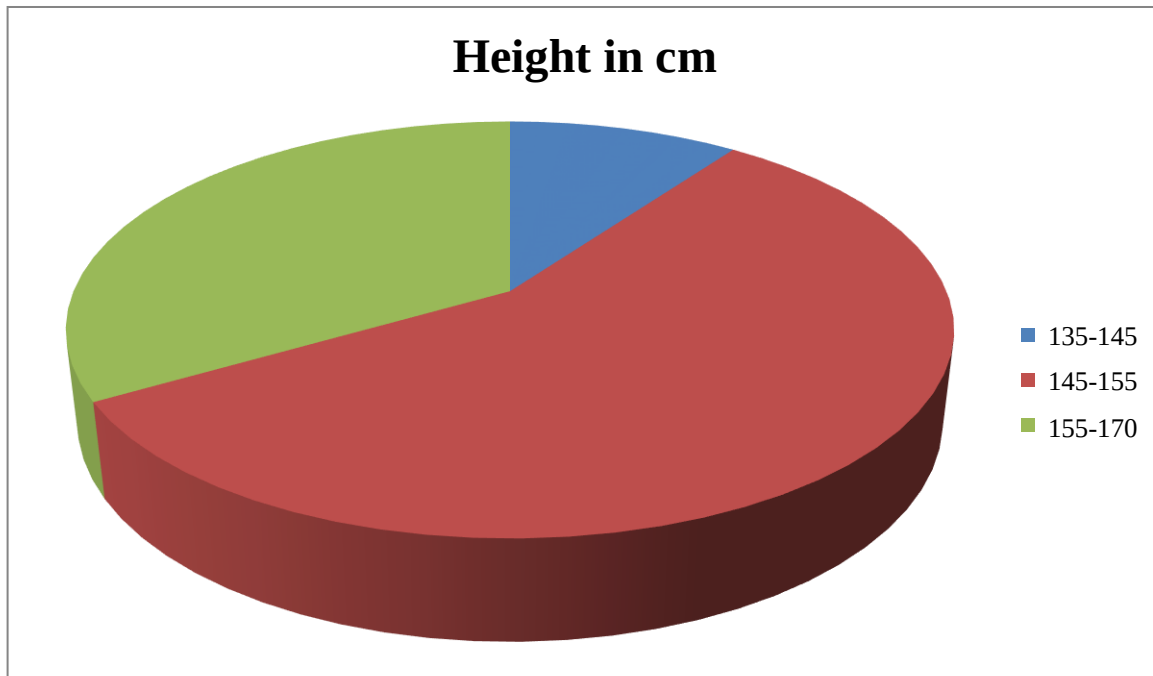


Figure 8: shows that majority 17(56.6%) were belongs to children between 145-155cm,10(13.3%) of children between 155-170cm and 3(10%) were between 135-145cm.

Figure :9 frequency distribution of weight in kg

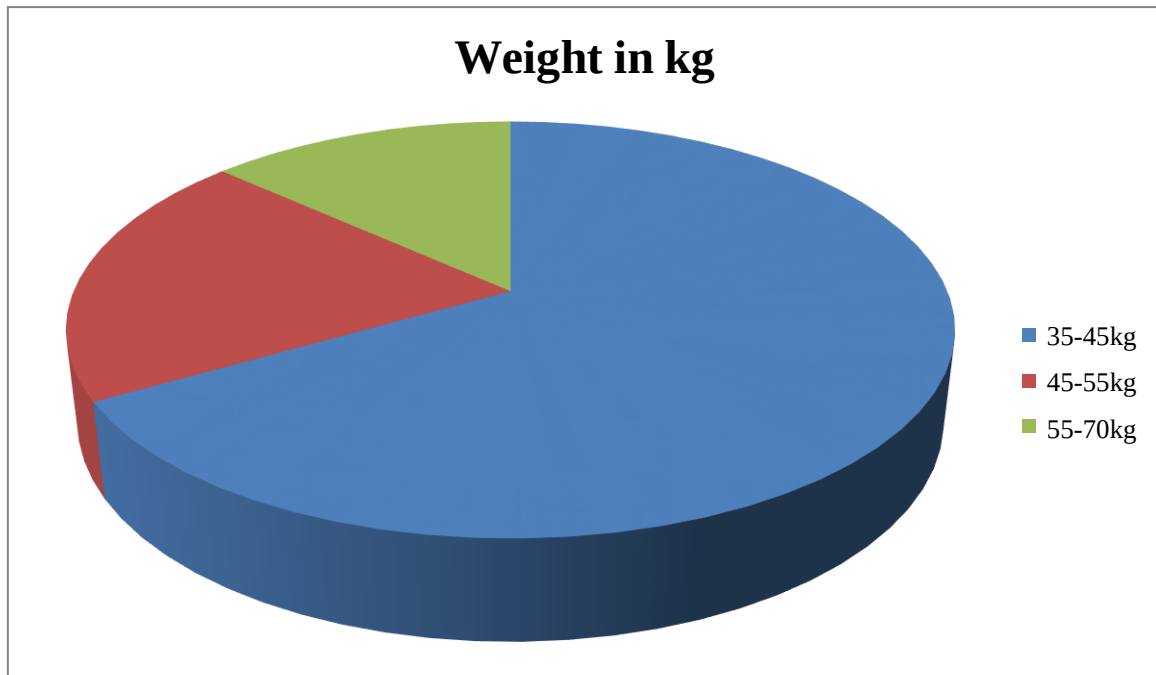


Figure 9: shows that majority 20(66.6%) were belongs to children between 35-45kg,6(20%) were between 45-55kg and 4(13.3%) were between 55-70kg.

Figure:10 frequency distribution of standard BMI

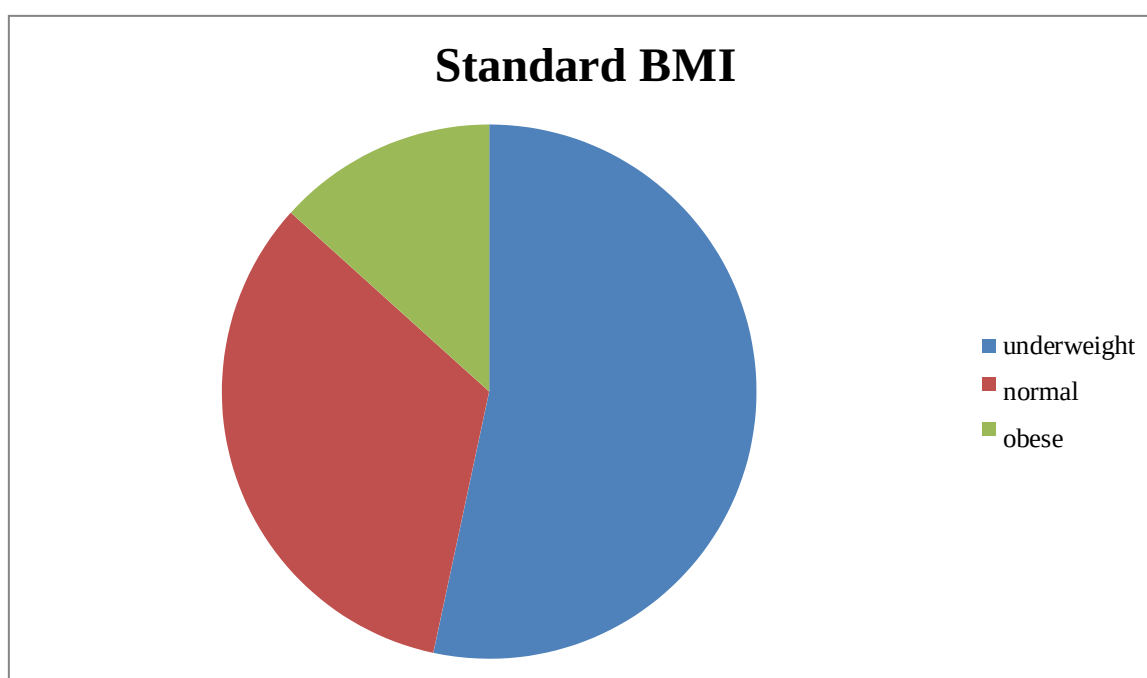


Figure 10: shows that majority 16(53.3%) were underweight ,10(33.3%) were normal and 4(13.3%) were obese.

CHAPTER – 5

This chapter discusses the findings of the study derived from statistical analysis and its pertinence to the objectives set for the study and related literature of the study.

OBJECTIVE OF THE STUDY

- ❖ To assess the nutritional status among adolescent girls at selected school ,chengalpet district.
- ❖ To associate the nutritional status in selected demographic variables.

Distribution of demographic variables of the assessment of nutritional status among adolescent girls at selected school.

The study finding revealed that the

- ❖ Age of children(years) in which majority 14(46.6%) were belongs to the age between 14-16 years,11(36.6%) of them between 12-14 years and 5(16.6%) of them are between 10-12 years.
- ❖ Religion in which 14(46.6%) were belongs to hindu,8(26.6%) of them belongs to christian and 8(26.6%) were belongs to muslim.
- ❖ Type of family in which majority 16(53.3%) were belongs to join family and 14(46.6%) were belongs to nuclear family.
- ❖ Educational status of children in which majority 13(43.3%) were studying 8th std school children,12(40%) were studying 7th std and 5(16.6%) were studying 6th std.
- ❖ Occupational status of father in which majority 10(33.3%) were working in private job and other job,6(20%) were working in govt.job and 4(13.3%) were unemployers.
- ❖ Family monthly income in which majority 15(50%) were earning more than Rs.10000,12(40%) of them are earning between Rs.5000-10000 and 3(10%) of them are getting below Rs.5000.
- ❖ Dietary habits in which majority 26(86.6%) were non-vegetarian and 4(13.3%) were vegetarian.
- ❖ Heigh in cm in which majority 17(56.6%) were belongs to children between 145-155cm,10(13.3%) of children between 155-170cm and 3(10%) were between 135-145cm.

- ❖ Weight in kg in which majority 20(66.6%) were belongs to children between 35 - 45kg,6(20%) were between 45-55kg and 4(13.3%) were between 55-70kg.
- ❖ Standard BMI value in majority 16(53.3%) were underweight ,10(33.3%) were normal and 4(13.3%) were obese.

➤ it is observed that most of the adolescent girls were underweight16(53.3%),10(33.3%) were belongs to normal and 4(13.3%) were belongs to obese.

CHAPTER-VI

SUMMARY, CONCLUSION,

IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS.

OBJECTIVES OF THE STUDY WERE TO

- ☐ To Assess the nutritional status of adolescent girls in selected school,chengalpet
- ☐ To Associate the nutritional status in selected demographic variable

RESEARCH DESIGN:

Descriptive study design was used to conduct the study on data obtained on assess the nutritional status from September 21,2022-09-27 .

Sample of 30 adolescent girls in selected school in chengalpet district, who met the inclusion criteria were selected for the study by using purposive sampling method instruments used for data collection were to assess the nutritionl status among adolescent girls at selected school chengalpet district.

The investigator planned to collect the data for one day. Prior written permission and consent were obtained from the H.O.D of Community medicine department CHRI.

Chi-square test was used to find out the association the nutritional status of selected demographic variables.

TO ASSESS THE NUTRITIONAL STTUS OF ADOLESCENT GIRLS IN SELECTED SCHOOL,CHENGALPET.

The frequency distribution in the study shows that majority 16 (53.3%) were belongs to underweight,10(33.3%) of them are normal and 4 (13.3%) of them are belongs to obese.

TO ASSOCIATE THE NUTRITIONAL STATUS IN SELECTED DEMOGRAPHIC VARIABLE.

shows that there is significant association of nutritional status among adolescent girls with demographic variables like type of family, monthly income family ,dietary habit ,height in cm.

CONCLUSION:

It is concluded that there is a high prevalence of under nutrition among adolescent girls in this slum community. Health education and nutrition interventions are needed on priority basis. Almost half of the adolescents were stunted and most of them were thin. Problem of overweight was seen in less of adolescents. Factors typical to underdeveloped society seems to contribute to the moderate to high prevalence of under nutrition among adolescents. In the present study, undernutrition was a major problem among adolescent girls in study area. There was statistically significant difference between the risk factors of nutritional status of adolescents and their BMI. Thus, the programs to support adequate nutrition for adolescents could provide an opportunity for healthy transition from childhood to adulthood and could be an important step towards breaking the vicious cycle of intergenerational malnutrition. Moreover, the focus should be given to Adolescent nutrition and interventions by considering the potential associated risk factors.

30 samples were collected

The study finding revealed that the

- ❖ Age of children(years) in which majority 14(46.6%) were belongs to the age between 14-16 years,11(36.6%) of them between 12-14 years and 5(16.6%) of them are between 10-12 years.
- ❖ Religion in which 14(46.6%) were belongs to hindu,8(26.6%) of them belongs to christian and 8(26.6%) were belongs to muslim.
- ❖ Type of family in which majority 16(53.3%) were belongs to join family and 14(46.6%) were belongs to nuclear family.
- ❖ Educational status of children in which majority 13(43.3%) were studying 8th std school children,12(40%) were studying 7th std and 5(16.6%) were studying 6th std.
- ❖ Occupational status of father in which majority 10(33.3%) were working in private job and other job,6(20%) were working in govt.job and 4(13.3%) were unemployed.
- ❖ Family monthly income in which majority 15(50%) were earning more than Rs.10000,12(40%) of them are earning between Rs.5000-10000 and 3(10%) of them are getting below Rs.5000.
- ❖ Dietary habits in which majority 26(86.6%) were non-vegetarian and 4(13.3%) were vegetarian.

- ❖ Height in cm in which majority 17(56.6%) were belongs to children between 145-155cm,10(13.3%) of children between 155-170cm and 3(10%) were between 135-145cm.
- ❖ Weight in kg in which majority 20(66.6%) were belongs to children between 35 - 45kg,6(20%) were between 45-55kg and 4(13.3%) were between 55-70kg.
- ❖ Standard BMI value in majority 16(53.3%) were underweight,10(33.3%) were normal and 4(13.3%) were obese.

NURSING IMPLICATIONS:

NURSING SERVICE

☐ Nurse as an educator, leader, counsellor, motivator, supervisor and team member in various situation of work.

IMPLICATION FOR NURSING PRACTICE:

☐ Nurses should take the responsibility to teach parents about the providing nutritional diet, encourage to physical activity, to read books.

☐ Nurses should provide psychological support as well as encourage adolescent girls.

☐ Additional counselling session was arranged to the girls during the data collection period.

IMPLICATION FOR NURSING ADMINISTRATION:

☐ Nursing administrator may use the study findings to improve the quality of caring the community. The concept of the extended role of nurse offers many opportunities for a nurse administrator to improve the quality of life of the public and health care professionals

☐ The nurse administrator in the higher level of authority must hold discussion and meetings on the prevailing health status of the health care professionals. Based on that, the knowledge of community nurses can be assessed and related program can be planned and implemented

☐ Administrator should organise in service education programs, refers a courses and workshops for health care professionals and encourage them to participate in this activity

NURSING RESEARCH:

- ☐ The finding of the study shows that the majority of sample are at underweight.
- ☐ The study will motivate new researcher to conduct the same study with the different variable on large scale

LIMITATIONS:

- ☐ Sample size was 30
- ☐ Setting was selected school at maduranthagam, chengalpet district, Tamilnadu.

RECOMMENDATIONS:

- ☐ Studies are needed to develop standardized tool on nutritional status.
- ☐ A similar study can be undertaken by using larger number samples

SUMMARY:

The study was done to assess the nutritional status among adolescent girls with selected demographic variables.

The study finding revealed that the frequency and percentage distribution of demographic variables of factors influencing childhood obesity among school children.

- ☐ The findings shows that the chi-square value of Age of school children in years 6.912.
- ☐ The findings shows that the chi-square value of religion 7.4.
- ☐ The findings shows that the chi-square value of Type of family 0.257.
- ☐ The findings shows that the chi-square value of education status 7.1251
- ☐ The findings shows that the chi- square value of occupational status of father 4.11.
- ☐ The findings shows that the chi-square value of Monthly family income 2.57 .
- ☐ The findings shows that the chi-square value of Dietary pattern 0.998 .
- ☐ The findings shows that the chi-square value of height in cm 2.66.

□ The findings shows that the chi-square value of weight in kg 33.17.

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PARTICIPANT INFORMATION SHEET (PIS)

Principal Investigator: B. IND

Contact number: 9841485252

The title of the research project is a study to assess the nutritional status among adolescent girls at selected school chengalpet district, Tamilnadu, India. The objectives are to assess the nutritional status among adolescent girls in selected school and to associate the nutritional status with selected demographic variables. Non-experimental quantitative approach with a descriptive design will be used. The information from the participant will be collected through structured interview schedule on demographic variables perform. Data will have collected from the participant is approximately 30 minutes. The study benefits are this research will provide the baseline data, which enables the future researchers to conduct evidence based research and help to create awareness malnutrition. The study is free from risk / injury. Complete freedom for the participate to withdraw from the research participation at any point of time without the loss of treatment benefits.

CONSENT FORM

Participants name:

Address:

Parent/LAR 's name:

Title of the project:

A study to assess the nutritional status among adolescent girls at selected school chengalpet district, Tamilnadu, India.

The details of the study have been provided to me in writing and explained to me in my own language. I confirm that I have understood the above study and had the opportunity to ask questions. I understand that my child's participation in the study is voluntary and that I am free to withdraw my child at any time, without giving any reason, without the medical care that will normally be provided by the hospital being affected. I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose. I have been given an information sheet giving details of the study. I fully consent for the participation of my child in the above study.

Assent of child/ward obtained (for participants 10 to 16 years of age)

Signature of parent/ LAR ____ Date:

Signature of the witness: ____ Date:

Signature of the investigator: ____ Date: ____

கு சணயஒருத
த புபடுற சி

சண

பு முFற பு று ணது டன் .இந்தஆர
தூ ண ஁ Fdனு஁று0ற நுF
அ ற க

யு யிலு஁பஙு஁ணக஁஁
சசி ஁பத஁஁஁கும஁0ழ஁ற திண ஁஁஁஁஁ .ப
னது ணநு ஁றசற கி

ஙு஁ணக஁஁஁ ஁பவரு ஁஁஁ணதய஁஁ பு஁ற்
பு஁ /

இLFதபரு஁0வ஁ ரலு஁கரணணஆர யு஁ச்சய஁஁ ஁ரு ஁஁
ணணதய஁஁ பு஁ற்

பு

஁

பங்ுண்ணகணுுப் பவரூ ணுத் தபயரூ் _____

பங்ுண்ணகணுுப் பவரூ ணுத் மூண வரூ :

ச டுசி

தபயர:

முண வர :

ண்ணதய ப்றப்:

PARTICIPANT INFORMATION SHEET

PURPOSE:

This perform is used to measure the demographic variables of adolescent girls such as {age,religion,type of family, educational status, occupational status, monthly income, source of information}

INSTRUCTION:

The investigator will collect the information through interviewing the adolescent girls.

SECTION – A

1.AGE

a.10-12 years

b.12-14 years

c.14-16 years

2.RELIGION

a.Hindu

b.christian

c.muslim

3. TYPE OF FAMILY

a.nuclear family

b.join family

4. EDUCATIONAL STATUS

a.6th- std

b.7thstd

c.8th std

5.OCCUPTIONAL STATUS OF FATHER

a.unemployee

b.govt.job

c.private job

d.others

6. FAMILY MONTHLY INCOME

a.below 5000/-

b.5000-10000/-

c.more than 10000/-

7.DIETARY HABITS

a.vegetarian

b.non-vegetarian

8.HEIGHT IN cm

a.135-145cm

b.145-155cm

c.155-170cm

9. WEIGHT IN kg

a.35-45kg

b.45-55kg

c.55-70kg

10. STANDARD BMI VALUE

a.underweight

b.normal

c.obese

பங்ககற்ப ளரகதவல் த ள

க) ு கௌகௌமூ:

{வயF, மதமூ, குடூ0ம ு ணுவககௌ, கௌலூவ்வி)ௌ கல,
஁பதூத

தது ழுலூ

)ௌ கல, ம தவரும னம்,

கதவல் ஆத ரம் }

கபௌ ணூற்றபரூ0வவயFபூத் பணூ கௌ ணூ
பௌ஁

ள வு வரமௌ று கௌகௌௌவிடூ0வதறூ கௌஇ)ூத்
தௌயலூத்தூ றணூ

பயணூ ப டூ0கூ றF.
படூ0தூத் ஁ப

அறிவூற
஁த்தல்:

புலனு ய்
வு ளரஇ

ளமூ்தப
ணூ
கௌகௌக)ர
கு

஁ ணல் ெதய் வதன்
மூலம் கதவல

குகௌகுகுரு புப ர.

1.வயF

- 10-12 ஆணூ டூ0குள
- 12-14 ஆணூ டூ0குள
- 14-16 ஆணூ டூ0குள

2.மதம்

➤ இ)ௌF

- குறு ஸ் தவர

➤ மஃஸு லிம்

3. குடுமும்பதுது னுவககு

- ஒருஅணுகுடும் பம்
- கௌடும் பத்கதஇககண் கௌவும்

4.குல் வி)ு கல

- 6வFவகுப்பு
- 7வFவகுப்பு
- 8வFவகுப்பு

5.த)ுக் தயு னுத்தத ுழ ு லுத்)ு கல

- கவகலயற்றவர்
- அரசுகவகல
- தன ய ரகவகல
- மற்றவகரள

6. குடும் பம தவரும னம

- 5000/-குுகுக்க
- 5000-10000/-
- 10000/- ு0கமல
குுக்

7.உணவுகபகுுகும

- ெகவம்
- ெகவம

8.உயரதுது ல்தெது.மீ

- 135-145cm
- 145-155cm
- 155-170cm

9.கிகல னைக

- 35-45kg
- 45-55kg
- 55-70kg

10.தரபிளம் ஐமதிப்பு

- குகறவ னளைக
- இயல் பு
- பருமன்

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