Research Article

A Study to Examine the Association of Health Related Behaviours and Body Mass Index among Young Adults at Selected Colleges in Kancheepuram District, Tamil Nadu, India

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Abstract

A observational study to examine the association of Health related behaviours and Body mass index among young adults at selected colleges in Kanchipuram District, Tamil Nadu, India''. The objectives were to examine the lifestyle practices and Body mass index among young adults at Kanchipuram district, Tamil Nadu and to find out the association between lifestyle practices and BMI with demographic variables. The convenience sampling was used to select 100 young adults. The data collection tools were validated and reliability was established. The data were collected by self-administered questionnaire. The collected data was Tabulated and Analyzed. Descriptive and Inferential statistical methods were used. The study shows that of the higher frequency of 18-24 years (96%) and lower frequency of 20-24 years (4%). In Gender, Male is lowest frequency (28%) and Female is the highest frequency (72%). There was significant association between the knowledge and the selected demographic variables.

Keywords *:Health related behaviour, Body mass index, Young Adults.*

Introduction

Majority of Indian population lives in rural areas mainly depending on agriculture for their livelihood and carry out more physical activities than urban population, who are accustomed to sedentary lifestyle1. Diet is a component of lifestyle, which plays an important role in the development or prevention of overweight and obesity.Young people brought up in rural areas lead a healthier life style compared to their peers in big cities[2]. Physical activities changed as a result of increased television watching, spending more time on computer or mobile and spending less time on outdoor sports.The dysregulation of energy consumption and expenditure related to inappropriate dietary habits and lack of exercise increases the prevalence of both overweight and obesity[3].

Young people form precious human resources in every country. However, there is considerable ambiguity in the definition of young people and terms like young, adolescents, adults, young adults are often used interchangeably. World Health Organization (WHO) defines 'adolescence' as age spanning 10 to 19 yr, "youth" as those in 15-24 yr age group and these two overlapping age groups as "young people" covering the age group of 10-24 yr4. Adults include a broader age range and all those in 20 to 64 yr5. Adolescence is further divided into early adolescence (11-14 yr), middle adolescence (15-17 yr), and late adolescence (18-21 yr)6. Individuals in the age group of 20 - 24 yr are also referred to as young adults7. The National Youth Policy of India (2003) defines the youth population as those in the age group of 15-35 yr8.

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Population aged 10-24 years accounts for 373 million (30.9%) of the 1,210 million of India's population with every third person belonging to this age group. Among them, 110 and 273 million live in urban and rural India, respectively. Males account for 195 million and females 178 million, respectively9. As per the National Sample Survey (NSS), (2007-08) 32.8 per cent of this group attend educational institutions and 46 per cent (2004-05) are employed[10].

Obesity can arise in early years due to irregularity in diet , lack of exercise and addiction.The young students who live away from home in hostels are more prone tohave unhealthy lifestyle. Unhealthy diet and physical Inactivity at younger ages are the two main risk factors that have been associated with raised blood pressure ,blood glucose , abnormal blood lipids , major chronic disease like ischemic heart disese , cancer , and diabetes. India is encountering a dual burden of under nutrition over nutrition due to monetary factors and education of the people of society. There are many factors which influence BMI among adolescents and young adults. Thus ,the present study was done to assess the Health behaviour and BMI among students of a Nursing college in Chennai.

Resaerch Materials and Method

Research Approach:

A research approach is a frame work or guide used for the planning, implementation and analysis of the study . It also involves the plan to investigate the phenomenon under study.

Quantitative descriptive approach.

Research Design:

The research design is the master plan specifying the methods and procedures for collecting and analyzing the needed information in a research study.

A sample of 100 students was selected for the study by using convenient sampling method. The instruments used for data collection were structured questionnaire's to determine height, weight and BMI.

The investigator plan to collect the data for the period of one week. Prior permission and consent was obtained from the Hindu mission college of nursing.

Chi-square test was used to find out the association between demographic variables of health related behaviour and body mass index.

Research Setting:

A research setting is a physical social and cultural site in which the researcher conducts the study.

The present study was conducted at Hindu mission nursing college, Tamilnadu, India.

Population

Population is the aggregation of all units in which a researcher is interested in other words , Population is a set of people or entities to which the result of a research are to be generalised .

Data related to lifestyle practices and body mass index among young adolescents was obtained from Hindu mission college students .

The population of the study is college students.

Sample :

Sample is a representative unit of a target population , which is to be worked upon by the researchers during their study. In other words sample consists of subsets of units which comprise the population selected by the researcher to participate in the research project.

The sample are the students who are fulfilling the sampling criteria.

Sample Size : Sample size was 100. N-4pq/d.

Sample Techniques

Sampling Criteria:

A) Inclusion criteria.

The study include the college students including aged between 18-24 years.

§ Who are willing to participate in the study.

§ Who can understand Tamil and English language.

B) Exclusion criteria.

§ who are not willing to participate in the study. Those

§ Those who are absent on the day of data

collection.

SELECTING AND DEVELOPEMENT OF THE STUDY INSTRUMENT

SECTION A:Demographic Variables such as .

SECTION B:

PART a: Anthropometric Measurement (Height ,weight and BMI) with the help of the stadiometer and weighing scale.

PART b: Structured life style Questionnaire to assess the young adults health related behaviors.

Scoring Interpretation:

Data Collection Method

Data collection was done after the approval of ethical committee. The investigator approached and got permission from principal college of nursing to collect the baseline data to Weight was recorded for each girl and boy with school uniform, with the each girl/boy standing erect without any support and without shoes using an electronic weighting scale to an accuracy of 0.1 Kg. Height was taken with the help of a stadiometer after removing the footwear with the subject standing erect and heel and occiput touching the upright rod to the nearest 0.5cm. Weight was measured to nearest 100gms. Using the weight and height, Body mass index (BMI) was calculated in Kg/m2, for each girl and boy using standardized CDC BMI chart for boys and girls. Based on age and sex specific BMI centiles, the children were classified as overweight (≥85th centile) and obese (≥95th centile) and non-overweight and non-obese (<85th centile) .Initial data was collected on demographic and clinical variables and then structured Lifestyle questionnaire was given to the group.

Ethical Consideration:

· Departmental clearance obtained from Department Of Medical Surgical Nursing, Chettinad college of Nursing.

· U .G committee clearance will be obtained from U.G committee.

· Institutional Ethical Committee clearance will be obtained from CARE.

· Formal permission will be obtained from the authority of the selected college Authority.

· Informed consent will be obtained from the study samples.

FINDINGS

The study findings are categorized as:

SECTION A : Describe the frequency and percentage of demographic variables

SECTION B: Association of demographic variables with the lifestyle practices and body mass index

SECTION C: Distribution of Correlation between the lifestyle practices and body mass index.

SECTION - A

Frequency Percentage of Demographic Variables In Lifestyle Practices And Bmi Among Young Adolescents

Majority of young adolescents were in age group of 96% in 18-20yrs and only 4% takes place in 21-23yrs.

· 7In Gender , female takes place of 72% more than males of 28% .

· Distribution of percentage in undergraduate students of each year is 24%in I year,34%in II year,36% in III, 6%in IV year.

· Residency of student in hostel is 41% and dayscholar is 59%.

· Source of information were available through Health professionals is 36%,Mass media is 40% and relatives/ friends is 24%. Dietary habits of non-vegetarian is 91% more than 9 % of vegetarian

SECTION B: Association of demographic variables with the lifestyle practices and body mass index

Describes that in age group 18-20years in underweight is 35% ,normal is 51% and overweight is 10%, in 21-23years underweight is 0%,normal is 3% and overweight is 1%.

· Distribution of gender in underweight for male is 15%,normal is 13%and overweight is 0% and for female in underweight is 20%,normal is 41% and overweight is 11%.

· Hostellers in underweight is 13%,normal is 23% and overweight is 5% and dayscholars in underweight is

22%,normal is 31% and overweight is 6%.

· Dietary habits of adolescents to vegetarian in underweight is 3%,normal is 4%and overweight is 2% and in non-vegetarian in underweight is 32%,normalis 50%and overweight is 9%.

SECTION - C

TABLE 1- Correlation between lifestyle practices and Body mass index .

VARIABLES	MEAN	STANDARD DEVIATION	CORRELATION (r2)
Practice	5687	56.87	O.O2
BMI	2018.7	20.187	

TABLE 1 shows that there is a statistically mild positive correlation occurs between the lifestyle practices and body mass index.

Conclusion

All health behaviours exhibited independent associations with lifestyle practices and body mass index. Frequent consumption of vegetables and fruits, breakfast and dinner with family and regular physical activity were positively associated with good levels of lifestyle practices and BMI , while frequent consumption of junk food , not meeting sleep recommendations, and overweight and obesity were negatively associated lifestyle practices and BMI achievement.

Conflict of Interest : Nil

Source of Funding : Self

Ethical Clearance : Chettinad academy of research and education, institutional human ethics committee on 4/02/2019 (Proposal No :328/IHEC/1-19)

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