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Dr. G Sireesha
Assistant Professor,
Department of Home Science,
Sri Padmavati Mahila
Visvavidyalayam, Tirupati.
Andhra Pradesh, India

Dr. N Rajani
Assistant Professor,
Department of Home Science,
Sri Padmavati Mahila
Visvavidyalayam, Tirupati.
Andhra Pradesh, India

V Bindu
Assistant Professor,
Department of Home Science,
Sri Padmavati Mahila
Visvavidyalayam, Tirupati.
Andhra Pradesh, India

Correspondence
Dr. G Sireesha
Assistant Professor,
Department of Home Science,
Sri Padmavati Mahila
Visvavidyalayam, Tirupati.
Andhra Pradesh, India

Teenage girls' knowledge attitude and practices on nutrition

Dr. G Sireesha, Dr. N Rajani and V Bindu

Abstract

The phenomenal growth that occurs in teenage, second only to that in the first year of life. It creates increased demands for energy and nutrients. Total nutrient needs are higher during teenage than any other time in the lifecycle. Nutrition and physical growth are integrally related; optimal nutrition is a requisite for achieving full growth potential. Failure to consume an adequate diet at this time can result in delayed sexual maturation and can arrest or slow linear growth. Nutrition is also important during this time to help prevent adult diet-related chronic diseases, such as cardiovascular disease, cancer, and osteoporosis. This study established nutrition knowledge, attitude and practices among teenage girls aged between 13-19 years. The study data was collected using a modified questionnaire. The results of the study revealed that the teenagers had knowledge regarding nutrition but half of the teenagers had negative attitude in nutrition and majority had poor nutritional practices.

Keywords: Teenagers, nutrition, food related practices, puberty, nutritional status

Introduction

India is home to 243 million adolescents – children aged 10 to 19 years – the most adolescents of any country ^[1]. Following a period of slow growth during late childhood, the teenage growth rate is as rapid as that of early childhood. By the end of adolescence, teens attain most of their adult height and weight. Greatest nutrients need for girls is 10-13 years. They attain their adult stature between 18-20 years but bone mass continues to increase up to age of 25 years. Although adolescence spans a period of five to seven years, teens do most of their growing during an 18-24 month period called the "growth spurt." To support this rapid growth, teenagers need to consume lots of calories and other nutrients. During adolescence, teens go through puberty, a process that involves total body maturation and the development of adult sexual function ^[2]. With profound growth of adolescence there is increased demands for energy, protein, mineral and vitamins ^[3].

In India, the proportion of adolescents getting married before completion of their growth is very high ^[4]. If these young girls become mothers, their growth ceases, exposing them to the consequences of cephalo-pelvic disproportions. There is very little information about diet and nutritional status of adolescents in India.

Many nutritional surveys have indicated that the highest prevalence of nutritional deficiencies occur during adolescence. Sound nutrition can play a role in the prevention of several chronic disease certain types of cancer, stroke and type 2 diabetes ^[5-9]. For this reason, nutrition was a priority area for the "Healthy People 2010" and remains an important objective for Healthy People 2020. To help prevent diet related chronic diseases, researchers have proposed that healthy eating behaviour should be established in childhood and maintained during adolescence ^[5-10]. Studies have frequently found adolescents to have poor dietary habits and health educators find that developing education programme to promote healthy eating patterns and to change dietary behaviour among this age group is challenging but frustrating ^[11, 12].

Over the past decades, a growing body of scientific literature has focused on finding the association between nutrition knowledge and practice, leading to inconclusive results ^[13]. Indeed, the strength of such associations has been found to vary among the studies and is generally weak. Reasons for failure are not well understood. Although the suggestion that knowledge is one of the determinants of food choice may seem intuitive, several psychological

and environmental factors might play a role in such choice, leading to different attitude towards changing behaviour for health reasons.

The main objective of this study was to determine the level of nutrition knowledge of teenage girls in Tirupati. And also to gain an insight into teenager’s eating behaviour and practices.

Methods

The target population for this study was teenage girl’s from Tirupati town. The Tirupati city was purposively selected due to rapid urbanization and a number of educational institutions are located in this pilgrim town. Two high schools and two colleges were randomly selected for the study. A total number of 100 teenagers aged between 13-19 years were selected randomly.

A questionnaire [14] which was slightly modified from an earlier study was used to measure teenager’s nutritional Knowledge, Attitude and Practices (KAP).The level of nutrient knowledge was assessed using 15 statements, 15statements for attitude, and 12 statements for to asses nutritional practices. Based on the teenagers responses percentages were calculated. And anthropometric techniques were used to collect height and weight of the subjects.

Results and Discussion

The results of the present study revealed that the older teenagers have good knowledge regarding nutrition and nutritional needs than the younger teenage children. With regard to anthropometric measurements height and weight of teenagers were measured. It is evident from the table-I that

the mean height and weight of the subjects were increased, when the age is increased.

Table 1: I Mean height, weight of teenage girls

| Age in years | No | Height (cms) | Weight (kgs) |
|--------------|----|--------------|--------------|
| 13 | 14 | 146.7 | 39.0 |
| 14 | 14 | 150.7 | 40.2 |
| 15 | 15 | 152.6 | 41.0 |
| 16 | 17 | 153.0 | 43.5 |
| 17 | 18 | 152.4 | 43.8 |
| 18 | 14 | 152.8 | 45.7 |
| 19 | 14 | 152.6 | 45.0 |

Table II shows that teenagers have adequate knowledge on certain aspects of nutrition. Majority of the teenagers (80.5%) know that nuts are healthy food, milk as well as meat are good sources of protein (67.0%) and 70.0% stated walking is healthier than riding. 67.0% and 50.0% of teenagers expressed sports prevent obesity, supplements consumption required if the body lacks nutrients respectively. Almost 80.5 percent of the teenagers feel that washing hands with soap + water before and after eating can prevent infectious diseases. And 44.5% respondents expressed that vegetables and fruits are good sources of vitamins and minerals.

However, there were still several questions stated ‘true’ when infact it is wrong such as rice can be replaced with noodles (56.0%) and rice can be replaced with bread (80.5%). 37 percent teenagers opined that fruits with low price contains less vitamins and 30 percent felt that sugary drinks are good for health.

Table 2: Nutritional knowledge among teenage girls

| Questions | Answer Choices | | |
|--|----------------|-----------|--------------|
| | True (%) | False (%) | Not Know (%) |
| Each meal should be diverse | 19.5 | 50.5 | 30.0 |
| Rice can be replaced with noodles | 56.0 | 34.0 | 10.0 |
| Rice can be replaced with bread | 80.5 | 18.5 | 1.0 |
| Vegetable & fruit are sources of vitamin-mineral | 44.5 | 26.5 | 29.0 |
| Cheap fruit contains less vitamin | 37.0 | 31.5 | 31.5 |
| Animal protein can be replaced with plant protein | 20.0 | 19.5 | 70.5 |
| Fish can be replaced with tofu & nuts | 44.0 | 30.0 | 26.0 |
| Milk as well as meat as a protein source | 67.0 | 12.0 | 21.0 |
| Nuts are a healthful food | 80.5 | 6.5 | 13.0 |
| Always drink sugary drinks are good for health | 30.0 | 39.5 | 30.5 |
| Supplements consumption required if the body lacks nutrients | 50.0 | 23.0 | 27.0 |
| Walking is healthier than riding | 70.0 | 5.0 | 25.0 |
| Sports prevent obesity | 67.0 | 10.0 | 23.0 |
| Ideal body weight monitoring is an indicator of nutritional adequacy and compliance of health status | 20.0 | 41.0 | 39.0 |
| Wash hands with soap + water before and after eating can prevent infectious diseases | 80.5 | 9.5 | 10.0 |

According to this study it was found that teenagers (70.5%) were unaware the fact that animal protein can be replaced with plant protein. 30.0% of the teenagers opined each meal

should be in divers form and another 39.0% felt that ideal body weight monitoring is an indicator of nutritional adequacy and compliance of health status.

Table 3: Attitude and practices among teenage girls

| Questions | Agree & Strongly Agree (%) | Disagree & Strongly Disagree (%) |
|---|----------------------------|----------------------------------|
| Breakfast makes it easier to learn | 60.0 | 40.0 |
| Need to eat a variety of foods so that the body gets all the nutrients | 65.0 | 35.0 |
| Healthy food is food that is expensive | 30.5 | 69.5 |
| Consumption of 2-3 servings of fruit perday | 30.0 | 70.0 |
| Consumption of 3-5 servings of vegetables | 51.0 | 49.0 |
| Vegetables and fruits are very important to keep the body healthy and fit | 84.0 | 16.0 |
| Green and orange vegetables are better than no colour | 45.0 | 55.0 |
| Animal protein is better than vegetable protein | 40.0 | 60.0 |

| | | |
|--|-----------------|-------------------------|
| Fish eating is good for health | 39.5 | 60.5 |
| Drinking milk alone is enough to make a healthy body | 90.0 | 10.0 |
| Drinking water a day at least 8 glasses or 2 litters | 60.5 | 39.5 |
| Exercise just once a week | 64.0 | 36.0 |
| Weight monitoring can be done at any time or at least once a month | 30.0 | 70.0 |
| Cutting & cleaning of nails for healthy behaviour | 89.0 | 11.0 |
| Ideal body can achieved by the application of balanced diet in everyday life | 55.0 | 45.0 |
| Practices of teenage girls | | |
| Questions | Yes, Everyday % | Yes, once in ten days % |
| School snacks | 45.0 | 55.0 |
| Consumption of coloured vegetable | 30.0 | 70.0 |
| Consumption of colourless vegetables (cabbage, etc.) | 22.0 | 78.0 |
| Consumption of coloured fruits | 24.0 | 76.0 |
| Consumption of colourless fruit | 24.0 | 76.0 |
| | Yes % | Seldom % |
| Breakfast skipping | 30.0 | 70.0 |
| Bring lunch for school/college lunch | 44.0 | 56.0 |
| Every day eat vegetables | 50.5 | 49.5 |
| Every day eat fruit | 30.5 | 69.0 |
| Every meal, eat vegetable | 30.0 | 70.0 |
| Every meal, eat fruit or fruit juice | 6.5 | 93.5 |
| Wash hands with water + soap every meal (before & after) | 80.0 | 20.0 |

Table III shows the teenagers attitude and practices. Many teenagers (55.0%) responded positively by the statement ideal body can achieved by the application of balanced diet in everyday life. A majority (60.0%) of the teenagers agreed & strongly agreed that the breakfast makes learning more easily. Most of the teenagers answered “agree and strongly agree” on a number of negative questions such as healthy food is food that is expensive (30.5%), drinking milk alone is enough to make a healthy body (90.0%), exercise just once a week (64.0%), weight monitoring can be done at any time or at least once in a month (30.0%).

The teenagers opined positively that vegetables and fruits are very important to keep the body healthy and fit (84%), Consumption of 3-5 servings of vegetables per day (51.0%) is good, drinking water a day at least 8 glasses or 2 litters (60.5%) and cutting & cleaning of nails for healthy behaviour. So it was found that teenagers have positive attitudes in these issues.

With regard to the nutritional practices, 45% teenagers consumed snacks in the school timings. A quarter of the teenagers consume fruits and vegetables daily. 70.0% of the teenagers consume vegetables once in ten days. Though breakfast is considered as the main meal of the day, 30% of the teenager’s skipping their breakfast daily and 44% bring lunch boxes for school and college these findings are near to the findings of Sitti Patimah ^[14]. The nutritionists well recognized breakfast consumption is useful. The breakfast skipping leads to unfavourable for health ^[15], 50.5% practicing daily consumption of vegetables and 30.5% practicing daily consumption of fruit. Coming to the hygienic practices 80.0% of the teenagers wash hands with water+soap every meal before & after every meal.

When the investigator further interacted with teenagers, 64.5% accepted that they like more deep fried, salt and sugar foods. Many of them were regular to the fast food centre. Majority of the junk foods, fast food etc. are located near the educational institutions. When citing reasons for intake of junk food they said these foods are tasty, convenient, low cost and readily available. A limited number (24% and 30% and 7.0%) of teenagers consumed fruits, vegetables, and fresh juices respectively. In further probing it was found that 58.5% of teenagers were not aware of health effects and consequences of junk food.

Conclusion

Normal nutritional needs remain throughout the life. Good nutrition generally can improve the spirit and quality of life, can speed recovery from illness and prolong life. Teenage is a unique interventions point of life cycle. It is a stage of new ideas and a point at which lifestyle choices may determine an individual’s life course. Although teenagers are well informed about nutrition and good eating practices, this knowledge is often not translated into their daily lives.

The present study reveals that of adolescent age group have knowledge regarding nutrition but they are not well informed nutritional needs for maintaining good health. They are also not much aware of health effects and consequences of unhealthy eating practices. Therefore, there is a need for nutritional intervention programmes for teenagers. Educating the teenagers on nutrition and health aspects will go a long way to lead a better life.

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