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Poonam Yadav
Research Scholar, Home Science
Faculty KNIPSS Sultanpur,
Uttar Pradesh, India

Mamta Jaiswal
Advisor & Assistant Professor,
Home Science Faculty KNIPSS
Sultanpur, Uttar Pradesh, India

Kiran Agrahari
Co Advisor & Assistant
Professor, Home Science Faculty
KNIPSS Sultanpur, Uttar
Pradesh, India

Archana Singh
Co Advisor & Assistant
Professor, Home Science Faculty
KNIPSS Sultanpur, Uttar
Pradesh, India

Correspondence
Poonam Yadav
Research Scholar, Home Science
Faculty KNIPSS Sultanpur,
Uttar Pradesh, India

A comparative study on dietary habits of teenagers of home science students and non-home science students of Sultanpur city

Poonam Yadav, Mamta Jaiswal, Kiran Agrahari and Archana Singh

Abstract

The objective of present investigation was a comparative study on dietary habits of teenagers of home science students & non-home science students. This study sought to find out whether factors which affect the dietary habits and nutritional status of teenagers of home science and non-home science students. The aim of this study was to determine the dietary habits and nutritional status of teenagers of home science and non-home science students. A questionnaire was developed for the collection of data concerning to their eating habits and food choice. A random selection of 100 respondents of 13 to 19 years old female from the population of home science and non-home science areas of Sultanpur district. Nutritional status was estimated on the basis of the body mass index. After the analysis of the result it was found that, (50% per cent and 66per cent) teenagers were underweight respectively, normal weight (46 per cent and 34 per cent) respectively and overweight (4% per cent per cent) respectively in home science and non-home science respondents. (72per cent and 44 per cent taken fresh fruit in Regular consumption & sometime 24% & 54% include in the diet. 80% home science respondent include GLV daily in the diet & 78% non-home science respondents. consumption of milk 48 per cent, and 46 per cent sometime consumption of milk 36 per cent and 38 per cent.

Keywords: Teenagers, dietary habits, BMI

Introduction

Teenage is one of the most challenging periods in Human Development. It is a period of rapid physical, emotional, intellectual and social growth. Physical and psychological changes taking place and many important issues arise that influence their eating or dietary habits. To support this growth, they need extra calories, calcium, iron and sufficient amount of protein but it is possible when modify their dietary habits and nutritional status. Dietary habits are the habitual decisions an individual or culture makes when choosing what foods to eat. The word diet often implies the use of specific intake of nutrition for health or weight-management reasons. The routine food choice that adolescents make impact their nutritional status, health and their risk of developing chronic, illness such as heart disease, cancer and osteoporosis in the future. Nutrient requirement during adolescence are comparable to those in early infancy, emphasizing the importance of a high quality diet for health growth and development.

Objective

- ❖ To study about the dietary habits of teenagers.
- ❖ To compare the dietary habits of teenagers of home science students & non-home science students of Sultanpur city.

Method and Materials

The study entitled "a comparative study on dietary habits of teenagers of home science students & non-home science students of Sultanpur city. Was conducted by using the following methodology described in this chapter. The detail of material used, procedure followed and techniques adopted during the course of the present investigation have been elaborated in this chapter.

Selections of area - The area of Sultanpur were purposively selected for the study because no such study has been carried out there earlier and it was easily accessible for the researcher for authentic collection of data.

Selection of Knipss College - Home science department & agricultural department of the area of Sultanpur were selected for the present study.

Sample selection - Sample size consisted of 100 adolescent's girl 50 home science respondents & 50 non-home science respondents were randomly selected from the knipss colleges. Methods of enquiry and collection of data-survey method was adopted in order to collect the data from the selected respondents with the help of the developed schedule, the schedule include aspects which led to the fulfilment of the objectives of this study.

The schedule includes the following information:

1. General Information
2. Dietary Information
3. Anthropometric Measurements

General Profile

Data regarding general profile of the respondents were collected using the first part of the schedule this section covered the aspects including respondent name, age and sex, religion status, and all these are important for knowing the respondents socio –economic status the age of each respondent was a ascertained with the help of their date of birth.

Dietary Survey

A dietary survey was conducted as described by Srilakshmi (2005) the food consumption frequency was recorded in terms of cereals pulses, milk and milk product, green leafy vegetable, roots and tubers, fruits meat and poultry, fats oils and sugar. Diet surveys constitute an essential part of any complete study of nutritional status of individuals or groups, providing essential information on nutrient intake level, sources of nutrients, food habits and attitudes, the nutrient intake of the subject was calculated on the basis of 24 hours dietary recall method. The diet was calculated for calories, protein, fat fibre, calcium, iron vitamin a vitamin c, and thiamine. The nutrient intake was calculated using the food composition tables by and compare with the measurement of variation of physical dimensions hence, anthropometric measurements are useful criteria for assessing nutritional status.

The anthropometric measurement included height (cm) and weight (kg) which was recorded using the procedure prescribed by. Body mass index (BMI) was calculated.

Height Measurement

Height (cm) of the subject was taken with the help of a measuring tape by sticking it on the wall- the subject were made to stand erect, looking straight, buttock shoulders and kneed touching the wall, heels together, does a part and hands hanging loosely by the sides. Height (cm) was recorder in centimetres

Weight

The personal weighting machine of maximum capacity of 120kg and the minimum division of 0.5kg was used to weight all the subjects and the scale was set to zero the respondent

were made to stand erect on the weighting scale, without foot wear, not leaning again store holding anything and the weight was recorded in kg the scale was adjusted to zero after each measurement.

Body mass index (BMI)

Body mass index of each subject was calculated from the recorded height (cm and weight kg) measurement as prescribed by park (2007).

BMI=weight (kg)

Height (m²)

BMI classification (WHO, 1995)

| Bmi Values | Categories |
|------------|-----------------|
| <18.5 | Underweight |
| 18.5.24.9 | Normal |
| 24.9.30 | Pre-Obese |
| 30.34.9 | Obesity Grade 1 |
| 35.40 | Obesity Grade 2 |
| <40.0 | Obesity Grade 3 |

Source: Park 2007

Statistical Analysis

The selected sample was interviewed personally and collect data were analyzed the finding were presented in the form of tabulated data and make comparison of each attributes the result is expressed in the form of frequency and percentage The statistic analysis applied fallowing procedure percentage

$$\% = \frac{n}{N} \times 100$$

Where,

n =number of respondent

N= total number of observation.

Result and Discussion

The data collection of the different aspect per plan was tabulated and analyzed statistically. The result from the analysis are presented and discussed in the fallowing sequence.

Table 1: Distributions of respondents on the basis of their including Fresh fruit in the diet.

| Taking Fresh Fruit | Frequency(N=100) | | Percentage (%) | |
|--------------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 36 | 22 | 72% | 44% |
| Weekly | 1 | 2 | 2% | 4% |
| Sometime | 12 | 27 | 24% | 54% |

Above figure shows that in home science 72% of respondents were including fresh fruit regular in their diet while, 44% of respondents of non-home science respondent, only 2% of home science respondents were including fresh fruit in their diet weekly while, 4% of respondents in non-home science respondents, And 24% respondents of home science were including fresh fruit in sometime their diet 54% of respondents in non-home science. A big majority 72.% of non-home science respondents were regularly including fresh fruit in their diet whereas, only 44% in home science respondents The percentage of including fresh fruit regularly in diet were higher in home science respondents than non-home science respondents. Because home science respondents we know the importance of fresh fruit regular in their diet.

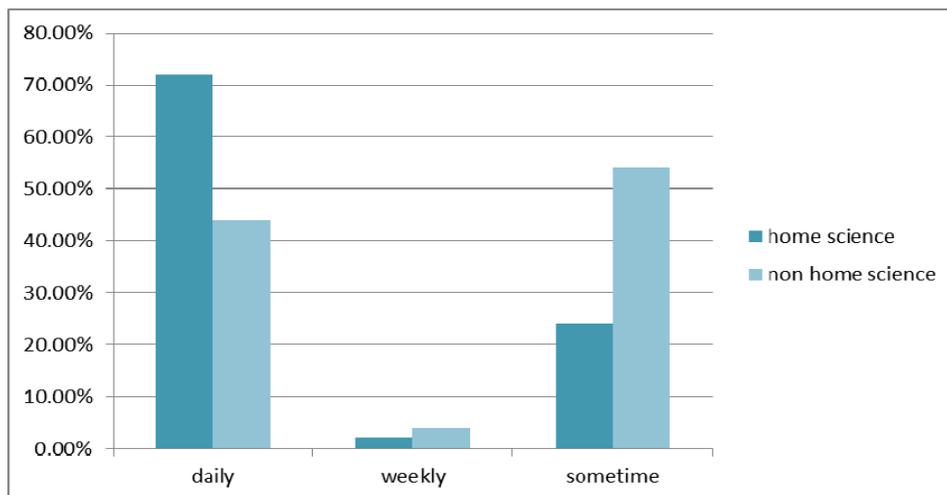


Fig 1: Distribution of respondents on the basis of their including fresh fruit in the diet.

Table 2: Distributions of respondents on the basis of their including Green Leafy Vegetable in the diet.

| Green Leafy Vegetable Included In Their Diet | Frequency(N=100) | | Percentage (%) | |
|--|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 41 | 39 | 82% | 72% |
| Weekly | 1 | 2 | 4% | 4% |
| Sometimes | 7 | 10 | 14% | 20% |

Above figure shows that in home science 82(%) of respondents were included Green Leafy vegetable daily in their diet while, 72(%) in non-home science, there were 4(%) respondents were include green leafy vegetable weekly in diet in home science, only 4(%) respondents in non-home science, and 14 (%) of home science respondent sometime include

GLV in diet & 20 (%) of non-home science respondents were include green leafy vegetable. A big majority of daily include GLV in the diet both areas. Because vegetables and other crops were locally grown in their fields and also 20(%) rural respondents occupation were farming so they were included GLV regularly.

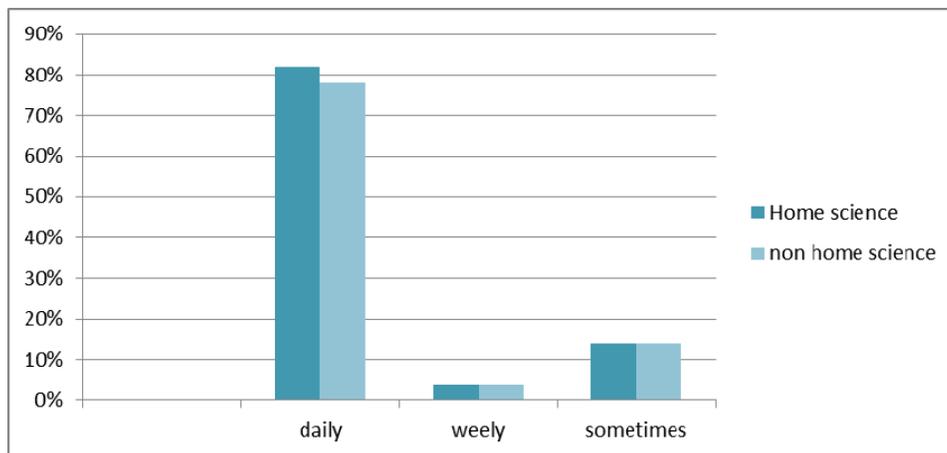


Fig 2: Distributions of respondents on the basis of their including GLV in the diet.

Table 3: Distributions of respondents on the basis of their including salad in The Diet

| Salad Included In Their Diet | Frequency(N=100) | | Percentage (%) | |
|------------------------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 34 | 21 | 68% | 42% |
| Weekly | 1 | 2 | 2% | 4% |
| Sometimes | 15 | 27 | 30% | 54% |

Above figure shows that in home science 68(%) of home science respondents were included salad regular in their diet while, 42(%) in non-home science, 2(%) of home science respondents weekly included salad in their diet while, only 4(%) in non-home science and 30 (%) of home science respondents were sometimes included salad in their diet

whereas, 54% of non-home science respondents sometime included salad in the diet. Regular consumption of salad in home science teenagers was higher than non-home science teenagers because science respondents home we know the importance of fibre in their diet.

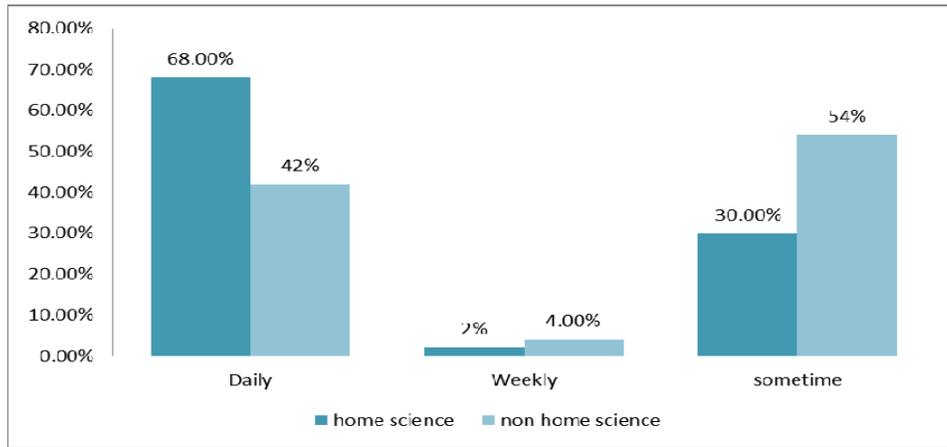


Fig 3: Distributions of respondents on the basis of their including salad in the diet.

Table 4: Distributions of respondents on the basis of their including curd in the diet.

| Taking Curd In The Diet | Frequency(N=100) | | Percentage (%) | |
|-------------------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 25 | 18 | 50% | 36% |
| Weekly | 6 | 10 | 12% | 20% |
| Sometimes | 19 | 22 | 38% | 44% |

Above figure shows that in home science 36 (%) of respondents were included curd in their diet while, 50% in non-home science, 20(%) of home science respondents were weekly included curd in their diet while, only 12(%) of non-home science and 44(%) of home science respondents were sometimes included curd in their diet whereas, 38(%) of non-home science respondents, Regular consumption of curd in home science teenagers was lower than non-home science.

teenagers because mostly respondents were belonged to lower and middle family income group another reason curd were not available some families were made curd at home so that was impossible for them to include curd regular in their diet. Some respondents in home science and non-home science were never taken curd in their diet because some respondents in both areas were not liked milk and milk product.

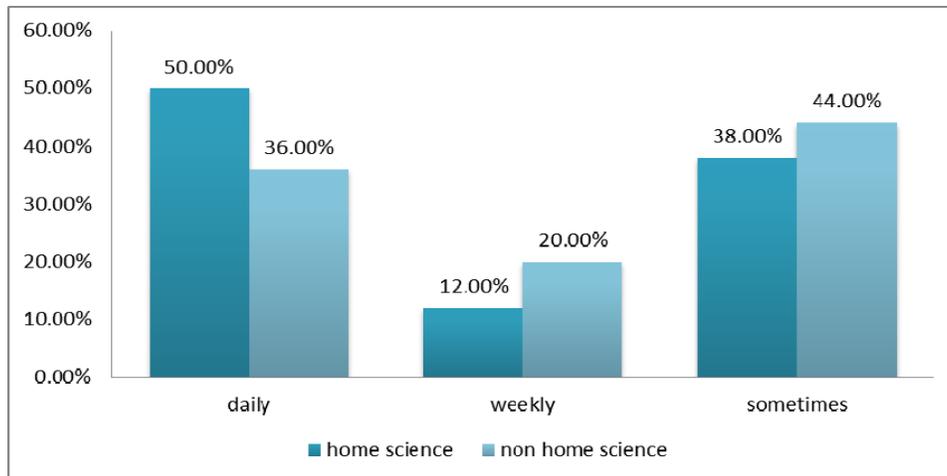


Fig 4: Distributions of respondents on the basis of their including curd in the diet.

Table 5: Distribution of respondents on the basis of taken milk.

| Taken Milk | Frequency(N=100) | | Percentage (%) | |
|------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 24 | 23 | 48% | 46% |
| Weekly | 7 | 9 | 14% | 18% |
| Sometimes | 18 | 19 | 36% | 38% |

Above figure shows that 48(%) of respondents of home science were taken milk it means they aware towards their health, while, 46(%) of respondents of none home science. Were 14 (%) of respondents of home science a not taken milk while,18% of non-home science respondents reason were

some respondents were not liked milk & milk product and some respondents in both areas were belonged to low income group. And 36(%) of respondents of home science taken sometimes milk. And 38(%) of non-home science respondents were taken sometimes milk.

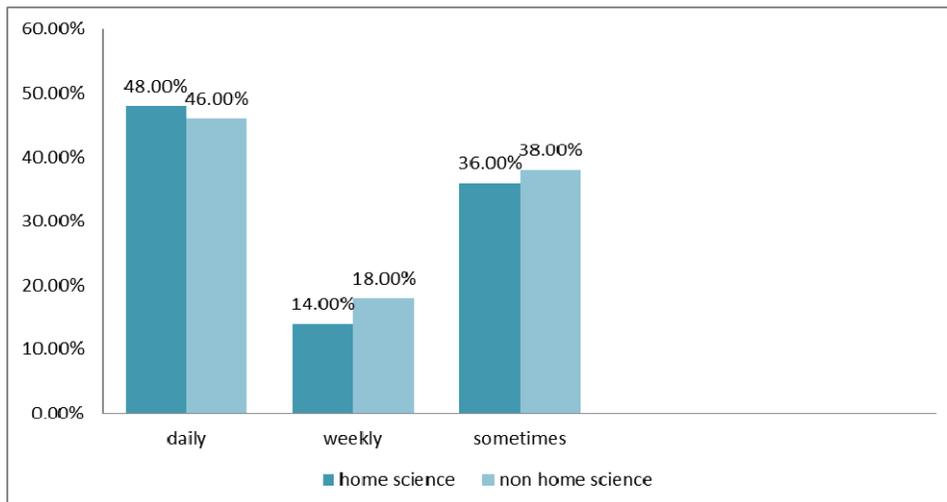


Fig 5: Distributions of respondents on the basis of their taken milk.

Table 6: Distributions of respondents on the basis of their taken tea or coffee in a day.

| Taken Tea or Coffee In A Day | Frequency(N=100) | | Percentage (%) | |
|------------------------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Once | 9 | 6 | 18% | 12% |
| Twice | 30 | 40 | 60% | 80% |
| Thrice | 9 | 1 | 18% | 2% |
| More Than Thrice | 2 | 3 | 4% | 6% |

Above figure shows that in home science 18(%) of respondents were taken tea/coffee once in a day while, only 12% in non-home science, were taken 60(%) of home science respondents were taken tea/coffee twice in a day while, 80(%) of non-home science respondents, 18(%) of home science respondents were taken tea/coffee more than twice in a day while, 2(%) in non-home science and only 4(%) of home

science respondents were not taken tea/coffee while, 6(%) in non-home science. The frequency of consuming tea/coffee in home science respondents were higher than non-home science respondents because life schedule were different than non-home science respondents they were sleeps too late at night so they were taking tea/coffee for stimulation.

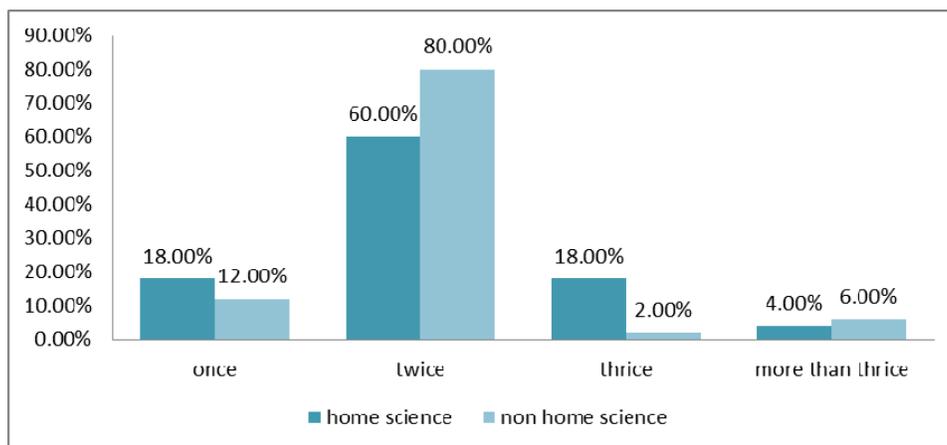


Fig 6: Distributions of respondents on the basis of their taking tea/coffee in a day.

Table 7: Distributions of respondent on the basis of their taken cold drinks in a day.

| Taken Cold Drinks In A Day | Frequency(N=100) | | Percentage (%) | |
|----------------------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Daily | 4 | 19 | 8% | 38% |
| Weekly | 5 | 5 | 10% | 10% |
| Sometimes | 26 | 41 | 52% | 82% |

Above table shows that that were 8(%) of home science respondents taken cold drinks in a day while 38. (%) of non-home science respondents were taken cold drinks in a day, 10 (%) of home science respondents were not taken cold drinks

in a day while only 10 (%) of non-home science respondents were not taken cold drinks and a big majority 82(%) of non-home science respondents were taken cold drinks sometimes in a day only 52(%) of home science respondents were taken

cold drinks sometimes in a day. The regular consumption of cold drinks in non-home science respondents was higher than

home science respondents. Because home science respondents we know the cold drinks calories is very high.

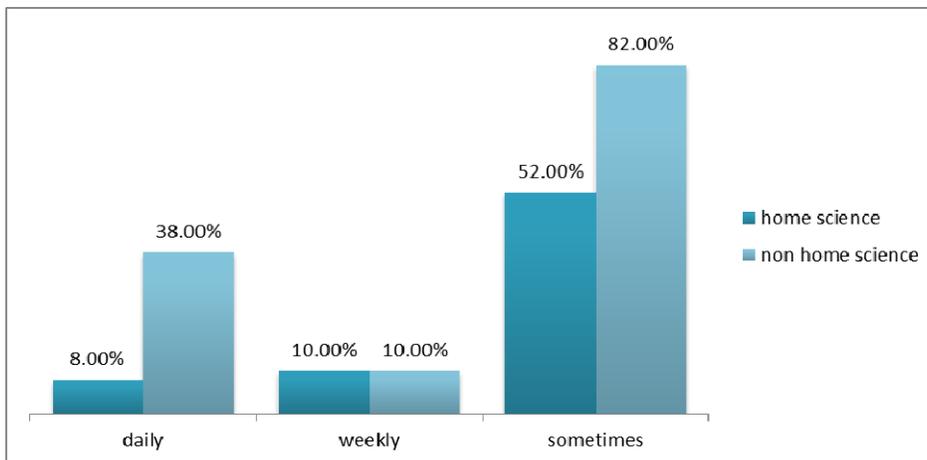


Fig 7: Distributions of respondents on the basis of their taken cold drinks in a day.

Table 8: Distributions of respondents on the basis of their BMI.

| BMI | Frequency(N=100) | | Percentage (%) | |
|-------------|------------------|------------------|----------------|------------------|
| | Home Science | Non-home Science | Home Science | Non-home Science |
| Underweight | 25 | 33 | 50% | 66% |
| Normal | 23 | 17 | 46% | 34% |
| Overweight | - | 2 | - | 4% |

Above figure shows that in home science 50% of respondents belonged to underweight & 66% of respondents in non-home science while, 46% of respondents in home science belonged to normal weight only 34% of respondents in non-home science and 2% of respondents in home science belonged to overweight and in non-home science were no respondents a big majority of respondents underweight in both areas.

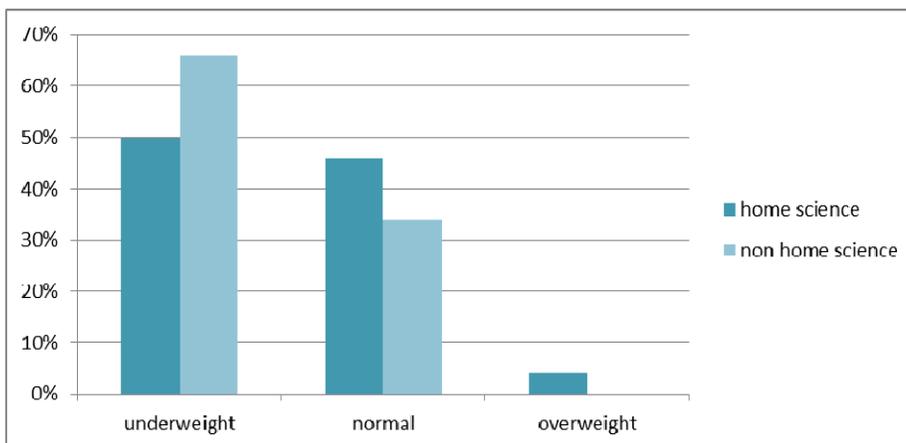


Fig 8: Distributions of respondents on the basis of their BMI.

Summary and Conclusion

In recent years, the dietary habits and nutritional status of teenagers were bad in both areas but non-home science teenagers dietary habits and nutritional were more affected than home science teenagers. Prevalence of fast food eating and also high in frequency of consuming fast food and snack and prevalence of both underweight and overweight were increased rapidly in non-home science areas teenagers than home science teenagers. The present study entitled “A comparative study on dietary habits of teenagers of home science students and non-home science students of Sultanpur city” was undertaken in Sultanpur district. Total 100 teenagers were randomly selected for the study. 50 teenagers were belonging to home science and 50 teenagers were belonging to non-home science students of knipss Sultanpur District.

A questionnaire was developed to collect data from both home science and non-home science teenagers. Collected data

classified in table form and frequencies shows in percentage. Result was presented in graph.

Frequencies of tea/coffee consumption were also higher in non-home science teenagers than home science teenagers.

The percentage of regular consumption of curd, GLV, was higher in both areas teenagers but home science frequency in higher other than non-home science the consumption of fresh fruit in home science teenagers was higher (82%) than non-home science teenagers 78% and sometime taking fresh fruit in the diet in home science(14% & 14% non-home respondents,

More than half percent of teenagers in both areas teenagers were taken milk it means they are aware towards their health 38% &36 teenagers in both areas were not taken milk because some respondents in both areas were belonging to low income group, & dislike the milk & they cannot offered milk regularly.

Conclusion

After analyzing the results obtained it concluded, the dietary habits of home science teenagers are better than non-home science teenagers. They also had taken more tea/coffee and cold drinks other than home science teenagers. Prevalence of underweight in both areas teenagers were found but non-home science teenagers more affected and the problem of overweight were also found in both areas but high in non-home science teenagers these are due to irregular, imbalance and frequent consumption of fast food and snacks because these are rich in fat, fibre sweet and sodium.

Limitation of the Study

- Since the study is carried out for short period so that the time and other resources are limited to an extent.
- Which has its own limitation, so collection of data by this method often have lack of reliability then they obtained result is not reliable.

Acknowledgement

All glory to the almighty, whose blessing in the success behind this project praise pride and perfection belong to almighty. So first of all I would like to express my deepest sense of gratitude to the omniscient power of the universe, the almighty God.

This project would not have been possible without the support of many people. Word fails to express my sense of independence and profound gratitude toward my honourable Adviser Dr. Mamta Jaiswal (Head) and Co-adviser Miss Kiran Agrahari and Miss Archana Singh (Assistant professors), Faculty of Home Science, Kamla Nehru Institute of Physical and Social Sciences, Sultanpur (U.P.), for her noble advise constructive criticism and valuable suggestion. Many thanks to my honourable adviser for her innovative ideas, valuable suggestion unending inspirations enduring fortified during my study. Her continued encouragement positive attitude towards my ability made the achievements of this goal easy to tackle complete my work in time. Idem it is rare opportunity and the proud privilege of my life to express my best regard sense of homage and gratitude parents and my family's constant inspiration, everlasting affection, their blessing sacrifices emotion, financial and moral support are the prime fact which made me capable of doing this all.

From the very special corner of my heart I wish to record my indebtedness to my friends for their kind help and express my manifold thanks to Pinky and Priya. I am also thankful to all respondents for giving me proper cooperation during the data collection

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