



(RESEARCH ARTICLE)



A quasi-experimental study to assess the effectiveness of the structured teaching programme on knowledge and attitude regarding health hazards of the junk food among students in selected school of Himachal Pradesh 2019-21

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Abstract

Junk food consumption worldwide is increasing day by day which is not good for the future. Junk food is very harmful that is slowly eating away the health of the present generation. The aim of study was to assess the effectiveness of structured teaching programme on knowledge and attitude regarding health hazards of the junk food among students in selected school of Himachal Pradesh.

Quantitative research approach and non-randomized control group pre-test post-test design was used for the present study. Non-probability Convenient sampling technique was used. Sample size was 100 i.e. 50 for experimental group and 50 for control group. In experimental group comparison within group, mean post-test knowledge score was significantly higher than the mean pre-test knowledge score as evident from paired t value 19.66 and mean post-test attitude score was significantly higher than the mean pre-test attitude score as evident from paired t value 21.67. Comparison between experimental group mean post-test knowledge score was significantly higher than mean post-test knowledge score of control group as evident from Unpaired t value 12.39 and mean post-test attitude score was significantly higher than mean post-test attitude score of control group as evident from Unpaired t value 9.71 which was significant at 0.05 level of significance. Positive correlation was found between pre-test knowledge and post-knowledge $r=0.46$, post-test knowledge and pre-test attitude $r=0.43$, post-test knowledge and post-test attitude $r=0.474$, pre-test attitude and post-test attitude $r=0.86$ experimental group and control group positive correlation was found between pre-test knowledge and post-knowledge $r=0.97$, pre-test attitude and post-test attitude $r=0.98$ which was significant at 0.05 level of significance. Association of knowledge score and attitude score regarding health hazards of junk food among students with selected demographic variable in experimental and control group was not statistically significant. The study concluded that structured teaching Programme was effective to increase the knowledge and change the attitude regarding health hazards of junk food.

Keyword: Assess; Effectiveness; Structured Teaching Programme; Knowledge; Attitude; Junk food; Health Hazards Students

1. Introduction

Good health is the necessity of living a healthy existence for every person which needs to maintain a healthy diet and healthy habits throughout the life. However, the habit of consuming junk food is increasing each day and making our future sad and diseased mainly our younger generations. Parents have to be very aware regarding consuming behavior in their children and kids due to the fact in the early life they do not know and decide their good or bad so it is parents who are fully responsible for the good or bad eating habits among their child. Junk foods are high in bad cholesterol and

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cause damage to the heart and liver, they cause stretch in the stomach and effect on digestive system also result in constipation etc. Junk food consumption worldwide is increasing day by day which is not good for the future. People of all age groups like to eat junk food and they usually choose to eat whenever they enjoy a special time with the family like birthday party, anniversary, etc.

The Himachal Pradesh High Court on Friday reserved its judgement on the banning of 25 junk food items sold in plastic packaging in the state. The ban on junk food items like chips, Kurkure, biscuits and noodles etc., sold in plastic/non-biodegradable packaging was imposed on June 26 but had to come into force on July 1, 2013 as per orders of the High Court. Regulating the consumption and availability of junk food in the schools, Food safety and standard authority of India (FSSAI) has finally drafted the guidelines proposing to restrict sale of food high in fat, sugar and salt within 50 meters of a school's premises, Recently, a study conducted by renowned cardiologist PC Negi and Anjali Mahajan had revealed that childhood obesity has increased in Shimla. Establishing a link between food high in fat, sugar and salt and Obesity, the study had concluded, "It is indeed ironic that a problem of 'plenty', namely, childhood overweight and obesity has emerged, even as we are still fighting malnutrition and infectious disease. Parents also should know about the importance of homemade food. Homemade food uses less salt to season meals, but restaurants and fast-food outlets use generous amounts to enhance flavors. Food additives and preservatives also contain salt. A home cooked meal will generally have fewer calories and fat contents than a meal at a fast-food joint. Eating at home has been linked to a barrage of different health benefits including, consuming less calories, carbs, sugars, and fats. Cooking at home is a healthier option, and also save money and time

2. Material and methods

Research methodology is the significant part of any research study, which enable the researcher to project a blue print of study, which enables the researcher to project a blue print of the research understanding. The research methodology includes strategies to be used to collect and analyses the data to accomplish the research objectives. The methodology of research indicates the general pattern organizing the procedure for gathering valid and reliable data for investigation. It deals with the description of methodology and different steps, where taken for gathering and organizing data for investigation. It includes research approach, research design, the setting, the population, and sample, and sampling technique, development and description of tool, procedure for data collection and the plan for data analysis.

The research approach adopted in the study was quasi-experimental research approach A Quasi experimental "non-randomized control group pre-test post-test design" was selected for present study. The study was conducted Government Senior Secondary School Kanaid Distt. Mandi, (H.P.) for experimental group and Government Senior Secondary School Bagla Distt. Mandi, (H.P.) for control group.

Total sample were 100 students (50 experimental and 50 control group). With the extensive review of literature and discussion with the experts and with the investigator personal and professional experience 'Self- Structured knowledge questionnaires and 5-point Likert scale were developed to assess the knowledge and attitude of the students regarding health hazards of junk food. In the present study self-structured knowledge questionnaire and 5-point Likert scale was used as a tool for data collection. The tool for data collection consist of three parts.

- Part A: - Description of Socio- demographic tool (s).
- Part B: - Self- structured knowledge questionnaires regarding health hazards of junk food.
- Part C: - 5-point Likert scale regarding health hazards of junk food.

Validity of tools was established by experts from nursing field The reliability of tool was determined by using Test-Retest Method and tool was found highly reliable. The 'r' value calculated by using $r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{n\sum x^2 - (\sum x)^2} \sqrt{n\sum y^2 - (\sum y)^2}}$ knowledge was 0.88 and 'r' value of attitude was 0.93, hence the tool was considered reliable for proceeding with the main study. Ethical approval to conduct the study was obtained from the principal of the college. Informed consent was taken from the students of the school. Data collection not interfered the daily routine working of the area. Data collection was carried out by using developed & validated self- structured questionnaire and 5-point Likert scale. The purpose and details of the study was explained to the study subjects. Assurance was given regarding the confidentiality of the data collected. The tool of data collection was consists of three section. Phase -1: Assessment of pre-test knowledge and attitude regarding health hazards junk food on 20-7-2021 among experimental group & control group. Phase-2: On 21-7- 2021 intervention was given only to experimental group in form of structured teaching programme regarding health hazards of junk food. Phase-III after 1 week on 28- 7- 2021 post-test was conducted to assess the level of knowledge and attitude regarding health hazards of junk food among experimental group & control group. Researcher observed the language of the tool was clear and easily understood. After that researcher thanked the study subject.

3. Results

3.1. Section-A: Description of demographic variables among students in experimental and control group.

Table 1 Frequency and percentage distribution among students on the basis of demographic variables such as age, gender, class, area of residence, educational status of father, educational status of mother, type of family, family income, per day pocket money, do you eat junk food daily, frequency of eating junk food, most common place of eating junk food, Previous Sources of Knowledge

S.no	Demographic variables		Experimental group n=50		Control group n=50	
			Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
	Age	12 years	13	26%	11	22%
		13 years	23	46%	21	42%
		14 years	14	28%	18	36%
	Gender	Male	20	40%	16	32%
		Female	30	60%	34	68%
	Class	8th standard	25	50%	25	50%
		9th standard	25	50%	25	50%
	Area of Residence	Urban	9	18%	5	10%
		Rural	40	80%	41	82%
		Semi urban	1	2%	4	8%
	Educational status of father	No formal education	2	4%	4	8%
		Primary education	2	4%	6	12%
		Secondary education	31	62%	25	50%
		Graduate or above	15	30%	15	30%
	Educational Status of mother	No formal education	6	12%	7	14%
		Primary education	3	6%	7	14%
		Secondary education	33	66%	31	62%
		Graduate or above	8	16%	5	10%
7.	Type of family	Nuclear family	29	58%	22	44%
		Joint family	19	38%	23	46%
		Extended family	2	4%	5	10%
8.	Family income	< Rs.10,000	14	28%	19	38%
		Rs.10,001- Rs.15,000	12	24%	6	12%
		Rs.15,001-Rs. 20,000	8	16%	14	28%

		> Rs.20,000.	16	32%	11	22%
9.	Per day pocket money	< Rs. 50	43	86%	44	88%
		Rs. 50-100	5	10%	5	10%
		> Rs. 100	2	4%	1	2%
		No pocket money	0	0%	0	0%
10.	Do you eat junk food daily	Yes	34	68%	39	78%
		No	16	32%	11	22%
11.	Frequency of junk food daily	1 time	27	54%	33	66%
		2-3 times	5	10%	7	14%
		More than 3 times	3	6%	1	2%
		Never	15	30%	9	18%
12.	Most common place of eating junk food	At home	22	44%	19	38%
		School canteen or Shops	16	32%	12	24%
		Fast-food corner	10	20%	15	30%
		Others	2	4%	4	8%
13.	Previous sources of knowledge	Yes	46	92%	47	94%
		No	4	8%	3	6%

Table.no 1- Depicts frequency and percentage distribution among students on the basis of demographic variables such as age, gender, class, area of residence, educational status of father, educational status of mother, type of family, family income, per day pocket money, do you eat junk food daily, frequency of eating junk food, most common place of eating junk food, Previous Sources of Knowledge

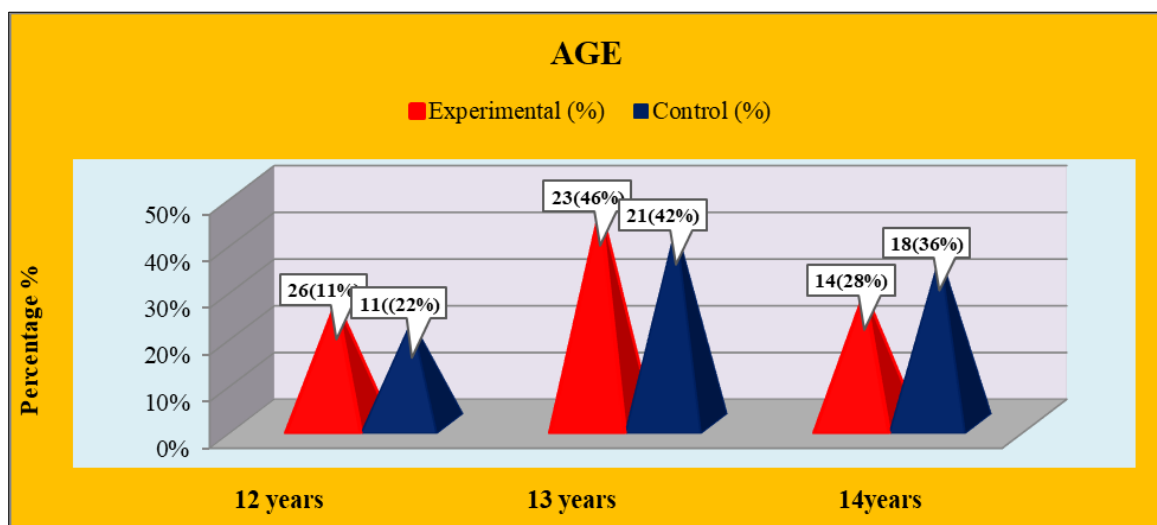


Figure 1 Depicts conical diagram regarding frequency and percentage distribution of students as per age

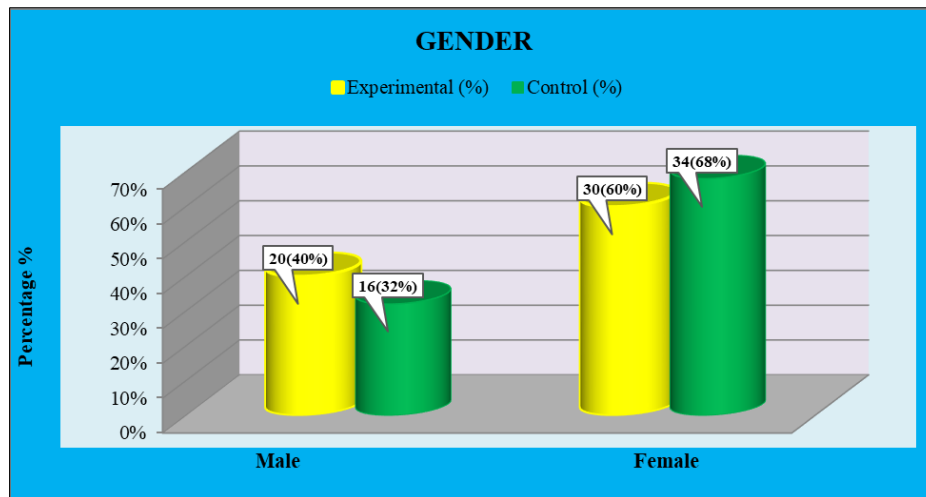


Figure 2 Depicts cylindrical diagram regarding frequency and percentage distribution of students as per gender

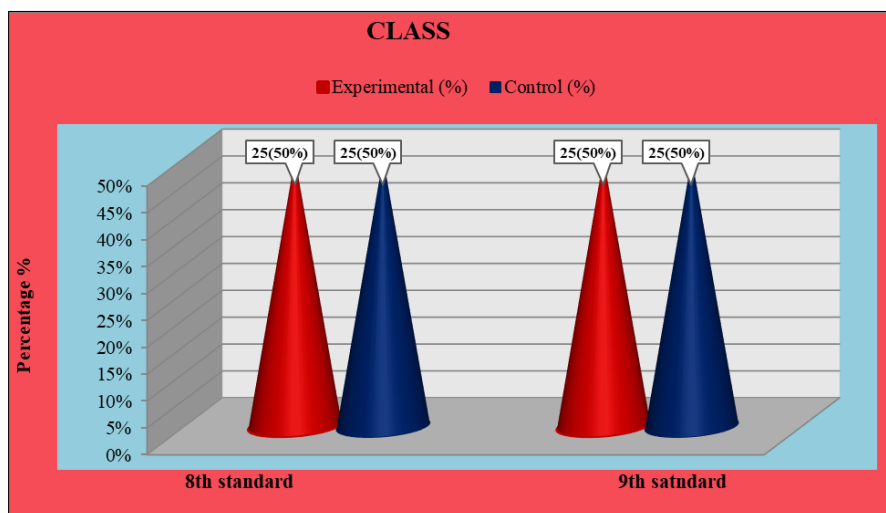


Figure 3 Depicts conical diagram regarding frequency and percentage distribution of students as per class of studying

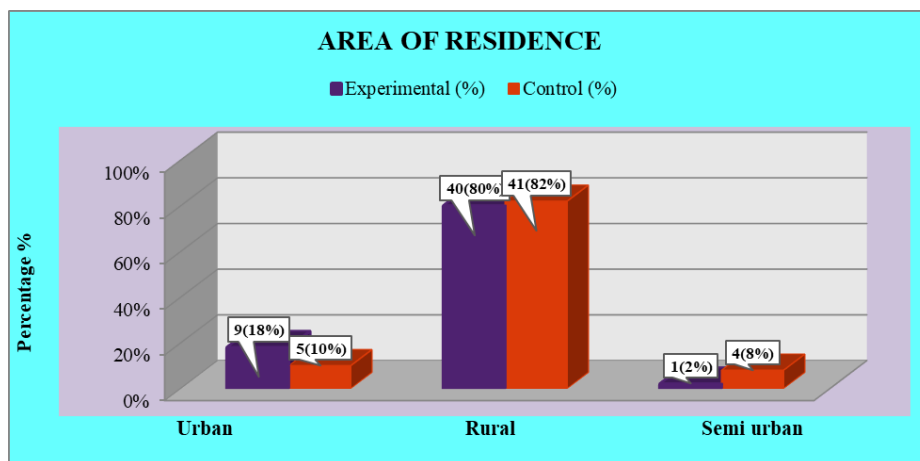


Figure 4 Depicts bar diagram regarding frequency and percentage distribution of students as per area of residence

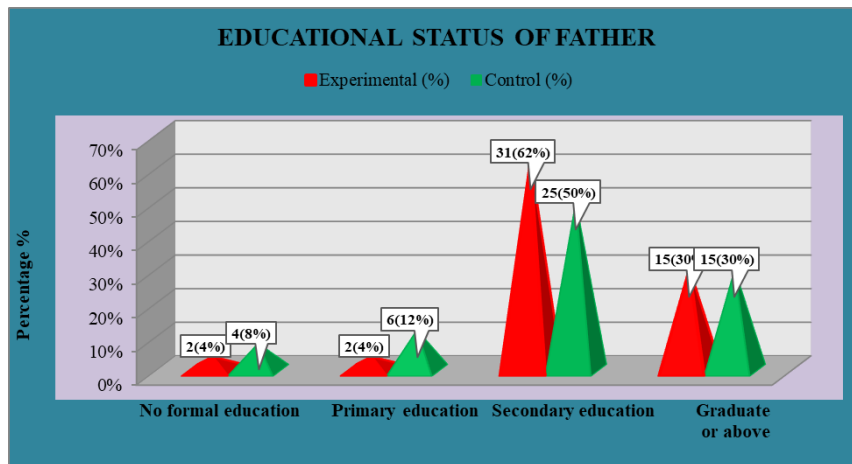


Figure 5 Depicts pyramid diagram regarding frequency and percentage distribution of students as per educational status of father

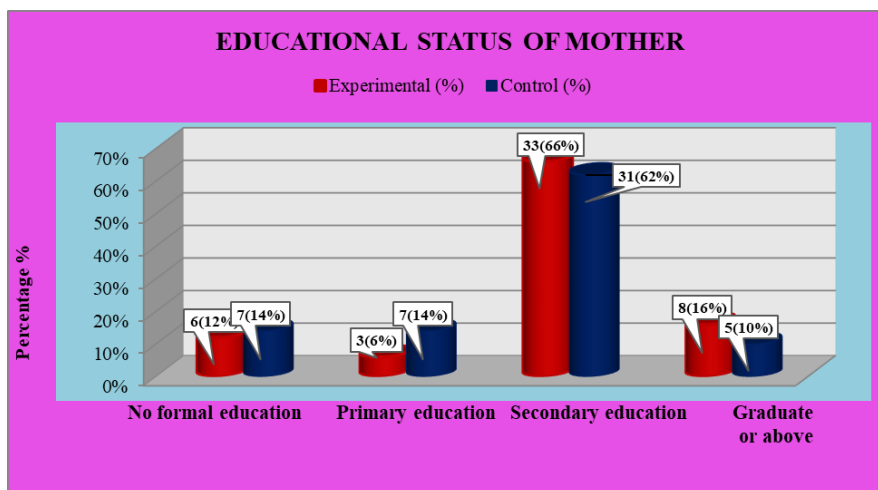


Figure 6 Depicts cylindrical diagram regarding frequency and percentage distribution of students as per educational status of mother

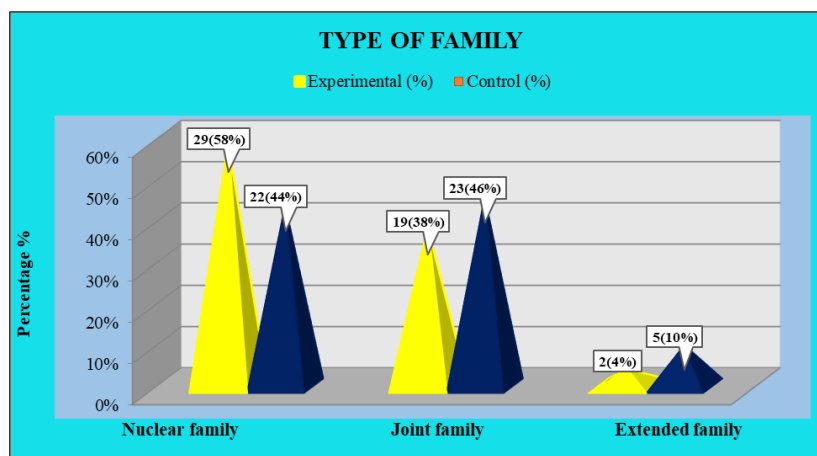


Figure 7 Depicts pyramid diagram regarding frequency and percentage distribution of students as per type of family

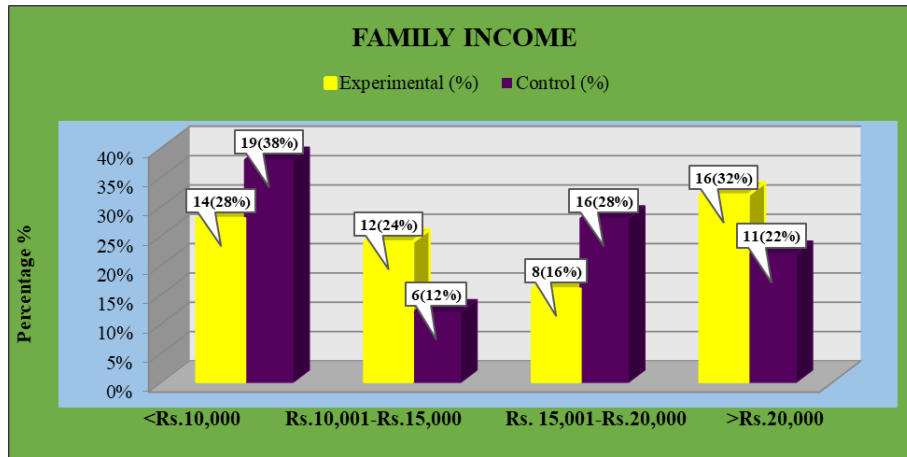


Figure 8 Depicts bar diagram regarding frequency and percentage distribution of the students as per family income

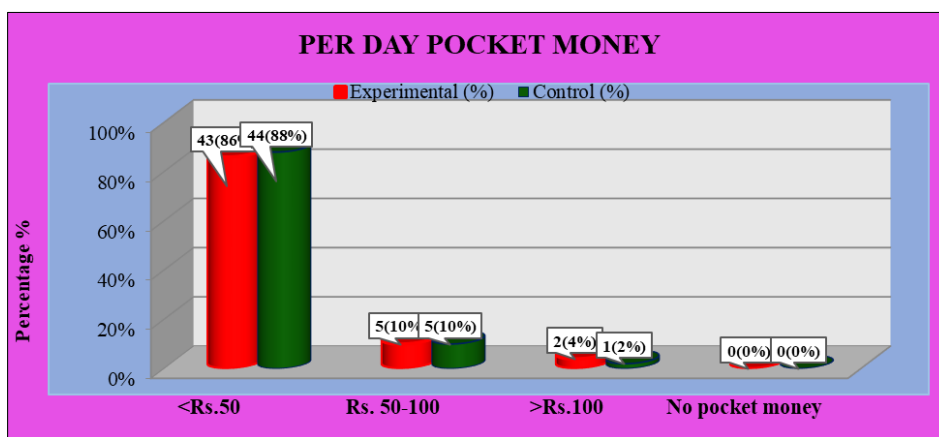


Figure 9 Depicts cylindrical diagram regarding frequency and percentage distribution of the students per day pocket money

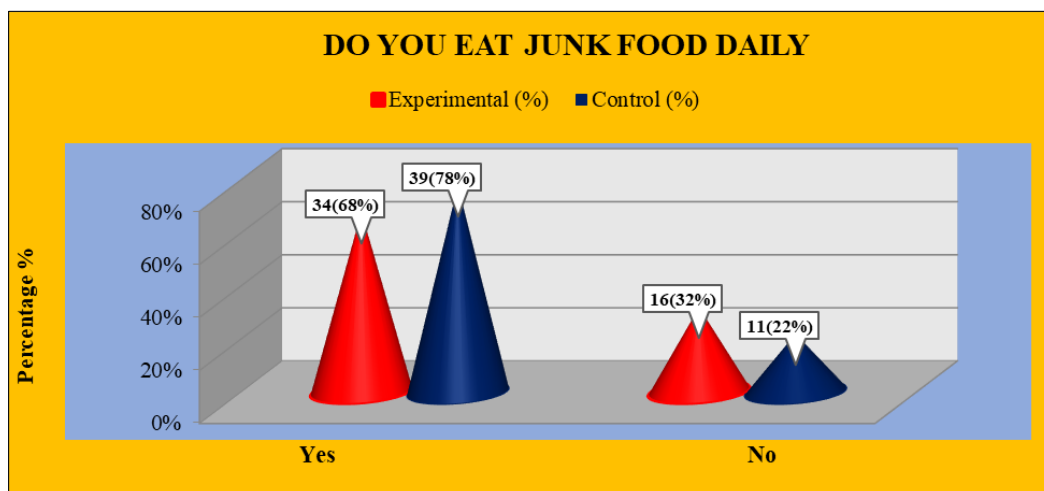


Figure 10 Depicts conical diagram regarding frequency and percentage distribution of the students as per do you eat junk food daily

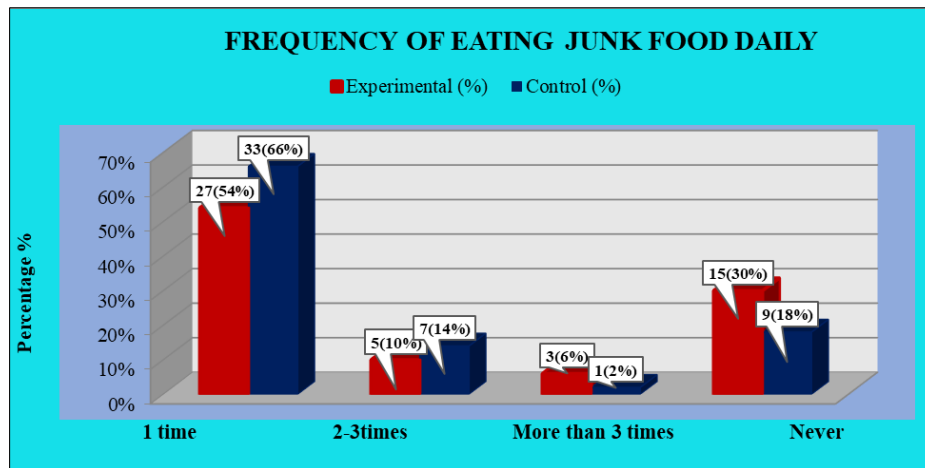


Figure 11 Depicts bar diagram regarding frequency and percentage distribution of the students as per frequency of eating junk food

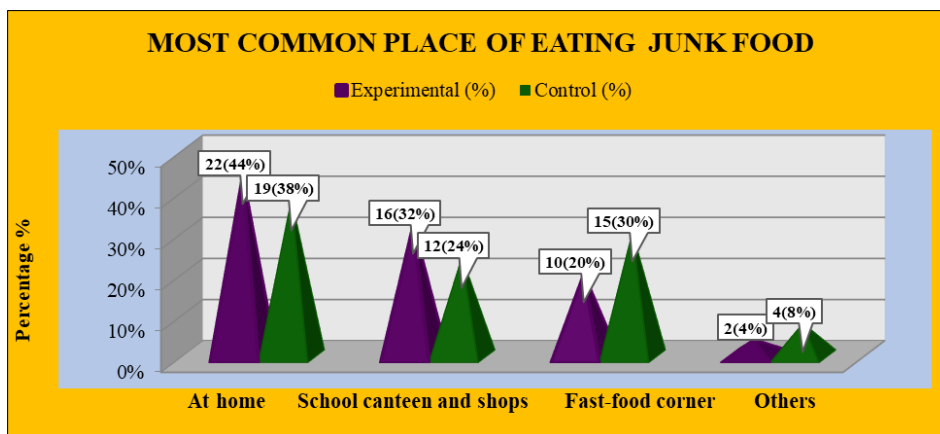


Figure 12 Depicts pyramid diagram regarding frequency and percentage distribution of the students as per most common place of eating junk food

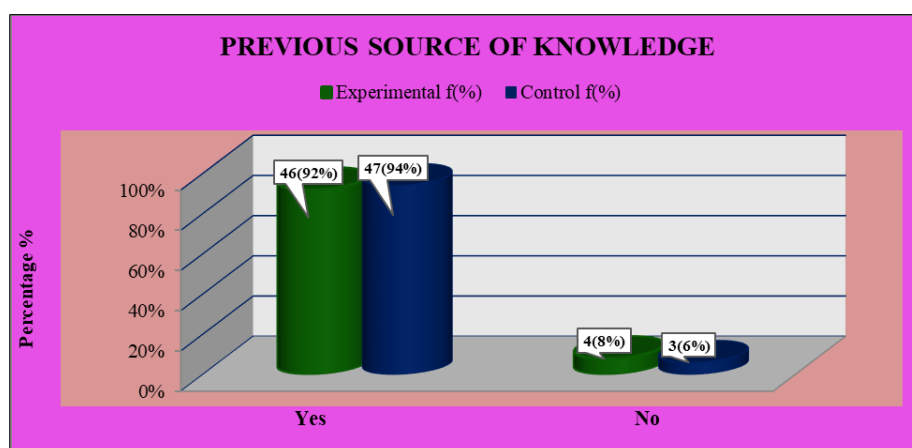


Figure 13 Depicts cylindrical diagram regarding frequency and percentage distribution of the students as per previous source of knowledge

3.2. Section –B Assessment of the pre-test and post-test attitude score regarding health hazards of junk food in experimental and control group

Table 2 Depicts frequency and percentage distribution of pre-test attitude score in experimental group and control group N=100

S.no.	Level of knowledge	Actual range of score	Experimental group (n=50)		Control group (n=50)	
			Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Unfavorable Attitude	18-45	0	0%	1	2%
2	Moderately favorable attitude	46-67	31	62%	37	74%
3	Favorable attitude	68-90	19	38%	12	24%

Minimum Score =18 Maximum Score=90

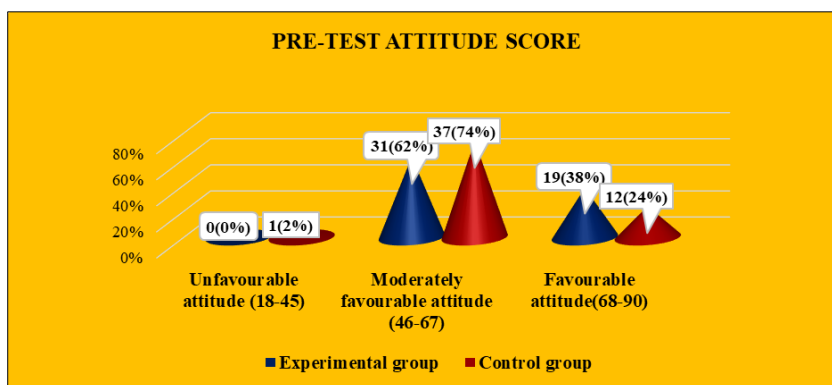


Figure 14 Pre-test Frequency and percentage distribution of attitude score in experimental group and control group

In experimental group, majority of the students 31(62%) were having moderately favorable attitude, 19(38%) were having favorable attitude, 0(0%) were having unfavorable attitude.

In control group, majority of students 37(74%) were having moderately favorable attitude, 12(24%) were having favorable attitude, 1(2%) were having unfavorable attitude.

Table 3 Depicts frequency and percentage distribution of post-test attitude score in experimental group and control group N=100

S.no.	Level of knowledge	Actual range of score	Experimental group (n=50)		Control group (n=50)	
			Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Unfavorable Attitude	18-45	0	0%	16	32%
2	Moderately favorable attitude	46-67	3	6%	34	68%
3	Favorable attitude	68-90	47	94%	0	0%

Minimum Score =18 Maximum Score=90

In experimental group, majority of the students 47(94%) were having favorable attitude, 3(6%) were having moderately favorable attitude, 0(0%) were having unfavorable attitude

In control group, majority of students 34(68%) were having moderately favorable attitude, 16(32%) were having favorable attitude, 0(0%) were having unfavorable attitude.

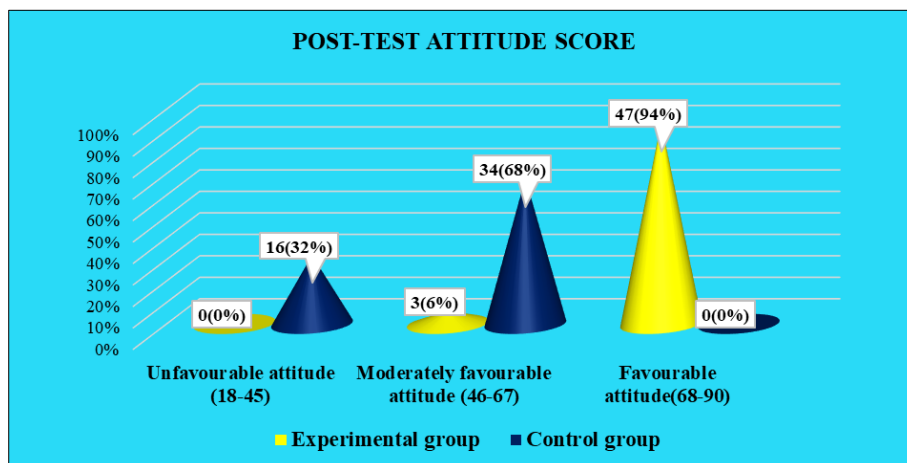


Figure 15 Post-test Frequency and percentage distribution of attitude score in Experimental Group and Control Group

3.3. SECTION-C: Assessment related to comparison of the pre-test and post-test attitude score regarding health hazards of junk food among students in experimental and control group to determine the effectiveness of structured teaching programme (STP)

Table 4 Depicts Comparison of pre-test attitude score and post-test attitude scores in experimental and control group within and between experimental and control group N=100

		ATTITUDE SCORE				Paired t Test		
		Pre-test		Post-test				
Group	N	Mean	SD	Mean	SD	df	t	p value
Experimental Group	50	64.18	7.12	75.40	5.24	49	21.67	0.00**
Control Group	50	61.76	8.51	62.14	8.10	49	1.77	0.08^{NS}
Unpaired t Test	df	98		df	98			
	t	1.54		t	9.71			
	p value	.12 ^{NS}		p value	.00**			

*Significant, NS Non-significant, **Significant at 0.05 level

3.4. Post test

This showed frequency and percentage distribution of post-test attitude score in Experimental Group and Control Group.

With regard to comparison between group mean post-test attitude score 75.40 of experimental group was significantly higher than mean post-test attitude score of control group 62.14 as evident from Unpaired t value 9.71 which was significant at 0.05 level of significance, it showed the structured teaching programme was effective in improving attitude of students.

4. Discussion

Nowadays every one of us is tasting junk food well because it is tasty, inexpensive and easily available. Junk foods have no nutritional value and essential ingredients required for health. Junk foods is very oily and lack of dietary fibers, so they are harder to digest and require more energy from the body to perform digestion process and the person lacks oxygen levels in the body which leads to deprive brain functions and their problem also .The objective of the study was

to assess the pre-existing level of attitude. In experimental group, majority of the students 31(62%) were having moderately favorable attitude, whereas in control group majority of students 37(74%) were having moderately favorable attitude, In comparison within experimental groups mean post-test attitude score 75.40 was significantly higher than the mean pre-test attitude score 64.18 as evident from paired t value 21.67 which was significant at 0.05 level of significance. The knowledge and attitude among students were significantly improved in the result. Nurses play important role in awareness regarding health hazards of junk food. The knowledge and attitude among student is significantly improved some extent regarding health hazards of junk food. Some of literatures related to the research were also reviewed as followed: **Mushtaq B, Mir Ja** (2021) conducted a pre-experimental study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding hazardous effects of junk foods on health among adolescents in little angel educational institute, Bagat-e-Shoora, Srinagar Kashmir 11(36.67%) of the adolescents in the pre-test had average knowledge and in the post-test 9(30%) of the adolescents had average knowledge. 3(13.33%) of the adolescents in the pre-test had good level of knowledge while as 20(66.67%) of the adolescents in post-test had good level of knowledge which shows the effectiveness of Planned Teaching Programme. After reviewing the literature, data was collected and analyzed. A pre-test was conducted to assess the previous knowledge and attitude regarding health hazards of junk food among students. After a day STP regarding health hazards of junk food was administered as intervention and thereafter a post-test was conducted after a week and result was analyzed on the basis of these. The finding showed that total comparison within experimental groups mean post-test knowledge score 21.16 was significantly higher than the mean pre-test knowledge score 12.38 as evident from paired t value 19.66 whereas in mean post-test attitude score 75.40 was significantly higher than the mean pre-test attitude score 64.18 as evident from paired t value 21.67 which was significant at 0.05 level of significance

5. Conclusion

The conclusion of the study revealed that there was a significant improvement in the attitude among student regarding health hazards of junk food after implementation structured teaching programme.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest

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