

Research Article

“Assess the Knowledge and Attitude Regarding Health Effects on Consuming the Processed Foods among the Nursing Students”

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ABSTRACT

Background and Objectives.

There are many potential health effects of ultra processed foods, including Increased cancer risk. A five-year study of over 100,000 people found that every 10 percent increase in consumption of ultra processed food was associated with a 12 percent higher risk for cancer. Too much sugar, sodium and fat. Heavily processed foods often include unhealthy levels of added sugar, sodium and fat. These ingredients make the food we eat taste better, but too much of them leads to serious health issues like obesity, heart disease, high blood pressure and diabetes. Lacking in nutritional value. Heavy processing strips many foods of their basic nutrients, which is why many foods today are fortified with fiber, vitamins and minerals. Calorie dense and addicting. It's very easy to overindulge in unhealthy food and consume more calories than we realize. For example, an Oreo cookie contains about 50 calories, while an entire cup of green beans is only 44 calories. Processed foods like these are also designed to stimulate our brain's "feel-good" dopamine center, making us crave more of them in the future. Quicker to digest.

Processed foods are easier to digest than unprocessed, whole foods. That means our bodies burn less energy (hint: calories) digesting them. It's estimated we burn half as many calories digesting processed foods compared to unprocessed foods. This fact combined with the calorie density of processed foods in general can make it easy to pack on the pounds.

Full of artificial ingredients. There are about 5,000 substances that get added to our food. Most of them have never been tested by anyone other than the company using them. That includes additives to change color, texture, flavor and odor as well as ingredients like preservatives and sweeteners.

Objectives:- The objectives are as follows

- 1] To Assess the knowledge regarding processed foods and its effects on health
- 2] To Assess the Attitude of students towards processed foods consumption and its effects on health.
- 3] To Find the correlation between Knowledge and Attitude regarding processed foods consumption and its effects on health.
- 4] To find the association between Knowledge Score with their selected socio- demographic variables.
- 5] To Find the association between Attitude score with their selected socio- demographic variables.

Methods:- The research approach adopted for the study was a Quantitative survey approach. Research design was Descriptive Correlational research design. The samples were selected for the study included 90 nursing students studying in D. Y. Patil College of Nursing by using nonprobability purposive sampling technique. Structured knowledge and attitude questionnaire was used to assess the knowledge and attitude of nursing students regarding Processed Foods & its effects on health. The study was conducted on 01/01/2025

Result: Majority (73.33%) of the students had average, 21.11% had poor and 5.5% had good level of knowledge related to Processed foods consumption and its effects on health. Majority (66.6%) of students had positive attitude towards stoppage of consumption of Processed foods, and 33.3% of them had negative attitude towards stoppage of

consumption of Processed foods..significant association between Knowledge scores with their selected socio-demographic variables at $p < 0.05$ level of significance.

There was no significant association between Attitude score and their selected socio demographic variables. The Calculated Chi-square values was lesser than tabulated value at $p < 0.05$ level of significance. This indicated that there was no significant association between Attitude scores with their selected socio-demographic variables at $p < 0.05$ level of significance.

Interpretation and Conclusion The overall findings shows that the majority of nursing students had average knowledge and positive attitude regarding processed foods consumption & its effects on health and there was an significant association between knowledge score and socio-demographic variables but there was no significant association between attitude score and socio-demographic variables. There was also an significant correlation and association between knowledge and attitude.

Keywords: Processed Foods, Knowledge, Attitude, Nursing Students, Health.

INTRODUCTION

In this study we have studied about processed foods consumption and its effects on health. Processed foods or ultra-processed is an industrial formulated edible substance derived from natural food or synthesized from other organic compounds. The resulting products are designed to be highly profitable, convenient and hyper palatable, often through food additives such as preservatives, colorings and flavorings. Ultra- processed foods first became ubiquitous in the 1980s, through the term "ultra-processed food" gained prominence from a 2009 paper by Brazilian researcher as part of the NOVA classification system. In the Nova system, UPFs include most bread and other mass-produced baked goods, frozen pizza, instant noodles, flavored yogurt, fruit and milk, cold drinks, diet products, baby foods, and most of what is considered junk food. Objectives of the study : 1] To Assess the knowledge regarding processed foods and its effects on health 2] To Assess the Attitude of students towards processed foods consumption and its effects on health. 3] To Find the correlation between Knowledge and Attitude regarding processed foods consumption and its effects on health. 4] To find the association between Knowledge Score with their selected socio- demographic variables. 5] To Find the association between Attitude score with their selected socio- demographic variables. Method: The research approach adapted for the study was quantitative survey and the research design was Descriptive research. By using non- probability sampling purposive sampling technique, 90 samples from D.Y.Patil nursing college Kolhapur. Those who have fulfilled inclusion criteria Samples were 90 nursing students. Result : Majority of subjects belonged to female gender (77.7%) and (22.2%) were male. Majority of subjects (58.8%) belonged to the age group of 18-20 years whereas (30%) belonged to 21-24 years and (8.8%) students belonged to 25 to 27 years and (2.2%) belonged to 27 & Above. Majority of Subjects belonged to B.sc (72.2%) then Gnm with majority of (15.5%) and Pb.B.sc respondents with (8.8%) and M.sc (3.3%). The majority of subjects (72.2%) were from nuclear family and (22.2%) from joint family, while extended family members were (1.1%) and (0.0%) belonged to blended family. Majority of subjects (8.8%) were not Married and (1.1%) students were Married. Majority of the subjects (71.11%) had got information from Social Media, (27.77%) had got information from books, 1.1% had get information from Magazine and the knowledge related to Processed foods consumption and its effects on health among of students, percentage scores were graded arbitrarily as follows: poor 1-13, average 14-26% and good 27-40%. Interpretation and Conclusion: The present study revealed knowledge of. Nursing students related to consumption of processed foods Its interpreted that the nursing students needed to be educated about the health effects of consumption of processed foods

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- 5] To Find the association between Attitude score with their selected socio- demographic variables.

METHODOLOGY

The study was conducted in D.Y. Patil college of Nursing Kolhapur—on 01/01/2025. After obtaining permission from the college authorities and informed consent from participants, 90 students were selected using non-probability purposive sampling. A structured questionnaire was used to assess the knowledge & Attitude, with the test conducted on 01/01/2025.

The inclusion criteria were willing to participate in the study, Able to read and write English, Students studying in B.sc Nursing, GNM Nursing, Post-Basic Nursing & Msc Nursing. Data was collected using a structured tool.

RESULTS

The analysis of data was mainly classified into following parts :

Part I: Description of demographic variables of students

Part II: Assessment of the Knowledge related to Processed Foods Consumption and its effects on health

Part III: Assessment of the Attitude related to Processed Foods Consumption and its effects on health

Part IV: Correlation between knowledge scores and attitude regarding Processed Foods Consumption and its effects on health.

Part V: Association between Knowledge Score regarding Processed foods and its effects on health among Nursing Students and selected Socio Demographic Variables.

Part VI : Association between Attitude Score regarding processed foods & its effects on health Among Nursing Students and selected Socio demographic Variables.

Part I: Description of demographic variables of students

This part deals with distribution of participants according to their demographic characteristics. Data was analyzed using descriptive statistics and summarized in terms of percentage.

Table 1: Frequency and Percentage Distribution of Sample According To Demographic Characteristics

Variable	f(%)
1. GENDER	
Male	29(32.22)
Female	61(67.77)
2. Age	
18 to 20	53(58.88)
21 to 24	27(30)
25 to 27	8(8.8)
27 and above	2(2.2)
3. Stream of Course	
B.sc	65(72.2)
M.sc	03(3.3)
Pb.B.sc	08(8.8)
Gnm	14(15.5)
4. Type of Family	
Nuclear	65(72.2)
Joint	24(26.6)
Extended	01(1.1)
Blended	00(0)
5. Marital Status	
Married	01(1.1)
Unmarried	89(98.8)
6. Source of information	
Social Media	64(71.11)
Books	25(27.77)
Magazine & Newspaper	01(1.1)

Data presented in Table 1 shows that the majority of respondents to gender, majority of respondents (67.7%) were female and (32.2%) were male.

With Regards to the Age Most the students(58.8%) belonged to the age group of 18-20 years whereas 30% belonged to 21-24 years and 8.8% students belonged to 25 to 27 years and (2.2%) belonged to 27& Above.

Majority of Respondents belonged to B.sc (72.2%) then Gnm with majority of (15.5%) and Pb.B.sc respondents with 8.8% and M.sc (3.3%). The majority (72.2%) of students were from nuclear family and 26.6% from joint family, while extended family members were 1.1%

Most (98.8%) of students were not Married and 1.1% students were Married. Majority of the students (71.11%) had get information from Social Media, 27.77% had get information from books, 1.1% had get information from Magazine and Newspaper.

Part II: Assessment of the Knowledge related to Processed foods consumption and its effects on health

The knowledge related to Processed foods consumption and its effects on health assessed among students using structured knowledge questionnaire.

Section A: Analysis of the Knowledge related to Processed foods consumption and its effects on health

In order to assess the knowledge related to Processed foods consumption and its effects on health among of students, percentage scores were graded arbitrarily as follows: poor 1-13, average 14-26% and good 27-40%.

Table 2: Frequency and percentage distribution of the students according to the level of knowledge related to processed foods consumption and its effects on health.

n = 90

Level of Knowledge	f(%)
Poor	19(21.11)
Average	66(73.33)
Good	05(5.5)

Data in Table 2 show that majority (73.33%) of the students had average, 21.11% had poor and 5.5% had good level of knowledge related to Processed foods consumption and its effects on health

Table 3: Findings related to Mean, Median, Mode, Standard Deviation and range of knowledge scores of subjects regarding Processed foods consumption and its effects on health.

n= 90

	Mean(\pm SD)	Median	Mode	Range
Knowledge score	22.8(\pm 6.03)	22	20	30

Part III: Assessment of the Attitude related to Processed foods consumption and its effects on health among students.

Attitude related to Processed foods consumption and its effects on health among students were assessed by attitude scale.

Section A: Analysis of the Attitude related to substance abuse among students.

Table 4: Frequency and percentage distribution of the students according to attitude related to substance abuse.

n= 90

Attitude Score	f(%)
Positive	60(66.6)
Negative	30(33.3)

Table 5: Findings related to Mean, Median, Mode, Standard Deviation and range of Attitude scores of subjects regarding Processed foods consumption and its effects on health.

n=90

	Mean(\pm SD)	Median	Mode	Range
Attitude score	69.3(\pm 9.59)	68	63	63

Part IV: Testing of Hypothesis at 0.05 level of Significance,

A: Testing of Hypothesis at 0.05 level of significance Karl Pearson's Correlation between the knowledge and attitude scores regarding ProcessedFoods & its effects on health.

H1: To test the correlation between theknowledge and attitude scores regarding Processed foods consumption and its effects on health among student,the following hypothesis was formulated:

Karl Pearson's correlation coefficient was used to find the correlation between the knowledge scores and attitude scores regarding Processed foods consumption & its effects on health among nursing students. The Karl Pearson correlation coefficient was 0.0039, which is greater than table value at 0. The Calculated correlation value was ($t_{cal}=0.0039$) greater than 0 indicates a very weak positive relationship. Hence H1 was accepted . This indicated that there is a very weak positive correlation between knowledge score and attitude score regarding processed foods & its effects on health.

Therefore, the findings revealed that there was very weak positive correlation between knowledge and attitude regarding Processed foods & its effects on health.

Table 7: Karl Pearson's Coefficient Of Correlation between Knowledge and Attitude among Nursing Students Regarding Processed Foods & Its Effects on Health

Structured knowledge questionnaire	Structured Attitude Scale	Covariance	Correlation
(X)	(Y)	Cov(xy)	(r)
6.033	9.59	0.0039	0.10

Table 7: Indicates that,

Correlation value $r=0.10$ $-1 < r < 1$ and $r > 0.10$ therefore, there is high degree significant correlation between Knowledge and Attitude Among the Nursing Students.

Hence H1 is Accepted

B: Testing of Hypothesis for an association between Knowledge score and their selected Socio demographic Variables.

H2: There is an association between knowledge score regarding Processed Foods and its on Health among Nursing Students with selected Socio demographic Variable.

In this Section the researcher analyzed and categorized the association between Knowledge scores of this subjects regarding Processed Foods & Its effects on health among Nursing Students With their Selected Socio Demographic variables.

Table 8 : Findings Related to an association between Knowledge scores of subjects with their selected socio demographic variables.

Variables	χ^2 value	P value
1. Gender	5.99	5.99
a) male		
b) female		
2. age	11.598	12.592
a) 18-20 yr		
b) 21-24 yr		
c) 25-27 yr		
d) 28 yr and above		
3. stream of course	31.946	12.592
a) B.Sc.		
b) M.Sc.		
c) P B B.Sc.		
d) GNM		
4. Type of family	3.208	9.488
a) nuclear		

b) joint		
c) extended		
d) blended		
5. Marital status	17.19	5.99
a) married		
b) unmarried		
6. Source of information	0.65	9.488
a) social media		
b) books		
c) Magazines and newspaper		

Table 8: Indicates that, there was any significant association between Knowledge Scores and selected Sociodemographic variables like Gender [$\chi^2_{cal}= 5.991, \chi^2_{tab}= 5.991$] Age in Years [$\chi^2_{cal}= 11.598, \chi^2_{tab}= 12.592$], Stream of Course [$\chi^2_{cal}= 31.946, \chi^2_{tab}= 12.592$], Type of Family [$\chi^2_{cal}=3.208, \chi^2_{tab}=9.488$], Marital Status [$\chi^2_{cal}=17.191, \chi^2_{tab}=5.991$], Source of Information [$\chi^2_{cal}=0.652, \chi^2_{tab}=9.488$]. The calculated Chi square values was greater than tabulated value at $p<0.05$ level of significance. Hence H2 was Accepted. This indicated that there was significant association between knowledge scores with their selected Socio demographic variables at $p<0.05$ level of significance.

C: Testing of Hypothesis for an association Between Attitude score and their selected Socio demographic Variables

H3: There is an association between Attitude score regarding Processed Foods and its on Health among Nursing Students with selected Socio demographic Variable.

In this Section the researcher analyzed and categorized the association between Knowledge scores of this subjects regarding Processed Foods & Its effects on health among Nursing Students With their Selected Socio Demographic variables.

Table 9: Findings Related to an association between Attitude scores of subjects with their selected socio demographic variables.

Sr no	Variables		Score	Chi Square Values		Df
		positive	negative	Calculated	Tabulated	
1.	Gender a} Male b} Female	19 42	10 19	0.100	3.841	1
2.	Age a} 18 to 20 b} 21 to 24 c} 25 to 27 d} 27 & above	35 20 5 1	18 7 3 1	0.955	7.815	3
3.	Stream of Course a} Bsc b} Msc c} PbBsc d} Gnm	46 2 5 8	19 1 3 6	1.095	7.815	3
4.	Type of Family	47 14	18 10	3.694	5.991	2

	a} Nuclear b} Joint c} Extended d} Blended	0 2	1 0			
5.	Marital Status a} Married b}Unmarried	0 61	1 28	2.127	3.841	1
6.	Source Of Information a}Social Media b} Books c} Magazines &Newspaper	40 20 1	24 5 0	3.022	5.991	2

Table 9: Indicates that, there was no any significant association between Attitude Scores and selected Sociodemographic variables like Gender [$\chi^2_{cal}=0.100$, $\chi^2_{tab}= 3.84$] Age in Years [$\chi^2_{cal}= 0.955$, $\chi^2_{tab}= 7.815$], Stream of Course [$\chi^2_{cal}= 1.095$, $\chi^2_{tab}= 7.815$], Type of Family [$\chi^2_{cal}= 3.694$, $\chi^2_{tab}= 5.991$], Marital Status [$\chi^2_{cal}= 2.127$, $\chi^2_{tab}= 3.841$], Source of Information [$\chi^2_{cal}= 3.022$, $\chi^2_{tab}= 5.991$]. The calculated Chi square values was lesser than tabulated value at $p<0.05$ level of significance. Hence H3 is Rejected . This indicated that there was no any significant association between Attitude scores with their selected Sociodemographic variables at $p<0.05$ level of significance.

DISCUSSION

The findings of the study are discussed under the following headings:

1. Findings related to distribution of frequency and percentage of subjects according to their selected socio-demographic variables.

Majority of subjects belonged to female gender (67.7%) and (32.2%) were male. Majority of subjects (58.8%) belonged to the age group of 18-20 years whereas (30%) belonged to 21-24 years and (8.8%) students belonged to 25 to 27 years and (2.2%) belonged to 27& Above. Majority of Subjects belonged to B.sc (72.2%) then Gnm with majority of (15.5%) and Pb.B.sc respondents with (8.8%) and M.sc (3.3%). The majority of subjects (72.2%) were from nuclear family and (26.6%) from joint family, while extended family members were (1.1%) and (0.0%) belonged to blended family. Majority of subjects (98.8%) were not Married and (1.1%) students were Married. Majority of the subjects (71.11%) had got information from Social Media, (27.77%) had got information from books, 1.1%had get information from Magazine and Newspaper.

2. Findings related to Correlation between Knowledge & Attitude Score.

The calculated correlation value was ($t_{cal}=0.0039$) greater than 0. **Hence H_1 was accepted.** This indicated that there was a weak positive correlation between between Knowledge & Attitude Score which was statistically significant at $p < 0.05$ level, regarding Processed foods & its effects on health. Therefore, the findings revealed that there was weak positive correlation between Knowledge& Attitude Score. This showed that Knowledge & Attitude Score was correlated with each other.

3. Findings related to association between knowledge scores of subjects with their selected socio demographic variables.

There was significant association between Knowledge Scores and selected Sociodemographic variables like Gender [$\chi^2_{cal}= 5.991$, $\chi^2_{tab}= 5.991$] Age in Years [$\chi^2_{cal}= 11.598$, $\chi^2_{tab}= 12.592$], Stream of Course [$\chi^2_{cal}= 31.946$, $\chi^2_{tab}= 12.592$], Type of Family [$\chi^2_{cal}= 3.208$, $\chi^2_{tab}= 9.488$], Marital Status [$\chi^2_{cal}= 17.191$, $\chi^2_{tab}= 5.991$], Source of Information [$\chi^2_{cal}= 0.652$, $\chi^2_{tab}= 9.488$]. The calculated Chi square values was greater than tabulated value at $p<0.05$ level of significance. Hence H2 was Accepted. This indicated that there was significant association between knowledge scores with their selected Sociodemographic variables at $p<0.05$ level of significance.

4. Findings related to association between Attitude scores of subjects with their selected socio demographic variables.

There was no any significant association between Attitude Scores and selected Sociodemographic variables like Gender [$\chi^2_{cal}=0.100$, $\chi^2_{tab}= 3.84$] Age in Years [$\chi^2_{cal}= 0.955$, $\chi^2_{tab}= 7.815$], Stream of Course [$\chi^2_{cal}= 1.095$, $\chi^2_{tab}= 7.815$], Type of Family [$\chi^2_{cal}= 3.694$, $\chi^2_{tab}= 5.991$], Marital Status [$\chi^2_{cal}=2.127$, $\chi^2_{tab}=3.841$], Source of Information [$\chi^2_{cal}= 3.022$, $\chi^2_{tab}=5.991$]. The calculated Chi square values was lesser than tabulated value at $p<0.05$ level of significance. Hence H3 is Rejected . This indicated that there was no any significant association between Attitude scores with their selected Sociodemographic variables at $p<0.05$ level of significance.

CONCLUSIÓN:

A descriptive correlational study was conducted at DY Patil College of Nursing, Kolhapur city to assess the knowledge & Attitude regarding processed foods & its effects on health. The data was collected on 01/01/2025 from 90 Nursing students by using selected socio demographic variables, Structured Knowledge Questionnaire & Attitude Scale. The subjects were selected by using non probability, purposive sampling technique, after the data collection procedure data was tabulated and analyzed. Hence it is concluded that there is need to have Control over the consumption of Processed foods

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