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"A study to assess the effectiveness of self-instructional module on cancer dietary modification among cancer patients in SMVMCH at Puducherry."

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ABSTRACT
Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. These contrast with benign tumors, which do not spread. Tobacco use is the cause of about 225 of cancer deaths. This study was conducted to study to assess the effectiveness of self-instructional module on cancer dietary modification among cancer patients in SMVMCH at Puducherry. This study consist of 30 patient and 25 knowledge questionnaire was used. The findings shows that the level of knowledge on both pretest and posttest. In the pretest level of knowledge on 8(27%) having inadequate knowledge, 19(63%) moderate knowledge and 3(10%) having adequate knowledge. In the posttest those having 27(90%) having excellent knowledge and 3(10%) having adequate level of knowledge.

I. INTRODUCTION

"Cancer is only going to be a chapter in your life, Not the whole story"

- Joe Wasser

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. These contrast with benign tumors, which do not spread. Tobacco use is the cause of about 225 of cancer deaths. Another 10% are due to obesity, poor diet, lack of physical activity or excessive drinking of alcohol. Other factors include certain infections, exposure to ionizing radiation, and environmental pollutants.

In the developing world, 15% of cancers are due to infections such as Helicobacter pylori, hepatitis B, hepatitis C, human papillomavirus infection, Epstein–Barr virus and human immunodeficiency virus (HIV). These factors act, at least partly, by changing the genes of a cell. Typically, many genetic changes are required before cancer develops. Approximately 5–10% of cancers are due to inherited genetic defects. Possible signs and symptoms include a lump, abnormal bleeding, prolonged cough, unexplained weight loss, and a change in bowel movements. While these symptoms may indicate cancer, they can alsohave other causes. Over 100 types of cancers affect humans.

Cancer can be detected by certain signs and symptoms or screening tests. It is then typically further investigated by medical imaging and confirmed by biopsy. Early detection through screening is useful for cervical and colorectal cancer. The benefits of screening for breast cancer are controversial.

Many treatment options for cancer exist. The primary ones include surgery, chemotherapy, radiation therapy, hormonal therapy, targeted therapy and palliative care. Which treatments are used depends on the type, location and grade of the cancer as well as the patient's health and preferences. The treatment intent may or may not be curative.

II. REVIEW:

Roxanne Nelson et all (2022 Dec 22) The study to evaluate Oral Minoxidil Improves Anticancer Treatment–Induced Alopecia in Patients with Breast Cancer. In a retrospective cohort study of women with breast cancer and anticancer therapy–induced alopecia, researchers found that combining low-dose oral minoxidil (LDOM) and topical minoxidil achieved better results than topical minoxidil alone and that the treatment was well tolerated. A total of 5 of the 37 patients (13.5%) in the combination therapy group achieved a completeresponse, defined as an improvement of alopecia severity from grade 2 to grade 1, compared with none of the 19 patients in the topical therapy–only group.

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of self-instructional module on cancer dietary modification among cancer patients in SMVMCH at Puducherry."

OBJECTIVES OF THE STUDY

- To assess the level of knowledge on cancer dietary modification among cancerpatients.
- To evaluate the outcome of self-instructional module on knowledge about dietarymodification of cancer among cancer patients.
- To associate the level of knowledge on cancer dietary modification among cancerpatients with their selected demographic variables.

ASSUMPTIONS:

1. Cancer patients may have inadequate knowledge regarding dietary modification ofcancer.
2. Cancer patients may need awareness regarding dietary modification of cancer.
3. Self - instructional module will enhance the knowledge regarding dietary of canceramong cancer patients.

III. MATERIAL AND METHODS

Research methodology is a way to systematically solve the research problem by logically adopting various steps. It is one of the important phases in research work in which the investigator makes a number of decisions about the methods used to study the research problem through the data collection. This phase of study includes research approach, research design, variables, setting, population sampled sample size, sampling techniques, criteria for sample selection, development and description of tool, scoring procedure, pilot study, data collection procedure, and plan of statistical analysis of the data -**Polit & hungler 2006.**

SECTION A : It consist of demographic variables including age, gender, religion, educational status, occupation, income, type of the family, marital status, dietary habits, bad habits, family history of cancer, previous knowledge regarding cancer diet, source of information.

SECTION B : It consist of knowledge items 25 objective type of multiple choice questions with 4 distracts. Each correct answer consist of 1 mark . And scoring interpretation as,

SCORING INTERPRETATION:

KNOWLEDGE LEVEL	SCORING INTERPRETATION
Inadequate knowledge	0 - 32%
Moderate knowledge	33 – 68%
Adequate knowledge	69- 100%

RESEARCH APPROACH:

Quantitative research approach was used for this study.

RESEARCH DESIGN:

Pre experimental one group pre-post and post-test research design was used in this study.

SETTING OF THE STUDY:

The study was conducted among cancer patients in Sri Manakula Vinayagar Medical Collegeand Hospital, Puducherry.

SAMPLE:

The sample comprises of cancer patients in SMVMCH, Puducherry.

SAMPLING TECHNIQUE:

Purposive sampling is used for this study.

SAMPLE SIZE:

In this present study, sample size consists of 30 cancer patients in Sri Manakula Vinayagar Nursing College, Puducherry.

SAMPLING CRITERIA:

Inclusion criteria:

- Who were available at the time of data collection.
- Who were willing to participate in this study.

Exclusion criteria:

- Patients who were not diagnosed as case of cancer.
- Patient who was absent on the day of data collection.

IV. RESULT:

The findings shows that the level of knowledge on both pretest and posttest. In the pretest level of knowledge on 8(27%) having inadequate knowledge, 19(63%) moderate knowledge and 3(10%) having adequate knowledge. In the posttest those having 27(90%) having excellent knowledge and 3(10%) having adequate level of knowledge. The mean standard deviation of level of knowledge on cancer dietary modification among cancer patients in SMVMCH at Puducherry in pretest (12.07+4.52), in posttest (19.67+3.74)respectively.

SECTION A: DESCRIPTION OF THE DEMOGRAPHIC VARIABLESAMONG CANCER PATIENTS

Table 1:-Frequency and percentage wise distribution of demographic variablesamong cancer patients (N=30)

SL.NO	DEMOGRAPHIC VARIABLES	FREQUENCY(N)	PERCENTAGE(%)
1	**Age in years**		
	a) 20 to 30 years	1	3
	b) 31 to 40 years	5	17
	c) 41 to 50 years	8	27
	d) Above 51 years	16	53
2	**Sex**		
	a) Male	8	27
	b) Female	22	73
	c) Transgender	0	0
3	**Educational status**		
	1. Illiterate	12	40
	2. Primary	11	37
	3. Secondary	4	13
	4. Degree and above	3	10
4	**Occupation**		
	a) Business	0	0
	b) Daily wages	12	40
	c) Salaried	4	13
	d) Unemployed	14	47
5	**Monthly income of the family**		
	a) Below Rs. 5000/-	10	33
	b) Rs. 6000 to 10000/-	7	23
	c) Rs. 11000/- to 15000/-	5	17
	d) Rs. 16000/- and above	8	27
6	**Religion**		

	a) Hindu	24	80
	b) Christian	2	7
	c) Muslim	3	10
	d) Others	1	3
7	**Types of family**		
	a) Nuclear family	12	40
	b) Joint family	18	60
8	**Family history of any cancer**		
	a) Yes	4	13
	b) No	26	87
9	**Previous knowledge regarding cancer diet**		
	a) Yes	6	20
	b) No	24	80
10	**Bad habits**		
	a) Alcohol	2	7
	b) Tobacco	1	3
	c) Bettle chewing	4	13
	d) Nil	23	77
11	**Marital status**		
	a) Married	26	87
	b) Unmarried	3	10
	c) Divorced	0	0
	d) Widower	1	3
12	**Dietary pattern**		
	a) Vegetarian	2	7
	b) Non – vegetarian	28	93
13	**Source of information**		
	1) Through television	5	17
	2) Through newspaper	1	3
	c) Through medical professionals	24	80

Table 1 shows frequency and Percentage wise distribution of demographic variables among cancer patients. Out of the 30 patients who were interviewed, Majority of the patients 16(53%) of study population were in the age group are above 50 years. Majority of the patients were Female 22(73%). Majority of the patients were in Illiterate 12(40%). Majority of the patients were Unemployed 14(47%). Majority of the patients were Daily wages 12(40%). Majority of the patients were Hindu 24(80%). Majority of the patients were Joint family 18(60%). Majority of the patients were had not Family history of cancer 26(87%). Majority of the patients were had not previous knowledge regarding cancer diet 24(80%). Majority of the patients were bad habits Nil 23(77%) . Majority of the patients were Married 26(87%). Majority of the patients were Non- vegetarian 28(93%). Majority of patients were source of information Through medical professionals 24(80%).

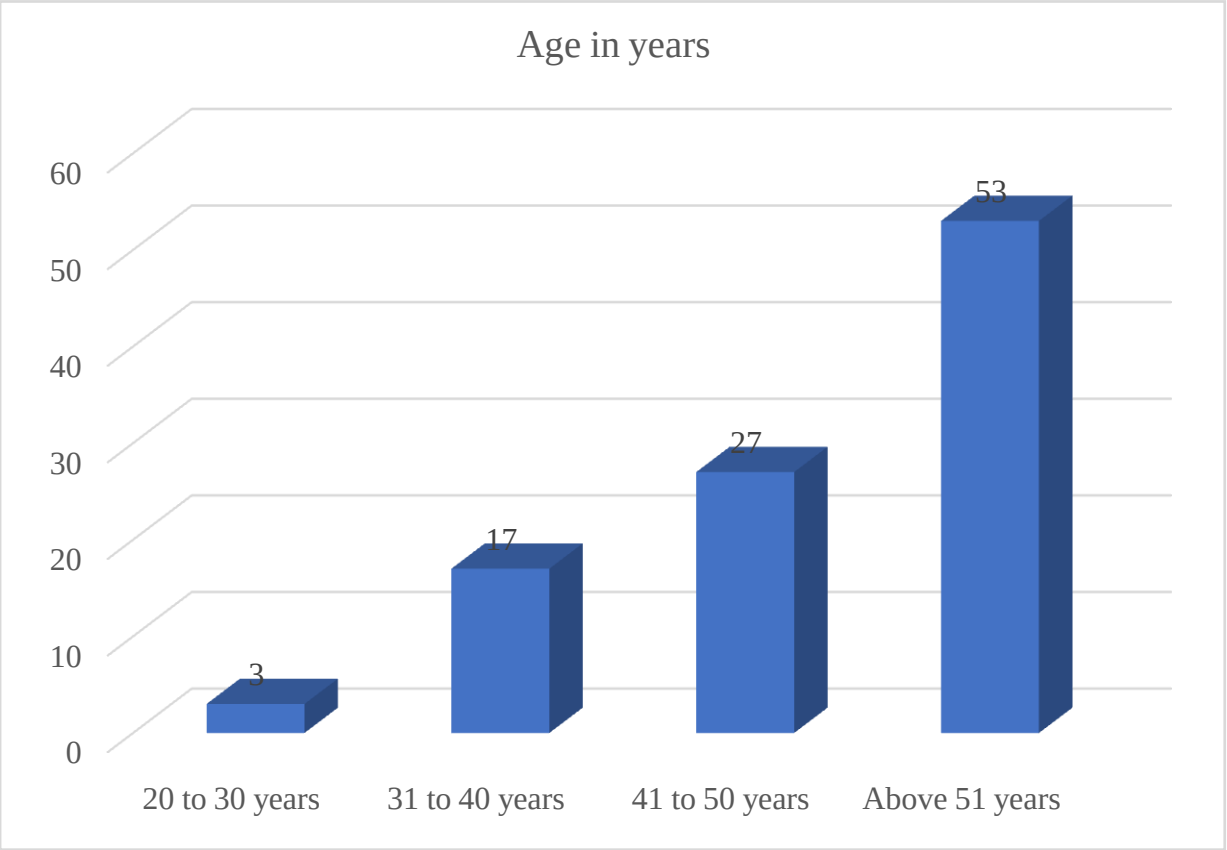

FIG 4.1: represents the percentage wise distribution of age in years ondemographic variables.

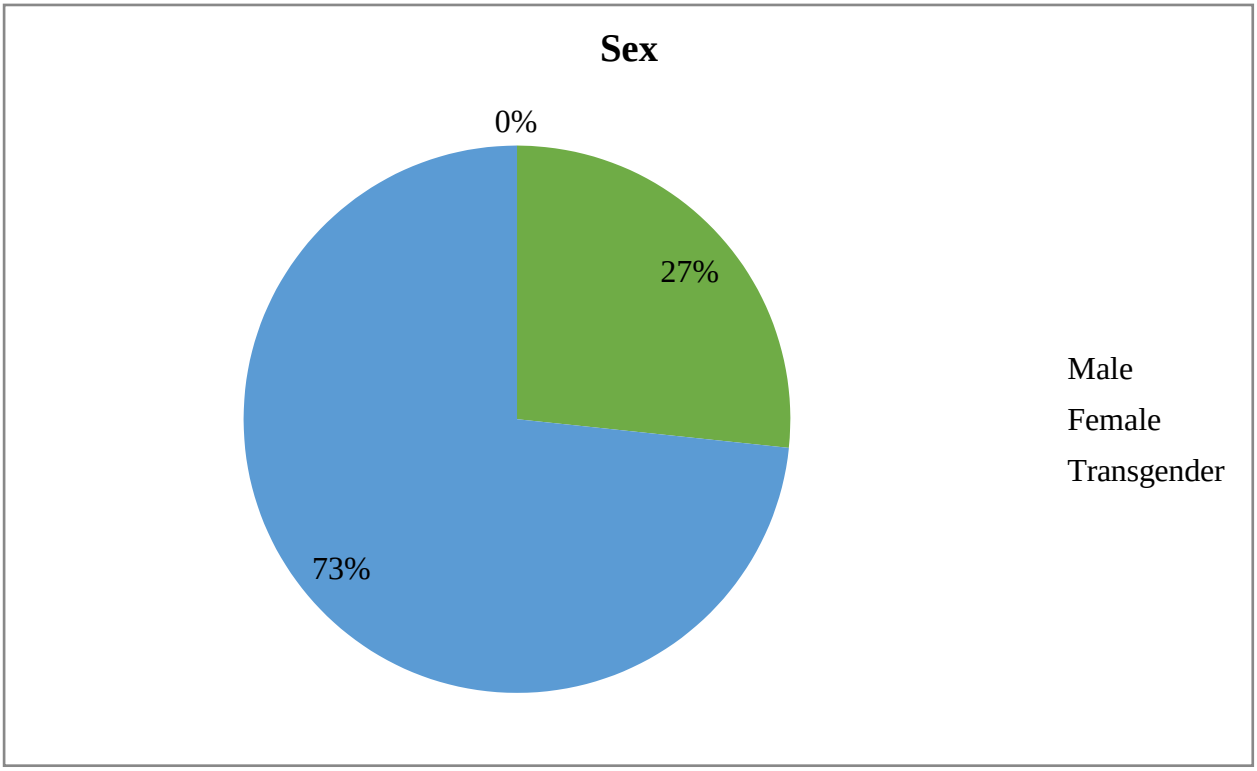

FIG 4.2: represents the percentage wise distribution of sex on demographic variables.

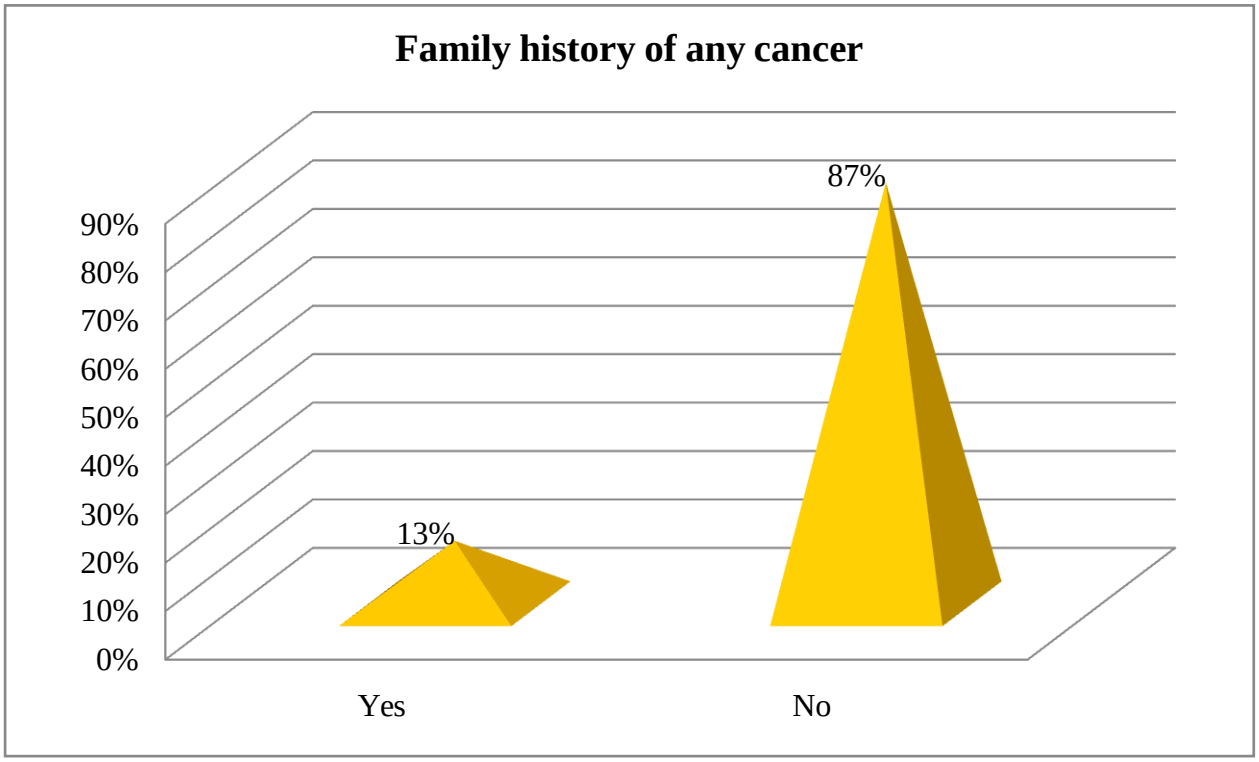

FIG 4.4: represents the percentage wise distribution of family history of any cancer on demographic variables.

FIG 4.5: represents the percentage wise distribution of bad habits on demographic variables.

SECTION B: ASSESSMENT OF LEVEL OF KNOWLEDGE IN DIETARY MODIFICATION REGARDING CANCER AMONG CANCER PATIENTS.

Table 2:- Frequency and percentage wise distribution of level of knowledge on cancer dietary modification among cancer patients.(N = 30)

LEVEL OF KNOWLEDGE	PRE TEST			POST TEST		
	N	%	Mean StandardDeviation	N	%	Mean StandardDeviation
Inadequate knowledge	8	27	12.07±4.52	0	0	19.67±3.74
Moderate knowledge	19	63		4	13	
Adequate knowledge	3	10		26	87	
Total	30	100		30	100	

Table –2 shows frequency and percentage wise distribution of level of knowledge on cancer dietary modification among cancer patients.

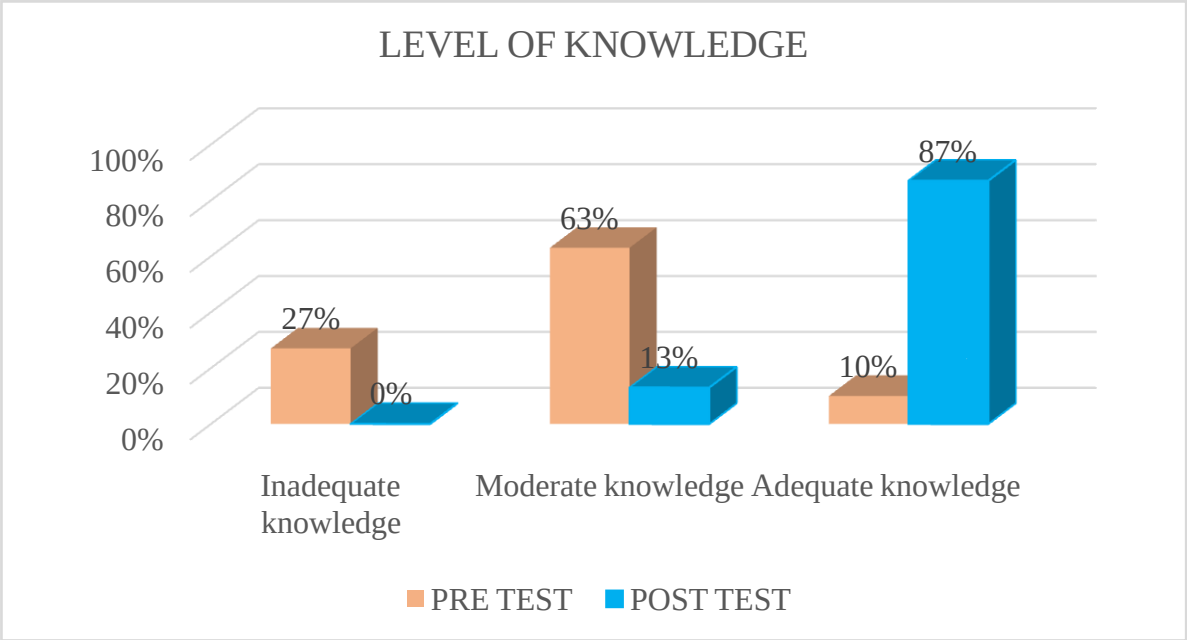

FIG 4.6: represents the percentage wise distribution of level of knowledge on both pretest and posttest.

In pretest level of knowledge on cancer dietary modification among cancer patients had inadequate knowledge 8 (27%). 19 (63%) had moderatelevel of knowledge on cancer dietary modification among cancer patients. 3 (10%) had adequate knowledge on cancer dietary modification among cancer patients. In posttest 4 (13%) had moderate level of knowledge on cancer dietary modification among cancer patients. 26 (87%) had adequate knowledge on cancer dietary modification among cancer patients.

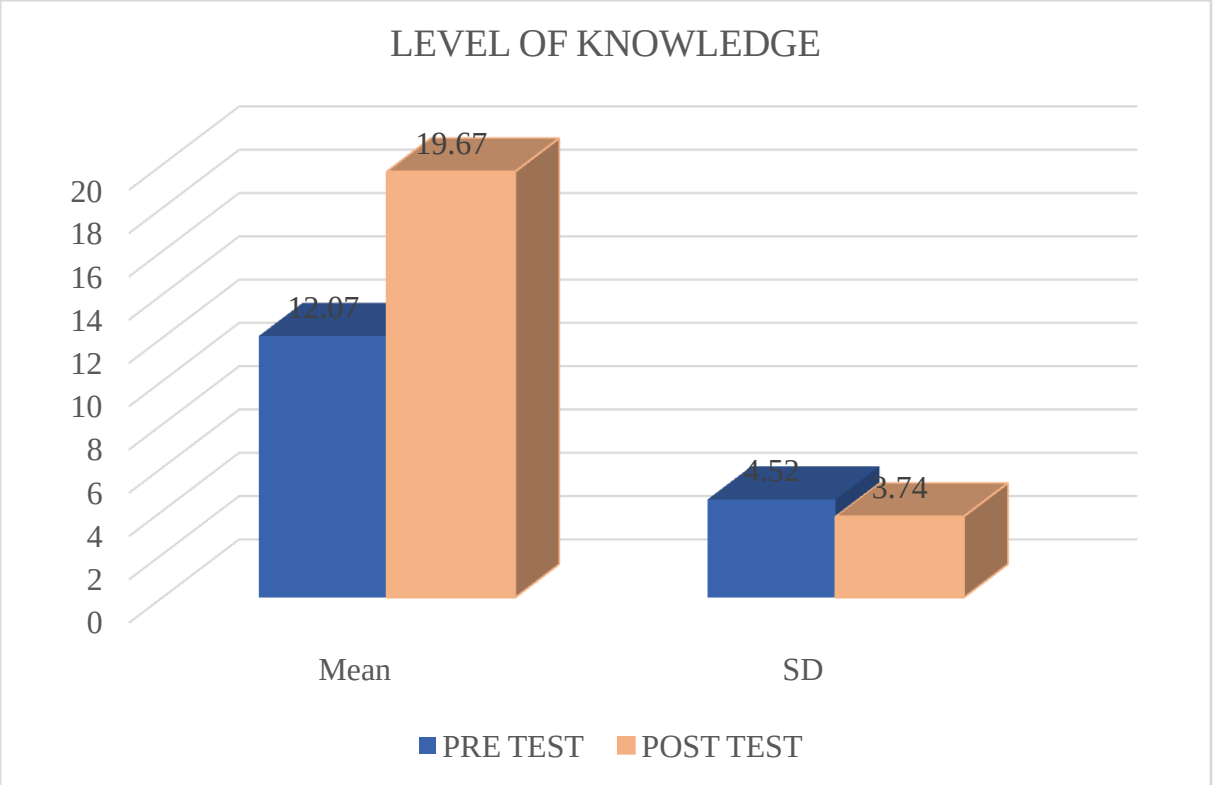

FIG 4.7: represents the effectiveness of self-instructional module on dietary modification of cancer on both pretest and posttest.

SECTION C: ASSOCIATE THE LEVEL OF KNOWLEDGE ON DIETARY MODIFICATION REGARDING CANCER AMONG CANCER PATIENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table 3: Association between the pre-test of the level of knowledge on dietary modificationregarding cancer among cancer patients with their selected demographic variables (**N=30)**

SL.NO	DEMOGRAPHICVARIABLES	INADEQUATE		MODERATE		ADEQUATE		X^2	Df	P-Value
		N	%	N	%	N	%			
1	**Age in years**									
	a) 20 to 30 years	0	0	1	3	0	0	6.00676	6	0.4224
	b) 31 to 40 years	1	3	4	13	0	0			
	c) 41 to 50 years	2	7	5	17	1	3			
	d) Above 51 years	5	17	9	30	2	7			
2	**sex**									
	a) Male	3	10	5	17	0	0	0.99842	6	0.9857
	b) Female	5	17	14	47	3	0			
	c) Transgender	0	0	0	0	0	0			
3	**Educational status**									
	a) Illiterate	4	13	8	27	0	0	29.964	6	0.00003993
	b) Primary	3	10	7	24	1	3			
	c) Secondary	1	3	1	3	2	7			
	d) Degree and above	0	0	3	10	0	0			
4	**Occupation**									
	a) Business	0	0	0	0	0	0	16.0208	6	0.01364
	b) Daily wages	3	10	9	29	0	0			
	c) Salaried	2	7	2	7	0	0			
	d) Unemployed	3	10	8	27	3	10			
5	**Monthly income of the family**									
	a) Below Rs. 5000/-	3	10	6	20	0	0	32.0433	6	0.00001601
	b) Rs. 6000 to 10000/-	3	10	4	13	1	3			
	c) Rs. 11000/- to 15000/-	1	3	2	7	2	7			
	d) Rs. 16000/- and above	1	3	7	24	0	0			
6	**Religion**									
	a) Hindu	6	20	16	53	2	7	17.6817	6	0.007079
	b) Christian	1	3	0	0	1	3			
	c) Muslim	1	3	2	7	0	0			
	d) Others	0	0	1	3	0	0			
7	**Types of family**									
	a) Nuclear family	3	10	7	23	2	7	4.16887	2	0.1244
	b) Joint family	5	17	12	40	1	3			
8	**Family history of any cancer**									
	a) Yes	1	3	2	7	1	3	2.84508	2	0.2411
	b) No	7	23	17	57	2	7			
9	**Previous knowledge regarding cancer diet**									
	a) Yes	0	0	2	7	1	3			

	b) No	8	27	17	57	2	7	7.57257	2	0.02268
10	**Bad habits**									
	a) Alcohol	0	0	2	7	0	0	67.0148	6	0
	b) Tobacco	0	0	0	0	1	3			
	c) Bettle chewing	0	0	2	7	2	7			
	d) Nil	8	26	15	50	0	0			
11	**Marital status**									
	a) Married	8	27	14	47	3	10	4.7909	6	4.7909
	b) Unmarried	1	3	3	10	0	0			
	c) Divorced	0	0	0	0	0	0			
	d) Widower	0	0	1	3	0	0			
12	**Dietary pattern**									
	a) Vegetarian	1	3	1	3	0	0	2.24785	2	0.325
	b) Non – vegetarian	7	23	19	61	3	10			
13	**Source of information**									
	a) Through television	2	7	2	7	1	3	5.68421	4	0.224
	b) Through newspaper	0	0	1	3	0	0			
	c) Through medical professionals	6	20	16	53	2	7			

The table -3 depicts that the demographic variable age and previous knowledge regarding cancer diet had shown statistically significant association Pre-test of the level of knowledge on dietary modification regarding cancer with chi-square value of (x-6.00676,df- 6) and (7.57257, df-2) at $p<0.05$ level.

The other demographic variables had not shown statistically significant association with Pre-test of the level of knowledge on dietary modification regarding cancer.

Table –4: Association between the Post-test of the level of knowledge on dietary modification regarding cancer among cancer patients with their selected demographic variables (N=30)

SL.NO	DEMOGRAPHICVARIABLES	MODERATE		ADEQUATE		X^2	Df	P-Value
		N	%	N	%			
1	**Age in years**							
	a) 20 to 30 years	0	0	1	3	13.2509	3	0.004124
	b) 31 to 40 years	0	0	5	17			
	c) 41 to 50 years	0	0	8	27			
	d) Above 51 years	4	13	12	40			
2	**Sex**							
	a) Male	1	3	7	23	0.078429	2	0.7794
	b) Female	3	10	19	63			
	c) Transgender	0	0	0	0			
3	**Educational status**							
	a) Illiterate	3	10	9	30	9.14289	3	0.02745
	b) Primary	1	3	10	33			
	c) Secondary	0	0	4	13			
	d) Degree and above	0	0	3	10			
4	**Occupation**							
	a) Business	0	0	0	0	5.85906	3	0.05342
	b) Daily wages	1	3	11	37			

	c) Salaried	0	0	4	13			
	d) Unemployed	3	10	11	37			
5	**Monthly income of the family**							
	a) Below Rs. 5000/-	3	10	7	23	15.3104	3	0.00157
	b) Rs. 6000 to 10000/-	1	3	6	20			
	c) Rs. 11000/- to 15000/-	0	0	5	17			
	d) Rs. 16000/- and above	0	0	8	27			
6	**Religion**							
	a) Hindu	3	10	21	70	4.0672	3	0.2543
	b) Christian	0	0	2	7			
	c) Muslim	1	3	2	7			
	d) Others	0	0	1	3			
7	**Types of family**							
	a) Nuclear family	0	0	12	40	9.96169	1	0.001598
	b) Joint family	4	13	14	47			
8	**Family history of any cancer**							
	a) Yes	0	0	4	13	2.23279	1	0.1351
	b) No	4	13	22	74			
9	**Previous knowledge regarding cancer diet**							
	a) Yes	0	0	6	20	3.73563	1	0.05326
	b) No	4	13	20	67			
10	**Bad habits**							
	a) Alcohol	0	0	2	7	4.46335	3	0.2156
	b) Tobacco	0	0	1	3			
	c) Bettle chewing	0	0	4	13			
	d) Nil	4	13	19	64			
11	**Marital status**							
	a) Married	4	13	22	74	2.23279	3	0.3275
	b) Unmarried	0	0	3	10			
	c) Divorced	0	0	0	0			
	d) Widower	0	0	1	3			
12	**Dietary pattern**							
	a) Vegetarian	1	3	1	3	7.72617	1	0.005443
	b) Non – vegetarian	3	10	25	84			
13	**Source of information**							
	a) Through television	0	0	5	17	3.73563	2	0.1545
	b) Through newspaper	0	0	1	3			
	c) Through medicalprofessionals	4	13	20	67			

The table -4 depicts that the demographic variable types of family and monthly income of the family had shown statistically significant association posttest of the level of knowledge on dietary modification regarding cancer with chi-square value of (x-9.9616, df-1)and (15.3104, df-3) at $p<0.05$ level.

The other demographic variables had not shown statistically significant association withPre-test of the level of knowledge on dietary modification regarding cancer.

V. SUMMARY AND CONCLUSION:

The present study was conducted to a study to assess the effectiveness of self- instructional module on cancer dietary modification among cancer patients in SMVMCH at Puducherry. A pre-experimental Research Design was adopted this study. The nature and purpose of the study was explained to selected clients and get informed consent obtained from the participants. Each client was selected through purposive sampling method and assess the effectiveness of self-instructional module on cancer dietary modification among cancer patients. The collected data were computerized and analyzed. The analysis was done using both pre-experimental and inferential statistics.

NURSING IMPLICATION:

The present study can help nurses to enrich their skills and knowledge regarding dietarymodification among cancer patients.

NURSING EDUCATION

- Efforts should be made to improve and expand nursing curriculum to provide morecontent in the dietary management among cancer patient.
- Conference, workshop seminars can be given for nurses to impact education towardsthe importance of dietary management of cancer.

NURSING SERVICES:

- Nurses as a counselor and educator should provide adequate guidance and knowledgeregarding dietary management of cancer patients.
- Nurses have a vital role in caring patients, by giving knowledge about dietarymanagement for cancer patients.

NURSING ADMINISTRATION:

- Nurse Administrator can make necessary policies to implement the nursing care services for cancer patients.

NURSING RESEARCH:

- The findings of the study help the nurses and students to develop the inquiry by providing baseline. The general aspect of the study result can be made by further replications of the study.

RECOMMENDATIONS:

- ★ The same study can conduct in different settings.
- ★ A similar study can be conducted by large number of samples in future.
- ★ A prospective study can also be conducted
- ★ Study based on daily life of clients to do their daily task.

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