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A Descriptive Study to Assess the Health Profile and Warning Signs of Cancer among adults residing in Selected Rural areas of Nellore Andhra Pradesh

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ABSTRACT

Cancer may be regarded as a group of diseases characterized by abnormal growth of cells, ability invade adjacent tissues and even distant organs and the eventual death of the affected patient if the tumor has progressed beyond that stage when it can be successfully removed.¹

Cancer is becoming an increasingly important factor in the global burden of disease in the decades to come. The estimated number of new cases each year is expected to rise from 10 million in 2000 to 15 million by 2020. Some 60% of all these new cases will occur in the less developed parts of the world.²

Keeping this in view, the present study was conducted to assess the health profile and warning signs of cancer among adults residing in selected rural community areas of Nellore, Andhra Pradesh. The aim of the study was to assess the health profile of adults residing in selected rural areas of Nellore District. Andhra Pradesh. The objectives are 1. To assess the Health Profile and warning signs of cancer among adults. 2. To determine the association between Health Profile and warning signs of cancer with the selected socio-demographic variables among adults.

Total 200 adults were selected by convenience sampling technique. Sociodemographic sheet, health profile sheet and warning signs of cancer assessment sheet were used to collect data to assess the health profile and warning signs of cancer among adults. Content validity of the tool was obtained from the experts. Reliability of the tools was calculated by split half method and tools found reliable. Descriptive and inferential statistics were used for data analysis. The result revealed that there is no warning signs of cancer were present among adults. 28 (14 %) of adults had constipation and 22 (11 %) of the subjects had indigestion. The study concluded that there is a need of health education regarding early identification of cancer with warning signs of cancer.

KEYWORDS: Health profile, warning signs, cancer, Adults

INTRODUCTION:

Cancer is a large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called metastasizing and is a major cause of death from cancer. A neoplasm and malignant tumour are other common names for cancer.³ Cancer is the second leading cause of death globally Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women. The cancer burden continues to grow globally, exerting tremendous physical, emotional and financial strain on individuals, families, communities and health systems. Many health systems in low- and middle-income countries are least prepared to manage this burden, and large numbers of cancer patients globally do not have access to timely quality diagnosis and treatment. In countries where health systems are strong, survival rates of many types of cancers are improving thanks to accessible early detection, quality treatment and survivorship care.³

The highest caseload of cancer in India has been recorded in the northeastern region, followed by the southwestern coastal areas. The Report highlights that India's cancer burden could increase from 1.39 million during this year to 1.57 million in 2025. Tobacco-related cancers are likely to account for 27.1% of India's cancer cases in 2020. Most of the cases of cancer tend to be diagnosed at a later stage as a result of which timely treatment cannot be offered. Many patients were found to present with 'loco-regional spread', that is spread of cancer beyond the initially affected body site. Locoregional was the most typical presentation for cancer mouth (males 65.8% and females 70.2%) and stomach cancer (males 51.0% and females 50.3%). Similarly, 60.0% of the cervical cancer patients and 57.0 % of breast cancer patients, presented with locoregional spread.⁴

The risk of developing cancer depends on a range of factors: behavioural, genetic and environmental. Behavioural risk factors include tobacco use, excess body weight, alcohol intake, unhealthy diet, and physical inactivity. Such risk factors are amenable to change and can be addressed by adopting a healthy lifestyle and avoiding the use of tobacco and alcohol. Healthy choices like exercising, avoiding tobacco and alcohol, maintaining a healthy weight can reduce the chances of ever developing cancer. Fewer vaccines like human papillomavirus (HPV) and hepatitis B vaccine can also help lower cancer risk; this is primary prevention. Regular cancer screening tests detect few cancers early (before they spread) when treatment is most likely to be effective, thus

serving as the best protection; this is secondary prevention. These two forms of cancer prevention and control when used, can act as lifesaving tools.⁴

The anxiety is more among rural area people they are all connected by an overwhelming and illogical sense of fear and dread. Some ways to manage anxiety disorders include learning about anxiety, mindfulness, and relaxation techniques, correct breathing techniques, dietary adjustments, exercise, learning, building self esteem, cognitive therapy, medication and support groups through communication.⁶

MATERIALS AND METHODS:

Quantitative research approach and Non experimental descriptive research design was adopted in the present study to assess the health profile and warning signs of cancer among adults residing in selected rural areas of district Nellore, Andhra Pradesh. Non probability convenience sampling technique was used to collect the data. The population for this study was all adults residing in selected rural areas. The sample size for the present study was 200.

DEVELOPMENT OF TOOL: Tool used for the present study was developed specifically as per the need of the investigator. Semi structured interview schedule was prepared under following sections:

Section I - Socio-demographic data. This section consists of 11 variables to collect socio demographic information such as Age, Gender, Educational status, Occupation, Marital status, Monthly family income in rupees per month, Dietary pattern, Religion, Source of previous knowledge related to warning signs of cancer, family history of cancer, family history of any chronic illness.

Section II Semi-structured interview schedule to assess the health profile of the adults. This section consists of 2 parts.

Part: 1 Personal habits which consist 6 items like Habit of Smoking, Alcohol consumption, Use of Tobacco, Sedentary life, Prolonged sun exposure, Eating processed foods

Part: 2 Current health problems which consist 68 items to assess the health profile of the adults. The responses were scored as Never, Rarely, Sometime, Often and always.

Section II: Semi-structured interview schedule to assess the warning signs of cancer. This section consists of 17 items to assess the warning signs of cancer, which were scored on the basis of yes or no responses.

ETHICAL CONSIDERATIONS:

Written permission was taken from ethical clearance committee Narayana College of Nursing, Nellore, Andhra Pradesh. Informed Consent was obtained from each study participants prior to data collection.

Confidentiality and anonymity of subject was maintained throughout the study.

RESULTS AND INTERPRETATION:

Table 1 : Frequency and percentage distribution of adults based on Age (n=200)

Sno	Socio demographic data	F	%
1.	Age		
a.	20 - 35 years	59	29.50%
b.	36-50 years	55	27.50%
c.	51-65 years	42	21.00%
d.	> 65 years	44	22.00%
	Total	200	100%

Above Table No: 1 shows In the Age group out of 200 adults 59(29.50%) were in the age group of 20-35 years, 55 (27.50%) were in the age group of 36-50 Years, 42(21%) were in the age group of 51-65 years, 44(22%) adults were in the age group of >60 years.

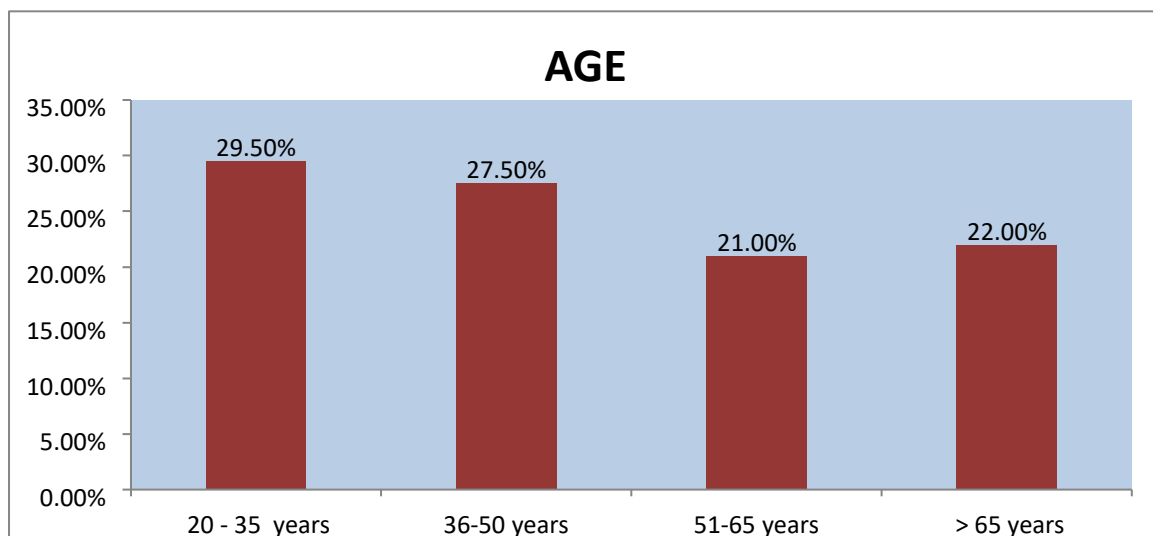


Fig: 1 Percentage distribution of adults based on Age

Table 77 : Frequency and percentage distribution of adults based on

Gender (n=200)

Sno	Socio demographic data	F	%
2.	Gender		
a	Male	82	41.00%
b	Female	118	59.00%
	Total	200	100%

The above table No 2 Gender wise distribution of adults, majority were female 118 (59%) and male 82 (41%).

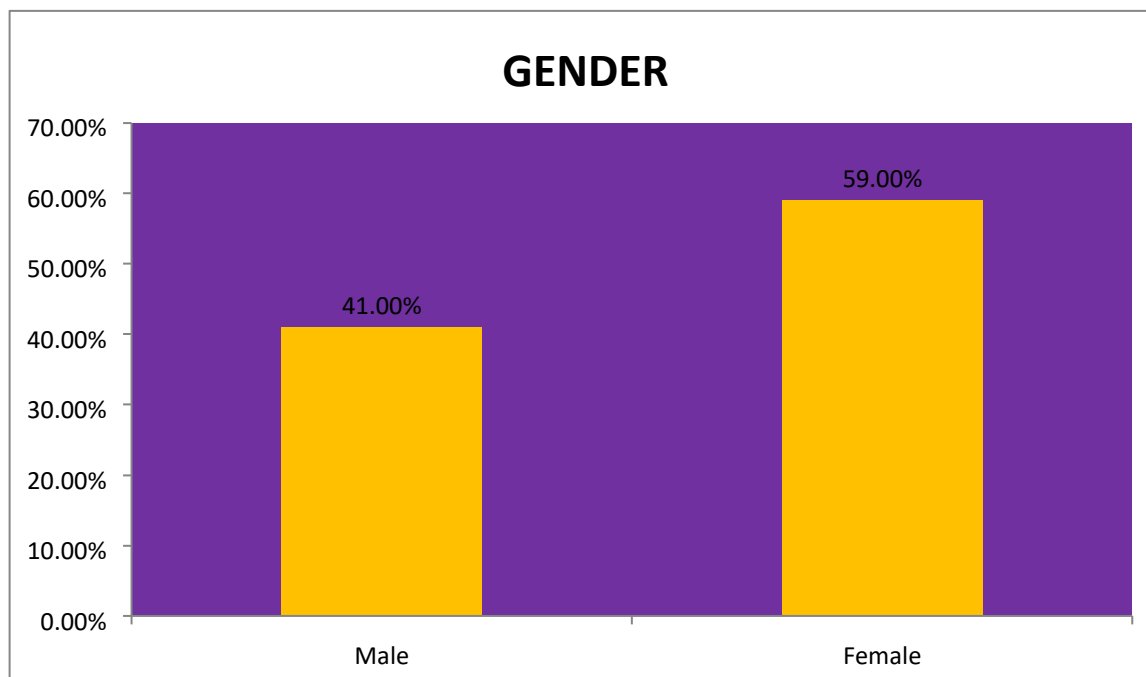


Fig: 2 Percentage distribution of adults based on Gender

Religion (n=200)

Sno	Socio demographic data	F	%
3.	Religion		
a	Hindu	159	79.50%
b	Christian	16	8.00%
c	Muslim	25	12.50%
	Total	200	100%

Table No 3 Religion-wise distribution of adults 159(79.50%) adults were from Hindu religion, 16(8%) were Muslims, 25(12.50%) adults were Christian.

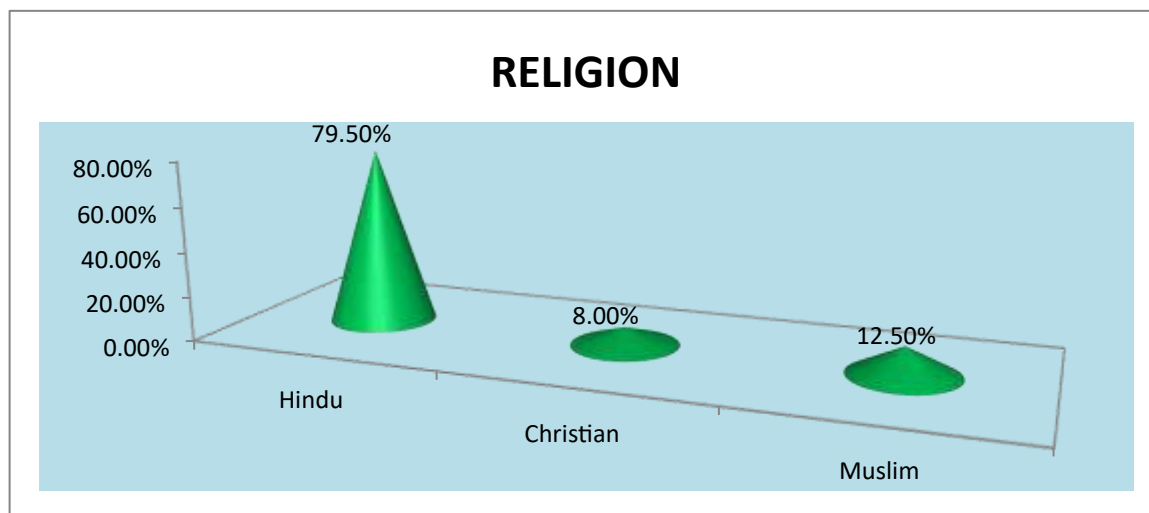


Fig: 3 Percentage distribution of adults based on Religion Educational status (n=200)

Sno	Socio demographic data	F	%
3.	Educational status		
a.	Illiterate	35	17.50%
b.	Primary Education	64	32.00%
c.	Secondary Education	50	25.00%
d.	Intermediate	31	15.50%
e	Graduation & above	20	10.00%

Total	200	100%
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The above table considering the educational status of adults shows that 35 (17.50%) were under come illiterate, 64(34%) were studied Primary education, 50(25%) were studied up to secondary education, 31(15.50%) adults were comes under intermediate and 20(10%) were undergone in Graduation & above.

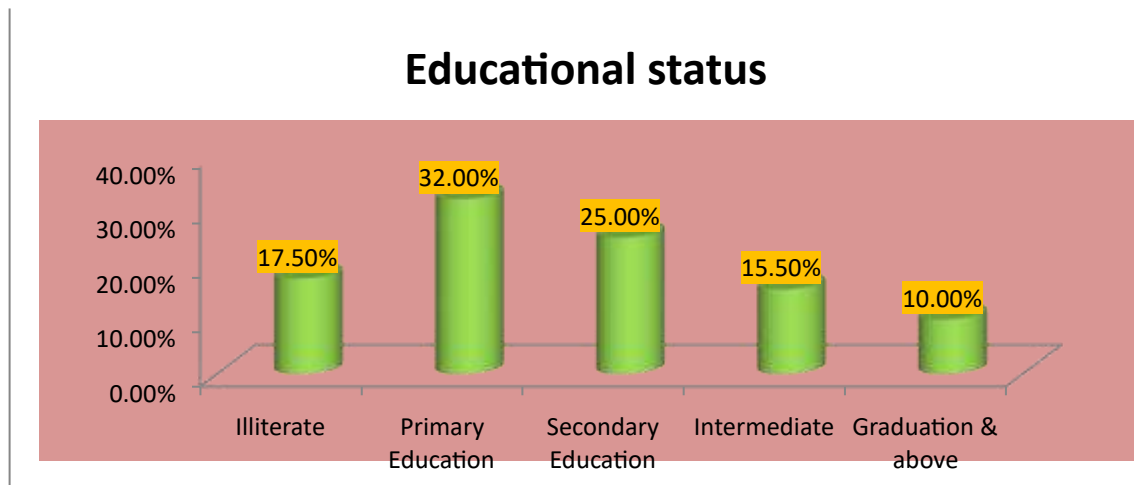


Fig: 4 Percentage distribution of adults based on Educational status Occupation (n=200)

Sno	Socio demographic data	F	%
5.	Occupation		
a.	Homemaker	99	49.50%
b.	Daily wage worker	57	28.50%
c.	Employee/Employers	14	7.00%
d.	Business	30	15.00%
	Total	200	100%

Table No 5 shows regarding Occupation of adults depicts majority shows that 99(49.50%) adults were working as Home Maker, 57(28.50%) adults were working as Daily wage workers,14(7%) were employees/employers, and30 (15%) were doing Business.

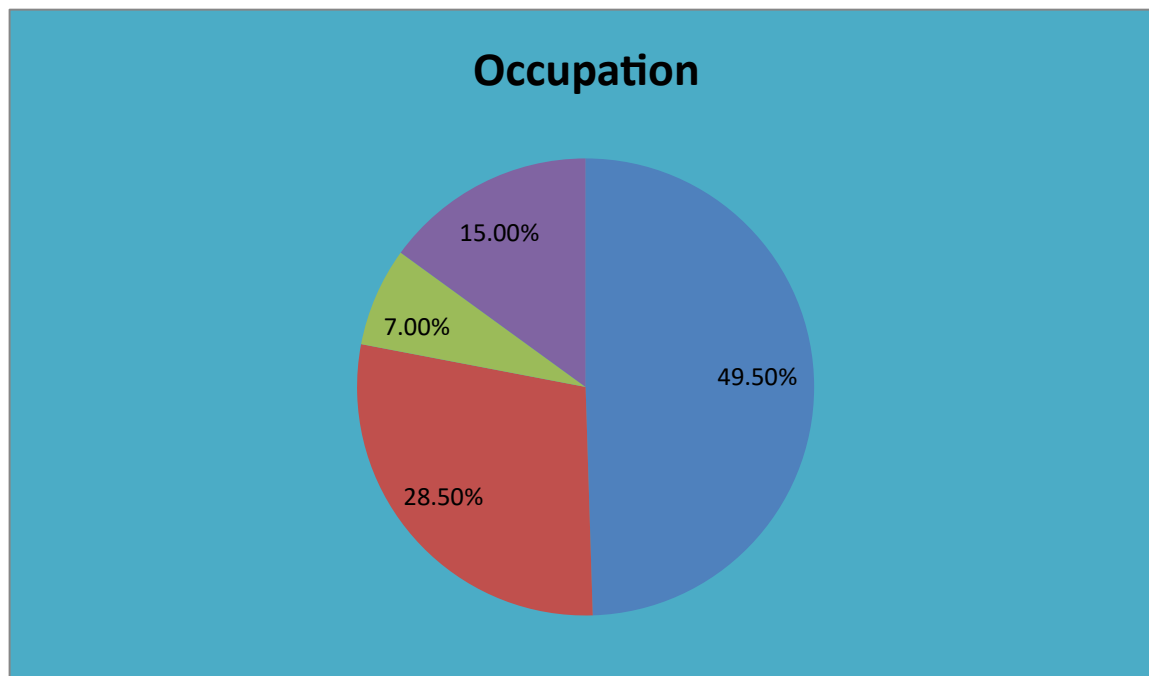


Fig: 5 Percentage distribution of adults based on Occupation

Family income per month (n=200)

Sno	Socio demographic data	F	%
6.	Family income per month		
a.	< 10, 000 Rs per month	06	3.00%
b.	10,001-20000 Rs per month	30	15.00%
c.	20001-30000 Rs per month	125	62.50%
d.	30000 - 40000 Rs per month	26	13.00%
e.	> 40000 Rs per month	13	6.50%
	Total	200	100%

The above table shows Regarding family income status majority shows that 06(3%) were earning < Rs.10, 000, 30(15%) were earned between Rs. 10,001-20,000 Rs per month, 125(62.50%) were earned between in Rs. 20,001-30,000 Rs

per month, 26(13%) were earning between in Rs. 30,000 – 40,000 Rs per month, and 13(6.50%) were earning Rs. > 40,000 Rs per month.

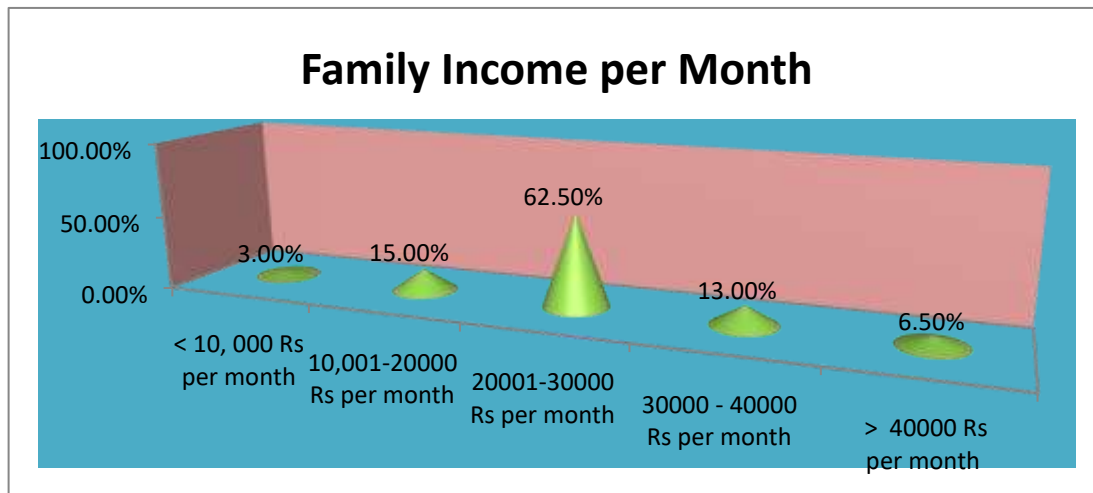


Fig: 6 Percentage distribution of adults based on Family income per month

Marital status (n=200)

Sno	Socio demographic data	F	%
7	Marital status		
a	Married	156	78.00%
b	Un married	38	19.00%
c	Separated	4	2.00%
d	Divorced	2	1.00%
	Total	200	100%

Table No 7 shows about marital status of the adults 156(78%) adults were married, 38(19%) adults were unmarried 4(2%) adults were separated and 2 (1%) adults were divorced.

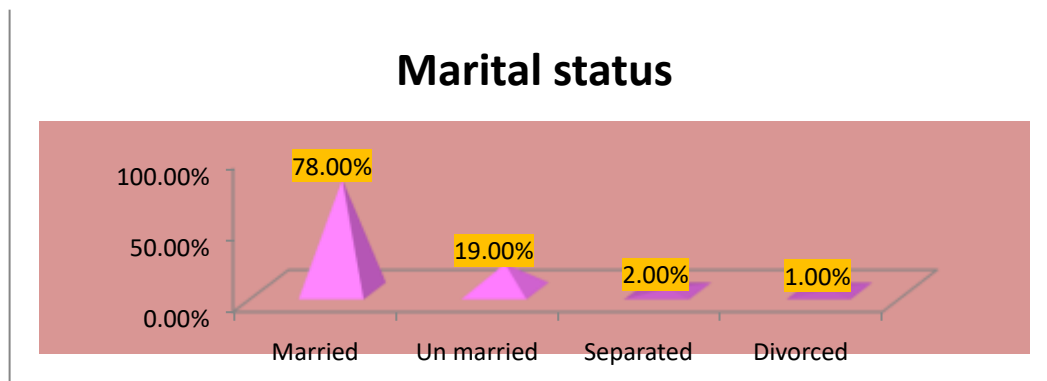


Fig: 7 Percentage distribution of adults based on marital status

Table 82: Frequency and percentage distribution of adults based on

Table 8: Frequency and percentage distribution of adults based on Type of family (n=200)

Sno	Socio demographic data	F	%
8.	Type of family		
a.	Nuclear	152	76.00%
b.	Joint	48	24.00%
c.	Extended	0	0%
	Total	200	100%

The above table shows regarding the type of family that in the 152(76%) adults were belongs to nuclear family, 48(24%) belonged to the Joint Family.

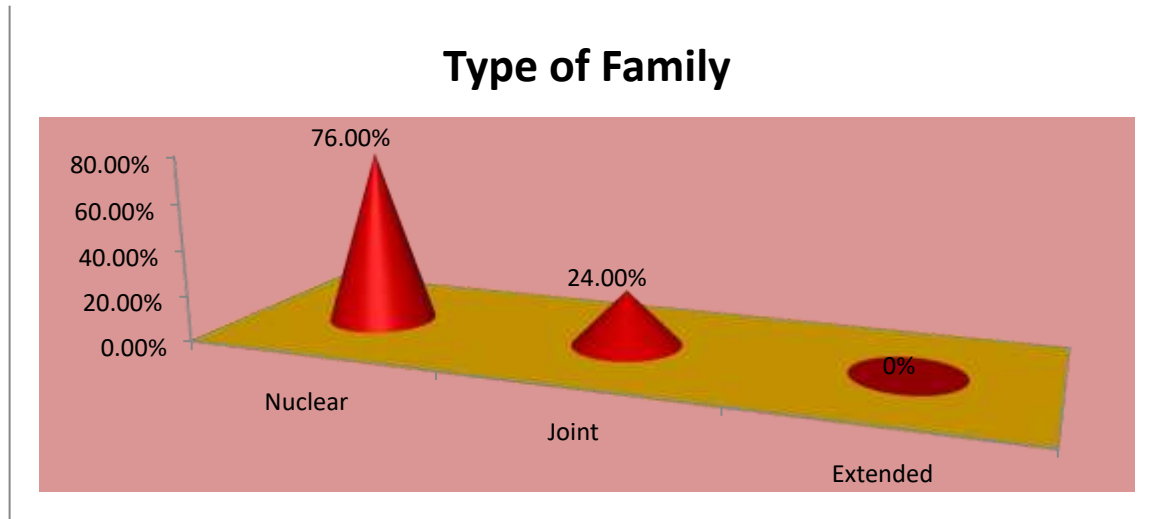


Fig: 8 Percentage distributions of adults based on Type of family Dietary pattern (n=200)

Sno	Socio demographic data	F	%
9.	Dietary pattern		
a	Vegetarian	49	24.50%
b	Non-Vegetarian	55	27.50%
c	Mixed	96	48.00%
	Total	200	100%

Table No 9 shows about dietary pattern 49(24.50%) belonged to a vegetarian diet, 55(27.50%) belonged to non-Vegetarians, 96(48%) adults belonging to Mixed type of diet.

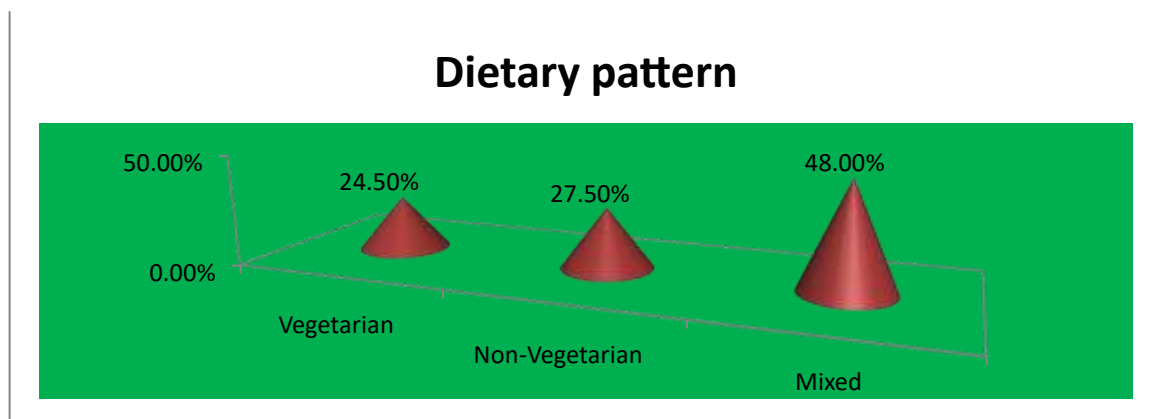


Fig: 9 Percentage distribution of adults based on Dietary pattern Table 10: Frequency and percentage distribution of adults based on Family history of cancer (n=200)

Sno	Socio demographic data	F	%
10.	Family history of cancer		
a	Yes	57	28.50%
b	No	143	71.50%
	Total	200	100%

Table No 10 shows About Family history of cancer 57(28.5%) adults were with family history of cancer, and 143 (71.5%) adults were with no family history of cancer.

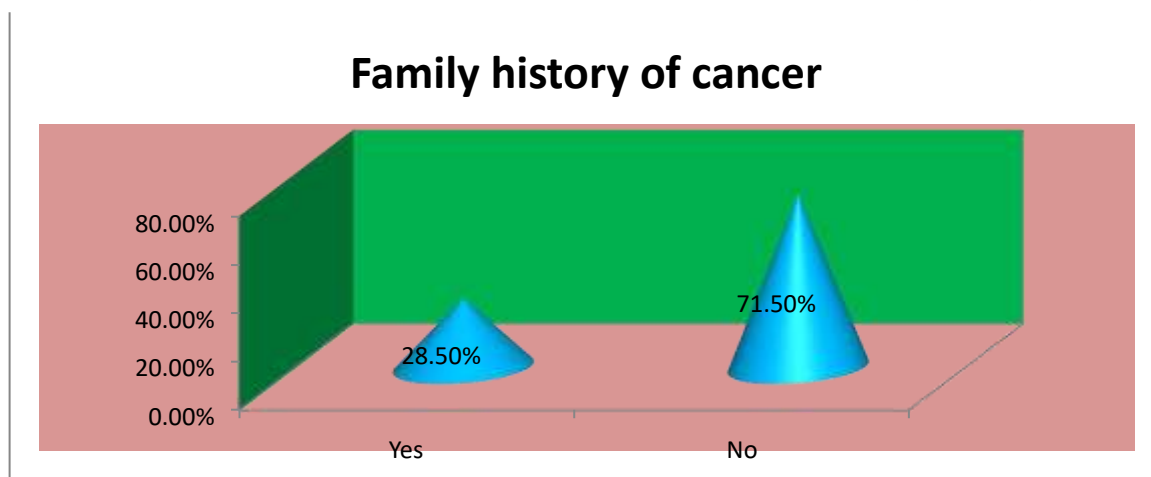


Fig: 10 Percentage distribution of adults based on family history of cancer

Family members of other chronic diseases (n=200)

Sno	Socio demographic data	F	%
11.	Family members of other chronic diseases		
a	Yes	48	24.00%

b	No	152	76.00%
	Total	200	100%

Table No 11 shows regarding family members of other chronic diseases 48(24%) with family members of other chronic diseases, and 152 (76%) adults were with no family members of other chronic diseases.

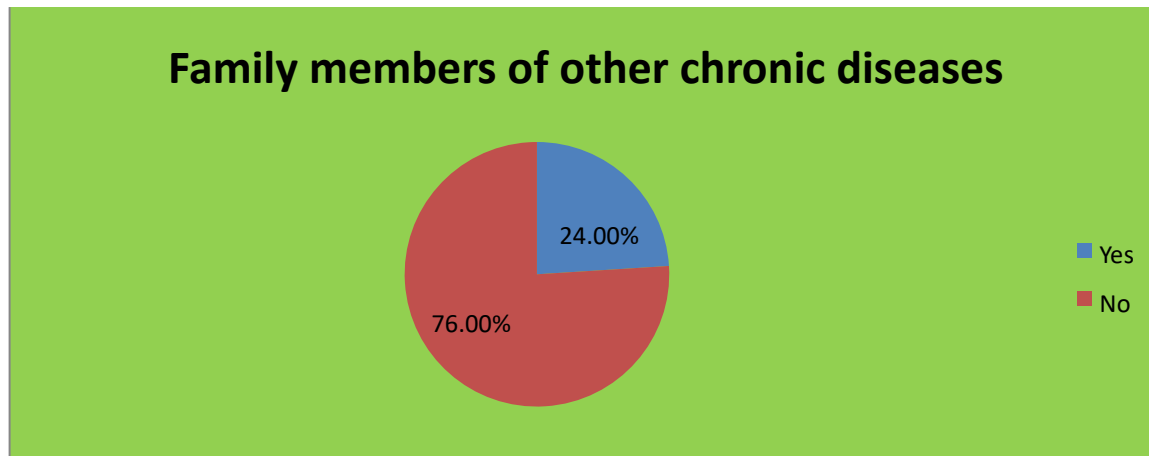


Fig: 11 Percentage distribution of adults based on Family members of other chronic diseases

Table 12: Frequency and percentage distribution of adults based on Source of information related to warning signs of cancer (n=200)

Sno	Socio demographic data	F	%
12.	Source of information related to warning signs of cancer		
a.	Family members	42	21.00%
b.	Neighbor & friends	56	28.00%
c.	Mass media	12	6.00%
d.	Health care professionals	90	45.00%
	Total	200	100%

The above table shows on Source of information related to warning signs of cancer among adults 42 (21%) adults got information from family members 56 (28%) adults got information from neighbor & friends 12 (6%) adults got information from mass media 90 (45%) got information from health care professionals.

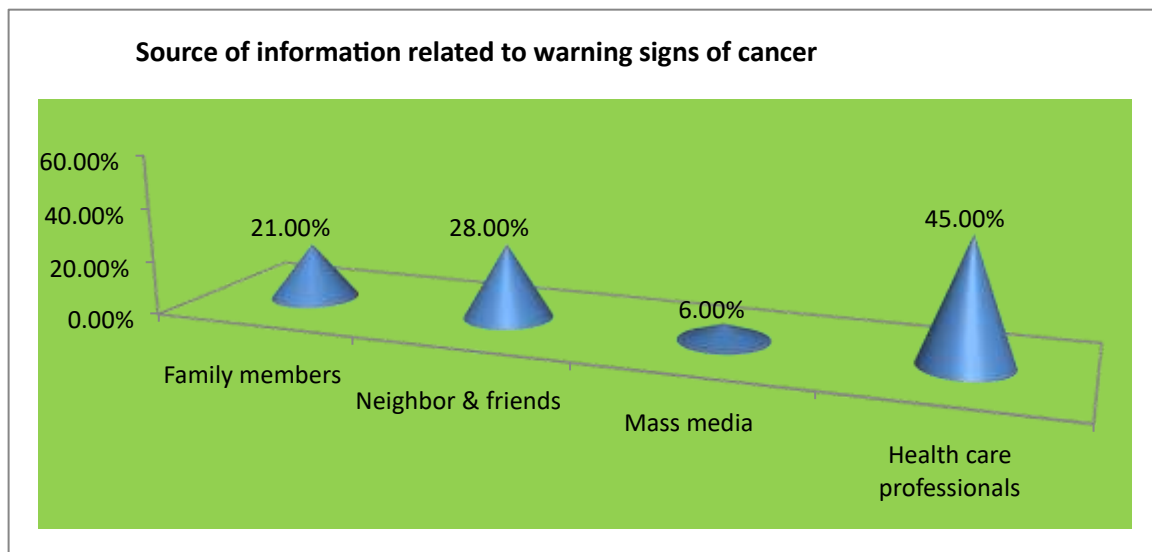


Fig: 12 Percentage distribution of adults based on Source of information related to warning signs of cancer

Table 12: Personal habits of Adults Part: 1 Personal habits

S no	Personal Habits	Yes		No	
		F	%	F	%
1	Habit of Smoking	42	21	158	79
2	Alcohol consumption	57	28.5	143	71.5
3	Use of Tobacco	96	48	104	52
4	Sedentary life	17	8.5	183	91.5
5	Prolonged sun exposure	32	16	168	84
6	Eating processed foods	5	2.5	195	97.5

The findings of present study showed that 42 (21%) of the study participants have the habit of smoking, 57 (28.5%) adults were with the habit alcohol consumption,

96(48%) were using Tobacco 17 (8.5%) adults were with sedentary life, 32(16%) were had prolonged sun exposure and 5 (2.5%) adults were eating processed food.

Part: 2 Table 13: Current health problems consist 68 items to assess the health profile of the adults. (n=200)

Subjects responses were scored as Never, Rarely, Sometime, Often and always.

The findings of present study showed that majority of subject were having gastrointestinal symptoms 19 (9.5%) of the study subjects were having constipation sometime, 81(40.5%) were experiencing indigestion always. 146(73 %) adults sometime experienced fatigue and only 32 (16%) of the study subjects were always experienced fatigue. 124(62%) adults experienced light headache and only 8(4%) of the study subjects have always with light headache. 98(49%) of the study subjects experienced weakness sometime and only 13 (6.5%) of the study subjects were always experienced weakness. Majority of subject were not having urinary symptoms only 19(9.5%) of the study subjects having painful urination and burning micturation. Majority of subjects were not having any neurological symptom only 16(8) subject experienced anxiety sometime. Majority of subjects were not having respiratory symptoms only 21(10.5 %) were experiencing breathlessness sometime and 17(8.5 %) subjects were experiencing breathlessness.

Table. 14 Assessment of warning signs of Cancer

Sno	Warning signs of Cancer	Yes		No	
		F	%	F	%
1	Change in frequency of stool	15	7.5	185	92.5
2	Constipation	19	9.5	181	90.5
3	Presence of blood in stool	2	1	198	99
4	Change in frequency of urine	3	1.5	197	98.5
5	Presence of blood In urine	17	8.5	183	91.5
6	Pain during urination	1	0.5	199	99.5
7	A sore does not heal	4	2	196	98

8	Unusual bleeding from the wound or Natural orifice	2	1	198	99
9	Unusual discharge from the wound or Natural orifice	5	2.5	195	97.5
10	Thickness or lumps in breast or elsewhere	7	3.5	193	96.5
11	Indigestion	81	40.5	119	59..5
12	Difficulty in swallowing	3	1.5	197	98.5
13	Asymmetry of mole or wart	4	2	196	98
14	Change in border of mole or wart	6	3	194	97
15	Change in shape of mole or wart	7	3.5	193	96.5
16	Change in diameter of mole or wart	3	1.5	197	98.5
17	Nagging cough or hoarseness of voice	2	1	198	99

The findings of study showed 15 (7.5%) adults experienced change in frequency of stool. Two (1%) adults experienced presence of blood in stool, 17(8.5%) adults experienced change in frequency of urine, 3(1.5%) adults experienced presence of blood in urine, 81(40.5%) adults experiencing indigestion. 6 (3%) adults experienced change in border of mole or wart. 7(3.5%) adults experienced change in shape of mole or wart, 3 (1.5%) adults experienced change in diameter of mole or wart.

Table 15 Association between warning sign of cancer (indigestion) among adults with their selected socio demographic variables (n=200)

S NO	Socio demographic data	n	Chisquare (x ²) Value	df and P value
1	Age		.634	df =1 p = .39
	a. 20 - 35 years	59		
	b. 36-50 years	55		
	c. 51-65 years	42		
	d. > 65 years	44		
2	Gender		2.723	df =1 p = .051
	a. Male	82		
	b. Female	118		
2.	Religion		14.869	df=4 p =.002
	Hindu	159		
	Christian	16		
	Muslim	25		
3.	Educational status		3.523	df=3 p =.332
	Illiterate	35		
	Primary Education	64		
	Secondary Education	50		
	Intermediate	31		
	Graduation & above	20		
4.	Occupation		12.24	df=4 p =.009
	Homemaker	99		
	Daily wage worker	57		
	Employee/Employers	14		
	Business	30		

5.	Income per month a. < 10, 000 Rs per month b. 10,001-20000 Rs per month c. 20001-30000 Rs per month d. 30000 - 40000 Rs per month e. > 40000 Rs per month	06 30 125 26 13	2.84	df=4 p =.743
6	Marital status Married Un married Separated Divorced	156 38 4 2	12.32	df=4 p =.009
7.	Type of family Nuclear Joint	152 48	2.62	df=2 p =.164
8.	Dietary pattern Vegetarian Non-Vegetarian Mixed	49 55 96	2.81	df=2 p =.164
9.	Family history of cancer Yes No	57 143	0.69	df=1 p =.846
10.	Family members of other chronic diseases Yes No	48 152	6.358	df=1 p =0.005

11.	Source of information related to warning signs of cancer		6.28	df=4 p = .096
	Family members	42		
	Neighbor & friends	56		
	Mass media	12		
	Health care professionals	90		

There was no statistically significant association between warning signs of cancer (indigestion) with their selected socio-demographic variables. The study concluded that general population should be educated regarding early identification of warning signs of cancer.

Note:

CV = Calculated value

TV = Table value df =

degree of freedom df =

$(r - 1) (c - 1)$ S =

Significant

NS = Non significant

REFERENCES:

1. K. Park, Text book of preventive and social medicine, 24th edition, Banarsidas Bhanot publishers, Jabalpur. PP: 400
2. https://www.afro.who.int/sites/default/files/2017-06/NCCP_policies_and_managerial_guidelines.pdf
3. https://www.who.int/health-topics/cancer#tab=tab_1
4. https://ncdirindia.org/All_Reports/Report_2020/Brf_2020/NCRPReport_2020_Brief_write_up.pdf

5. Luckman, Soresen. Medical surgical Nursing- A Psychophysiologic approach. 3rd ed. Sounders; 1817 -19.
6. N Konda Reddy / Afr.J.Bio.Sc. 6(5) (2024). 2811-2821. <https://doi.org/10.33472/AFJBS.6.5.2024.2811-2821>
7. Rao Y N, Suderguptta, Agrawal. National Cancer Control programme NCPP: current status and strategies: Ministry of health education: 2002.
8. Mehta Sharma, Text book of Oncology nursing 1st edition, jaypee publisher,2007 (P) Ltd page no. 13 5. World Health organization <http://www.who.int/cancer/en>.
9. Anandhi RJ, Changing trends, cancer epidemiology in India, ICMA, 2008,283.
10. Government of Punjab Department of Health & Family welfare Punjab, Chandigarh