

# “A Study to Assess the Awareness about Colorectal Cancer among General Population Attending Medicine Outpatient Department at Era’s Lucknow Medical College and Hospital.”

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**Abstract**—This study aimed to assess the level of awareness regarding colorectal cancer among the general population attending the Medicine outpatient department at Era’s Lucknow Medical College and Hospital, Lucknow. A quantitative descriptive research design was used, with a sample size of 152 participants selected through convenience sampling. Data were collected using a self-structured questionnaire after obtaining informed consent.

The results revealed that awareness of colorectal cancer was generally moderate among participants. Out of 152 respondents, only 26 (17.1%) had adequate knowledge, 87 (57.2%) had moderate awareness, and 39 (25.7%) had inadequate awareness, highlighting the need for increased health education and awareness initiatives on colorectal cancer.

**Keywords**-- Assess, Awareness, Colorectal Cancer, General population, Medicine outpatient department

## I. INTRODUCTION

Cancer, a word that evokes fear, uncertainty and resilience, has been a persistent threat to human health for centuries. It is a significant health problem worldwide in both developed and developing countries. In 2022, there were an estimated 20 million new cancer cases and 9.7 million deaths worldwide; furthermore, the number is expected to increase to 14.6 million deaths by 2035.<sup>16</sup>

Colorectal Cancer (CRC) is the third most common diagnosed cancer in men (663000 cases, 10% of total cases), and the second most common in women (570000 cases, 9.4% of total cases) worldwide. Colorectal Cancer is an adenocarcinoma, which may start as a benign polyp but then becomes malignant and invades and destroys healthy tissues. The incidence of the disease increases with age and it is higher in people with a family history of the disease.<sup>16</sup>

## II. BACKGROUND

India reported about 0.06 million new cases with 0.039 million deaths due to Colorectal Cancer in 2020, which is estimated to rise to 0.11 million new cases and 0.064 million deaths by 2040.<sup>1</sup>

CRC represents a significant global health concern, with its incidence and mortality rates exhibiting notable variations across different regions. It is often considered a lifestyle-related disease that is increasingly prevalent in developing countries that are adopting western lifestyles.<sup>4</sup> The westernized lifestyles and changes in dietary habits of Asian populations put them at risk of CRC. By being alert and recognizing significance of the signs and symptoms, it may be possible to detect the disease at an early stage when there is a higher probability of successful treatment.<sup>5</sup>

## III. METHODOLOGY

The present study adopted a quantitative research approach to assess awareness regarding colorectal cancer among the general population attending the outpatient department of Era’s Lucknow Medical College and Hospital, Lucknow. This approach enabled systematic collection and analysis of numerical data, providing objective, reliable, and generalizable insights into awareness levels.

A descriptive cross-sectional research design was used for the study. Data were collected at a single point in time using a questionnaire, allowing the researcher to describe the existing level of awareness and identify patterns and characteristics related to colorectal cancer among the study population.

**SECTION-1**
**Table No. 01:**  
**Demographic variables of the subjects**

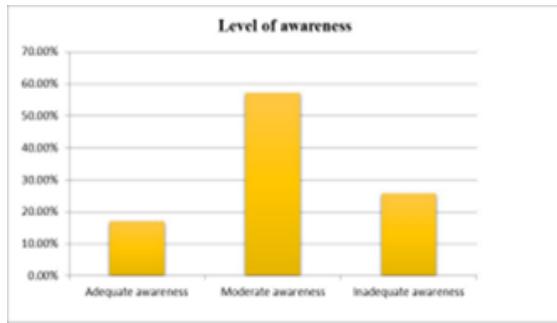
Demographic variable	Options	Percent age (%)	Frequency (f)
Age	20-25 years	26%	40
	26-30 years	23%	35
	31-35 years	19%	29
	36-40 years	21%	31
	Above 40 years	11%	17
Gender	Male	41%	63
	Female	57%	86
	Transgender	2%	3
Marital status	Married	59%	90
	Unmarried	33%	51
	Widow/Widower	5%	7
	Divorced	3%	4
Education	Illiterate	12%	18
	Primary	23%	35
	Secondary	19%	29
	Senior secondary	14%	21
	Graduate	29%	44
	Postgraduate	3%	5
Occupation	Private job	28%	43
	Government job	13%	20
	Business	21%	31

Occupation	Student	17%	26
	Unemployed	21%	32
Area of living	Rural	51%	77
	Urban	49%	75
Previous knowledge	YES	45%	69
	NO	55%	83

The demographic profile of the participants showed that most belonged to the younger age groups, with the highest proportion in the 20–25 years range. Females constituted the majority of respondents (57%), followed by males (41%) and a small proportion of transgender individuals (2%). More than half of the participants were married (59%), while 33% were unmarried, and a smaller percentage were widowed or divorced. Educational status varied, with graduates forming the largest group (29%), followed by those with primary, secondary, and senior secondary education, while a few were illiterate or postgraduates. Regarding occupation, private sector employees formed the largest group, followed by business owners and unemployed individuals, with fewer students and government employees. The area of residence was almost evenly divided between rural (51%) and urban (49%) populations, and more than half of the participants (55%) reported having no prior knowledge about colorectal cancer.

**Section-2**
**Awareness Regarding Colorectal Cancer**
**Table No. 02**  
**Frequency and Percentage distribution of level of awareness**

Criteria measure of awareness score		
Level of scores	Percentage	Frequency
Adequate Awareness (14-20)	17.1%	26
Moderate Awareness (7-13)	57.2%	87
Inadequate Awareness (0-6)	25.7%	39



The findings revealed that the majority of participants had moderate awareness of colorectal cancer, accounting for 57.2% (87 out of 152), indicating a basic but insufficient level of understanding. Inadequate awareness was observed in 25.7% (39 participants), showing that nearly one-quarter lacked sufficient knowledge and may require focused awareness interventions. Adequate awareness was reported by only 17.1% (26 participants), suggesting that very few individuals possessed a strong and comprehensive understanding of colorectal cancer.

### Section-3

#### Association Between Demographic Variables And Awareness Level

**Table No. 03:**  
**Table showing Association of Scores and Demographic Variables**

Demographic variables	Options	Adequate	Moderate	Inadequate	Chi-test	P - value	Difference	Result
Age	20-25years	4 2 2	2 4	1	3 1. 9 7 9a	0. 0 0	8	Significant
	26-30 years	1 1 9	1 9	5				
	31-35years	0 2	1 2	1 7				
	36-40years	1 1	1 1	9				
	Above 40 years	0 8		9				
Gender	Male	1 3	3 4	1 6	5.5 59	0. 1 8 3	4	Non-Significant
	Female	1 3	3 7	3 6				
	Transgender	0	1	2				
Marital Status	Married	1 5	4 8	2 7	6.7 39	0. 2 9 6	6	Non-Significant
	Unmarried	1 1	2 0	2 0				
	Widow/Widower	0	3	4				



	Divorced	0	1	3				
Education	Illiterate	0	9	9	3	0.	1	Significant
	Primary	1	1	5	1. 9	0	0	
		2	8		1			
	Secondary	3	1	8	8a			
			8					
	Senior secondary	0	8	1				
Occupation	Graduate	1	1	1	1	0.	8	Significant
		1	8	5	6.	0		
	Postgraduate	0	1	4	7	3		
					2			
	Private job	6	2	1	9a	3		
Area of Living	Government job	7	1	1				Significant
			1					
	Business	2	1	1				
			5	5				
	Student	4	9	1				
Previous Knowledge	Unemployed	7	1	1				Significant
			4	1				
	Rural	1	4	1	8.	0	2	
		5	3	9	0	1		
Knowledge	Urban	1	2	3	3a	8		Significant
		1	9	5				
	YES	1	3	1	6.	0.	2	
		4	8	7	5	0		
Knowledge	NO	1	3	3	5	3		Significant
		2	4	7	0	8		
					a			

The association analysis indicated that awareness of colorectal cancer varied significantly across several demographic factors, reflected in the overall awareness distribution: 57.2% of participants had moderate awareness, 25.7% had inadequate awareness, and only 17.1% had adequate awareness. Higher awareness was more commonly observed among younger adults, better-educated participants, government employees, rural residents, and those with prior knowledge of the disease, while gender and marital status showed no significant difference, with similar awareness patterns seen across these groups.

#### IV. DISCUSSION

Colorectal Cancer is one of the leading causes of cancer-related deaths globally and awareness among the general population is a critical factor in prevention, early detection and timely treatment. This study focuses on assessing the awareness levels regarding Colorectal Cancer among general population. Lack of awareness often results in delayed diagnosis and poor prognosis. Increasing public knowledge about CRC can positively influence health behavior, leading to early screening and medical consultation.

The effort of this study was to assess the awareness about CRC among general population attending medicine outpatient department at Era's Lucknow Medical College and Hospital. The samples were taken by convenience sampling technique and data was collected from 152 samples by using a structured questionnaire.

#### V. CONCLUSION

Based on the findings of the study, it can be concluded that the overall awareness of CRC among the general population attending Medicine OPD was moderate. While a small proportion of participants had adequate awareness, the majority demonstrated only moderate understanding and a notable portion had inadequate awareness.

There was significant association between awareness scores and demographic characteristics like age, education, occupation, area of living and previous knowledge about the topic while there was no association with gender and marital status.

#### *Acknowledgement*

We would like to express our gratitude to Prof. (Dr.) Priscilla Samson, Principal, Era College of Nursing, Era University, for providing all facilities and support in conducting this study. We express our gratitude to our Guide Mrs. Madhu Kumari Gupta, Associate Professor, Era College of Nursing and Co-guide Mrs. Neha Kushwaha, Assistant Professor, Era College of Nursing, for their constant encouragement and critical evaluation throughout the study.

#### REFERENCES

- [1] Rochkasvili M, Nair KS, Vithanage DCPM, Surve NZ, Chkhikvadze L, Janikashvili N. Public awareness and knowledge of colorectal cancer and screening: a study from Georgia. *J Community Med Public Health*. 2025
- [2] Amogh PS, Geeta S, Narayan S, Sammathi B, Kiran Kumar BR, et al. Incidence of colorectal cancer in patients younger than 40 years. *Asian Pac J Cancer Biol*. 2024
- [3] Khraiwesh H, Abdelrahim DN, Mahmoud IF, et al. Knowledge, awareness and practices toward colorectal cancer among Jordanian university students. *Health Sci Rep*. 2024