A Descriptive Study to Assess the Knowledge and Practice Regarding Nutrition among Cancer Patient Receiving Chemotherapy with the View to Develop Nutritional Booklet in Selected Hospitals in Ranchi Jharkhand

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Abstract: *Cancer remains a leading cause of morbidity and mortality worldwide, with chemotherapy being one of the west common treatment modalities. While chemotherapy is effective in targeting cancer calls, it on less to various side effects, including nausea, loss of appetite, and malabsorption, which can significantly impact the nutritional status of patients. Malnutrition in cancer patients is associated with reduced tolerance to treatment, compromised immunity, and poor quality of life*

Objectives: The study was conducted among cancer patients receiving chemotherapy to assess their al status, explore their knowledge booklet for cancer patients. Also, to determine the association between socio-economic variables and muersonal status and to identify the association between mutritional knowledge and practice regarding nutrition among cancer patients.

Methods and Materials: A total of 150 samples selected by non-probability purposive sampling technique Data collection tools consisted of nutritional knowledge and practice based questionnaire to assess the nutritional knowledge and practice regarding and malnutrition screening tool was used to assess the nutritional status. IEC permission was taken from Rajendra Institute of Medical Sciences, Ranchi and we also took administrative permissions from various institutions. Consent and assent were taken from patient as well as their attenders.

Data were analysed using descriptive and inferential statistics.

Result: Within this study the nutritional knowledge in different categories which includes pre knowledge of nutrition advised by experts, food groups, food choices and diet-disease relationship. knowledge about food groups was the highest (66%), while understanding the diet-disease relationship and food choices was comparatively lower (37.3% each) and (47.3%) patients had familiarity with nutritional knowledge which was advised by experts.

Practice regarding nutrition by food frequency categorized in different food groups and adequacy of it in their daily diet. The food groups include Carbohydrates, proteins, fats, vitamins and minerals. While mineral intake was reported adequate (87.9%), carbohydrate (53.3%) and fats (29.5%), proteins (8%) and vitamins (8.7%) were inadequately consumed. Dietary diversity was used to evaluate the dietary practice in terms of adequacy of food group in their diet which was predominantly moderate (96.6%).

Food habits have been associated as having a significant association with risk for malnutrition (X2 17.5, p=0.002) whereas age, sex, religion, location, occupation, monthly income and level of education were not highly associated. A significant relationship was noted between nutritional knowledge and fat consumption practices (X2-9.47, p-0.002)..

Keywords: Cancer

I. INTRODUCTION

Cancer remains a leading cause of morbidity and mortality worldwide, with chemotherapy being one of the west common treatment modalities. While chemotherapy is effective in targeting cancer calls, it on less to various side effects, including nausea, loss of appetite, and malabsorption, which can significantly impact the nutritional status of patients. Malnutrition in cancer patients is associated with reduced tolerance to treatment, compromised immunity, and poor quality of life

OBJECTIVES OF THE STUDY:

- To assess the nutritional status of cancer patients
- To determine the knowledge and practice regarding nutrition among cancer patients in selected hospitals at Ranchi, Jharkhand.
- To find out the association between selected socio-economic variables and nutritional status of cancer patients receiving chemotherapy in selected hospitals at Ranchi, Jharkhand
- To identify the association between nutritional knowledge and practice regarding nutrition among cancer patients in selected hospital at Ranchi, Jharkhand.
- To develop nutritional booklet for cancer patients.

Method: The Research approach was quantitative approach and design non -experimental descriptive design.

Result: Within this study the nutritional knowledge in different categories which includes pre knowledge of nutrition advised by experts, food groups, food choices and diet-disease relationship. knowledge about food groups was the highest (66%), while understanding the diet-disease relationship and food choices was comparatively lower (37.3% each) and (47.3%) patients had familiarity with nutritional knowledge which was advised by experts.

Practice regarding nutrition by food frequency categorized in different food groups and adequacy of it in their daily diet. The food groups include Carbohydrates, proteins, fats, vitamins and minerals. While mineral intake was reported adequate (87.9%), carbohydrate (53.3%) and fats (29.5%), proteins (8%) and vitamins (8.7%) were inadequately consumed. Dietary diversity was used to evaluate the dietary practice in terms of adequacy of food group in their diet which was predominantly moderate (96.6%).

Food habits have been associated as having a significant association with risk for malnutrition ($X2$ 17.5, p=0.002) whereas age, sex, religion, location, occupation, monthly income and level of education were not highly associated.

A significant relationship was noted between nutritional knowledge and fat consumption practices ($X2$-9.47, p-0.002).

Keyword: nutritional Status, Knowledge and Practice, Nutrition, Cancer patients, Nutritional booklet, cancer patient

Research design: Descriptive Research Design has used to assess the findings.

INCLUSION CRITERIA

- Population should poses
- Cancer patient who are receiving chemotherapy treatment in Rims
- Willing to participate in study
- Understand Enlish and Hindi

EXCLUSION CRITERIA

- Seriously ill cancer patients undergoing chemotherapy.
- Cancer patient who are uncooperative to the study.

II. METHODOLOGY

In this study, knowledge of cancer patient regarding nutrition shows that(47.3%) patients had good advice by experts, (66%) patients had good knowledge of food group, (37.3%) patients had good food choice and good knowledge of bet-disease relationship.

In this study assess the practice of cancer patient regarding nutrition shows that (53.3%) patient taking carbohydrates adequately (8.%) patient taking proteins adequately, (29.5%) patients taking fats adequately. (8.7%) patients taking vitamins adequately, , (87.9%)patients taking minerals adequately.

Result:
1.FINDING RELATED TO KNOWLEDGE
MAJOR FINDINGS OF THE STUDY
FINDING RELATED TO SAMPLE demographic variables
According to 20-40year: 17.9% 41-60years59.6%, 60and above 22.5%
According to Male 32.5% Female 67.5%
According to religion, Hindu 86.8% Muslim 9.9%, Christian 2% Sarna 1.3%
According to location, Rural: 61.6%, Urban 38.4%
According to Marital Status, Married 82.6%, Unmarried 6.6% Divorced 4% Widowed 60%
According to occupation Government: 7.3%, Private: 9.9% Self employed 86% Others
According to level of education Illiterate 27.2%, Primary: 29.8%, 10% 23.8%, 12% 11.3% Graduation: 7.9%, PG: 0%
According to Monthly Income: Below 10000/- 64.7%, 10000-30000:22.7%, 30000 and above: 12,7%
According to wear diagnosed with cancer: 2024: 61.3% 2023: 24% 20224%, 2021 and before: 10%
According to types of cancer: Breast 20.8%, Cervix: 16.%. Uterus: 8.7%, Rectal: 9.4% Lungs: 9.4%, Oral: 6%, Ovary: 6.7%, Stomach: 5.4%, Others: 17.4%
According to BMI: Underweight (below 18.5): 9.3%, Normal (18.5-24.9): 62.7%, Overweight (25-29.9): 18.7%, Obesity (30-39.9): 9.3%
According to food habits; Veg: 4.7%, Nonveg: 4%, Mixed: 91.3%
According to other illness: Yes: 17.3%, No: 82.7%

2) FINDING RELATED TO KNOWLEDGE
47.3% patients had good advice by experts, 60% patients had good knowledge of food and 37.3% patients had good food choice and good knowledge of diet-disease relationshig

3) FINDING RELATED TO PRACTICE
According to food frequency
53.3% patients taking carbohydrate adequately, 8% patients taking proteins adequately.29.5% patients taking fats adequately, 8.7% patients taking vitamins adequately and 87.9% parents taking minerals adequately.

According to dietary diversity
96.6% patients had moderate level of adequacy of dietary diversity, 2% patients had high wel of adequacy of dietary diversity and 1.3% patients had lowlevel of dietary diversity.

4) Association between nutritional knowledge and practice of cancer patients regarding nutrition.
There was a significant association between nutrition knowledge and practice of fat in nutrition (X=9.47, p=0.002)
Whereas, nutritional knowledge shows significant association with practice of carbohydrate and protein.

5) Association between socio-economic demographic variables and malnutrition risk
There was a significant association between food habit (socio-economic variables) and malnutrition risk (X2=17.5, p=0.002)
Whereas, others socio-economic variables age, sex, religion, location, occupation, monthly income, and level of education shows no significant association with malnutrition risk.

DEMOGRAPHIC VARIABLES

SL NO	VARIABLES	F	%
1.	AGE OF YEARS		
	20-40	27	17.9
	41-60	90	59.6
	ABOVE 60	33	22.5
2.	GENDER		
	MALE	49	32.5
	FEMALE	101	67.5
3.	EDUCATION		
	IIliterate	41	27.2
	Primary	45	29.8
	10th	36	23.8
	12th	17	1.3
	GRADUATION	12	7.9
	PG	0	0
4.	MARITAL STATUS		
	MARRIED	124	82.6
	UNMARRIED	10	6.6
	DIVORCED	6	4.0
	WIDOWED	10	6.6
5.	TYPE OF CANCER		
	BREAST	31	20.8
	CERVIX	24	16.1
	UTERUS	13	8.7
	RECTAL	14	9.4
	LUNGS	14	9.4
	ORAL	9	6
	OVARY	10	6.7
	STOMACH	8	5.4
	OTHERS	26	17.4
6.	AREA OF RESIDENCE		
	RURAL	92	61.6
	URBAN	58	38.4
7.	OCCUPATION		
	GOVT	11	7.3
	PRIVATE	15	9.9
	SELF-EMPLOYED	13	8.6
	OTHERS	112	74.2
8.	DIETARY HABITS		
	VEGETTARIAN	7	4.7
	NON VEG	6	4
	MIXED	136	91.3
9.	FAMILY INCOME		
	BELOW 10000	97	64.7
	10000-30000	34	22.7
	ABOVE 30000	19	12.7

10.	RELIGION		
	HINDU	13	86.8
	MUSLIM	15	9.9
	CRISTIAN	3	2.0
	OTHERS	2	1.3
11.	BMI		
	UNDERWEIGHT	14	9.3
	NORMAL	94	62.7
	OVERWEIGHT	28	18.7
	OBESITY	14	9.3
12.	CO-MORBIDITY		
	YES	26	17.3
	NO	124	82.7
13.	MALNUTRITION RISK		
	YES	72	48
	NO	78	52

ASSESS THE KNOWLEDGE OF CANCER PATIENT REGARDING NUTRITION

CATEGORIES	FREQUENCY	PERCENTGE %
ADVICE BY EXPERTS	71	47.3
FOOD GROUP	99	66
FOOD CHOICE	56	37.3
DIET-DISEASE RELATIONSHIP	56	37.3

ASSESS THE PRACTICE OF CANCER PATIENT REGARDING NUTRITION

FOOD GROUP	FREQUENCY	PERCENTGE %
CARBOHYDRATES	80	53.3
PROTEINS	12	8
FATS	44	29.5
VITAMINS	13	8.7
MINERALS	131	87.9

ASSESS THE PATIENT ACCORDING TO DIETARY DIVERSITY

DIETARY DIVERSITY	FREQUENCY	PERCENTGE %
LOW	2	1.3
MODERATE	144	96.6
HIGH	3	2

III. DISCUSSION

RESULT AND DISCUSSION

The major objectives y of the study is explore the nutritional knowledge and practice regarding nutrition among cancer patients receiving chemotherapy. Findings revealed that of population had good nutrition knowledge of food groups and in their practice of consumption of food groups which include carbohydrate, fats and minerals is more in number where as the consumption of protein and vitamins is less

The present study was conducted to asses the nutritional status and knowledge and practice regarding nutrition among cancer patients receiving chemotherapy with the view to develop nutritional booklet in selected hospital at Ranchi

Jharkhand. The research design approach did was non experimental descriptive in nature. The study was conducted in selected hospitals of Ranchi Jharkhand. The sample consisted of 150 cancer patients receiving chemotherapy from selected hospitals of Ranchi Jharkhand. Total of 150 samples selected by probability purposive sampling technique Data collection tools consisted of nutritional knowledge and practice based questionnaire to assess the nutritional knowledge and practice regarding and malnutrition screening tool was used to assess the nutritional status Data collection was done in one month with the permission of head of department and approval of Institutional Ethical Committee. Data were analysed using descriptive and inferential statistics

CONCLUSION

These findings of the study have been discussed in terms of the objectives, theoretical base and hypothesis. The findings of the present study indicate that chemotherapy receiving cancer patients having average knowledge and practice regarding to a Nuritional status. Nutritional booklet has been also developed to educate empower patient and elevate their quality of life. This type of study regarding nutritional status among cancer patients have not yet done. This type of study is essential to identify gaps and challenges in this population For the results we concluded that 66% patients had good knowledge of food groups and 37.3%To patients had good food choice and good knowledge of diet-disease relationship 53.3% patient taking carbohydrate adequately, 8% patients taking proteins adequately, 29.5% patient taking fats adequately, 8.7% patients taking vitamins adequately and 87.9% patients taking minerals adequately. Thus, this study highlighted that, patients with optimal nutritional t experience fewer complications, fast recovery and better tolerance to chemotherapy Also, it highlighted areas where intervention is required and previous valuable insight into the speecific needs of the patients,

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