Original Research Paper

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Nursing

A STUDY TO ASSESS THE KNOWLEDGE AND STATED PRACTICE ABOUT NUTRITION OF THE CANCER PATIENTS UNDER RADIATION THERAPY ATTENDING ONCOLOGY UNIT IN SELECTED HOSPITALS OF WEST BENGAL.

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ABSTRACT Cancer is the leading cause of the death in worldwide. Malnutrition which is the result of treatment of cancer mainly Radiotherapy becomes the major factor to triggers this disease and increased the rate of mortality. So it is important to have good and adequate knowledge and practice about nutrition of all cancer patients. A descriptive survey study was conducted for assessing the knowledge and stated practice about nutrition of the cancer patients under Radiation Therapy attending oncology unit in selected hospitals of West Bengal. Non Probability Purposive sampling technique was used to select 138cancer patient receiving Radiation Therapy. The data were collected by using structured questionnaire on demographic variable and structured knowledge questionnaire and structured stated practice questionnaire. Both descriptive and inferential statistics were computed to analyze obtained data. The findings of the study revealed that 78% cancer patient under Radiation Therapy had average knowledge about nutrition, 12% cancer patient under Radiation Therapy had poor knowledge about nutrition, and majority of 78%cancer patient under Radiation Therapy had average stated practice regarding nutrition and 15% of cancer patient under Radiation Therapy had average stated practice regarding nutrition. That There is a significant relation between knowledge and stated practice regarding nutrition of cancer patients under Radiation Therapy and weekly positive co-relation between knowledge and stated practice of cancer patient receiving Radiation Therapy.

KEYWORDS :

INTRODUCTION:

Nutrition is a process in which food is used by the body for growth, helps to keep the body healthy, and to replace tissue. Good nutrition is important for good health. A healthy diet includes foods, liquids that have important nutrients which the body needs. Nutrition plays important role in cancer patient. Good nutrition is especially important for cancer because both the illness and its treatments can change the way of eating. They can also affect the way of body tolerates certain foods and use nutrients.[1]

Nutritional problems such as loss of appetite, nausea, vomiting, diarrhea, loss of taste, dry mouth, mucocitis, dysphagia, early satiety, mal-absorption, and depression caused by surgery, chemotherapy, and radiotherapy lead patients to develop under-nutrition. Weight loss is usually the presenting symptom of malnutrition in oncology patient. Studies on body composition have revealed that skeletal muscle loss (with or without fat loss) in cancer-related malnutrition is a determinant of physical disability, post operative complications, chemo therapy toxicity, radio therapy side-effects and mortality risk.

Cachexia and malnutrition are common in oncology patients due to both the disease condition itself and the applied treatments. Both are complex syndrome, are indicators of poor prognosis. So nutritional therapy aims to maintain or improve nutrient intake, maintain skeletal muscle mass and physical performance, reduce the risk of reductions to anti cancer treatments, and improve quality of life.[2]

The assessment of nutritional status in cancer patients should begin at diagnosis and be repeated at each visit. Malnutrition can be treated by medications of the patient's diet to meet needs of energy, protein and other nutrients. This can be achieved by the use of one or more nutrition therapies including dietary counseling, oral nutrition support and, when required, enteral and parenteral nutrition therapies. Good nutrition is important for cancer patients[3]

Research Methodology:

Research Methodology refers to the technique used to structure the study and to gather and analyze information in a systematic fashion. Research methodology not only talks about research methods, but also considers the logic behind the method used and explains why a particular method or technique is used.

Methodology includes the research approach, research design, sample, sampling technique used for the study, selection and development of data collection tools including validity and reliability of the instruments, research settings, pilot study, data collection procedure and plan for data analysis.

***Research Approach*:**

In this study non-experimental survey research approach was adopted

Research Design

In this study the research design was Descriptive survey research design

Variables Under The Study:

Demographic Variables:

- Age and sex
- Number of the family member
- Education
- Level of the income per month
- Type of the diet taken by patient,
- BMI
- Type of cancer
- Duration of the treatment
- Physical activity
- Geographical region of the patient

Research Variables:

- Knowledge of the cancer patient about nutrition under going Radiation Therapy.
- Stated practice of the cancer patient undergoing Radiation Therapy.

Setting Of The Study:

Pilot Study

Pilot study was conducted between the period of 10.01.2022 to 15.01.2022 Nilratan Sirkar Medical College and Hospital Kolkata (138, Acharya Jagadish Chandra BoseRoad, Sealdah, Raja Bazar, Kolkata, West Bengal 70001).

Final study:

North Bengal Medical College and Hospital,(P.O. Sushrutnagar, P.S. Matigara, Dist: Darjeeling)

Medica Cancer Hospital Rangapani(P.O.Rangapani, P.S.Bagdogra, Dist:Darjeeling).

Rational for selecting the setting was:

- Availability of the study samples.
- Feasibility of conducting the study.
- Easy accessibility.
- Familiarity with setting.
- Expectation of cooperation for the study from all samples.

Population:

In this present study population refers to, all cancer patients attending oncology unit in selected hospitals of West Bengal.

Sample:

In this present study sample refers to all cancer patient receiving radiation therapy attending oncology unit in selected hospitals of West Bengal.

Sample size:
Sample size was calculated in power analysis. I got this sample size from ICMR-National Centre for Disease Informatics and Research Profile of Cancer and related Factors–West Bengal 2021
For;
Pilot study: 14
Final study:138

Sampling Criteria Of The Study:
Inclusion Criteria:
- Cancer patients whose age were 20 yeras separate words
- Both male and female
- Both urban and rural area
- Cancer patients getting Radiation Therapy after surgery.

Exclusion Criteria
- Cancer patient who are receiving chemotherapy.

Sampling Technique:
- Non probability purposive sampling technique.

Analysis And Interpretation Of The Data
The research data need to be proceeding and analyzed in some systematic manner so that trends and patterns of relationship can be detected and interpreted. The data analysis was planned while developing the research plan. This chapter deals with the analysis and interpretation of data collected from 138 cancer patients under Radiation Therapy of oncology unit of North Bengal Medical College and Hospital, and Medica / Rangapani, Cancer Hospital, Dist. Darjeeling, West Bengal. Analysis and interpretation of data was done in accordance with the objectives of the study using appropriate statistics.

Objectives Of The Study:
1. To assess the level of knowledge regarding nutrition of the patients under Radiation Therapy.
2. To assess the stated practice regarding nutrition of the patients under Radiation Therapy.
3. To find out the relationship between knowledge and stated practice regarding nutrition of the patients under Radiation Therapy.

Organization of Data Findings
Data were organized, tabulated and interpreted using descriptive and inferential statistics by maintaining the following sections:

Section I:
Findings related to demographics characteristics of cancer patients under radiation therapy attending oncology unit frequency and percentage distribution of demographic characteristics among cancer patients

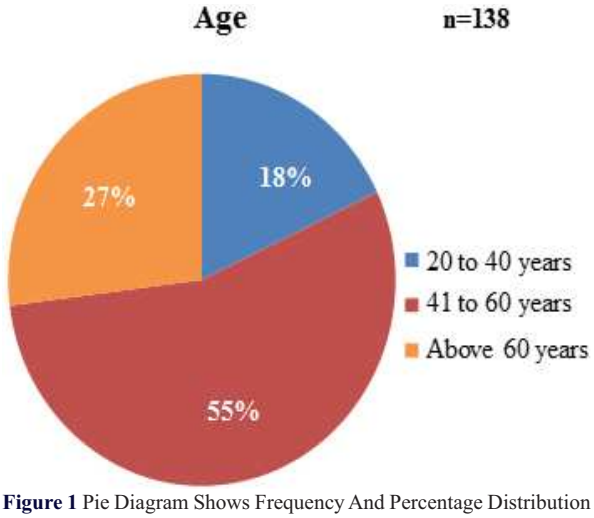

Figure 1 Pie Diagram Shows Frequency And Percentage Distribution Of Age Group Among Cancer Patients Under Radiation Therapy Attending Oncology Unit.

The figure 1 depicts that 76 (55%) cancer patients under Radiation belonged to the age group between 41-60 years followed by 37 (27%) cancer patients had the age group above 60 years and 25(18%) cancer patients were between the age group of 20-40years.

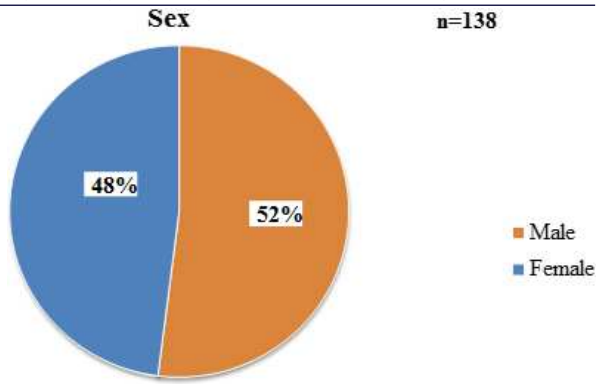

Figure 2 Pie Diagram Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit according to their gender.

The figure 2 depicts 72 (52%) cancer patient under Radiation Therapy were male followed by 66 (48%) cancer patient were female.

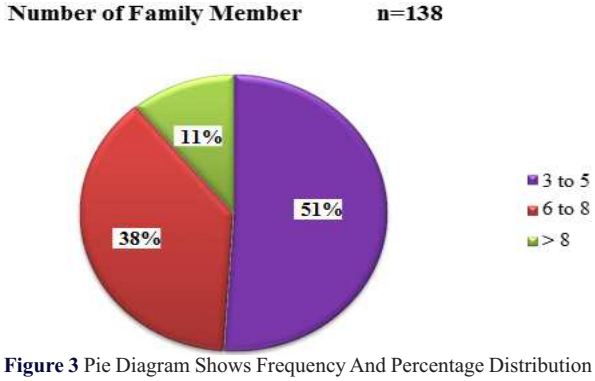

Figure 3 Pie Diagram Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit as per their number of family member.

The figure 3 depicts that 71(51%) cancer patient under Radiation Therapy had 3-5 no. of family member followed by 52 (38%) cancer patient had 6-8 no. of family member, and15(11%) cancer patient had >8 no. of family member.

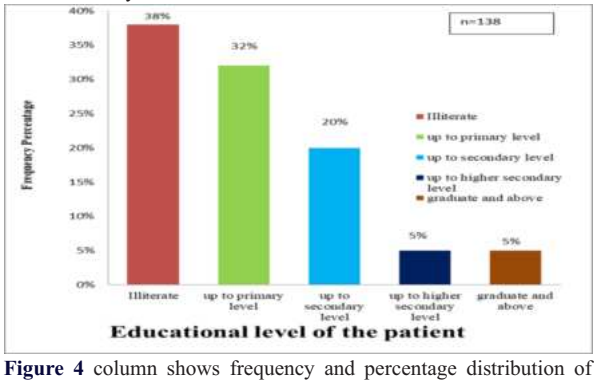

Figure 4 column shows frequency and percentage distribution of cancer patients under radiation therapy attending oncology unit followed by their educational level.

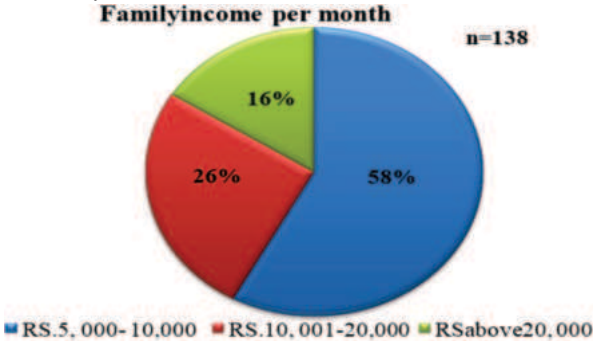

Figure 5 Pie Diagram Shows Frequency And Percentage Distribution

Of Cancer Patients Under Radiation Therapy Attending Oncology Unit in proportion to the family income per month.

The figure 4 depicts 53(38%) cancer patient under Radiation Therapy had no formal education, 44 (32%) cancer patient had up to primary level of education, 27 (20%) cancer patient had up to secondary level of education, 7(5%) cancer patient had up to higher secondary level of education followed by 7(5%) cancer patient was graduate and above.

The figure 5 illustrate that 80(58%) cancer patient under Radiation Therapy belongs to income between Rs. 5,000- 10,000/- per month correspondingly 36 (26%) cancer patient had income between Rs. 10,001-20,000/- per month and 22 (16%) cancer patient had income of Rs. above20,000/-per month.

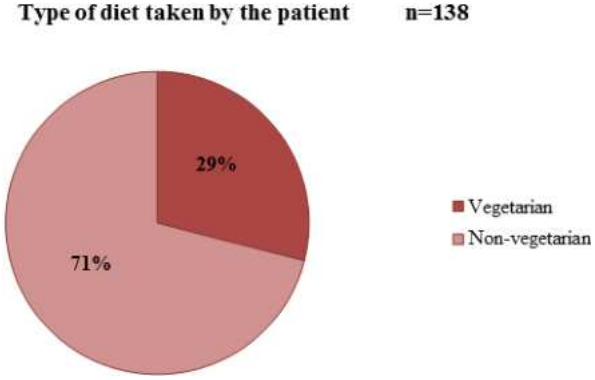

Figure 6 Pie Diagram Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit as per the type of diet taken by the patient.

The figure 6 represents that 98 (71%) cancer patient were non-vegetarian by diet followed by 40 (29%) cancer patient under Radiation Therapy were vegetarian.

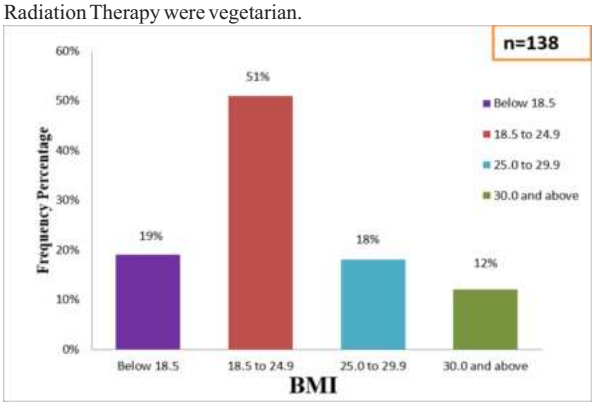

Figure 7 Column Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy attending oncology unit according to their BMI.

The figure 7 depicts that 70 (51%) of cancer patients under Radiation Therapy had BMI between 18.5-24.9 followed by 26(19%) cancer patient had BMI below 18.5, like-wise 25(18%)cancer patients had between25.0-29.9BMIand17(12%)cancer patient had BMI 30.0 and above.

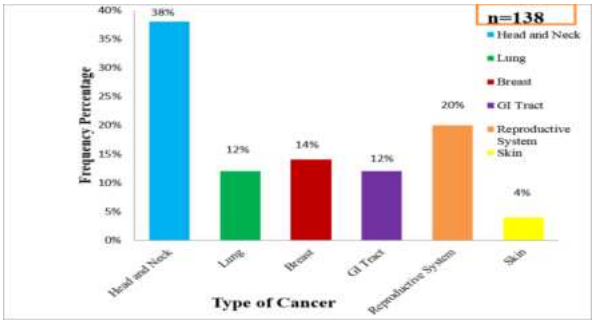

Figure 8 Column Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit According to the typeof cancer.

The figure 8 depicts that 52(38%) cancer patient under Radiation Therapy were suffering from cancer of Head and Neck furthermore 28(20%) cancer patients had cancer of Reproductive System, 19(14%) cancer patient had cancer of Breast, followed by 17(12%) cancer patient were suffering from cancer of Lungs,16(12%) cancer patient were suffering from cancer of G.I. Tract and at last 6(4%) cancer patient were suffering from cancer of skin.

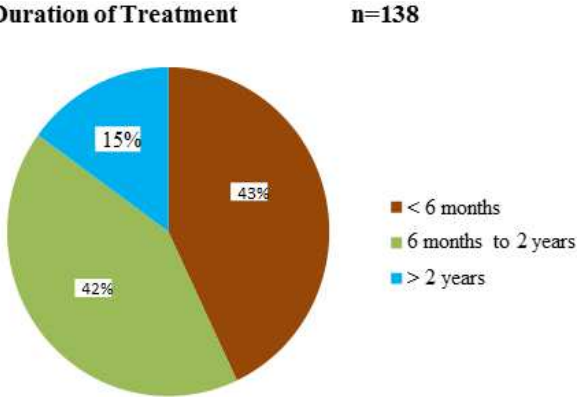

Figure 9 Pie Diagram Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit according to the duration of treatment.

The figure 9 represents that 60(43%) cancer patient under Radiation Therapy were suffering from<6months followed by 58(42%) cancer patient were suffering from 6months to 2years and 20(15%) cancer patient suffering from >2years.

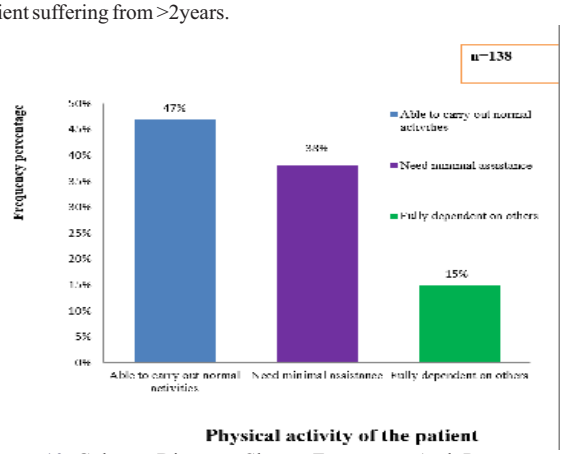

Figure 10 Column Diagram Shows Frequency And Percentage Distribution Of Cancer Patients Under Radiation Therapy Attending Oncology Unit according to the physical activity of the patient.

The figure 10 depicts 65(47%) cancer patient under Radiation Therapy could able to carry out normal activities without special care furthermore 52(38%) cancer patient could able to live at home and care for most personal needs with minimal assistance and 21 (15%)cancer patient could unable to care for self fully dependent on others.

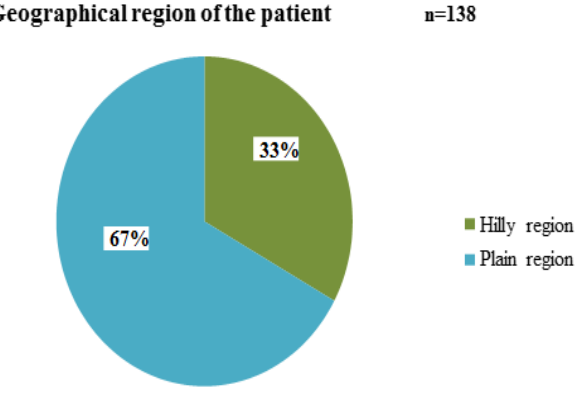

Figure 11 Pie diagram shows frequency and percentage distribution of cancer patients under radiation therapy attending oncology unit according to the geographical region of the patient.

The figure 11 depicts that 92(67%) cancer patient were from Plain region followed by 46(33%) cancer patient under Radiation Therapy belonged to Hilly region.

Section II:

Table 1 Findings related to frequency percentage of level of knowledge about nutrition of the cancer patients under Radiation Therapy: **n=138**

Sl. No.	Level of Knowledge about nutrition	Frequency	Percentage
1.	Good (71%) 10-14	34	25%
2.	Average (64%-43%) 6-9	88	64%
3.	Poor (36%) 5-0	16	11%

Table 1 depicts that there were 34(25%) cancer patients under Radiation Therapy had good knowledge about nutrition, 88 (64%) cancer patients under Radiation Therapy had average knowledge about nutrition, and 16(11%) cancer patient under Radiation Therapy had poor knowledge about nutrition.

Section III

Table 2 Findings related to the area wise frequency, percentage distribution of level of knowledge about nutrition of the cancer patients under Radiation Therapy

Knowledge about concepts of nutrition: **n=138**

Sl. No.	Assess the level of knowledge about concept of nutrition	Frequency	Percentage
1.	Good (75%) 3-4	42	30%
2.	Average (25%-50%) 1-2	88	64%
3.	Poor 0	8	6%

Table 2 depicts that there were 42(30%) cancer patients under Radiation Therapy had good knowledge about concept of nutrition, 88(64%) cancer patient under Radiation Therapy had average knowledge about concept of nutrition, and 8(6%) cancer patient under Radiation Therapy had poor knowledge about concept of nutrition.

Table 3 Findings related to area wise frequency percentage distribution of level of knowledge about nutrition of the cancer patients under Radiation Therapy accordingly.

Knowledge about Side effects of Radiation Therapy **n=138**

Sl. No.	Assess the level of knowledge about side effects of Radiation Therapy	Frequency	Percentage
1.	Good (100%) 1	84	61%
2.	Poor (0%) 0	54	39%

Table 3 revealed that there were 84(61%) cancer patients under Radiation Therapy had good knowledge about side effects of Radiation Therapy, and 54(39%) cancer patient under Radiation Therapy had poor knowledge about side effects of Radiation Therapy.

Table 4 Findings related to area wise frequency percentage distribution of level of knowledge about nutrition of the cancer patients under Radiation Therapy accordingly.

Knowledge about Prevention of Side effects of Radiation Therapy **n=138**

Sl. No.	Assess the level of knowledge about Prevention of side effects of Radiation Therapy	Frequency	Percentage
1.	Good (14%-21%) 2-3	116	84%
2.	Poor (7%) 1-0	22	16%

Table 4 shows that there were 116(84%) cancer patients under Radiation Therapy had good knowledge about prevention of side effects of Radiation Therapy, and only 22 (16%) cancer patients under Radiation Therapy had poor knowledge about prevention of side effects of Radiation Therapy.

Table 5 Findings related to area wise frequency percentage distribution of level of knowledge about nutrition of the cancer patients under Radiation Therapy accordingly.

Knowledge about Management of Side effects of Radiation Therapy **n=138**

Sl. No.	Assess the level of knowledge about management of side effects of Radiation Therapy	Frequency	Percentage
1.	Good (36%-43%) 5-6	40	29%
2.	Average (21%-29%) 3-4	62	45%
3.	Poor (14%) 2-0	36	26%

Table 5 depicts that there were 40(29%) cancer patients under Radiation Therapy had good knowledge about prevention of side effects of Radiation Therapy, 62(45%) cancer patient under Radiation Therapy had average knowledge about prevention of side effects of Radiation Therapy and 36(26%) cancer patient under Radiation Therapy had poor knowledge about prevention of side effects of Radiation Therapy.

Section–IV:

Table 6 Findings related to frequency percentage to assess the stated practice about nutrition of cancer patients under radiation therapy attending oncology unit.

Sl. No.	Assess the stated practice about nutrition	Frequency	Percentage
1.	Good (78%) 14-18	19	14%
2.	Average (72%-56%) 10-13	98	71%
3.	Poor (50%) 9-0	21	15%

Table 6 depicts that there were 19(14%) cancer patient under Radiation Therapy had good stated practice about nutrition, 98(71%) cancer patient under Radiation Therapy had average stated practice about nutrition, and 21(15%) cancer patient under Radiation Therapy had poor stated practice about nutrition.

Section V:

Table 7 To find out the relation between knowledge and stated practice about nutrition of cancer patients under radiation therapy attending oncology unit**.** **n=138**

Sl. No.	Variables	Mean score	SD	Score of 'r'	Score of 't'
1.	Knowledge	8.05	2.08	0.263	3.180
2.	Stated Practice	11.54	1.99		

"t" value (df=136)=1.96(approx.)p<0.05

Table 7 depicts that the obtained mean knowledge score is 8.05 with standard deviation 1.99 while the mean score of stated practice is11.54 with standard deviationis1.99 Calculated **"r"** value between knowledge and stated practice was 0.263 which shows that there was a weakly positive correlation between knowledge and stated practice about nutrition of the cancer patients under Radiation Therapy attending oncology unit and it was significant correlation at 0.05 level of significance as evidence by **"t"** value 3.180 which was more than table value at df 136 at 0.05 level of significance. So it can be concluded that knowledge about nutrition of the cancer patient under Radiation Therapy was significantly correlate with stated practice.

CONCLUSION:

The present study was conducted with the aim to assess the knowledge and stated practice about nutrition of the cancer patient under Radiation Therapy attending oncology unit in selected hospitals of west Bengal.

The following conclusion can be drawn:

Out of 138 samples 88 (64%) had average knowledge, 34 (25%) had good and likewise 16(11%) had poor knowledge about nutrition.

Similarly most of the samples 98 (71%) had average stated practice, 21 (15%) had good stated practice and lastly 19 (14%) had poor stated practice about nutrition. The co-relation between knowledge and stated practice about nutrition of the cancer patients under Radiation Therapy was "r"= 0.263 which was done by Karl Pearson Coefficient Correlation Method and the "t" value was 3.180 which shows that there is significant relation between knowledge and stated practice.

Hence it can be said that the relation between knowledge and stated practice is weakly positive as per value of "r" that is 0.263.

So the result of the study can be used to increase the knowledge and stated practice about nutrition of the cancer patients under Radiation Therapy by arranging some awareness campaign or through health teaching to increase the life by fighting with cancer and the side effects of its treatment and also to prevent form malnutrition in cancer and during its treatment as well as reduce morbidity and mortality rate among cancer patient.

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