A Study to Assess Knowledge of Cancer Survivors

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Abstract

Introduction: Cancer is a generic term for a large group of diseases that can affect any part of the body. Other terms used are malignant turn sour and neoplasms. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs; the latter process is referred to as metastasis. Widespread metastasis is the primary cause of death from cancer (WHO,2022). Cancer is a leading cause of death worldwide, accounting for nearly 10 million deaths in 2020, or nearly one in six deaths. Aim of the study is to assess the knowledge of cancer survivors on various aspects of cancer.

Material and methods: Prospective observational study design was employed and data collected on 290 cancer survivors attending medical, surgical and radiation oncology OPDs of cancer hospital.

Results: Among the sample studied 25.5 percent had low knowledge, 69.3 percent had moderate and only 5.2 had high knowledge on health, nutrition and life style.

Introduction:

As weight gain and a sedentary lifestyle are common after a cancer diagnosis, there is a clear need to target the achievement and maintenance of a healthy weight in cancer survivors, and one of the most efficacious ways to achieve this is through dietary changes and the uptake of an active lifestyle. However, for the general public and cancer survivors, advice regarding nutrition benefits has been inconsistent and at times contradictory (Anderson et al. 2010), with the NCSI vision (DH 2010) confirming that at least 15% cancer survivors wished to have more information about diet and exercise. Where advice is sought from healthcare professionals, they rely more on those frontline workers in primary care and therefore, it seems appropriate that the community practitioner workings with the community nutritionist is where the education investment should be made. Moreover, attention should also be directed towards collaborative working with non-NHS settings such as lifestyle intervention programs (diet, exercise and weight management) to support people surviving with cancer (Stull et al., 2007). Whilst there are gaps in the evidence base to support such interventions, a recent feasibility study of a personalized lifestyle intervention program for colorectal cancer survivors has demonstrated the need for greater support from healthcare professionals across multi-center settings (Anderson et al., 2010). With improving longevity, the late-occurring adverse effects of cancer and its treatment are becoming increasingly apparent. As in other clinical populations, healthy lifestyle behaviors encompassing weight management, a healthy diet, regular exercise, and smoking cessation have the potential to reduce morbidity and mortality significantly in cancer survivors (Demark-Wahnefried & Jones, 2008).

"It is a valuable addition to all our efforts to spread cancer awareness. There is a need for better survivorship initiatives for cancers of people of low socioeconomic status (SES), so that we can help them to achieve better quality of life. For cancers of people in high SES, we try to add life to each and every day they live but poor people struggle with life in view of poor awareness and missing survivorship support. It's our combined responsibility to give voice to voiceless cancer patients," said Dr Abhishek Shankar, Associate Professor, Department of Radiation Oncology, AIIMS, Patna (Priyanka Sharma,2022). The emphasis on developing survivorship programs is driven by the increasing number of cancer survivors. It is estimated that 20 million cancer survivors will be living in the United States (US) by the year 2026 (Miller et al.,2016;. Bluethmannet al.,2016). Patients are living longer, even with residual disease, with cancers that were previously considered terminal. For long-term survivors (LTS), there are several organizations with some general guidelines outlining survivorship care: the National Comprehensive Cancer Network (NCCN), the American Society of Clinical Oncology (ASCO) and the American Cancer Society (ACS). However, evidence-based guidelines are uncommon on how to best deliver these services for the detection of recurrent disease, management of symptoms resulting from treatment and support the emotional, physical, psychological and spiritual effects of cancer diagnoses and treatment. It is clear that this gap results in many unmet needs among LTS and their support systems (Alfano etal.,2019).

The aim of the study to assess knowledge of cancer survivors on selected factors of cancer.

Materials and methods:

Prospective non randomized hospital based study carried out on 290 cancer survivors among which 118 men and 172 women suffering with various cancer disease attending medical, surgical and radiation oncology OPDs from 2018- January 2020

Inclusion criteria:

➢ Cancer survivors aged 25-70 both male and females.
➢ Cancer survivor with any of the cancers.

Exclusion criteria:

➢ Cancer survivors below 25 years of age
➢ Cancer survivors with 3rd and 4th stage cancer
➢ Cancer survivor with associated comorbid complications.

Data were collected from 290 cancer survivors among which 118 men and 172 women suffering with various cancer diseases attending medical, surgical and radiation oncology opds of a cancer hospital from December 2018 to January 2020.

Structured questionnaire was used to collect the demographics data of the respondents and level of knowledge was assessed by knowledge questionnaire consisting of 20 questions with multiple choice options on selected aspects of cancer.

Knowledge of cancer survivors on health, nutrition and lifestyle: Knowledge is the information known to the individuals through their exposure to various sources. This knowledge may influence the health and nutrition practices of an individual leading to good health. In this study a knowledge questionnaire was developed and standardised for validity and reliability and administered to total sample. Based on the

knowledge scores, the respondents' were categorised as; low knowledge (<7), moderate (8-13) and high knowledge (14-20). Among the sample studied 25.5 percent had low knowledge, 69.3 percent had moderate and only 5.2 had high knowledge on health, nutrition and life style.

Table 1 : Distribution of the sample according to their levels of knowledge

Levels of knowledge	Score range	Percentage (%)	Number
Low	Less than 7	25.5	74
Moderate	8 to 13	69.3	201
High	14 to 20	5.2	15
Total		100	290

In addition to administering therapies for patients of breast cancer, the approach is to use interventions to improve mental health status. One such psychological programme is life skills training suggested for all by the World Health Organization (WHO) as a capacity building programme to enhance the ability of people to handle effectively the life situations faced day to day (Shabani etal., 2014). Cancer survivors may create other conditions as a result of their cancer treatment. A few of these are transient, but others can ended up inveterate and significantly affect quality of life [Grunfeld and Earle, 2010]. Cancer survivors may moreover be at expanded hazard of a moment cancer in case the chance components associated with the first cancer hold on. There is expanding prove that mediations pointed at advancing solid eating, customary work out, and support of a solid weight can of set a few of the antagonistic effects of cancer and cancer treatment [(Khan etal.,2011; Demark-Wahnefriedetal.,2018; Ballard-Barbash etal., 2012; Klein etal.,2014; Garcia and Thomson ,2014; Lemanne etal., 2013).

Difference between groups of independent variables with respect to knowledge :

The difference between groups of independent variables with respect to knowledge was examined using F Ratio/ t-test, the findings were presented in table 28. Which indicates that there was no significant difference found with in groups for knowledge levels and; age, gender and relationship of caretaker. The p values were very significant for the eight independent variables namely; domicile (p <0.001), religion (p <0.001), marital Status (p<0.01), education (p<0.001), occupation (p<0.001), monthly Income (0.05), type of family (p<0.001) , size of family (p<0.01) at 0.001, 0.01 and 0.05 levels of significance.

Table 2 : Mean knowledge score of the respondents by their socio demographic characteristics

Socio-demographic Characteristics of the Respondents	N	Mean	S.D.	F-Ratio / t-test Value; Sig. Level
1. Age (in years)				
≤ 40	73	9.52	2.36	
41 – 50	84	9.44	2.27	0.436
>50	133	9.23	2.25	p=0.647
2. Gender				
Male	118	9.23	2.50	0.844
Female	172	9.46	2.13	p=0.399

3. Domicile				
Rural	132	10.36	2.27	7.416
Urban /Semi urban	158	8.53	1.94	*p<0.001***
4. Religion				
Hindu	238	9.14	2.27	
Muslim	37	10.27	2.08	6.735
Christian	15	10.67	1.99	*p<0.001***
5. Marital Status				
Single	24	10.83	1.97	
Married	241	9.22	2.27	5.629
Widowed / Divorced & Separated	25	9.36	2.21	*p<0.01**
6. Education				
Illiterate	53	8.81	2.02	
Primary School	87	9.20	2.10	28.382
Above Secondary School	150	11.36	2.28	*p<0.001***
7. Occupation				
Daily Wage Earners / Others	167	9.09	2.24	
Service/ Self-employed / Business	83	9.19	2.11	10.905
Employees	40	10.87	2.27	*p<0.001***
8. Monthly Income (in Rs.)	190			
≤ 30000	82	9.13	2.21	
30001 – 50000	18	9.68	2.36	3.667
>50001		10.39	2.38	*p<0.05*
9. Type of Family				
Nuclear Family	178	8.97	2.24	3.787
Joint / Extended	112	9.99	2.21	*p<0.001***
10. Family Size (Members)				
≤ 3	87	9.15	2.26	
4 – 5	137	9.09	2.17	6.102
>6	66	10.21	2.24	*p<0.01**
11. Relationship of Caretaker				
Father / Mother	30	10.13	2.26	
Wife / Husband	123	9.37	2.32	2.121
Other Family Member	137	9.19	2.23	p=0.122
Total	**290**	**9.37**	**2.28**	

Note: * indicates significance @0.05 level

** indicates significance @0.01 level

*** indicates significance @ 0.001 level

Cancer is the second leading cause of death in the world, the incidence of cancer is around 1.15 million in India and 18.1 million per annum in the world (GLOBOCAN, 2020). The lack of information specifically

on the contributing risk factors, cancer signs and symptoms causes delay in identification of common cancers and diagnosis of patients in late stages...

Multiple linear regression on knowledge and selected predictor variables:

In the present study the multiple linear regression model was used to estimate the significance of relationship between knowledge and eight independent variables using a straight line as shown in table 29.which revealed that the regression coefficient indicates significant relationship with the predictor variables namely; domicile (p<0.001), education (p<0.001) and family size (p<0.001) at 0.001 level of significance. In contrary there was no significant association found between the five independent variables; age (p=0.739), gender (p=0.436), religion (p=0.146), marital status (p=0.349), occupation (p=0.541) and knowledge of cancer survivors on cancer related health, nutrition and life skills aspects. These findings denote that domicile, education and family size of the cancer survivors has played role on knowledge.

Table 3: Results of Multiple (Linear) Regression Analysis on Respondents' Knowledge Score on Cancer & Related Aspects

S.No.	Predictor variables		β Co-efficient	t-Value	p-Level
	Constant		--	16.220	0.000
1	Age	(3 Categories)	-0.017	-0.334	0.739
2	Gender	(Females)	0.040	0.780	0.436
3	Domicile	(Urban)	-0.329	-6.364	**0.001** ***
4	Religion	(Muslims & Christians)	0.078	1.457	0.146
5	Marital Status	(Married / Widowed, etc.)	-0.052	-0.938	0.349
6	Education	(3 Categories)	0.300	5.551	**0.001** ***
7	Occupation	(3 Categories)	0.035	0.612	0.541
8	Family Size	(3 Categories)	0.158	3.222	**0.001** ***
	R² (in %); N **F-Value; Sig. Level**		**30.4; 290** **15.336; 0.001**		

Note: *** indicates significance @ 0.001 level

Various studies from different States and across sociodemographic and educational strata in India have highlighted the low level of awareness on breast, cervical and oral cancers especially among the individuals with low education, socio-economic background (Oswal etal, 2020; Gupta etal.,2017;Ghosh

etal., 2021;Raj etal2012). Some studies have less emphasized the misconceptions and myths related to cancer, as an outcome of lack of knowledge (Rai etal.,2014)

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