

Assessment of the knowledge and attitudes of staff nurses on nursing care of cancer patients undergoing chemotherapy at selected cancer hospitals of Punjab

Abstract

Many antineoplastic drugs used to treat cancer are known to be teratogenic and mutagenic to patient as well as to staff who administer, handle it. So care by nurses is an important perspective for cancer patients. A non experimental descriptive research design was used. Structured self-administered questionnaire schedule to assess the knowledge and developed 4 point likert scale was used on 50 staff nurses of selected with convenience sampling technique from cancer hospitals of Punjab. The results of the study shown that mean score of staff nurses regarding knowledge was average (14.94) and mean score of their attitude comes out to be positive(59.70). The association between knowledge and attitude with their selected socio-demographic variables was calculated by chi square test and revealed statistically non significant relationship ($p>0.05$). The intention of this study was to assess the knowledge and attitude of nurses' on nursing care of cancer patients undergoing chemotherapy. Overall, nurses appear to have average knowledge and a positive attitude towards nursing care of cancer patients undergoing chemotherapy. So enhancement in knowledge aspects is required and CNE program me or knowledge updating program me should be held time to time.

Keywords: CNE, knowledge, chemotherapy, cancer, hippocrates

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Introduction

Health is an ideal state of physical and mental well being: something to strive for but never to attain. Being healthy is very important to live happily and to run a family in good way. Severe illness or injuries can have a very detrimental effect on the family.

The word "CANCER" in Greek language means a crab, which Hippocrates thought a tumor resembled, medically known as a malignant neoplasm, term for group of different disease. Cancer is commonly referred to abnormal unlimited growth or multiplication of immature cells.

"World Cancer Day" is celebrated on 4 February for preventing cancer and raising quality of life of cancer patients.

In 2008 approximately 12.7million cancers were diagnosed and 7.6million people died due to cancer worldwide.^{1,2}

In Punjab, cancer registry programme in 2004-2005 found that whole Malwa region of a population of about 1.5score, there ought to be about 12,000 cancer patients.³

Need of the study

Based on the GLOBOCAN, about 12.7 million cancer cases and 7.6million cancer deaths occurred in 2008; of these, 56% of the cases and 64% of the deaths occurred in the economically developing world. It is estimated that about 9 million cancer cases are diagnosed every year.³ Cancer prevalence in India is estimated to be around 2.5

million, with over 8,00,000 new cases and 5,50,000 deaths occurring each year due to this disease.⁴ More than 70% of the cases report for diagnostic and treatment services in the advanced stages of the disease, which has lead to a poor survival and high mortality rate.⁵ The survey conducted in Punjab, from October to December 2012, has covered 2,64,84,434 people in 50,53,447 households in 12,603 villages and 217 cities and towns. This is 97.78 per cent of the population of the Census data. While 23,874 cases of people suffering from cancer have been detected, the numbers of persons complaining of cancer symptoms were 84,453.

Research problem

"Assessment of the knowledge and attitudes of staff nurses on nursing care of cancer patients undergoing chemotherapy selected Cancer Hospitals of Punjab."

Objective of the study

The main objective of the study to explore the knowledge and attitude of staff nurses regarding care of patient undergoing chemotherapy treatment.

Hypothesis

a. H₁A

There will be good knowledge on nursing care of cancer patients undergoing chemotherapy among staff nurses in selected cancer hospitals of Punjab.

b. H₁B

There will be positive attitude on nursing care of cancer patients undergoing chemotherapy among staff nurses in selected cancer hospitals of Punjab.

c. H₁C

There will be significant association between the knowledge and attitude among staff nurses with their selected socio-demographic variables.

Conceptual framework

The conceptual framework chosen for this study is based on health belief model. This model was developed in early 1950 by Becker and Rosens stock.

Review of literature

- i. Knowledge of Nurses related to nursing care of cancer patients undergone chemotherapy
- ii. Attitudes of nurses towards nursing care of cancer patient and chemotherapy

Research methodology

In the present study:

- 1. Research Approach-Quantitative descriptive.
- 2. Research Design -Non Experimental.
- 3. Research Setting -Selected cancer hospitals of Punjab.

Target population-Target population included staff nurses of selected cancer hospitals of Punjab:

- a. Sample- Sample was staff nurses of selected cancer hospitals of Punjab.
- b. Sample size-The sample size of present study comprised of 50 staff nurses of selected cancer hospitals of Punjab.
- c. Sampling technique-Non-probability convenience sampling technique.

Selection and development of tools

The tool consisted of 3 parts:

- Part-1: consisted of socio - demographic data.
- Part-2: consisted of structured knowledge questionnaire.
- Part-3: Developed Attitude assessment scale.

Table I Describing socio demographic distribution of study subjects

S. No	Socio-demographic variables	Frequency	Percentage
I	Age(in years)		
	a. 21-25	31	62%
	b. 26-30	15	30%
	c. 31-35	2	4%
	d. 36-40	1	2%
	e. >40	1	2%

Reliability

Reliability of the instrument was established by using split half technique.

Reliability of knowledge questionnaire

Knowledge questionnaires were 30. They were split in half of original number and then co-relation between both the halves was found. By applying split half method correlation coefficient was calculated i.e. $r=0.6$, r_1 i.e. estimated reliability of entire test was also calculated: $r_1=0.70$.

Reliability of attitude scale

Total items of the attitude scale was 22 by applying split half method correlation coefficient was calculated i.e. $r= 0.5$ r_1 i.e. estimated reliability of entire test was also calculated. $r_1=0.68$ both tools were found to be reliable.

Data collection procedure

The researcher collected the data from 03 February 2016 to 19 April 2016 in selected cancer hospitals of Punjab.

- i. The investigator sought a prior permission from the concern authority of selected cancer hospitals of Punjab.
- ii. The investigator personally talks telephonically and through mail to every staff nurse and explained about the purpose and nature of study. Their written informed consent was obtained before enrolling them in a present study.
- iii. The tool was self administered and mail to all the participants through the email to assess the knowledge and developed 4 point likert attitude scale to assess the attitude.

Ethical consideration

As study was descriptive in nature so does not need any special ethical clearance from any ethical review board. Data collection permission was obtained from concern authority. Written inform consent obtained from subject and their anonymity and confidentiality of data obtained will be maintained.

Data analysis

The Descriptive and inferential Statistical measures was used to analyze the data. For example percentage, Mean, SD was used to assess the knowledge and attitude of staff nurses and Chi square, item analysis was used to check the association of knowledge and attitude with its socio-demographic variables Tables 1-7.

Table Continued...

S. No	Socio-demographic variables	Frequency	Percentage
2	Gender		
	a. Male	2	4%
	b. Female	48	96%
3	Marital status		
	a. Married	15	30%
	b. Unmarried	35	70%
	c. Divorced	0	0%
	d. Widower	0	0%
4	Habitat		
	a. Rural	29	58%
	b. Urban	21	42%
5	Religion		
	a. Hindu	4	8%
	b. Sikh	45	90%
	c. Christian	1	2%
	d. Muslim	0	0%
	e. Any other	0	0%
6	Professional qualification		
	a. GNM	38	76%
	b. Post basic nursing	9	18%
	c. Basic nursing	3	6%
	d. M. Sc. Nursing	0	0%
7	Years of experience in cancer unit		
	a. <1	21	42%
	b. 1-5	24	48%
	c. 6-10	5	10%
	d. 11-15	0	0%
8	Have you ever attended CNE programme related to chemotherapy		
	a. Yes	7	14%
	b. No	43	86%

N=50.

Table 2 Frequency and percentage distribution of knowledge on nursing care of cancer patients undergoing chemotherapy among staff nurses

Level of knowledge score	Range	N	Percentage
Very poor	0-6	1	2%
Poor	12-6	7	14%
Average	13-18	21	42%
Good	19-24	20	40%
Very good	25-30	1	2%

N=50.

Table 3 Knowledge mean scores of staff nurses on nursing care of cancer patients undergoing chemotherapy

Knowledge	Total samples	Range statistics	Minimum statistics	Maximum statistics	Mean	Std error	Std deviation
	50	19	6	25	14.94	0.613	4.335

Table 4 Frequency and percentage distribution of the attitude on nursing care of cancer patients undergoing chemotherapy among staff nurses

S. No.	Levels of attitude	Range	No. of respondent	Percentage
1	Negative	22-38	0	0
2	Mild negative	39-54	11	22%
3	Mild positive	55-71	37	74%
4	Positive	72-88	2	4%

Table 5 Attitudes mean scores of staff nurses on nursing care of cancer patients undergoing chemotherapy

Attitude Scales	Total samples	Range statistics	Minimum statistics	Maximum statistics	Mean	Std error	Std deviation
	50	34	46	80	59.7	0.904	6.393

Table 6 Item analysis of the attitude regarding nursing care of cancer patients undergoing chemotherapy

S/N	Attitude statement	Strongly agree		Agree		Disagree		Strongly disagree	
		N	%	N	%	N	%	N	%
1	I don't have a problem to give chemotherapy to patient with taking risks with my health if the benefits are great enough.	5	10%	15	30%	22	44%	8	16%
2	I follow the orders as doctor has given regarding the care of patient undergoing chemotherapy, other than that I do not want to take risk on the behalf of myself even in emergency condition also.	1	2%	20	40%	23	46%	6	12%
3	It is easy to inform patients about their chemotherapy treatment but harder to help them emotionally.	0	0%	4	8%	37	74%	9	18%
4	Administering/handling chemotherapy is no different than administering/handling intravenous antibiotics.	8	16%	22	44%	18	36%	2	4%
5	Communicating with patients about their treatments and its side-effects is irritating because of their over questioning.	5	10%	23	46%	17	34%	5	10%
6	I do not find administering/handling chemotherapy a challenging part of my role.	3	6%	11	22%	33	66%	3	6%
7	I have poor interest in acquiring education regarding chemotherapy through seminar held in hospitals.	14	28%	24	48%	10	20%	2	4%
8	I feel burn out syndrome is more common among staff in chemotherapy units as compared to other units.	6	12%	24	48%	17	34%	3	6%

Table Continued...

S/N	Attitude statement	Strongly agree		Agree		Disagree		Strongly disagree	
		N	%	N	%	N	%	N	%
9	It is more interested to care of patient undergone radiotherapy/surgery than chemotherapy.	5	10%	12	24%	31	62%	2	4%
10	I think other units are safer than chemotherapy units.	2	4%	15	30%	24	48%	9	18%
11	I think administering chemotherapy is not as protective as other treatment because it has more serious side-effect than other treatment.	2	4%	17	34%	24	48%	4	36%
12	I feel that policies made for administering chemotherapy in hospital are not always correct as there is wastage of time and material than its benefit.	10	20%	24	48%	8	16%	8	16%
13	I feel staff need not to check CBC report before starting chemotherapy because doctor's already check this.	12	24%	19	38%	14	28%	5	10%
14	It does not affect when again patient come with worst condition due to effect of chemotherapy because I feel confident in my competency to deal with that condition.	1	2%	9	18%	29	58%	11	22%
15	I lost my interest in work due to poor outcome of chemotherapy.	6	12%	33	66%	11	22%	0	0%
16	I do not like long discussions with attendants of chemotherapy patients because it is wastage of time.	6	12%	31	62%	11	22%	2	4%
17	If I asked to change the ward I will prefer it.	6	12%	27	54%	15	30%	2	4%
18	I avoid to work in cancer department because side effects of chemotherapy are not easy to manage.	5	10%	31	62%	13	26%	1	2%
19	To work with chemotherapy patients and their family members is difficult as comparative to other patients	3	6%	24	48%	19	58%	5	10%
20	I think patient who are undergone chemotherapy are just like other patients they need not any different type of nursing care.	7	14%	28	56%	15	30%	0	0%
21	I avoid to give chemotherapy to patients with cancer as it can be risky for me.	8	16%	30	60%	10	20%	2	4%
22	Knowledge given to patients regarding chemotherapy supports them emotionally	2	4%	3	6%	18	36%	27	54%

Table 7 Association of knowledge and attitude score with selected demographic variables

S.N	Socio-demographic variables	Level of knowledge score					Chi square	Df	Level of attitude				Chi-square	Df
		Very poor	Poor	Average	Good	Very good			-Ve	Mild -Ve	Mild +Ve	+Ve		
1. Age in years														
a	21-25	01	08	16	06	00	9.25*	9	00	08	22	01	7.54*	12
b	26-30	00	04	08	02	01			00	03	12	00		
c	31-35	00	01	00	01	00			00	00	01	01		
d	36-40	00	00	01	00	00			00	00	01	00		
e	>40	00	00	00	00	00			00	00	01	00		
2. Professional qualification														
a	G.N.M	01	13	17	07	00	19.77*	12	00	09	27	02	9.89*	6
b	Basic Nursing	00	01	06	02	00			00	02	07	00		
c	Post-Basic Nursing	00	00	02	00	01			00	00	03	00		
d	M. Sc. Nursing	00	00	00	00	00			00	00	00	00		
3. Years of experience in cancer unit in years														
a	<1	01	05	12	03	00	6.61*	8	00	06	15	00	4.65*	6
b	1-5	00	06	11	06	01			00	04	18	02		
c	6-10	00	03	02	00	00			00	01	04	00		
d	10-15	00	00	00	00	00			00	00	00	00		
e	>15	00	00	00	00	00			00	00	00	00		
4. Have you attended CNE programme related to chemotherapy														
a	Yes	00	02	02	03	01	3.868*	4	00	01	05	01	6.896*	3
b	No	01	12	23	06	00			00	10	32	01		

*Non-significant.

Discussion

Wiseman T has shown in her study oncology nurses have good knowledge.⁶ In contrast to the study of results shown poor knowledge of staff nurses on chemotherapy.⁷ This finding is important for nursing care to cancer patients because if oncology nurses did not have adequate knowledge and not competent in their skills will be considered as unsafe for providing chemotherapy administration to cancer patients and chances for medication errors can be high as various studies in past already highlighted these points. Statistical analysis has shown that staff nurses has mild positive attitude i.e., mean scores were 59.7. Many previous researches have shown nurses have positive attitude towards nursing care of cancer patients undergoing chemotherapy. As in study by Verity and Damrosch also shown positive attitude towards chemotherapy among staff nurses.

In this study, experiences, professional education about chemotherapy appear to have had no effect. These finding contradicted by Verity's study on staff nurses on chemotherapy, results showed that factors influencing patient care included; staff education and experience other than that nurses receiving regular knowledge updates affect the nursing practice and attitude of staff nurses towards chemotherapy.

Conclusion

The intention of this study was to assess the knowledge and attitude of nurses' on nursing care of cancer patient undergoing chemotherapy. Overall, nurses appear to have average knowledge and a positive attitude towards nursing care of cancer patient undergoing chemotherapy. So to improve their knowledge CNE program me or knowledge updating program me should be regularly conducted for the Nursing fertility.

Conflict of interest

There is no conflict of interest as researcher was not received any financial support from institute or individual. Project was self financed.

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