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A study to assess the level of anxiety among cancer patient under chemotherapy

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Abstract

Anxiety is an emotion characterized by an exaggerated reaction to a certain situation. Many illnesses can cause anxiety. Cancer is a group of diseases involving the abnormal growth of cells with the ability to invade or spread to other parts of the body. These tumors are contrasted with benign, non-spreading tumors. Treatment methods, including chemotherapy, can increase anxiety in cancer survivors. This study aims to assess the anxiety level of cancer patients undergoing chemotherapy.

Objectives

- To assess knowledge of level of anxiety among cancer patients
- To find out the significant association between socio-demographic variables and level of anxiety among cancer patients.

Methods: Descriptive research design was used to assess the knowledge of level of anxiety patients in Saveetha Medical College and Hospital. The total number 50 study participants were participated who met all inclusion criteria. Purposive sampling technique used. Data collected by administering standardized questionnaire. The data organized and analysed by using descriptive and inferential statistics.

Results: Among the 50 cancer patients (n=50) approached, 31(62%) were aged above 55 years, 38(76%) were male, 26(52%) were Hindus, 31(62%) had primary education, 44(88%) were married, 31(62%) had other occupation, 33(66%) belonged nuclear family and 28(56%) had family income of <10000. The result shows that 26(52%) had minimal to moderate anxiety 11(22%) were normal, 8(16%) had marked to severe anxiety and 5(10%) had most extreme anxiety. The mean score of anxiety among cancer patients under chemotherapy was 54.78 with standard deviation 9.88 With minimum score of 41.0 and maximum score of 78.0.

Keywords: Anxiety, cancer, chemotherapy

Introduction

Anxiety is an emotion characterized by way of an disagreeable nation of inner turmoil, regularly accompanied with the aid of fearful conduct such as pacing lower back and forth, somatic complaints, and rumination. It includes subjectively disagreeable feelings of dread over predicted events ^[1, 2].

Anxiety is a feeling of uneasiness and worry, commonly generalized and unfocused as an overreaction to a situation that is solely subjectively considered as menacing ^[4]. It is regularly accompanied by muscular tension, restlessness, fatigue and problems in concentration ^[5]. Anxiety is closely related to fear, which is a response to a real or perceived immediately threat; nervousness entails the expectation of future threat. People dealing with anxiousness can also withdraw from conditions which have provoked anxiety in the past ^[2, 3, 6].

Anxiety disorders affect 40 million people in the United States. It is the most common crew of intellectual illnesses in the country. However, solely 36.9 percent of humans with an nervousness ailment acquire treatment ^[7, 10].

Knowing the distinction between ordinary emotions of anxiety and an anxiety ailment requiring medical interest can help a man or woman pick out and deal with the condition ^[10]. Anxiety is distinct from fear, which is an tremendous cognitive and emotional response to a perceived threat is related to the specific behaviour of fight-or-flight responses, shielding behaviour or escape ^[8]. It takes place in stipulations only perceived as uncontrollable or unavoidable, on the other hand no longer realistically so ^[9]. David Barlow defines anxiousness as "a future-oriented mood kingdom in which one is not equipped or organized to try to cope with upcoming horrific events," and that it is a huge difference between future and existing risks which divides anxiety and fear ^[10].

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Many medical conditions can cause anxiety. This includes prerequisites that have an effect on the capacity to breathe, like COPD, and asthma, and the difficulty in breathing that regularly occurs close to death. Conditions that purpose stomach ache or chest pain can purpose anxiety and may in some cases be a somatisation of anxiety; the equal is authentic for some sexual dysfunctions. Conditions that affect the face or the skin can motive social anxiety specially amongst adolescents, and developmental disabilities often lead to social anxiousness for teenagers as well. Life- threatening prerequisites like most cancers additionally motive anxiety [11].

Carcinoma is a cancer that starts in the skin or the tissues that line different organs. Sarcoma is a cancer of connective tissues such as bones, muscles, cartilage, and blood vessels. Leukemia is a most cancers of bone marrow, which creates blood cells. Lymphoma and myeloma are cancers of the immune system [12].

Tumor suppressor genes are additionally involved in controlling telephone growth and division. Cells with certain alterations in tumor suppressor genes may divide in an uncontrolled manner [13].

DNA repair genes are concerned in fixing damaged DNA. Cells with mutations in these genes have a tendency to develop additional mutations in other genes. Together, these mutations can also purpose the cells to become cancerous [14].

Anxiety is a normal reaction to cancer. One may experience anxiety while undergoing a cancer screening test, waiting for test results, receiving a diagnosis of cancer, undergoing cancer treatment, or anticipating a recurrence of cancer. Anxiety associated with cancer may increase feelings of pain, interfere with one's ability to sleep, cause nausea and vomiting, and interfere with the patient's (and their family's) quality of life. If normal anxiety gives way to abnormally high distress, becomes incapacitating, or involves excessive fear or worry, it may warrant its own treatment. In that instance, If left untreated, anxiety may even be associated with lower survival rates from cancer.

The researcher felt that most of the cancer patients under chemotherapy have feel anxiety and fear for which the problem should be found and can be easily minimised by giving education about the cancer under chemotherapy so researcher want to study about the level of anxiety among cancer patients for adult.

Therefore the aim of the present study is to assess the level of anxiety among cancer patient under chemotherapy in selected hospital.

Materials and methods

A quantitative research approach with descriptive research design was adopted for the study. Purposive sampling technique were used to select the study participants. A total of 50 cancer patients (n=50) were selected once they met all the inclusion criteria. The inclusion criteria for the study participants were client diagnosed with any type of cancer, client above 29 years of age both male and female and who

are all receiving chemotherapy above 29 years and who are all willing to participate in the study. The purpose of the study was to assess the, level of anxiety among the cancer patients under chemotherapy. The data collection procedure started after obtaining a formal permission from Saveetha Medical College and Hospital. Standardized questionnaire was given to collect the data. An oral informed consent was obtained before the Data collection. The collected data were tabulated and analysed using descriptive and inferential statistics.

Results and discussion

Section A: Description of the demographic variables of the cancer patients under chemotherapy.

Table 1: Frequency and percentage distribution of demographic variables of cancer patients under chemotherapy. N = 50

Demographic Variables	No.	%
Age		
18 – 35 years	9	18.0
36 – 55 years	10	20.0
Above 55 years	31	62.0
Gender		
Male	38	76.0
Female	12	24.0
Others	-	-
Religion		
Hindu	26	52.0
Christian	11	22.0
Muslim	13	26.0
Education		
Primary	31	62.0
Higher secondary	11	22.0

Demographic Variables	No.	%
Degree	8	16.0
Marital status		
Married	44	88.0
Unmarried	-	-
Widow/Divorced	6	12.0
Occupational status		
Farmers	7	14.0
Business	12	24.0
Others	31	62.0
Family pattern		
Joint family	17	34.0
Nuclear family	33	66.0
Others	-	-
Family income		
<10000	28	56.0
10000 – 15000	12	24.0
>15000	10	20.0

The table 1 shows that, most of the cancer patients, 31(62%) were aged above 55 years, 38(76%) were male, 26(52%) were Hindus, 31(62%) had primary education, 44(88%) were married, 31(62%) had other occupation, 33(66%) belonged nuclear family and 28(56%) had family income of <10000.

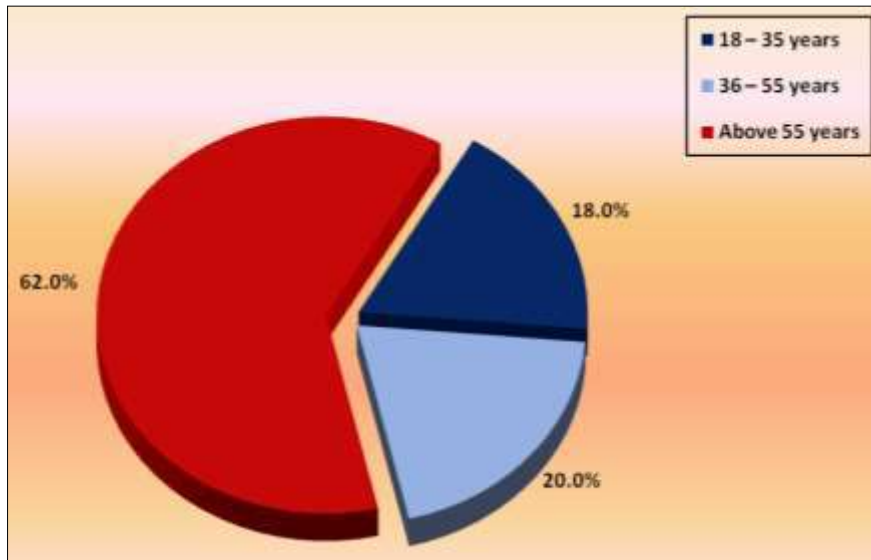


Fig 1: Percentage distribution of age of the cancer patients under chemotherapy

Section B: Assessment of level of anxiety among cancer patients under chemotherapy

Table 2: Frequency and percentage distribution of level of anxiety among cancer patients under chemotherapy. N = 50

Level of Anxiety	No.	%
Normal (Below 45)	11	22.0
Minimal to Moderate Anxiety (45 – 59)	26	52.0
Marked to Severe Anxiety (60 – 74)	8	16.0
Most Extreme Anxiety (75 and over)	5	10.0

The above table 2 shows that 26(52%) had minimal to moderate anxiety 11(22%) were normal, 8(16%) had

marked to severe anxiety and 5(10%) had most extreme anxiety.

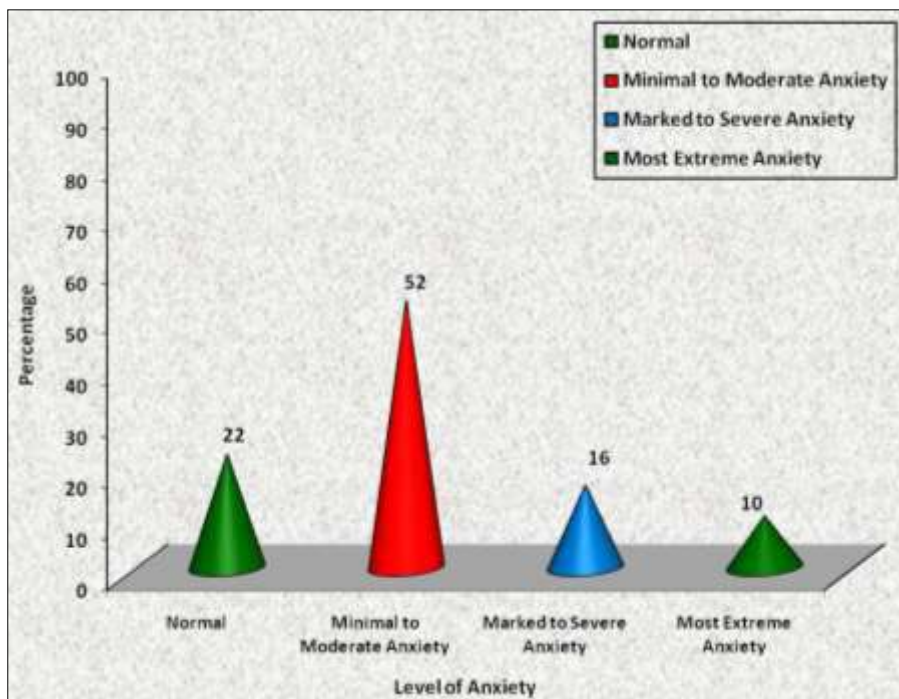


Fig 2: Percentage distribution of level of anxiety among cancer patients under chemotherapy

Table 3: Assessment of anxiety among cancer patients under chemotherapy N = 60

Anxiety	Score
Minimum Score	41.0
Maximum Score	78.0
Mean	54.78
Standard Deviation	9.88

The table 3 depicts that the mean score of anxiety among cancer patients under chemotherapy was 54.78 with standard deviation 9.88 with minimum score of 41.0 and

maximum score of 78.0.

Section D: Association of level of anxiety with selected demographic variables

Table 4: Association of level of anxiety among cancer patients under chemotherapy with their selected demographic variables. N = 50

Demographic Variables	Normal		Minimal to Moderate		Marked to Severe		Most Extreme		Chi- square Value
	No.	%	No.	%	No.	%	No.	%	
Age									$\chi^2=3.127$
18 – 35 years	2	4.0	4	8.0	1	2.0	2	4.0	d.f=6
36 – 55 years	3	6.0	5	10.0	2	4.0	0	0	p = 0.793
Above 55 years	6	12.0	17	34.0	5	10.0	3	6.0	N.S
Gender									$\chi^2=1.359$
Male	8	16.0	20	40.0	7	14.0	3	6.0	d.f=3
Female	3	6.0	6	12.0	1	2.0	2	4.0	p = 0.715
Others	-	-	-	-	-	-	-	-	N.S
Religion									$\chi^2=5.474$
Hindu	9	18.0	11	22.0	4	8.0	2	4.0	d.f=6
Christian	1	2.0	7	14.0	2	4.0	1	2.0	p = 0.485
Muslim	1	2.0	8	16.0	2	4.0	2	4.0	N.S
Education									$\chi^2=2.553$
Primary	5	10.0	17	34.0	6	12.0	3	6.0	d.f=6
Higher secondary	3	6.0	6	12.0	1	2.0	1	2.0	p = 0.862
Degree	3	6.0	3	6.0	1	2.0	1	2.0	N.S
Marital status									

Demographic Variables	Normal		Minimal to Moderate		Marked to Severe		Most Extreme		Chi- square Value
	No.	%	No.	%	No.	%	No.	%	
Age									$\chi^2=3.127$
18 – 35 years	2	4.0	4	8.0	1	2.0	2	4.0	d.f=6
36 – 55 years	3	6.0	5	10.0	2	4.0	0	0	p = 0.793
Above 55 years	6	12.0	17	34.0	5	10.0	3	6.0	N.S
Married	10	20.0	21	42.0	8	16.0	5	10.0	$\chi^2=3.148$
Unmarried	-	-	-	-	-	-	-	-	d.f=3
Widow/Divorced	1	2.0	5	10.0	0	0	0	0	p = 0.369
									N.S
Occupational status									$\chi^2=7.676$
Farmers	2	4.0	3	6.0	2	4.0	0	0	d.f=6
Business	2	4.0	4	8.0	4	8.0	2	4.0	p = 0.263
Others	7	14.0	19	38.0	2	4.0	3	6.0	N.S
Family pattern									$\chi^2=3.252$
Joint family	2	4.0	10	20.0	2	4.0	3	6.0	d.f=3
Nuclear family	9	18.0	16	32.0	6	12.0	2	4.0	p = 0.354
Others	-	-	-	-	-	-	-	-	
Family income									N.S

Demographic Variables	Normal		Minimal to Moderate		Marked to Severe		Most Extreme		Chi- square Value
	No.	%	No.	%	No.	%	No.	%	
Age									$\chi^2=3.127$
18 – 35 years	2	4.0	4	8.0	1	2.0	2	4.0	d.f=6
36 – 55 years	3	6.0	5	10.0	2	4.0	0	0	p = 0.793
Above 55 years	6	12.0	17	34.0	5	10.0	3	6.0	N.S
<10000	4	8.0	17	34.0	4	8.0	3	5.0	$\chi^2=7.840$
10000 – 15000	2	4.0	5	10.0	3	6.0	2	4.0	d.f=6
>15000	5	10.0	4	8.0	1	2.0	0	0	p = 0.250
									N.S

N.S – Not Significant

The table 4 shows that none of the demographic variables had shown statistically significant association with level of anxiety among cancer patients under chemotherapy.

Conclusion

The results concluded that, had minimal to moderate anxiety 11(22%) were normal, 8(16%) had marked to severe anxiety and 5(10%) had most extreme anxiety. The mean score of anxiety among cancer patients under chemotherapy was

54.78 with standard deviation 9.88 with minimum score of 41.0 and maximum score of 78.0. The analysis revealed that none of the demographic variables had shown statistically significant association with level of anxiety among cancer patients under chemotherapy. A variety of factors related to the cancer and its treatment likely to impact on the development of depression and anxiety, including the types of cancer, stages and prognosis cancer treatment including immune therapy and chemotherapy may induced anxiety.

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Authors contribution

All the authors actively participated in the work of study. All the authors read and approved the final manuscript.

Conflict of interest

The author declare no conflict of interest.

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