



**ORIGINAL RESEARCH PAPER**

**Nursing**

**A STUDY TO ASSESS LEVEL OF ANXIETY AMONG PATIENTS RECEIVING CHEMOTHERAPY AT TERTIARY CARE HOSPITAL, KARAD**

**KEY WORDS:** Anxiety, Chemotherapy.

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**ABSTRACT**

**Objectives:** (1) Assess the anxiety level among patients receiving chemotherapy at tertiary care hospital, karad. 2) To find the association between level of anxiety and socio-demographic variables.  
**Methods:** The research approach adopted for this study was an evaluative approach, where the research design was a one group pre-test only research design. The study was conducted in the chemotherapy unit in Krishna Hospital, Karad. The sample consists of 60 patients undergoing chemotherapy treatment. A convenient sampling technique was used to select the sample. Every patients level of anxiety was assessed using Hamilton Anxiety Rating scale. The data were analyzed using descriptive and inferential statistics.  
**Results:** Among total samples 1 patient was having mild anxiety (1.67%), 2 patients were having moderate anxiety (3.33%) and 57 patients were having severe anxiety (95%).  
**Conclusion:** The study results shows that the patients receiving chemotherapy having severe anxiety.

**INTRODUCTION**

Good health is imperative for all individuals to function as citizens, interact with others and be economically productive. Health can be affected due to many causes that may range from physical, social, and mental afflictions. One among them is the silent killer, cancer. Health is defined by WHO (1947) as a "State of complete physical, mental and social well being and not merely the absence of disease and infirmity.<sup>1</sup> Health is the ability of a biological system to acquire, convert, allocate, distribute and utilize energy with maximum efficiency.<sup>2</sup> The face of health care, including scientific knowledge and care delivery systems, is ever changing, Likewise, the experience of cancer is changing for our clients and families. Today a person confronted with a new diagnosis often knows someone who has survived cancer; yet cancer remains a frightening unknown for many.<sup>3</sup>

The World Cancer day is observed on 4 February every year. Cancer is the second leading cause of death worldwide<sup>4</sup>. The term cancer is used to refer to malignant neoplasm. Cancer is a disease of the cell in which the normal mechanisms for control of growth and proliferation have been altered. It is invasive, spreading directly to surrounding tissue as well as to new sites in the body<sup>5</sup>. In 2015, about 90.5 million people had cancer. About 14.1 million new cases occur a year (Not including skin cancer other than melanoma). It caused about 8.8 million death (15.7% of deaths). The most common type of the cancer in males are lung cancer, prostate cancer, colorectal cancer, and stomach cancer. In females, the most common types are breast cancer, colorectal cancer, lung cancer and cervical cancer.<sup>6</sup>

Everyone experiences some degree of anxiety on being confronted with illness, and certain physical and emotional symptoms associated with anxiety should be differentiated from the symptoms of the illness. Illness sometimes leads to introspective thoughts about the meaning of life. The ill person may begin to realize that life is short and death inevitable. Such thoughts produce anxiety; for some, this introspection can help uncover personal sources of strength and faith.<sup>7</sup>

Many people with cancer have symptom of anxiety. Anxiety

may be described as feeling nervous, on edge, or worried. It is a normal emotion that alerts your body to respond to a threat. But intense and long-term anxiety is a disorder. It may interfere with your daily life and relationships. Acute anxiety occurs in short episodes that end quickly. Chronic anxiety remains over time. A cancer diagnosis may trigger these feelings like, Fear of treatment or treatment-related side effects, Fear of cancer returning or spreading after treatment, Uncertainty, Worry over losing independence, Concern about having relationships change, Fear of death.<sup>8</sup>

Cancer has many side effects and most notable consequences are anxiety and depression. It is reported that 75% of patients at the final stage of cancer, experience anxiety. The previous studies in Iran indicated that 20% of cancer patients suffer from anxiety. Further more, cancer may cause feelings of displeasure, stay away from friends or family, lack of motivation and defeat intolerance, decreased libido, decrease or increase in appetite and weight, decreased energy and cause fatigue, sleep disturbances, menstrual disorders, constipation, dry mouth, and headache.<sup>9</sup>

Chemotherapy is one of the treatment modalities for cancer patient. Chemotherapy= Chemo- Chemistry, Therapy-Treatment.<sup>10</sup> Chemotherapy helps to: Cure-In some cases the treatment can destroy cancer cells to the point that your doctor can no longer detect them in your body, Control- In some cases it may only be able to keep cancer from spreading to the Other parts of your body or slow the growth of cancer tumors. Ease Symptoms-It helps to ease the symptoms.<sup>11</sup>

**Mechanism of Action:** Antineoplastic drugs destroy tumor cells by interfering with the cellular function, metabolism and reproduction.<sup>12</sup> Some Short term side effects of chemotherapy includes Hair loss, Fatigue, Infertility, Lung Damage, Cognitive impairment, gastrointestinal damage and some long term side effects are Nervous tissue damage, Hematuria, Organ damage etc.<sup>13</sup>

So the investigator is interested to Assess The Level Of Anxiety Among Patients Receiving Chemotherapy At Tertiary Care Hospital, Karad.

**PROBLEM STATEMENT**

"A study to assess level of anxiety among patients receiving chemotherapy at tertiary care hospital, karad".

**Objectives of The Study:**

- 1) Assess the anxiety level among patients receiving chemotherapy at tertiary care hospital, karad.
- 2) To find the association between level of anxiety and socio-demographic variables.

**METHODS:**

The one group pre-test only research design was used to conduct the study among patients receiving chemotherapy in Krishna Hospital, Karad. Totally 60 chemotherapy receiving patients were allotted in the study by convenient sampling technique. The samples included in this study were who fulfilled the inclusion criteria with the age of 30-70 years both males and females, Speaks Marathi and able to write and read it and available at the time of data collection. Samples with sensory deprivation, not willing to participate, not able to read and write Marathi and not interested in listening music were excluded from the study.

Research Ethics Committee of the Krishna Institute of Medical Sciences Deemed University, Karad, had given permission before the data collection. After obtaining permission from the setting, the patients were asked their willingness to participate in the study and informed consent was obtained. After collecting the demographic data, the level of anxiety among patients receiving chemotherapy was assessed using a Hamilton anxiety rating scale.

**DESCRIPTION OF THE TOOL**

The structured questionnaire comprised two sections covering the following areas.

**Section A:** Demographic variables- Consists of questionnaire to collect the demographic data which consists of 13 items that includes age, sex, religion, habit, educational status, occupation, marital status, monthly income, residency, number of childrens, type of family, family history of cancer, and when diagnosed with cancer.

**Section B:** Hamilton Anxiety scale for anxiety- The Hamilton anxiety rating scale consists of 14 items designed to assess the severity of a patient's anxiety. Each of the 14 items contains a number of symptoms, and each group of symptoms is rated on a scale of zero to four, with '0' being a no anxiety, '1' indicate mild anxiety, '2' indicate moderate anxiety, '3' indicate severe anxiety and '4' being the most severe. All of these scores are used to compute an overarching score that indicates a person's anxiety severity.

**RESULTS**

**Description of sample characteristics:**

Among all the study participants, 33.33% were within the age group of 41-65 years, and most of them, i.e., 66.67% were female. Nearly 88.33% belongs to Hindu religion. Most of samples with no any habit were 61.67%. As per education is concerned 53.33% of sample were having secondary educational qualification. Among total samples 66.67% were not working and about 98.33% were married. The data concerning the economic status revealed that 53.33% were having income below 5000 Rupees per month and it was found that 85% were from village residency. The majority of samples, i.e., 53.33% were having more than 2 childrens. In relation to the type of family, it shows that the 70% were belongs to nuclear family. Most of the samples 80% were belongs to No family history of cancer and 88.33% were diagnosed with cancer in between 0-24 Months. (Table no. 1).

**Table 1: Frequency And Percentage Distribution Of Socio-Demographic Variables (N=60)**

| Sr. No | Variables                  | Frequency            | Percentage |       |
|--------|----------------------------|----------------------|------------|-------|
| 1      | Age In Year                | a)30-40              | 6          | 10    |
|        |                            | b)41-50              | 16         | 26.67 |
|        |                            | c)51-60              | 18         | 30    |
|        |                            | d)61-70              | 20         | 33.33 |
| 2      | Sex                        | a)Male               | 20         | 33.33 |
|        |                            | b)Female             | 40         | 66.67 |
| 3      | Religion                   | a)Hindu              | 53         | 88.33 |
|        |                            | b)Muslim             | 2          | 3.33  |
|        |                            | c)Christian          | 0          | 0     |
|        |                            | d)Other              | 5          | 8.33  |
| 4      | Habit                      | a) Tobacco Chewing   | 21         | 35    |
|        |                            | b)Smoking            | 2          | 3.33  |
|        |                            | c)Drink              | 0          | 0     |
|        |                            | d) None Of The Above | 37         | 61.67 |
| 5      | Educational Status         | a)Primary            | 16         | 26.67 |
|        |                            | b)Secondary          | 32         | 53.33 |
|        |                            | c) Higher Secondary  | 5          | 8.33  |
|        |                            | d)Degree Holder      | 7          | 11.67 |
|        |                            | e)Uneducated         | 0          | 0     |
| 6      | Occupation                 | a)Working            | 20         | 33.33 |
|        |                            | b)Not Working        | 40         | 66.67 |
| 7      | Marital Status             | a)Married            | 59         | 98.33 |
|        |                            | b)Unmarried          | 1          | 1.67  |
| 8      | Monthly Income             | a)Below 5000 Rs      | 32         | 53.33 |
|        |                            | b)5000 - 10000 Rs    | 19         | 31.67 |
|        |                            | c)10000- 20000 Rs    | 7          | 11.67 |
|        |                            | d)Above 20000 Rs     | 2          | 3.33  |
| 9      | Residency                  | a)City               | 9          | 15    |
|        |                            | b)Village            | 51         | 85    |
| 10     | Number Of Children         | a)1                  | 4          | 6.67  |
|        |                            | b)2                  | 21         | 35    |
|        |                            | c)More Than 2        | 32         | 53.33 |
|        |                            | d)None               | 3          | 5     |
| 11     | Type Of Family             | a)Nuclear Family     | 42         | 70    |
|        |                            | b)Joint Family       | 18         | 30    |
| 12     | Family History Of Cancer   | a)Yes                | 12         | 20    |
|        |                            | b)No                 | 48         | 80    |
| 13     | When Diagnosed With Cancer | a)0-24 Months        | 53         | 88.33 |
|        |                            | b)25-48 Months       | 3          | 5     |
|        |                            | c)49-72 Months       | 2          | 3.33  |
|        |                            | d)73-96 Months       | 2          | 3.33  |

**Level of Anxiety Among Patients Receiving Chemotherapy**

Table 2 indicates that most of the samples, i.e., 57 (95%) were having severe anxiety, 2 (3.33%) were having moderate anxiety and 1 (1.67%) were having mild anxiety.

**Table 2: Frequency And Percentage Distribution Of Level Of Anxiety Among Patient Receiving Chemotherapy. (N=60)**

| Grades   | Scores | Pre-Test  |            |
|----------|--------|-----------|------------|
|          |        | Frequency | Percentage |
| Mild     | <17    | 1         | 1.67       |
| Moderate | 18-24  | 2         | 3.33       |
| Severe   | 25-30  | 57        | 95         |

**Association of Level of Anxiety with Socio-Demographic Variables**

Table 5 shows that there was no significant association between level of anxiety and socio-demographic variables at the level of p<0.001.

**Table 5: Association Between Level Of Anxiety And Selected Demographic Variables. (n=60)**

| Sr. No | Variables                  |                     | Level Of Anxiety |          |        | Chi-Square Value | P- Value |
|--------|----------------------------|---------------------|------------------|----------|--------|------------------|----------|
|        |                            |                     | Mild             | Moderate | Severe |                  |          |
| 1      | Age In Year                | a)30-40             | 1                | 0        | 5      | 10.683           | 0.0987   |
|        |                            | b)41-50             | 0                | 1        | 15     |                  |          |
|        |                            | c)51-60             | 0                | 1        | 17     |                  |          |
|        |                            | d)61-70             | 0                | 0        | 20     |                  |          |
| 2      | Sex                        | a)Male              | 0                | 1        | 19     | 0.7500           | 0.6873   |
|        |                            | b)Female            | 1                | 1        | 38     |                  |          |
| 3      | Religion                   | a)Hindu             | 1                | 2        | 50     | 0.4171           | 0.9811   |
|        |                            | b)Muslim            | 0                | 0        | 2      |                  |          |
|        |                            | c)Christian         | 0                | 0        | 0      |                  |          |
|        |                            | d)Other             | 0                | 0        | 5      |                  |          |
| 4      | Habit                      | a)Tobacco Chewing   | 0                | 0        | 21     | 1.963            | 0.7426   |
|        |                            | b)Smoking           | 0                | 0        | 2      |                  |          |
|        |                            | c)Drink             | 0                | 0        | 0      |                  |          |
|        |                            | d)None Of The Above | 1                | 2        | 34     |                  |          |
| 5      | Educational Status         | a)Primary           | 0                | 0        | 16     | 5.997            | 0.4236   |
|        |                            | b)Secondary         | 1                | 1        | 30     |                  |          |
|        |                            | c)Higher Secondary  | 0                | 1        | 4      |                  |          |
|        |                            | d)Degree Holder     | 0                | 0        | 7      |                  |          |
|        |                            | e)Uneducated        | 0                | 0        | 0      |                  |          |
| 6      | Occupation                 | a)Working           | 0                | 0        | 20     | 1.579            | 0.4541   |
|        |                            | b)Not Working       | 1                | 2        | 37     |                  |          |
| 7      | Marital Status             | a)Married           | 0                | 3        | 56     | 0.05352          | 0.8170   |
|        |                            | b)Unmarried         | 0                | 0        | 1      |                  |          |
| 8      | Monthly Income             | a)Below 5000 Rs     | 0                | 2        | 30     | 3.937            | 0.6852   |
|        |                            | b)5000 - 10000 Rs   | 1                | 0        | 18     |                  |          |
|        |                            | c)10000- 20000 Rs   | 0                | 0        | 7      |                  |          |
|        |                            | d)Above 20000 Rs    | 0                | 0        | 2      |                  |          |
| 9      | Residency                  | a)City              | 0                | 1        | 8      | 2.140            | 0.3431   |
|        |                            | b)Village           | 1                | 1        | 49     |                  |          |
| 10     | Number Of Children         | a)1                 | 0                | 0        | 4      | 3.631            | 0.7265   |
|        |                            | b)2                 | 1                | 0        | 20     |                  |          |
|        |                            | c)More Than 2       | 0                | 2        | 30     |                  |          |
|        |                            | d)None              | 0                | 0        | 3      |                  |          |
| 11     | Type Of Family             | a)Nuclear Family    | 1                | 2        | 39     | 1.353            | 0.5083   |
|        |                            | b)Joint Family      | 0                | 0        | 18     |                  |          |
| 12     | Family History Of Cancer   | a)Yes               | 0                | 0        | 12     | 0.7895           | 0.6739   |
|        |                            | b)No                | 1                | 2        | 45     |                  |          |
| 13     | When Diagnosed With Cancer | a)0-24 Months       | 1                | 1        | 51     | 8.971            | 0.1752   |
|        |                            | b)25-48 Months      | 0                | 1        | 2      |                  |          |
|        |                            | c)49-72 Months      | 0                | 0        | 2      |                  |          |
|        |                            | d)73-96 Months      | 0                | 0        | 2      |                  |          |

**DISCUSSION**

The result of this study shows that the patients receiving chemotherapy having severe anxiety level.

The findings of different study of I Syed, MS. Moosabba and A. Alphonsa on effects of music therapy on anxiety, blood pressure and respiratory rate in patients undergoing chemotherapy, also indicate that, the mean (SD) pre-test anxiety score in Control group was 53-51(5.12)and mean (SD) pre-test anxiety score in Experimental group was 52.67(5.98) and the mean (SD) .Thus anxiety among patients undergoing chemotherapy is high<sup>14</sup>.

**CONCLUSION**

The aim of this study was to assess the level of anxiety among patients receiving chemotherapy. The results of this study indicate that the patients receiving chemotherapy having severe level of anxiety. It is suggested that more nursing studies should come up to find various methods for assessing level of anxiety in patients receiving chemotherapy and management should be done to relieve anxiety with treatment modalities like music therapy etc.

**REFERENCES**

1) Chugh S.N. Textbook of Medical Surgical Nursing( In two parts). 1st edition, New Delhi: Avichal publishing company; 2013 pg no 7.

2) <https://en.m.wikipedia.org/wiki/Health>  
 3) Black J.M., Hawks J.H. Medical Surgical Nursing. Volume 1st, 7th edition, New Delhi: Elsevier ; 2005 pg no 333.  
 4) Kochuthresiamma T. Medical surgical Nursing. Volume II, 1st Edition, New Delhi: Jayapee Brothers Medical publisher (P) Ltd; 2018 pg no: 550  
 5) Black J.M., Hawks J.H. Medical Surgical Nursing (clinical management for positive outcomes), Volume 1st, 8th ed, India: Elsevier ; pg no 250  
 6) <https://en.m.wikipedia.org/wiki/Cancer>  
 7) Sorensen and Luckmann's. Basic Nursing A Psychophysiologic Approach, 3rd edition: W.B. Saunders Company; pg no 367.  
 8) <https://www.cancer.net/coping-with-cancer/managing-emotions/anxiety>  
 9) Madineh J, Sanaz A, and Z.E. Roghaieh. Indian Journal Of Palliative Care, The Effects Of Music Therapy On Anxiety And Depression Of Cancer Patients. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5072238/#?po=58.5714>  
 10) Linda S. Williams, Paula D. Hopper. Understanding Medical Surgical Nursing, 5th edition, India: Jayapee Brothers Medical Publishers (P) Ltd; 2015 pg no: 187.  
 11) <https://www.webmd.com/cancer/chemotherapy-what-to-expect>  
 12) Chugh S.N. Medical surgical Nursing From Diploma in GNM , 1st edition, Sirmour: Avichal Publishing Company; 2016 pg no: 474  
 13) S Deepak, CaptKirti Rani. Medical Surgical Nursing I and II, 1st edition, New Delhi: Jayapee Brothers Medical Publishers (P) Ltd; 2016 pg no: 556  
 14) Imran S, MS Moosabba, Ancheril A. Effects of Music Therapy On Anxiety, Blood Pressure and Respiratory Rate in Patients Undergoing Chemotherapy . MedCraveStep into the world of research. Nursing and Care Open access Journal. 2017, may 11; volume no 2 [http:// medcraveonline. com/NCOAJ/ NCOAJ- 02-00053. php](http://medcraveonline.com/NCOAJ/NCOAJ-02-00053.php)