

Original Research Paper

## Level of Anxiety, Depression and Stress among Male and Female Cancer Patients

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### ABSTRACT

The term cancer covers more than 100 different medical conditions all involving the abnormal and excessive divisions of human cells. Cancer is also known as 'malignant disease'. Tumour and growth are alternative terms which are sometimes used for cancers (Barraclough, 2000). The present research examined gender differences in the degree of anxiety, depression and stress among cancer patients. The sample consisted of 80 male and female patients within the age range of 25-45 years. The sample for the study was obtained from the various Hospitals of Ahmedabad city. The purposive sampling strategy was used because the patients were selected on the basis of the inclusion-exclusion criteria such as 1) age range within 25-45 years; 2) willingness to participate in the present research; 3) suffering from lungs and breast cancer in the first stage; and 4) being treated in outdoor settings of public hospitals of Ahmedabad city. Finding reported that both male and female cancer patients have a similar level of anxiety and depression but the stress was revealed elevated higher among female patients. Primary level educated cancer patients have reported higher anxiety, depression and stress than the higher level educated patients.

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**Key words:** *Cancer patients, Anxiety, Depression, Stress*

## **INTRODUCTION:**

The term cancer covers more than 100 different medical conditions all involving the abnormal and excessive divisions of human cells. Cancer is also known as 'malignant disease'. Tumour and growth are alternative terms which are sometimes used for cancers (Barraclough, 2000). Cancer is caused by the abnormal growth of cells. It is a group of many different types of diseases that have to arise in cells, the body's basic unit of life. For the normal functions of the body, the cells continuously regenerate and die. But sometimes the body cells become cancerous which cause a tumour and growth as a result of the abnormal and uncontrollable growth rate of cells. A tumour or growth can be benign or malignant (Cooper, 1997).

Anxiety is an internalized fear, arousal by an impulse to commit. Anxiety is a danger signal to the ego that dangerous impulse is about to break, in fact, it is an unconscious reaction to depressed tendencies characterized by over concern which may turn over to panic or severe fear. Physical and Psychological symptoms include sweating, trembling of lips and hands, rapid breathing, rapid heartbeat, dryness of mouth, frequent urination; tenseness, irritability, imagined danger, sleeplessness, lack of concentration and inability to make a decision etc. Anxiety has detrimental effects.

The definition of clinical depression is defined as the indicative symptoms of depression meets the Diagnostic and Statistical Manual-IV criteria for depressive disorder. In DSM-IV the term depression is not a normal, a temporary mood caused by life events or grieving. A person is diagnosed depressed on the basis of the criteria for the clinical depression (DSM-IV, 1994). Depression is a severe mood disorder covered a variety of negative moods and behavioural changes and is the fourth

leading cause of social incapacitation in the world. In India, about 5% of people are living with depression and anxiety disorders. In India psychological problem like depression among students is neglected public health problem as we have just one psychiatrist for four lakh citizens. We have only about 4,000 psychiatrists, 1,000 psychologists and 3,000 social workers for the whole of the country (Prabhakar & Dubouis, 2013).

Stress is the emotional and physical reaction that occurs when changes, that disturb or threaten to disturb daily life, force a person to adapt (Cohen, Janicki-Deverts, & Miller, 2007). In normal ranges, stress does not have to be a problem, because life is never free of stress. However, stress does become a problem when the changes threaten someone's well-being or when an individual feels incapable of dealing with the situation (Sklar & Anisman, 1981). Such a larger stress reaction causes physiological changes that can be harmful to someone's health (Brysbart, 2006). It is therefore important to treat the stress of cancer patients early. Among others, it is shown that cancer is a severe stressor by the distress that patients feel even years after the treatment (Deimling et al., 2002).

**Liu et al. (2017)** suggested that there were significant differences among different occupation groups and the education level of patients in regards to pathological characteristics and treatment choice. Both the occupation and education level of patients were independent factors of TNM staging at diagnosis. For patients within the lower-income occupation or lower educational attainment group, the tumour stage was later, the rates of implementation of relevant investigations were lower, as were the rates of radiotherapy, chemotherapy, and endocrine therapy. This study suggests that strategies should work toward developing more accurate and effective breast cancer prevention and treatment strategies

aimed specifically at patients with lower educational attainment levels and at specific occupation groups.

**Statement of problem:**

The present investigation attempts to study about “**Level of Anxiety, Depression and Stress among Male and Female Cancer Patients**”.

**Operational Definitions:**

**Anxiety:** Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional and behavioural components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, fear or worry. Anxiety is a generalized mood or state that occurs without an identifiable triggering stimulus. Anxiety is a normal reaction to stress. It may help a person to deal with a difficult situation, for example at work or at school, by prompting one to cope with it. When anxiety becomes excessive, it may fall under the classification of an anxiety disorder.

**Depression:** In the present study, the term “Depression” refers to symptoms of depression such as hopelessness and irritability, as well as physical symptoms that were measured by the Beck Depression Inventory, Beck & Beamesdefefer, (1974).

**Stress:** Stress is a normal physical response to events that make you feel threatened or upset your balance in some way. When you sense danger—whether it’s real or imagined—the body's defences kick into high gear in a rapid, automatic process known as the “fight-or-flight-or-freeze” reaction, or the *stress response*.

**Cancer:** A term for diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells can also spread to other parts of the body through the blood and lymph systems.

**Objectives:**

1. To find the level of Anxiety, Depression and Stress among Male and Female cancer patients.
2. To find the level of Anxiety, Depression and Stress among primary level educated Cancer patients and higher level educated cancer patients.

**Hypotheses:**

1. There is no significant difference between scores of Anxiety, Depression and Stress among male and female cancer patients.
2. There is no significant difference between scores of Anxiety, Depression and Stress among primary level educated and higher educated cancer patients.

**Research design:**

The present study is not possible experimentally because of the nature of the investigation. The researcher adopted the quantitative descriptive research for gaining the objectives of the study. It is the survey quantitative research in which the event has already occurred and the effects of the variables were studied by qualitative analysis.

**Variables:**

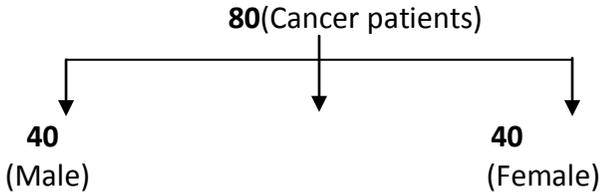
Two independent variables i.e. gender and educational status were selected for the present research work, whereas the level of anxiety, depression and stress of cancer patients were selected as a dependent variable.

**Inclusion criteria**

- 1) Age range within 25-45 years;
- 2) Willingness to participate in the present research;
- 3) Suffering from lungs and breast cancer in the first stage;
- 4) Being treated in outdoor settings of public hospitals of Ahmedabad city.

**Sample:**

For the present research, work researcher has selected 80 cancer patients with the help of purposive sampling technique their age range between 25 to 45 years. The categorization and details of sample selection are as under:-



**Tool:**

The tool for the present study was selected in a manner to achieve an optimum level of confidence by the researcher for the objectives of the study.

**Anxiety, Depression and Stress Scale:** - This scale was developed by Bhatnagar, P. et al. (2011) and published by National Psychological Corporation. This scale consists of 48 items divided into Three Sub Scale –

- I. Anxiety,
- II. Depression and
- III. Stress.

This scale was administered to 1177 adults. This scale consists of satisfactory validity and reliability.

**Scoring:**

In the present study, scoring of the obtained data was done with help of respective manuals available for the test. The data have been arranged in the respective table according to the statistical test applied.

**Statistical Analysis:**

In the present study to find out the significant difference between the groups i.e. male and female, primary and higher educated cancer patients student ‘t’ test, Mean and SD were calculated.

## RESULTS AND DISCUSSION

**Table 1:- Showing Mean, SD and 't' value between male and female cancer patients for measures like anxiety, depression and stress.**

Measures	Groups	N	Mean	SD	't' Value
<b>Anxiety</b>	Male	40	10.02	2.81	0.33, NS
	Female	40	10.32	4.86	
<b>Depression</b>	Male	40	6.72	1.89	0.63, NS
	Female	40	7.07	2.93	
<b>Stress</b>	Male	40	4.22	1.32	2.04, $p < .05$
	Female	40	5.10	2.36	

A perusal of table 1.1 shows that the two groups under study i.e. male and female cancer patients do not differ significantly with reference to anxiety. The insignificant mean difference is to be reported for the anxiety ( $t'=0.33, p>.05$ ). Mean values obtained by male and female cancer patients are ( $M=10.02, SD=2.81$ ) and ( $M=10.32, SD=4.86$ ) respectively.

It is evident from Table 1.2 that significant difference is to be not found between male and female cancer patients on depression ( $t' = 0.63, p>.05$ ). The mean score of male and female cancer patients are 6.72 ( $SD=1.89$ ) and 7.07 ( $SD=2.93$ ) respectively. On the basis of this insignificant difference, one can say conclusively that both the groups of patients have by and large similar level of depression.

Furthermore, results summarized in Table 1.3 that mean values for stress is to be found for females is  $M=5.10 (SD=2.36)$  and for males  $M=4.22 (SD=1.32)$  respectively, this shows there is a significant difference and the 't' value is reported significant 2.04 ( $p < .05$ ). Female cancer patients have a greater feeling of stress as compared to male cancer patients. Thus,  $H_{01}$  is maintained for anxiety and depression whereas, it is rejected for stress. it means both male and female cancer patients have

similar feeling status towards anxiety and depression but the stress level is higher among female cancer patients.

**Table 2:- Showing Mean, SD and ‘t’ value between primary and higher level educated cancer patients for measures like anxiety, depression and stress.**

Measures	Groups	N	Mean	SD	‘t’ Value
<b>Anxiety</b>	Primary level	37	12.25	3.34	5.49, $p < .01$
	Higher level	40	8.10	3.41	
<b>Depression</b>	Primary level	40	7.90	2.31	3.95, $p < .01$
	Higher level	40	5.90	2.20	
<b>Stress</b>	Primary level	40	5.22	2.21	2.67 $p < .01$
	Higher level	40	4.10	1.48	

Table no. 2.1 reported the higher mean score for primary level educated cancer patients (M=12.25, SD=3.34) than the higher level educated cancer patients (M=8.10, SD=3.41) on anxiety. Significant ‘t’ value is to be found ‘t’ = 5.49, ( $p < .01$ ). Thus, findings suggested that primary level educated cancer patients are more prone to anxiety because of their limited awareness towards cancer than their counterparts.

In the same way, table 2.2 highlighted significant mean differences between the primary level and higher level educated cancer patients for depression. Mean scores of both the group i.e. primary and higher educated cancer patients are M=7.90, SD=2.31 and M=5.90, SD=2.20 respectively. The mean difference is also to be found significant (‘t’ = 3.95,  $p < .01$ ). On the basis of significant mean difference, one can well imagine that both the groups of cancer patients have a different level of depression towards their illness.

Similarly, table 2.3 displayed significant mean differences among primary level and higher level educated cancer patients for stress (‘t’ = 2.67,  $p < .01$ ). Mean scores of both the group i.e.

primary and higher educated cancer patients are  $M=5.22$ ,  $SD=2.21$  and  $M=4.10$ ,  $SD=1.48$  respectively.

Results summarized that all the three component of scale i.e. anxiety, stress and depression are influenced by the level of education. Thus,  $H_0_2$  is strongly rejected for cancer patients. Findings might be explained in terms of primary level educated cancer patients also have insufficient income and awareness to access proactive and preoperative examination, so implementation rate of their preoperative examination may be lower, and as a consequence, they could find cancer earlier. Our study confirmed that the rate of implementation of the relevant presurgery examination was the lowest in primary level educated. For education, the highest execution rate was in the higher group of the education level of university and above.

### **CONCLUSION:**

In conclusion, we can carefully state that cancer survivors can be confronted with different psychological problems. However, it is not entirely clear which aspects or situations may have an influence on psychological problems. Results of this study show that there is a broad spectrum of aspects and situations which can have an influence such as the education level of cancer patients. The government should focus on characteristics of lower-income occupation and lower educational attainment group to develop more accurate and effective prevention and treatment strategies for cancer.

### **IMPLICATION**

This present study suggests that strategies and awareness programme should design to develop more accurate and effective t cancer prevention and treatment strategies aimed specifically at patients with lower educational attainment levels.

## REFERENCES:

- A Barraclough, J. (2000). *Cancer and Emotion*. (3rd ed.). NY: John Wiley and Sons, LTD.
- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorder*. (4th ed.). Washington, DC: Tasman,
- Brysbaert, M. (2006). *Psychologie* (pp. 682). Gent: Academia Press.
- Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2007). Psychological stress and disease. *JAMA: The Journal of the American Medical Association*, 298(14), 1685-1687. doi:10.1001/jama.298.14.1685.
- Deimling, G. T., Kahana, B., Bowman, K. F., & Schaefer, M. L. (2002). Cancer survivorship and psychological distress in later life. *Psycho-Oncology*, 11(6), 479-494. doi:10.1002/pon.614.
- Liu, Y., Zhang, J., Huang, R., Feng, W.-L., Kong, Y.-N., Xu, F., ... Wang, K. (2017). Influence of occupation and education level on breast cancer stage at diagnosis, and treatment options in China: A nationwide, multicenter 10-year epidemiological study. *Medicine*, 96(15), e6641. <http://doi.org/10.1097/MD.0000000000006641>
- Prabhakar, A., & Dubouis, K. (2013). Finally, a national survey on mental health disorders in India. [http:// www.dnaindia.com/health/report-finally-a -national-survey-on-mental-health-disorders-in-India-1848694](http://www.dnaindia.com/health/report-finally-a-national-survey-on-mental-health-disorders-in-India-1848694) sited on 8/25/2016
- Sklar, L. S., & Anisman, H. (1981). Stress and cancer. *Psychological Bulletin*, 89(3), 369- 406.

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***Conflict of Interest:***

The authors colorfully declare this paper to bear not conflict of interests

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