

# A Study to Assess the Level of Depression and Coping Strategies Adopted by Women Recently Diagnosed with Cancer in Tertiary Care Hospital at Kolkata

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**Abstract:** Cancer, the second most common cause of death next to cardiovascular diseases. Objectives of the study (i) To assess the level of depression & various coping strategies adopted by women recently diagnosed with cancer. (ii) To correlate the level of depression with the various coping strategies, and associate selected demographic variables (age, stage of cancer, duration of diagnosis, type of cancer) with level of depression. A cross sectional descriptive research design with survey approach was adopted. The study was conducted among 60 women recently diagnosed with cancer at Tertiary Care Hospital, Kolkata, Montgomery Asberg Depression Rating Scale (MADRS) & Coping Orientations to Problems Experienced Scale (COPEs) Structured questionnaires were used as tool to assess depression & coping. Results: One way ANOVA, Chi square test and Correlation coefficient were used for statistical analysis. The study result showed that majority of the women (88%) recently diagnosed with cancer had mild to moderate level of depression with mean depression score of  $26.08 \pm 6.53$  (SD). An interesting observation made in the present study was that depression scores were relatively higher among subjects who belonged to nuclear family and it was found to be significant ( $p=0.014$ ). Based on mean score denial (mean 10.80) was the most commonly adopted coping strategy. Comparing the mean depression score and mean coping score, active coping ( $p=0.012$ ) and restraint coping ( $p=0.021$ ) were found to be significant with level of depression score. There was a significant negative correlation between depression and few coping strategies, like active coping ( $p=0.006$ ), positive reinterpretation & growth ( $p=0.023$ ), and with acceptance ( $p=0.047$ ). All the subjects had emotion focused coping. It was also observed that there was significant association between level of depression and few demographic variables such as age ( $p=0.001$ ), type of family ( $p=0.014$ ) and stage of cancer (0.024). The present study concluded that all cancer patients had varying level of depression, and there was significant negative correlation between level of depression and few coping strategies adopted.

**Keywords:** Cancer, Women recently diagnosed with cancer, Depression and Coping Strategies

## 1. Introduction

Cancer is a word that can send a chill down the spine and mean the end of the world to many, who face such a verdict.<sup>1</sup> Cancer, the second most common cause of death next to cardiovascular diseases, WHO informs that Asia's annual death toll from cancer is about 4 million, which could reach 64 million by 2030 if current trends continue.<sup>4</sup> Major Depressive Disorder accounts for 4.4 % of the overall global disease burden, a contribution similar to ischemic heart disease, and the Disability Adjusted Life Years (DALYs) for depression in the near future will be greater than cancer or HIV related disease<sup>6</sup>. Studies have shown that depressive disorders lead to significant dysfunction disability and poor quality of life in sufferers and pose a significant burden on the caregivers. Depression affects people living with cancer at different levels. Both Cancerous men and women experience depression due to their diagnoses, although minority women face higher levels of depression. The symptoms that accompany depression can have fatal consequences for women living with cancer.<sup>13</sup> In a study by **Grassi and Rosti (1999)**, "Psychiatric and Psychosocial concomitants of abnormal illness behavior in patients with cancer", it was found that out of 201 recently diagnosed cancer patients, 15% met the criteria for a major depressive disorder.<sup>14</sup> Cancer is one of the leading cause of death worldwide, accounting for 8.2 million deaths. Depressive disorders account for close to 41.9% of the disability from neuropsychiatric disorders among women compared to

29.3% among men.

## 2. Background of the Study

Cancer is one of the leading cause of morbidity and mortality. By the year 2020 nearly 70% of the world's cancer cases will be detected in developing countries, with a fifth of those cases coming from India<sup>12</sup>. **Ell k et al. (2005)** in their study revealed that among low-income women with cancer the prevalence rate for Major Depression was 24%<sup>16</sup>. The prevalence of Major Depressive Disorder at time of the first breast cancer recurrence was estimated at 22% by **Okamura**<sup>17</sup>. An article published in Bio

Med Central Journal, on **Global depression statistics** revealed that depression affects nearly 121 million people worldwide and is the second leading contributor to shorter lifespan and poor health for individuals 15-44 years of age, according to the Geneva-based WHO Depression, anxiety, psychological distress, sexual violence, domestic violence and escalating rates of substance use affect women to a greater extent than men across different countries and different settings. Pressures created by their multiple roles, gender discrimination and associated factors of poverty, hunger, malnutrition, overwork, and sexual abuse, combine to account for women's poor mental health. It is heartbreaking to think that cancer patients who are already dealing with the toughest fight of their lives are also struggling with depression, without adequate emotional

support. Disease such as cancer represents a threat to the client's ability to reach his or her goals. Most of the women are neglected in Indian scenario, the emotional aspects remains unnoticed.

### 3. Objectives

- 1) Assess the level of depression in women recently diagnosed with cancer.
- 2) Assess the various coping strategies adopted by the women recently diagnosed with cancer.
- 3) Correlate the level of depression with the various coping strategies adopted by the women recently diagnosed with cancer.
- 4) Associate selected demographic variables (age, stage of cancer, type of cancer, and duration of diagnosis) with level of depression.

**Hypothesis-** H<sub>1</sub> There will be significant level of depression among women recently diagnosed with cancer. H<sub>2</sub> There will be significant negative correlation between the level of depression & coping strategies adopted by the women recently diagnosed with cancer. H<sub>3</sub> There will be significant association between, level of depression with selected demographical variables.

**Conceptual framework-** Sister Callista Roy's Adaptation Model.

### 4. Review of Literature

International Association of Cancer Research (2005), observed the data which showed that India has one of the highest cancer rates in the world. Kidwai Memorial Institute of Oncology reveals over 3.5 lakhs people die of cancer each year<sup>31</sup>. World Health Organization (WHO) says, the estimated cancer deaths in India are projected to increase to 7 lakh by 2015.<sup>32</sup> In a report published by **Kounteya Sinha in The Times of India (2012)**, "Women more prone to depression than men, Indians worst hit: WHO, Women are highly prone to depression, a significant contributor to disease and even suicidal tendencies. A cross-sectional study was conducted by **Priscilla D et al (2010)** at the Ampang Hospital in Kuala Lumpur, Malaysia, to assess the coping strategies adopted by the patients diagnosed with hematological cancer revealed, coping strategies such as: behavioral disengagement, active coping, denial, venting, self distraction, substance use, acceptance, humor, use of emotional support, use of instrumental support, religion, positive reframing, planning, and self-blame were adopted by the patients<sup>20</sup>. The World Health Organization (WHO) says the burden of depression is 50% higher for females than males. **Brothers B M Andersen BL.(2009)** in a study "Hopelessness as a predictor of depressive symptoms for breast cancer patients coping with recurrence" revealed Feelings of hopelessness in women recently diagnosed with a recurrence of breast cancer predicted more depressive symptomatology 4 months later<sup>27</sup> A study done by **Konwar Gitumoni et al (2014)**, "A pilot study to assess the level of depression and coping strategy adopted by cancer patients receiving treatment in Mizoram State Cancer Institute, Aizawl was carried out from April to May 2014 with 30 convenient samples. Majority of cancer patients (33.3%) was

from the age group of 41-50 years of age followed by less than 40 years of age. Majority of cancer patients (66.5%) had moderate depression while 13.26% of the cancer patients had severe depression, and only 6.7% of them reported to have low depression. The most effective coping strategy adopted was reappraisal, followed by distancing. There is significant negative correlation between depression and reappraisal( $r=-0.538$ ,  $p<0.002$ ), and also with depression and acceptance ( $r=-0.415$ ,  $p<0.022$ ) strategies.<sup>53</sup>

### 5. Materials and Methods

A cross sectional descriptive research design with survey approach was adopted in the study. The study was conducted among 60 women recently diagnosed with cancer at Tertiary Care Hospital, Kolkata. As per the inclusion criteria the subjects were included in the study using non probability purposive sampling. Institutional ethical approval and written informed consent were accorded prior to the study. Pilot study was also conducted among 10 women recently diagnosed with cancer. Research variables under the study were level of depression and coping strategies. One way ANOVA, Chi square test and Correlation coefficient were used for statistical analysis. Data collection was done by interview method using structured questionnaire. Montgomery Asberg Depression Rating Scale (MADRS) & Coping Orientations to Problems Experienced Scale (COPEs) Structured questionnaires were used as tool to assess depression & coping. The tool was translated in Hindi for easy administration.

### 6. Analysis & Interpretation

**Table 1:** Distribution of subjects according to demographic characteristics, (n=60)

Sl no	Demographic Characteristics	Group	Frequency (f)	Percentage (%)
1.	Age	25-34	8	13.3
		35-44	7	11.7
		<b>45-54</b>	<b>19</b>	<b>31.7</b>
		55-64	14	23.3
2.	Education	65-74	12	20.0
		<b>Illiterate</b>	<b>22</b>	<b>36.7</b>
		Primary	17	28.3
		Secondary	15	25.0
3.	Marital Status	Higher Secondary	4	6.7
		Graduation	2	3.3
		<b>Married</b>	<b>45</b>	<b>75.0</b>
4.	Family Income (Rs)	Widow	15	25.0
		<19000	3	5.0
		19000-24000	21	35.0
		<b>24001-29000</b>	<b>27</b>	<b>45.0</b>
		29001-34000	7	11.7
5.	Type of Family	34001 -39000	2	3.3
		Nuclear	18	30.0
		<b>Joint</b>	<b>40</b>	<b>66.7</b>
6.	No of children	Extended	2	3.3
		One	11	18.3
		<b>Two</b>	<b>22</b>	<b>36.7</b>
		Three	17	28.3
		Four	6	10
		Five	3	5
7.	Stage of cancer	Six	1	1.7
		First 6	10.0	10.0

		Second	18	30.0
		<b>Third</b>	<b>26</b>	<b>43.3</b>
		Fourth	10	16.7
		<2months	10	16.7
8.	Duration of cancer	<b>2month 1day-4 months</b>	<b>25</b>	<b>41.7</b>
		<b>&gt;4months</b>	<b>25</b>	<b>41.7</b>
		<b>Ca Breast</b>	<b>20</b>	<b>33.3</b>
9.	Type of cancer	Ca Cervix	15	25
		Ca Ovary	6	10.0
		Others	19	31.7

Table 1: shows that out of 60 women recently diagnosed with cancer, Maximum number of subjects (75 %) belongs to the age group of 45-74. It was observed that around 38 % of subjects were illiterate. Majority of the subjects (75%) were married, whereas 25% of them were widows. 60% of the participants belong to the income group of above Rs 24000/-. Whereas 5% of them were drawing less than Rs 19000/-. It was observed that about 67% of them belong to joint family. More than half subjects (65%) had 2 to 3 number of children. About 42% of subjects were in third stage of cancer. It was seen that majority (83%) of subjects were diagnosed with in 2 to 4months of duration, as well as > 4month duration of illness. It was observed that about 33.3% of subjects were diagnosed with Ca Breast.

**Table 2:** Distribution of subjects as per depression score, (n=60)

Depression Score	Frequency	Percentage	Mean	SD
Mild depression	9	15.0		
Moderate depression	44	73.3	26.08	6.53
Severe depression	7	11.7		
<b>Total</b>	<b>60</b>	<b>100.0</b>		

Table 2 shows that majority of the women 44(73.3%) recently diagnosed with cancer had moderate depression. Whereas 9(15%) of subjects had mild depression and only 7(11.7%) of subjects had severe depression. Women recently diagnosed with cancer had mean depression score of 26.08± 6.53 (SD).

**Table 3:** Distribution of subjects according to coping strategies adopted, (n=60)

Coping Strategy	Mean	SD	N
Active coping	8.88	2.69	4
Planning	8.05	1.95	6
Suppression of competing activities	6.98	2.36	10
Restraint coping	7.07	1.94	9
Seeking social support for instrumental reasons	9.55	2.88	3
Seeking social support for emotional reasons	8.17	2.12	5
Positive reinterpretation & growth	6.73	1.96	11
Acceptance	7.57	2.49	7
Turning to religion	<b>10.75</b>	2.86	2
Focus on and venting of emotions	7.95	2.14	8
Denial	<b>10.80</b>	3.12	1
Behavioral disengagement	6.18	2.29	12
Mental disengagement	6.13	2.25	13
Alcohol – Drug disengagement	4.00	0.00	15
Humor	4.05	0.39	14

Table 3 shows that based on mean scores of coping strategies adopted by the women recently diagnosed with cancer, denial (mean- 10.80) was most frequently adopted **df=59 (N1=2 N=57) Table value-3.15**

coping strategy by them, followed by turning to religion (mean- 10.75). The least used coping strategies were alcohol-drug disengagement and humor.

**Table 4:** Correlation of depression score and coping strategies adopted by subjects, (n=60)

Coping score	r value	p value
<b>Active coping</b>	<b>- 0.354</b>	<b>0.006</b>
Planning	0.125	0.343
Suppression of competing activities	0.081	0.536
Restraint coping	- 0.180	0.169
Seeking social support for instrumental reasons	0.019	0.885
Seeking social support for emotional reasons	0.017	0.895
<b>Positive reinterpretation &amp; growth</b>	<b>- 0.294</b>	<b>0.023</b>
<b>Acceptance</b>	<b>- 0.258</b>	<b>0.047</b>
Turning to religion	0.172	0.188
Focus on and venting of emotions	0.097	0.460
Denial	0.162	0.216
Behavioral disengagement	- 0.035	0.790
Mental disengagement	- 0.036	0.782
Humor	- 0.243	0.062

Table 4 shows that there was significant negative correlation between depression and active coping (r= -0.354, p value 0.006), positive reinterpretation & growth(r= -0.294, p value 0.023), and also with acceptance (r= -0.25, p value 0.047), which signifies that higher the level of depression the lesser is active coping, positive reinterpretation & growth and acceptance.

**Table 5:** Comparison of mean depression score with age, (n=60)

Age Group	Mean	SD	F value	p value
25-34	32.20	6.254		
35-44	26.17	3.070	14.811	0.001
45-54	22.29	2.813		
65.74	21.80	5.541		

**df=59 (N1=4, N2= 55 ) Table value- 2.52**

The data presented in table 5 explains the comparison of the mean depression score of women recently diagnosed with cancer in different age groups. It is evident that mean depression score of the age group 25-34 is highest (32.20±6.254) and those among 55-64 is the lowest (20.67±4.183). The comparison was done by one way ANOVA test. The calculated F value (4, 55), 14.811, p=0.001 is more than the tabulated value. The between group variability is higher than the within group variability. There was significant difference in the mean depression score of different age group of women recently diagnosed with cancer. It means that the depression score variability observed in the five different age groups is not due to chance, but it is statistically significant. Women belongs to the younger age group had more depression than older age group.

**Table 6:** Comparison of mean depression score with type of family, (n=60)

Type of family	Mean	Std. deviation	F value	p value
Nuclear	29.78	6.93	4.615	0.014
Joint	24.50	5.83		
Extended	24.50	5.83		

The data presented in table 6 reveals comparison of the mean depression score of women recently diagnosed with cancer with different type of family. It is evident that mean depression score of the nuclear type of family is highest (29.78±6.93) and those among joint and extended family is the lowest (24.67±5.83).

The comparison was mean depression score and type of family is done by one way ANOVA test which shows the calculated F value (2, 57), 4.615, p=0.014 is more than the table value. The between group variability is higher than the within group variability. There was significant difference in the mean depression score of women recently diagnosed with cancer in different types of family. It means that the depression score variability in the three different type of family group is not due to chance, it is statistically significant. Women belongs to nuclear family had more depression.

## 7. Recommendations

- 1) A similar study can be replicated with large sample size for generalization.
- 2) A study can be carried out to find out the attitude of family members towards cancer patients.
- 3) A study can be undertaken to prepare and evaluate the effectiveness of booklet on coping strategies for patients with debilitating diseases.
- 4) Early detection of Cancer cases can prevent emotional breakdown. Prompt recognition and effective treatment of depression are of critical importance for improving the cancer patient's quality of life.
- 5) The area that need to be insisted upon
  - a) Depression may be a risk factor for poor adherence to cancer treatment. Physicians and the nursing staff can facilitate the adjustment process by communicating medical information in a clear manner.
  - b) Patients benefit from having a treatment outline and knowing what to expect, both physiologically and psychologically, throughout the treatment process.
  - c) Proper guidelines can be adopted by Physicians of Clinical Oncologist and other health care professionals to screen all cancer patients for depression prior to treatment.
  - d) Depression in patients with cancer can be best managed clinically by utilizing a combination of supportive psychotherapy, cognitive- behavioral techniques, and antidepressant medications.

## 8. Conclusion

The present study concluded that all cancer patients had varying level of depression, and there was significant negative correlation between level of depression and few coping strategies adopted. The more the level of depression lesser is problem focused coping. As feedback of the study all the subjects were given psycho education on stress management and educated about various coping skills.

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