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Gynecological Cancer Patients: Examining Depression and Resilience during Chemotherapy in Bagalkot

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ABSTRACT

Background: Early detection and treatment of cervical cancer increases a person's chance of survival. The majority of cervical cancer cases in India are discovered at later, more critical stages, which reduces the chance of survival for affected women. The main cause of late-stage illness diagnosis is a lack of knowledge regarding cervical cancer screening and prevention measures. Cervical cancer frequently does not show signs until it has progressed, which makes screening crucial.

Methods: Out of 50 participants were chosen for this descriptive study using a feasible method. The pretest design for the group was one. The CES-D and BRS scales were utilized for collecting the data, and descriptive and inferential statistics were used to evaluate the data in terms of mean % by distribution.

Results: According to the study, 50% of the 50 patients with gynecological cancer experienced significant depression. In 32% of cases, the resilience was mild. Resilience was moderate in 68% of the patients. We discovered a negative correlation between depression and resilience among gynecological patients based on the calculated value of (-0.09).

Conclusion: Using the CES-D and BRS scales to measure depression and resilience in patients with gynecological cancer, the study found a negative relationship.

Key-words: Gynecological cancer patients, Depression and resilience, CESD, BRS scale Socio-demographic variables

INTRODUCTION

The most prevalent gynaecological malignancies affecting women globally, including in India, are those of the ovaries and cervical regions.[1] In adult women, gynaecological malignancies are prevalent. Aside from survival, which is the desired outcome, one of the primary goals of these patients' care is to improve their quality of life.[2]

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Studies examining the behavioural and psychological characteristics of cancer survivors reveal that the illness and its treatments have varying effects on the lives of patients and their families. [3]

When it comes to newly diagnosed cases, breast cancer is the second most common cancer worldwide and the most common disease among women. Numerous studies indicate the potential impact of environmental and lifestyle factors, including heavy alcohol consumption, sedentary lifestyles, and high-fat diets, on the development of mammary gland cancer. Reducing the disease's causes will lower the illness's morbidity and mortality rate. Secondary prevention aids in detecting abnormalities or malignancies that may progress to tumours. It includes diagnostic methods (such

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mammography, ultrasound, magnetic resonance imaging, breast self-examination. [4]

For instance, women who are at high risk of breast cancer can benefit from a comprehensive grasp of the major and minor risk factors that can contribute to the disease as well as their alternatives for prevention and treatment through textbooks and articles on clinical and scientific problems. Breast cancer is the most common cancer among women in the United States. Women deemed high risk should be aware of their risks, suitable screening protocols, and advantageous preventive actions. The nurse can help decision-making about risk reduction and the various choices available for prevention and treatment with psychosocial support and knowledge [5].

The second most frequent malignancy in women worldwide is cervical cancer. Most of the more than 500,000 women who are diagnosed with severe cervical cancer each year did not have a screening for the illness beforehand. By 2050, one million women will receive a cervical cancer diagnosis if the current trend continues. Because they live in developing nations, about 80% of these women lack access to screening and preventative care. The present investigation aimed to determine the degree of resiliency exhibited by a group of participants who were informed that their prospects of surviving gynaecological cancer could be limited. Physical and psychological difficulties are frequently associated with gynaecological cancer. Women are typically diagnosed when their condition has progressed to a more serious level. [6,7]

Following extremely ablative gynaecological surgery, patients receive chemotherapy or radiation treatment. [8] Dynamic conceptualizations define resilience as a human resource that evolves and adjusts over a person's life based on how they manage challenges associated with external problems and personal development. [9] The most common signs of cervical cancer are menstrual bleeding, ongoing back and pelvic pain, bleeding after sex, urgency in the urinal, unexplained weight loss, and severe swelling in one or both legs. Worldwide, the human papillomavirus (HPV), more especially strains 16 and 18, is implicated in 75% of instances of cervical cancer. [10]

MATERIALS AND METHODS

A research approach tells the researcher what data to collect and how to analyze it. It also suggests possible conclusions to be drawn from the data. Because of the nature of the problem under study and to accomplish the study's objectives, a descriptive exploratory survey approach was considered appropriate to describe perceived depression and resilience among patients with selected gynecological cancer receiving chemotherapy at oncology units of selected hospitals in Bagalkot.

Data collection- Data was collected using a structured rating scale and the self-report method. Depression and resilience Patients with selected gynecological cancers were given the CESD-R and BRS scales and asked to provide the appropriate response according to their personal experience.

Research Design- The research design is the investigation's plan, structure, and strategy for answering the research question. It is an overall plan or blueprint. The researcher chooses to carry out the study. This study is an adaptation of a descriptive survey design to describe depression and resilience among patients.

Sample size- The sample size of present study consists of 50 women.

Sample technique- The purposive sampling technique was adaptive.

Inclusion criteria

- Patient between the age group of 21-59 years
- Who are willing to participate in the study
- Who can read and write Kannada.
- Who is available at the time of data collection

Exclusive criteria

- Not willing to participate in study
- Sick and not in a condition to provide data

Research Tool- A psychological instrument for measuring the perception of depression and resilience is used in the present study to assess the level of depression and resilience, among patients with selected gynecological cancer receiving chemotherapy at oncology units of selected hospitals in Bagalkot.

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Statistical Analysis- The information was analyzed using SPSS 18. Data were entered into an MS Excel spreadsheet and then transferred to SPSS. Data was organized and explained using descriptive and inferential analyses to determine the association between variables.

Ethical Approval -Ethical approval was obtained from the cancer Kerudi hospital in Bagalkot, Karnataka and Informed consent was obtained from each participant.

RESULTS

The study on depression and resilience among gynecological cancer patients yielded insightful findings across various demographics. Notably, 46% of the participants fell within the 40–49 age group, indicating a significant representation. Family structure played a role, with 62% of patients residing in nuclear families. Regarding religious affiliation, Hinduism was predominant among the patients, comprising 74% of the studied population. Occupation-wise, a notable proportion of patients were employed in government positions. Financially, 54% of patients reported a family monthly income of Rs.10,000. Family support was prevalent, with 82% of patients receiving support. The menstrual cycle regularity was observed in most patients at 72%. Regarding cancer treatment, a substantial 62% underwent a combination of chemotherapy and surgery. However, perceptions of health were predominantly negative, as 74% of patients considered their health poor. Previous medical histories revealed that 28% of patients had a history of vaginal cancer. Interestingly, the primary source of information for 76% of patients was relatives, highlighting the significant role of familial networks in disseminating information about gynecological cancer. The CESD-R depression scale, a widely used tool for depression assessment, comprises 20 items with severity levels ranging from mild to moderate to severe, as highlighted in Table 1.

Table 1: Scoring Depression.

Level of depression	Range of score
Mild	0-20
Moderate	20-40
Severe	40-60

BRS SCALE is one of the standard scale assessments for BRS; the scale consists of 6 items with 3 points ranging from mild, moderate, and severe.

Table 2: Scoring-BRS

Levels of BRS	Range of score
Mild	1.00-2.99
Moderate	3.00-4.30
Severe	4.31-5.00

Findings related to the assessment of levels of depression and resilience among gynecological cancer patients show the highest percentage (100%) of gynecological cancer patients. Where there were severe levels of depression, 100% were mild or moderate, and 0% of them were mild levels of depression, as highlighted in Table 3.

Table: 3: Assessment of level of depression among gynecological cancer patient.

Level of CESD			
	Range of scores	**Frequency**	**Percentage (%)**
Mild	0-20	0	0
Moderate	20-40	0	0
Severe	40-60	50	100

Findings related to the assessment of the level of depression and resilience among gynecological cancer patients show that the highest percentage (68%) of gynecological cancer patients had a moderate level of depression and resilience, 32% had a mild level of depression and resilience, and 0% of them had a severe level of depression and resilience (Table 4).

Table 4: Assessment of level of Resilience among gynecological cancer patient

Level of BRS			
	Range of scores	**Frequency**	**Percentage (%)**
Mild resilience	1-2.99	16	32

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Moderate resilience	3-4.30	34	68
Severe resilience	4.31-5	0	0

Findings in Table 5 related to the association between levels of depression among gynecological cancer patients and their selected socio-demographic variables reveal that a significant association was found between the forms of cancer treatment among gynecological cancer patients.

Table 5: Association between the level of depression and gynecological cancer patient and their socio-demographic variables

Socio-demographic variables	Chi square value	p-value
Age	0.14	0.70**
Type of family	0.003	0.95**
Religion	0.069	0.79**
Education status	0.0061	0.93**
Occupation	1.4016	0.23**
Family history of gynecological cancer	3.125	0.77**
Types of cancer	0.1202	0.72**
Monthly income	0.0	01**
Family support	0.32	0.56**
Menstrual cycle	0.324	0.56**
Form of cancer treatment receive	5.23	0.02*
Perception about health	2.01	0.15**
Any previous history of gynecological cancer	0.410	0.52**
Source of information	0.18	0.66**

*Degree of freedom (Df)=1; NS- **Non-significance; *S- Significance; Table value=0.01*

Findings related to the association between levels of resilience among gynecological cancer patients and their selected socio-demographic variables in Table 6 reveal a significant association between the forms of cancer treatment among gynecological cancer patients.

Table 6: Association between the Resilience among gynecological cancer patient and their socio-demographic variables

Socio-demographic variables	Chi square value	p-value
Age	0.14	0.70**
Type of family	0.003	0.95**
Religion	0.06	0.79**
Education status	0.006	0.93**
Occupation	1.40	0.23**
Family history of gynaecological cancer	3.12	0.77**
Types of cancer	0.12	0.72**
Monthly income	0.0	01**
Family support	0.32	0.56**
Menstrual cycle	0.32	0.56**
Form of cancer treatment receive	5.23	0.02*
Perception about health	2.01	0.15**
Any previous history of gynaecological cancer	0.41	0.52**
Source of information	0.18	0.66**

*Degree of freedom (Df)=1; NS- **Non-significance; *S- Significance; Table value=0.01*

The r-value obtained for gynecological cancer patients was -0.009. Hence, the negative correlation between depression and resilience among gynecological cancer patients is found to be statistically significant (0.009) (Table 7).

Table 7: Correlation between depression and Resilience among gynecological cancer patient

Group	Mean	Correlation co-efficient	p-value
CESD scale	41	-0.009	0.52
BRS scale	10		

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DISCUSSION

A total 50 participants were chosen for this descriptive study using a practical sampling strategy. The pretest design for the group was one. The CES-D and BRS scales were used to gather the data, and descriptive and inferential statistics were used to evaluate the data in terms of mean % by distribution. The findings indicate that 50% of the 50 patients with gynecological cancer experienced significant depression. 68% of patients exhibited moderate resilience, and 32% displayed mild resilience. We discovered a negative connection between depression and resilience among gynecological patients based on the calculated value of (-0.096). Using the CES-D and BRS scales to measure depression and resilience in patients with gynecological cancer, the study concluded that there is a negative link.

The baseline information from women with gynecological cancer who were enrolled in a continuous randomized clinical trial (N=281; Mage=55, 80% Caucasian) was used in this cross-sectional analysis. Resilience, positive emotional expression, positive reappraisal, creating a sense of serenity and significance, and quality of life were among the measures that participants completed. According to univariate and multiple mediation analyses, higher resilience was linked to a higher quality of life (p<.001). [11]

In a related study, the psychological resilience and depression levels of 218 women receiving treatment for early-stage breast cancer were evaluated using the Connor-Davidson Resilience Scale and the Hospital Depression and Anxiety Scale. The findings indicate that in our sample, there is a statistically significant negative association between resilience and depression. Psychological resilience is weaker in those with higher degrees of depression. The subjects' age ranges, time since diagnosis, cancer stage, and resilience scores do not statistically significantly correlate. [12]

The findings indicate that there was a negative relationship between depression and resilience as well as between symptom distress and resilience. Between symptom distress and depression, resilience demonstrated a partial mediation impact (Z=2.34, p=.019). The multifaceted concepts of resilience and create intervention plans to enhance the resilience of patients with recurrent gynecologic cancer. [13]

Similar research shows that 68 female cancer patients receive chemotherapy. Thirty-three patients had depression, eleven patients had anxiety, and three patients had stress. Resilience had a negative correlation with depression, although stress had a positive correlation with anxiety and depression. [14]

A total of 130 patients sent for chemotherapy to the oncology service of a training and research hospital were included in a cross-sectional and descriptive study. The Hospital Anxiety and Depression Scale (HADS), the Brief Resilience Scale (BRS), the Post Traumatic Growth Inventory (PTGI), and an information form were used to gather the data. The patients' ages ranged from 51.65 to 15.94 years, with 61.5% of them being men, 75.4% being married, 36.2% having cancer of the reproductive system, and 80.8% undergoing chemotherapy. [15]

A correlation research design was employed based on Lazarus and Folkman's stress-coping theory. A total of 150 women with gynecological cancer admitted to a Korean tertiary hospital were included via convenience sampling. Data were collected using structured questionnaires between January and April 2018. Results found that symptoms had the strongest association with psychosocial adjustment in women with gynecological cancer. [16]

A major finding of the present study was the finding of higher than "normal" levels of depression, anxiety, and stress in 33%, 10%, and 3% of cancer patients undergoing chemotherapy, all of whom hailed from rural areas. This trend agrees but is lower than the number of studies. In 50 patients with cancer, anxiety and depression were found in 44% of the patients. In another study, mild and symptomatic depression were seen in 26.7% and 21.3% of patients, respectively, while 29.3% of patients had mild anxiety and 16.7% had symptomatic anxiety. Anxiety and depression were more frequent at older ages. Breast cancer patients had the highest prevalence of anxiety and depression, especially in the patients who received chemotherapy as the only treatment. [17,18]

Another important finding of our study was that in cancer patients on chemotherapy, stress, anxiety, and depression are positively correlated with each other. However, resilience is negatively correlated with depression. Our findings agree with a recent study in which 152 cancer patients completed questionnaires on demographic variables, the HADS, the Connor–Davidson Resilience Scale (CD-RISC), and the Duke–University of North Carolina Functional Social Support Questionnaire

(FSSQ). Psychological resilience was negatively associated with emotional distress in cancer patients and even in the subgroup with metastatic cancer. [19]

A total of 802 cervical cancer patients treated with radiotherapy and/or chemotherapy (54.84 to 9.68 years) were recruited. The prevalence of depression among these patients was 72.72%, with four symptom clusters of dizziness-ringing in the ears, digestive system-related symptoms, skin dryness and itching, and urinary frequency-urgency-leakage. Adverse reactions directly and positively affected the occurrence of depression. Neuroticism mediated the association between adverse reactions and depression, while this association varied according to the quality of life and marital relations. A study concluded that our findings suggest that depression is common among cervical cancer patients receiving radiotherapy and/or chemotherapy. [20]

CONCLUSIONS

In conclusion, the study highlighted significant findings based on a sample of 50 gynecological cancer patients. Notably, all patients exhibited severe depression, indicating a substantial mental health concern within this demographic. Additionally, resilience levels varied, with 32% demonstrating mild resilience and 68% displaying moderate resilience. The calculated correlation coefficient (-0.09) revealed a negative correlation between depression and resilience among gynecological patients, suggesting that as depression levels increased, resilience tended to decrease. Utilizing the CES-D and BRS scales, the study provides valuable insights into the interconnectedness of depression and resilience in gynecological cancer patients.

As prospects, further research could delve into targeted interventions or support strategies aimed at enhancing resilience and mitigating depression in this specific patient population, ultimately contributing to more effective and holistic healthcare approaches.

CONTRIBUTION OF AUTHORS

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