

## A Study on Coping Strategies Among Breast Cancer Patients Receiving Curative Treatment in A Tertiary Healthcare Centre

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 OPEN ACCESS

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Received: 06-12-2025

Accepted: 22-12-2025

Available online: 11-01-2026

### **ABSTRACT**

**Background and Aims:** Breast cancer remains a significant global health issue, accounting for 2.3 million new cases in 2022. In India, it is the most prevalent cancer among women, contributing to 13.5% of new cases and 10.6% of cancer-related deaths. Madhya Pradesh alone contributed 5.6% to the national burden. The diagnosis of breast cancer often results in emotional distress, worsened by treatment side effects and the disruption of social and familial roles. This study aimed to examine the coping strategies adopted by breast cancer patients undergoing curative treatment at a tertiary care centre in Madhya Pradesh.

**Materials and Methods:** A cross-sectional study was conducted from January to March 2025 at Sri Aurobindo Medical College and PGI, Indore. Seventy-three female in-patients with breast cancer were selected via convenience sampling. Data were collected through a semi-structured proforma and the Brief-COPE inventory, administered by mental health professionals. Socio-demographic and clinical characteristics were recorded. Data analysis was conducted using SPSS v30. Descriptive statistics was used to summarize variables, chi-square tests assessed associations between the variables with a p-value of <0.05 considered significant.

**Results:** The mean age of participants was 45.88 years; most were married (91.8%), unemployed (67.1%), and from lower-income households. Among coping strategies, emotion-focused coping was the most commonly used ( $M = 27.61$ ), especially religious coping ( $M = 5.77$ ). Problem-focused coping followed ( $M = 20.08$ ), led by planning ( $M = 5.12$ ) and active coping ( $M = 5.04$ ), while avoidant coping was least used ( $M = 15.66$ ), though self-distraction ( $M = 5.30$ ) was relatively common. Socio-demographic factors like marital status and monthly income showed significant associations with coping styles, as did treatment plans among clinical variables. Other variables such as education, occupation, and comorbidities were not significantly associated with coping strategies.

**Conclusion:** Women with breast cancer predominantly rely on emotion-focused coping, especially religious practices and emotional support, underscoring the need for culturally sensitive psycho-oncology services. Socioeconomic and marital factors significantly shape coping behaviours, with higher-income and married patients showing greater engagement in proactive strategies. These findings highlight the importance of integrating spiritual and family-based support into cancer care frameworks. Developing low-cost, contextually appropriate psychosocial interventions may enhance patient resilience and improve treatment outcomes. Future longitudinal studies are warranted to examine how coping strategies evolve across different phases of treatment and to assess the impact of targeted support interventions on psychological well-being.

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**Keywords:** Breast Cancer, Coping Strategies, Emotion-Focused Coping, Psycho-Oncology, Socio-demographic Factors, Brief-COPE Scale.

## INTRODUCTION

Cancer is a universal challenge with around 20 million new cases diagnosed in 2022<sup>[1]</sup>. According to the Global Cancer Observatory (2022), breast cancer represented a significant global health burden, accounting for 11.5% of all newly diagnosed cancer cases, with approximately 2.3 million new cases—second only to lung cancer (12.4%). In India, breast cancer emerged as the most prevalent cancer among women, constituting 13.5% of all new cancer cases and 10.6% of total cancer-related deaths in 2022. This national mortality rate is notably higher than the global average of 6.8% for breast cancer-related deaths. India recorded the highest estimated number of breast cancer deaths among females globally, totaling 98,337 in the same year<sup>[1]</sup>. According to the National Cancer Registry Programme (2022), Madhya Pradesh accounted for 5.6% of India's total breast cancer cases (12,135) and an equal share of breast cancer-related deaths (4,514), ranking seventh nationally in both incidence and mortality<sup>[2]</sup>.

Patients are greatly shocked to learn that they have breast cancer. The diagnosis often signifies a deeply personal existential crisis, requiring considerable psychological resilience from the individual. It typically elicits intense emotional responses—such as fear, anxiety, denial, hopelessness, and grief—resulting in significant psychological distress<sup>[3]</sup>. Compounding this burden are the adverse effects of treatment. Due in large part to the increased burden of physical symptoms, emotional discomfort, body image alteration, and interruption of everyday activities, many patients endure extreme stress during the course of their illness<sup>[4]</sup>.

Approximately, 99% of breast cancer cases affect women<sup>[1]</sup>, who simultaneously navigate multiple social roles such as mothers, wives, daughters, and daughters-in-law—each accompanied by distinct responsibilities and expectations. Managing these role-based demands while confronting a serious illness presents a complex psychosocial challenge. This study seeks to explore the coping strategies employed by women at a tertiary care centre in Madhya Pradesh as they strive to maintain their roles and responsibilities while battling with breast cancer.

## MATERIALS & METHODS

A cross-sectional study was conducted at Sri Aurobindo Medical College and Post Graduate Institute (SAMC & PGI), Indore, between January and March 2025. A convenience sampling method was used for participant selection. A total of 73 in-patients admitted at the hospital's cancer ward, diagnosed with early-stage breast cancer who provided informed consent were included in the study. A semi-structured proforma was constructed to examine patients' socio-demographic and clinical characteristics. Socio-demographic variables included age, sex, place of residence, education level, socio-economic status, marital status, occupation, religion, and monthly household income. Clinical variables comprised age at diagnosis, duration of illness, presence of medical or psychiatric comorbidities, and the treatment plan. Coping strategies were assessed using the Brief-COPE scale. Data collection was done via Google Forms. All of the tools were administered by the interviewer (mental health professional). The collected data were organized using Microsoft Excel and analyzed using the Statistical Package for the Social Sciences (SPSS; version 30). Descriptive statistics, including frequency and percentages, were used to summarize categorical variables, while means and standard deviations were calculated for continuous variables. The Chi-square test was employed to examine associations between qualitative variables. A p-value of <0.05 was considered statistically significant.

### BRIEF-COPE SCALE<sup>[6]</sup>

To assess the coping strategies used by participants, the Brief-COPE inventory was utilized. This is a validated, 28-item self-report questionnaire developed by Carver (1997) to measure a broad range of coping responses in individuals facing stressful life events. The scale is divided into 14 subscales, each consisting of two items, which are grouped under three overarching categories: problem-focused coping (e.g., active coping, planning, and use of instrumental support), emotion-focused coping (e.g., emotional support, acceptance, religion, positive reframing, humor, and self-blame), and avoidant coping (e.g., denial, behavioral disengagement, self-distraction, and substance use). Respondents rated each item on a 4-point Likert scale ranging from 1 ("I haven't been doing this at all") to 4 ("I've been doing this a lot"), indicating how frequently they used each coping strategy. The scale has been widely used in cancer-related research and has shown good internal consistency and construct validity across different populations, including those in India.

## RESULTS

The study investigated coping strategies employed by early breast cancer patients and categorized them into three major domains: emotion-focused coping, problem-focused coping, and avoidant coping. Among the 73 participants, the average age was 45.88 years (SD = 8.727), with the average age of illness onset being 45.18 years and the mean duration of illness reported as 9.93 months.

### Socio-demographics:

The majority of participants were married (91.8%), Hindu (79.5%), and residing in urban areas (53.4%). Most participants were unemployed (67.1%), and a significant proportion belonged to lower income brackets, with 34.2% reporting a monthly household income between ₹5,000–₹10,000. In terms of education, the sample was diverse, with the highest proportions having primary, secondary, or undergraduate education (each 17.8%).

### Coping Strategies:

Emotion-focused coping emerged as the most frequently used strategy among patients, with a mean score of 27.61. Within this category, the most utilized strategy was religion ( $M = 5.77$ ), followed by emotional support ( $M = 5.15$ ) and acceptance ( $M = 5.01$ ). Less frequently used strategies included venting ( $M = 4.97$ ), self-blame ( $M = 4.18$ ), and humor ( $M = 2.53$ ). The prominence of religious coping suggests a strong reliance on spiritual beliefs as a source of comfort and strength during illness.

Problem-focused coping was the second most common type ( $M = 20.08$ ). The most frequently reported strategy within this domain was planning ( $M = 5.12$ ), closely followed by active coping ( $M = 5.04$ ), use of informational support ( $M = 4.99$ ), and positive reframing ( $M = 4.93$ ). These findings reflect an active engagement by patients in managing their illness through thoughtful planning and information seeking.

Avoidant coping strategies were the least used ( $M = 15.66$ ). However, among its subtypes, self-distraction had a relatively high mean score ( $M = 5.30$ ), indicating that patients occasionally engaged in diverting their attention away from distressing thoughts. Other avoidant strategies such as denial ( $M = 4.16$ ), behavioral disengagement ( $M = 4.08$ ), and substance use ( $M = 2.11$ ) were reported less frequently, highlighting a generally low tendency toward maladaptive coping behaviors in this sample.

When coping strategies were ranked based on mean scores, the top five methods reported were religion (5.77), self-distraction (5.30), emotional support (5.15), planning (5.12), and active coping (5.04). This suggests a preference for a combination of spiritual, emotional, and action-oriented coping methods.

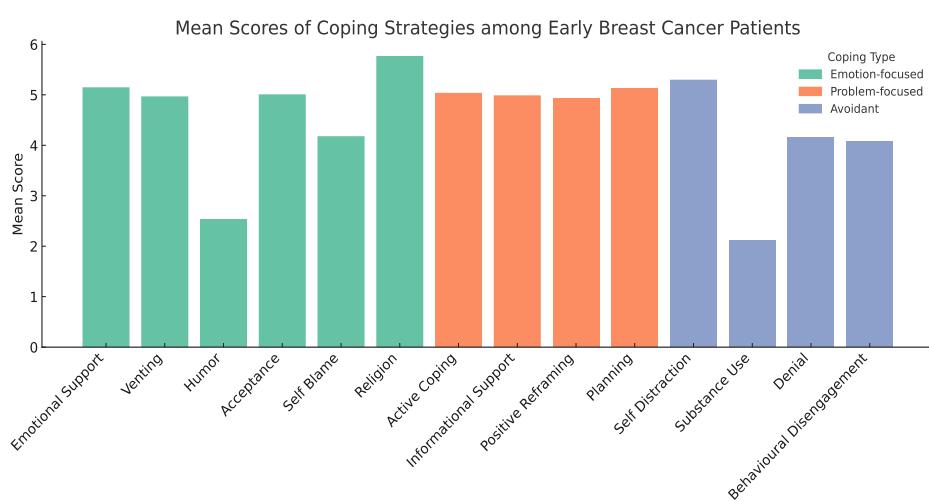
### Association with Socio-demographic and Clinical Variables:

Chi-square analysis revealed several associations between coping strategies and socio-demographic or clinical variables. Marital status showed a significant association with problem-focused coping ( $\chi^2 = 6.419$ ,  $p = 0.040$ ), indicating that being married may enhance engagement in proactive coping behaviours.

Monthly income showed significant associations across all three coping types: problem-focused coping ( $\chi^2 = 12.233$ ,  $p = 0.016$ ), emotion-focused coping ( $\chi^2 = 9.834$ ,  $p = 0.043$ ), and avoidant coping ( $\chi^2 = 13.973$ ,  $p = 0.007$ ). This suggests that financial status may influence the type and extent of coping strategies employed by patients. Those with higher incomes may have better access to supportive resources and health information, thus facilitating more adaptive coping mechanisms.

Among clinical variables, only the treatment plan showed a statistically significant relationship with problem-focused coping ( $\chi^2 = 8.759$ ,  $p = 0.003$ ), indicating that patients undergoing different sequences of treatment (e.g., surgery followed by chemotherapy vs. chemotherapy followed by surgery) might adapt their coping strategies accordingly.

Other variables such as education, occupation, residence, religion, past psychiatric history, and medical co-morbidities did not show significant associations with coping strategies.



## DISCUSSION

This study highlights the dominant coping mechanisms among early breast cancer patients, with emotion-focused coping strategies being the most frequently utilized (mean: 27.61), followed by problem-focused (mean: 20.08) and avoidant coping (mean: 15.66). Among emotion-focused strategies, religious coping was notably the most employed (mean: 5.77),

suggesting, how important faith and spirituality are for patients when facing a serious illness. In South Asian contexts—where religion is intricately interwoven into daily life—prayer and religious rituals offer a sense of peace, control, and hope [7,8]. Sultana et al. found similar reliance on religious coping among Bangladeshi women with metastatic breast cancer, where prayer and spiritual surrender were often viewed as integral to emotional resilience and acceptance of one's health trajectory<sup>[4]</sup>. The prominence of this coping mechanism may also be explained by the limited availability of structured psychosocial interventions in public healthcare systems across South Asia, which places a greater burden on personal faith as a source of solace.

Emotional support (mean: 5.15) and acceptance (mean: 5.01) also scored high among emotion-focused subscales. These findings are consistent with Indian studies which emphasize the role of family networks in buffering emotional stress through emotional closeness and practical help from loved ones [9]. A study conducted in Delhi reported that emotional dependence on family, particularly spouses and children, significantly helped patients manage fear and uncertainty related to cancer treatment<sup>[10]</sup>. In our sample, the predominance of married participants (91.8%) possibly enhanced access to such support systems. International research, as well, strongly supports the idea that social support plays a critical role in how women with breast cancer cope. For example, a study in the United States involved a randomized clinical trial where breast cancer patients and their partners received structured family-based support. The results showed that women who received this support had lower levels of emotional distress, better communication with their partners, and improved quality of life over time [11]. The intervention helped patients feel less isolated and more capable of handling their illness.

Problem-focused coping strategies were also used moderately, with planning (mean: 5.12) and active coping (mean: 5.04) as the most common. However, unlike emotion-focused coping, these strategies were significantly influenced by monthly income ( $p = 0.016$ ), indicating that individuals with greater economic resources may have more agency in decision-making, treatment planning, and information-seeking. Indian evidence supports this; for instance, a study in Punjab found that higher socioeconomic status was linked with proactive health-seeking behavior and improved navigation of complex cancer care pathways [12]. Another study showed that patients with higher income and education were more confident in handling their illness [13]. Financial constraints, on the other hand, may result in resignation or passive acceptance, thereby limiting the application of problem-solving strategies.

Interestingly, avoidant coping strategies, like trying to forget the illness or ignoring it, were used the least. However, its sub-component self-distraction ranked 2<sup>nd</sup> after religion in use of overall coping strategies. Under avoidant coping, self-distraction (mean: 5.30) -like watching TV or doing household tasks to avoid thinking about their disease- ranked higher than denial or substance use. This strategy may be a way to deal with emotional overload when more direct coping becomes too stressful. This finding aligns with the South-Asian study<sup>[4]</sup>, which also observed distraction as a common mechanism, particularly among women undergoing distressing treatments like chemotherapy. The preference for distraction over other more maladaptive responses may reflect cultural and social norms in this region.

It was found that marital status and income influenced how women coped. Married women and those from higher-income households used more problem-solving methods. This suggests that having a partner and financial resources can give patients more options and confidence in managing their treatment and emotions. Indian studies have also pointed out that women from poorer families often feel more helpless and are less likely to take an active role in their care<sup>[14,15]</sup>.

Overall, this study highlights that coping styles are shaped not just by personality but also by social, cultural, and economic factors. Recognizing these influences is important for doctors, nurses, and counsellors so they can offer better support tailored to each patient's background.

This study has several limitations. Firstly, it was conducted in just one hospital, so the findings might not reflect the coping styles of women in other areas, making it difficult to generalize findings. Lastly, the study only looked at coping strategies at one point in time—it did not track how patients' coping changed over months or during different stages of treatment.

## CONCLUSION

The findings indicate that early breast cancer patients predominantly rely on emotion-focused coping, particularly religious coping and emotional support, underscoring the importance of integrating culturally sensitive psycho-oncology services within cancer care. Economic and marital factors significantly influence coping styles, suggesting the need for targeted support interventions for financially or socially vulnerable patients. Efforts to enhance problem-focused coping must consider socioeconomic constraints, while leveraging cultural strengths such as spirituality and familial support.

Developing tailored, low-cost psychosocial interventions that align with local cultural contexts can greatly improve patients' resilience and psychological well-being. Future research should explore longitudinal patterns of coping and evaluate intervention strategies that can shift patients toward more adaptive coping styles across different phases of cancer treatment.

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