

IMPACT OF CANCER ON QUALITY OF LIFE & DEPRESSION AMONG CAREGIVERS

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ABSTRACT

Objective: To determine the impact of cancer on quality of life and depression among caregivers.

Study Design: Cross-sectional survey.

Place and Duration of Study: Anmol Hospital, Lahore, from Jul 2019 to Jan 2020.

Methodology: Data collected from caregivers of female cancer patients by purposive sampling technique using Standardized Questionnaire of Caregiver Assistance Scale and emotional distress was assessed by the Profile of Mood States. Data were entered into Statistical Package for Social Sciences for statistical analysis.

Results: Among 110 participants (caregivers of female cancer patients) 28 (25.5%) were female while 82 (74.5%) were male caregivers. Patients other than breast cancer were 79 (71.8%), while breast cancer patients were 31 (28.2%). There was a significant association between caregiver health, quality of life and level of depression, one year ago, and at current with p -values= 0.001, 0.001 and 0.01 respectively.

Conclusion: There was a negative impact on the health and quality of life of caregivers. Their health was better in the beginning but with time, their lives became more difficult.

Keywords: Cancer, Caregiver health, Depression, Family needs.

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INTRODUCTION

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Cancer affects not only patients but also family members. Care is provided to many patients with cancer. A caregiver's health can be affected due to the condition of these patients.¹ Unfortunately, families who are stressed to care, experience increased emotional distress.^{2,3} Providing care restricts the caregiver's ability to participate in other activities (e.g. work, recreation, social trips, etc.) and this lifestyle can cause emotional distress when the patient is not going towards recovery.⁴

Quality of life (QoL) is a broad multidimensional concept that often includes subjective evaluation of both positive and negative aspects of life.⁵ While health is one of the main aspects of overall QoL, there are other areas such as employment, accommodation, schools and communities. These aspects of culture, values, and spirituality are important areas of overall QoL, in addition to the complexity of measurement.⁶

It is seen that there is a relationship between the QoL of recurrent patients and family members.⁷ Theoretically and methodologically rigorous research on the various aspects of QoL of the family remains

scarce, not only psychologically, but also including the physical, mental and behavioural consistency of the caregiver.⁸ Family-based measures are also required along the course of the disease.⁹ Professional care providers want formal maintenance experts to be open and constant. Particular attention should be paid, however, to a caregiver who lives solely with the patient, has low income, has a distressed relationship, and has a high level of patient dependence and need of care.¹⁰

Studies have been conducted on the QoL among patients with cancer but caregivers of cancer patients also face problems which can cause depression and affect their QoL. Therefore, this study was conducted to assess depression and QoL among caregivers of cancer patients.

METHODOLOGY

A cross-sectional study was conducted at Anmol Hospital, Lahore, from July 2019 to January 2020, among 110 caregivers of female cancer patients. The sample size was calculated by Epitools using the formula: $n = (Z^2 \times P \times (1-P)) / e^2$, caregivers' population proportion as 13%.^{11,12} The confidence interval was 95%, the chance of error was 5%. Data were collected by using non probability consecutive sampling technique from caregivers of cancer patients. Standardized Questionnaire was given to the caregivers of cancer patients. Participants were thoroughly explained about

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the testing procedure. Questionnaires included Caregiver Assistance Scale (CAS) and emotional distress was assessed by the Profile of Mood States (PMS).

Inclusion Criteria: Caregivers of female cancer patients of either gender from 20-60 years of age, were included in the study.

Exclusion Criteria: Those who had any chronic disease like diabetes, hypertension or other neurological disorders that can cause depression and affect QoL were excluded from the study.

Data were entered in the Statistical Package for Social Sciences (SPSS) version 25 for statistical analysis. Demographics were represented in frequency and percentage. Chi-square test was used to check QoL, health and level of depression one year before and after one year. A *p*-value of ≤ 0.05 was considered significant.

RESULTS

Among 110 participants, 28 (25.5%) were female while 82 (74.5%) were male caregivers. Patients with breast cancer were 31 (28.2%) and those having other than breast cancer were 79 (71.8%). Among these 31 (28.2%) breast cancer patients, 24 (77.4%) were taken care of by their husbands, 5 (16.1%) were taken care of by fathers, 2 (6.5%) were taken care of by their mothers. Out of all the participants, 20 (18.2%) caregivers belonged to lower-class families, 68 (61.8%) to middle class families and 22 (20%) to upper-class families.

very good, of 24 (21.8%) was good and 5 (4.5%) had fair health. After one year of taking care of female cancer patients, 11 (10.0%) had excellent, 26 (23.6%) had very good, 19 (17.3%) had good, 39 (35.6%) had fair, and 15 (13.6%) had poor health as shown in Table-I.

Table-II shows the association between caregivers' QoL (one year ago) and current status. According to which there was a significant association between QoL of caregivers of female cancer patients, as the *p*-value=0.001. One year ago, QoL of caregivers was normal in 73 (66.4%), affected in 28 (25.5%) and severely affected in 9 (8.1%). After one year of taking care of female cancer patients it was normal in 22 (20%), affected in 41 (37.3%) and severely affected in 47 (42.7%).

Table-III showed the association between the caregivers' level of depression (one year ago) and current level of depression status of caregiver. According to which there was a significant association between depression level of caregivers of female cancer patients, as the *p*-value was 0.001. One year ago, the level of depression of caregivers in 15 (13.6%) was no depression, in 58 (52.7%) was mild, in 24 (21.8%) was moderate, and in 13 (11.9%) was severe depression. After one year of taking care of female cancer patients, 7 (6.4%) had no depression, 33 (30%) had mild, 29 (26.4%) had moderate and 41 (37.3%) had severe depression.

Table-I: Association between caregivers' health one year ago and current health status.

| Association between caregivers' health one year ago and current health status | | Caregivers' Current Health (After One Year) | | | | | p-value |
|---|-----------|---|------------|------------|------------|------------|---------|
| | | Excellent | Very Good | Good | Fair | Poor | |
| Caregivers' health one year ago | Excellent | 11 (16.4%) | 26 (38.8%) | 19 (28.4%) | 11 (16.4%) | - | 0.001 |
| | Very good | - | - | - | 14 (100%) | - | |
| | Good | - | - | - | 14 (58.3%) | 10 (41.7%) | |
| | Fair | - | - | - | - | 5 (100%) | |

Table-II: Association between caregivers' QoL one year ago and current QoL status.

| Association between caregiver quality of life one year ago and current quality of life status | | Caregivers' QoL (After One Year) | | | p-value |
|---|-------------------|----------------------------------|------------|-------------------|---------|
| | | Normal | Affected | Severely Affected | |
| Quality of life (one year ago) | Normal | 22 (30.1%) | 41 (56.2%) | 10 (13.7%) | 0.001 |
| | Affected | - | - | 28 (100%) | |
| | Severely Affected | - | - | 9 (100%) | |

Table-III: Association between caregivers' level of depression one year ago and current level of depression status.

| Association between caregivers' level of depression one year ago | | Caregivers' Level of Depression (After One Year) | | | | p-value |
|--|---------------|--|------------|------------|------------|---------|
| | | No Depression | Mild | Moderate | Severe | |
| Level of depression (one year ago) | No Depression | 7 (46.7%) | 8 (53.3%) | - | - | 0.001 |
| | Mild | - | 25 (43.1%) | 20 (34.5%) | 13 (22.4%) | |
| | Moderate | - | - | 6 (25.0%) | 18 (75%) | |
| | Severe | - | - | 3 (23.1%) | 10 (76.9%) | |

There was a significant association between the health of the caregivers of female cancer patients, as the *p*-value=0.001. One year before the health of 67 (60.9%) caregivers was excellent, of 14 (12.7%) was

DISCUSSION

A study conducted by Mubarik *et al*, was aimed to determine the impact of breast cancer among females, according to that study breast cancer is a rapidly inc-

reasing cancer among female patients.¹³ Its frequency is high among four Asian countries including Pakistan, India, China, and Thailand. According to that study breast cancer has become a severe health issue among females and it accounts for more than 30% of all other cancers. According to our study breast cancer patients were 31 (28.2%), among these 24 (77.4%) were cared for by their husbands, 5 (16.1%) were taken care of by fathers, 2 (6.5%) were taken care of by their mothers. Among the study participants 79 (71.8%) patients were suffering from other cancers.

A study conducted by Luo *et al*,¹⁴ aimed to determine the impact of cancer caregiving on the health of the caregiver. According to that study cancer not only affects the patient but it also affects the caregiver, as when the condition of a cancer patient worsens it requires more care from the caregiver to monitor the patient's condition and to keep the patient motivated so these things can be perceived by few caregivers as negative and others as positive. As a result it can affect the health of the caregiver in both directions (positive or negative). In our study chi square test was applied to check the association between caregivers' health one year ago and current health status of caregiver according to which there was a significant association between health of the caregiver of female cancer patients, as the *p*-value was 0.00.

A study conducted by Chen *et al*,¹⁵ determined the impact of a cancer patient on the QoL of spouse. According to that study there was a significant association between the time from the diagnosis of cancer and the QoL of spouse as those spouses who cared for patients who had cancer for a longer time had more negative effects on their QoL. Even according to our study, cross tabulation done between caregivers' QoL one year ago and current QoL status of caregiver showed that there was a significant decline in the QoL of the caregivers.

A study conducted by Kim *et al*, aimed to determine the QoL of the families of cancer survivor patients. According to that study cancer not only affected the life of patients but it had a great influence on the quality of life of the caregivers in the family who were taking care of the patient. In that research QoL of the caregiver was assessed by different domains like physical, psychological, spiritual, and behavioral. According to the study all the domains were affected.^{16,17}

A study conducted by Moller *et al*, , studied the anxiety and depression symptoms among caregivers of cancer patients. ¹⁸ According to that study symptoms

of depression and anxiety were higher in caregivers. That study also stated that the level of depression and anxiety depends upon the information, if the patient's level of information was higher then depression symptoms were also higher. This is in concordance with our study as we also demonstrated a significant increase in the level of caregivers' current state of depression as compared to the depression level one year ago.

To prevent depression and other psychological symptoms and to improve the health and QoL of a caregiver, health care professionals should be aware of the importance of informing the caregivers about the condition of their patients. It is also necessary to guide the caregiver about how to help the cancer patient, how to find the information from the internet and where to get help from after the patient is discharged from the hospital.

CONCLUSION

There was a negative impact on the health and QoL of caregivers. Their health was good in the beginning but with time their health started to decline and their QoL was affected.

Conflict of Interest: None.

Authors' Contribution

MZK: Substantial contribution to the conception, design of the work, acquisition, analysis, interpretation of data, NQ: Drafting the work, revising it critically for important intellectual content, SA: Final approval, AS: Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy, integrity of any part of the work are appropriately investigated and resolved.

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