

# Influence of Cancer News on Quality of Life of Patients Families: An Observational Study

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## ABSTRACT

**Background:** Malignant disease diagnosis brings great psychological suffering to the patient, and the sickness might have catastrophic ramifications for the relatives.

**Objective:** To assess influence of cancer news on quality of life of patient's families

**Methodology:** This study was prospective cohort study conducted at the oncology department of tertiary care Hospitals of Peshawar for duration of one year. The quality of life was assessed as per pre defined questionnaire both from two first degree relatives at each clinical visit during treatment every week and every month for six months after completion of treatment. Data analysis was done by employing SPSS version 21.

**Results:** A total of 180 family members were included. In the current study, the quality of life of family members was  $1.54 \pm 0.57$  in view of usual activities ( $p=0.001$ ). Anxiety/depression score of the family members was  $1.67 \pm 0.64$  while in control group it was  $1.50 \pm 0.64$  ( $p=0.031$ ). The EQ VAS score in control group was  $66.5 \pm 16.7$  whereas in caregivers group, it was  $71.3 \pm 18.8$  ( $P=0.023$ ). Based on mental health, stress was observed in 98 (54.44%) participants in caregivers group. Moderate-severe depression was observed in 45 (25%) participants in caregivers group whereas in control group moderate to severe depression was observed in 21 (11.67%) subjects. ( $p=0.041$ )

**Conclusion:** Our findings reveal that family caregivers of cancer patients face mental health issues and a decline in health-related quality of life. To reduce the effect of caring on the mental health and health related quality of life of family caregivers in Pakistan, culturally suitable caregiver support programs are required.

**Key words:** Cancer news; Quality of life; Stress; Depression

## INTRODUCTION

Malignant disease diagnosis brings great psychological suffering to the patient, and the sickness might have catastrophic ramifications for the relatives<sup>1-4</sup>. Family members typically spend a great deal of time supporting ill patients emotionally and practically during the course of therapy and even after the treatment. In supplement to emotional support, members of the family may provide many types of aid, like assistance with domestic duties, transport, medical visits, and management of medication<sup>5,6</sup>.

Previous research has revealed that family members of people with advanced cancer suffer from mental health issues<sup>7,8</sup>. In reaction to the emergency situations, they are at a significant risk of becoming nervous and depressed<sup>9</sup>. Family members are much more worried than patients, according to Grunfeld et al<sup>7</sup>. Research on patients' family members' health-related quality of life (HRQOL) has shown contradictory findings. This shows that some research have demonstrated that the circumstance has a detrimental impact on HRQOL<sup>10-12</sup>, while the others have found that mental and physical health of family members is equivalent to the overall population<sup>13</sup>.

Social and emotional issues were the most often reported forms of family caregiver difficulties in a literature review on the impacts of caring for a cancer patient<sup>14</sup>. But, research on particular issues and costs connected with a diagnosis of cancer patient have certain information gaps. Physical health has received less attention in the literature, with the most common issues being pain, sleep disorders, exhaustion, lack of appetite, and loss of weight<sup>15,16</sup>. Yet, only a small number of researches have examined how caregiver issues fluctuate during the course of a cancer patient's illness<sup>14</sup>. As a result, it is critical to understand more about the beginning of the cancer course and how it is perceived throughout time from the viewpoint of a family member in terms of alterations and existential danger<sup>17,18</sup>.

Regardless of therapy or changes in disease development, individuals confirmed with gastrointestinal or

lung cancer have a dismal prognosis and a limited survival rate. Lung cancer is the most prevalent cause of cancer mortality globally, preceded by cancer of stomach and liver<sup>19</sup>. The poor prognosis associated with various types of cancer might put additional strain on members of the family and decrease their HRQOL. As a result, this study was carried out with the goal to examine HRQOL in family members/caregivers of cancer patients.

## MATERIALS AND METHODS

This study was prospective cohort study conducted at the oncology department of tertiary care Hospitals of Peshawar. The study duration was one year from March 2021 to March 2022. The study approval was properly taken from the ethical and research committee of the institution. In the current study all the family members of first degree of 18 to 90 years of age were included. Patients from all oncological and hematological malignancies were included including patients from stage 1 to stage 4. Individuals with known psychiatric disorders were not included in study. The diagnosis and stage was declared as per cultural norms and medical ethics. The quality of life was assessed as per pre defined questionnaire both from two first degree relatives at each clinical visit during treatment every week and every month for six months after completion of treatment<sup>20</sup>.

The questionnaire used in previous study was used for comparing HRQOL and status of mental health of family members with healthy controls<sup>20</sup>. Inform consent was taken from all the participants of the study. Level of stress/depression was determined as "none, mild, moderate, or severe" from all the participants. Data analysis was done by employing SPSS version 21. Frequency and percentages were determined for variables like gender, job status, income, marital status, level of education, stress and depression whereas mean and standard deviation were determined for age, HRQOL.  $\chi^2$  tests was used for comparing HRQOL and mental health status of caregivers and health control. A p value of  $<0.05$  was taken as significant.

## RESULTS

In the current study, a total of 180 family members were included. A total of 180 healthy control were also included. There were 70 (38.89%) males and 110 (61.11%) females in the caregivers group while in the control group, there were 65 (36.11%) males and 115 (63.89%) females. The mean age (SD) in caregivers group was 52 (11.2) years whereas in control group the mean age (SD) was 51 (9.26) years. Based on level of education, 50 (27.78%) participants in caregivers group were educated less than high school and 130 (72.22%) were educated more than high school while in control group, 60 (33.33%) participants were educated less than high school and 120 (66.67%) were educated more than high school. Based on marital status, 70 (38.89%) participants in caregivers group were married and 110 (61.11%) were unmarried while in control group, 60 (33.33%) participants were married while 120 (66.67%) were unmarried. The income of 80 (44.44%) participants in caregivers group was less than 50000 while it was more than 50000 in 100 (55.56%) participants. In control group, the income was less than 50000 in 78 (43.33%) participants while it was more than 50000 in 102 (56.67%) participants. In the current study, 110 (61.11%) participants were on job in caregivers group while 95 (52.78%) participants were on job in control group (Table 1). In the current study, the quality of life of family members was  $1.54 \pm 0.57$  in view of usual activities while in control group it was  $1.23 \pm 0.45$ .

Table 1: Socio-demographic detail of the caregivers group and control group

Parameter	Sub-category	Caregivers group	Control group
Age	Mean (SD)	52 (11.2) years	51 (9.26) years
Gender	Male	70 (38.89%)	65 (36.11%)
	Female	110 (61.11%)	115 (63.89%)
Level of education	Less than high school	50 (27.78%)	60 (33.33%)
	More than high school	130 (72.22%)	120 (66.67%)
Marital status	Married	70 (38.89%)	60 (33.33%)
	Unmarried	110 (61.11%)	120 (66.67%)
Income	Less than 50000	80 (44.44%)	78 (43.33%)
	More than 50000	100 (55.56%)	102 (56.67%)
Job	Yes	110 (61.11%)	95 (52.78%)
	No	80 (44.44%)	85 (47.22%)

Table 2: Quality of life and status of mental health of the caregivers group and control group

Parameter	Sub-category	Caregivers group	Control group	P value
Quality of life	Usual activities	$1.54 \pm 0.57$	$1.23 \pm 0.45$	0.001
	Anxiety/depression	$1.67 \pm 0.64$	$1.50 \pm 0.64$	0.031
	EQ-5D index score	$0.86 \pm 0.17$	$0.78 \pm 0.27$	0.021
	EQ VAS score	$71.3 \pm 18.8$	$66.5 \pm 16.7$	0.023
Mental health	stress	98 (54.44%)	60 (33.33%)	0.001
	None-mild depression	45 (25%)	50 (27.78%)	0.002
	Moderate-severe depression	45 (25%)	21 (11.67%)	0.041

This difference was significant statistically ( $p=0.001$ ). Anxiety/depression of family members was  $1.67 \pm 0.64$  while in control group it was  $1.50 \pm 0.64$ . This difference was also significant statistically ( $p=0.031$ ). The EQ-5D index score was  $0.78 \pm 0.27$  in control group while in caregivers group it was  $0.86 \pm 0.17$  ( $P=0.021$ ). The EQ VAS score in control group was  $66.5 \pm 16.7$  whereas in caregivers group, it was  $71.3 \pm 18.8$  ( $P=0.023$ ). Based on mental health, stress was observed in 98 (54.44%) participants in caregivers group whereas in control group, stress was observed in 60 (33.33%) subjects. ( $p=0.001$ ) None-mild depression was observed in 50 (27.78%) subjects in control group and in

caregivers group it was observed in 45 (25%) subjects. ( $p=0.002$ ) Moderate-severe depression was observed in 45 (25%) participants in caregivers group whereas in control group moderate to severe depression was observed in 21 (11.67%) subjects. ( $p=0.041$ ) (Table 2)

## DISCUSSION

Cancer is a chronic infection that affects patients and families to lose control of their lives, adversely affecting social activities, job, and relatives life, as well as lowering their medical status and health related quality of life. To the best of our information based on literature, this is the first research in Pakistan to compare mental health and health related QOLof family carers of cancer patients to healthy control.

In the current study, the quality of life of family members was  $1.54 \pm 0.57$  in view of usual activities while in control group it was  $1.23 \pm 0.45$ . This difference was significant statistically ( $p=0.001$ ). As predicted, carers' health-related QOL is much less as compared to the general population, according to our results. This finding supports prior research that found quality of life considerably poorer among patient caregivers than in the general population<sup>21</sup>. In terms of conducting "ordinary activities," family caregivers of cancer patients reported higher issues than controls across all parameters of health-related QOL. These data suggest that in order to fulfil their job as a carer, caregivers must adjust or forego their typical activities like employment and education. Our findings are consistent with the previous study who reported low score for health related quality of life for caregivers of cancer patients as compared to health control<sup>12</sup>.

In our study, based on mental health, stress was observed in 98 (54.44%) participants in caregivers group whereas in control group, stress was observed in 60 (33.33%) subjects. ( $p=0.001$ ) None-mild depression was observed in 50 (27.78%) subjects in control group and in caregivers group it was observed in 45 (25%) subjects. ( $p=0.002$ ) Moderate-severe depression was observed in 45 (25%) participants in caregivers group whereas in control group moderate to severe depression was observed in 21 (11.67%) subjects. ( $p=0.041$ ). These findings were consistent with the previous study<sup>12</sup>.

The levels of "anxiety/depression" among caregivers were likewise considerably lower from the overall population. Likewise, family carers of cancer patients experienced more depressed episodes than the control group. Previous research has consistently shown that carers have a greater incidence of depression<sup>22, 23</sup>, and that up to 50% of all carers are at threat of depression or should be evaluated further for symptoms of depression<sup>24, 25</sup>. This research suggests that carers are at risk for mental illness.

The majority of family carers in this survey stated that 'financial strain' had a negative impact on their quality of life. A similar research found that factors including poor health, lack of support from family, and financial challenges increased carers' workload and lowered their quality of life ratings<sup>26, 27</sup>. According to current information, cancer diagnosis of loved one may have a detrimental influence on family caregivers.

## CONCLUSION

Our findings reveal that family caregivers of cancer patients face mental health issues and a decline in health-related quality of life. According to the findings, actions should be implemented to reduce the financial burden that cancer causes on the patient's family in order to enhance caregivers' quality of life. To reduce the effect of caring on the mental health and health related quality of life of family caregivers in Pakistan, culturally suitable caregiver support programs are required.

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