

## **Psychological Status of Cancer Patients Caregivers in Baghdad**

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### **Abstract**

**Introduction:** Cancer is one of the leading causes of death, is a disorder in which differentiated body cells change at a molecular level resulting in the loss of normal cell regulation, characteristics, and functions. Today, millions of people are living with cancer or have had cancer. Cancer patients need care and assistance from their family members, friends, as well as medical personnel. The study aimed to assess the psychological status among family caregivers of cancer patients.

**Methods:** A descriptive cross-sectional design was undertaken on 120 caregivers of cancer patients who were admitted to three Cancer hospitals in Baghdad, Data were collected by using GHQ-12 (general health questionnaire), to determine of psychological status from the 21<sup>th</sup> November (2021) to 20<sup>th</sup> July (2022). Data were analyzed by using descriptive and inferential statistics (percentage, frequency, and correlation).

**Results:** The result of the study shows that 54.2% of caregivers were suffering from moderate psychological distress. There was statistically significant at the level of  $p=0.05$ . there was an association between psychological distress and socio-demographic variables like the relationship to a cancer patient (0.023), personal habits (0.043), and care for cancer patients at home (0.046).

**Conclusion:** The investigator observed that the caregivers of cancer patients were having psychological problems and the caregivers who were having emotional problems they are more closed to patient and spend many times with them. Our results suggest that eliciting the perspectives of both patients and caregivers regarding caregivers' challenges provides a more comprehensive understanding of their experience.

**Keywords:** Caregivers, cancer patients, psychological status, psychological distress.

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### **Introduction:**

There is no scarier diagnosis in the perspective of the majority of people than cancer. Cancer is frequently viewed as an incurable, excruciatingly painful condition that has no known cure. Regardless of how prevalent this perspective on cancer may be, it is overstated and overly broad [1] [2]. Any disease that can affect any region of the body is referred to as cancer. Neoplasms and malignant tumors are other terms [3]. A cancer of the blood is leukemia. Healthy blood cells alter and uncontrollably proliferate to cause leukemia. Acute myeloid leukemia (AML) is a disturbance of the mechanism that creates healthy blood cell types including neutrophils, red blood cells, and/or platelets correctly. AML is also known as acute nonlymphocytic leukemia, acute myelogenous leukemia, and acute myelocytic leukemia. Acute leukemia grows swiftly and typically requires immediate treatment, in contrast to chronic leukemia. AML can affect anyone; however, it most frequently affects adults over the age of [4] [5].

Anyone who helps another person in need, such as a sick spouse or partner, a disabled child, or an elderly relative, is referred to as a caretaker. Family members who are actively providing care for an elderly person, however, frequently do not self-identify as "caregivers" [6]. Treatment for those kind of patients entails not only the possibility of loss but also mental and physical difficulties for the caretakers. These caretakers are forced to embrace the difficulties of the therapy without any assurance that it would be effective in curing the illness. Although it is now well recognised that family carers play a crucial role in society, few resources are provided to support them as they struggle

to carry out their responsibilities [7]–[9]. When considering the entire cancer experience, caregivers of cancer patients are referred to as the "hidden suffering." Family caregivers are more vulnerable since they must cope with their own emotional reactions as well as those of the patient. Very few research has examined the caregiver burden among those who are caring for patients with ALL, despite some studies doing so [10].

**Significance of the study:**

Advanced cancer patients' caregivers may be more susceptible to psychological discomfort. However, the main difficulties they have in dealing with the patient's condition are poorly understood. We would better comprehend the caring experience if we sought the viewpoints of both patients and caregivers on these difficulties [11]. The purpose of this study, which was done on Iraqi families in the nation's capital Baghdad, was to eliminate any potentially harmful negative notions, excessive worry, and adverse effects. Because it's a major issue, particularly the mental state that has a significant impact on cancer patients, researchers in this study chose participants to explore their mental health for those who care for cancer patients and the consequences on them. Because cancer is currently a societal issue, we specifically targeted families and communities to determine the psychological status of careers of cancer patients and its impact on them. It should be noted that Baghdadi families are suitable for study.

**Research objectives:**

- To assess the psychological status among cancer (Leukemia) patient caregivers in Baghdad.
- To determine the association of psychological status and socio-demographic variables of cancer patients' caregivers.

**Methodology:**

**Study design:**

A descriptive design was used of to study the psychological status of cancer patients' caregivers in Baghdad from the period of 21<sup>th</sup> November (2021) to 20<sup>th</sup> July (2022).

**Setting of the study:**

The study was conducted among family care giver for cancer patient in Baghdad city. Hospitals from four hospitals from Medical city departments in Baghdad (Baghdad Teaching Hospital, Hope National Hospitals, Child Protection Teaching Hospital, National Cancer Hospital).

**Participants:**

Non-probability (purposive) sample consisting of 120 male and female family care givers for cancer patient (leukaemia) from four specialized hospitals in Baghdad. The included participant family caregivers, could read and wright to fill the study instrument. While the excluded participants were the people who could not read and wright.

**Variables of the study:**

The dependent variable is the psychological status of caregiver, while the independent variables are (take care of cancer patient, age, gender, academic achievement, work, the relationship with the patient).

**Bias:**

A non-probability sample is selected based on non-random criteria. For instance, in a convenience sample, participants are selected based on accessibility and availability. Non-probability sampling often results in biased samples because some members of the population are more likely to be included than others.

**Study tools:**

The study questionnaire was conducted through a comprehensive review of the previous literature related to the study. It consists of two (axes or parts), the first part includes general information about nurses such as (marital status, relationship, gender·age·educational level, community, family, occupation, monthly income the family, personal habits, total number of children, total number of adults, history of cancer in the family, spiritual belief, place of cancer, type of cancer, stage of cancer, treatment of cancer, when he/she diagnosis with cancer, from how many years you taking care of your patient, have you provided care of cancer patient before, the patient ability of self –care, will you do patient care at home) (Himanshu, et al, 2017). While the second part is the part that measures the psychological state of the leukemia patient caregiver in four hospitals. The GHQ-12 scale was used to measure psychological distress, The 12-Item General Health Questionnaire (**GHQ-12**) [12] consists of 12 items, each one assessing the severity of a mental problem over the past few weeks using a 4-point Likert-type scale (from 0 to 3). The score was used to generate a total score ranging from 0 to 36. The positive items were corrected from 0 (always) to 3 (never) and the negative ones from 3 (always) to 0 (never). High scores indicate worse health (Sever- (25-36), moderate- (13-24) and mild- (0-12). Ethical committee and administrative permission were taken from the concerning authority. Informed consent was obtained from the study participants before the commencement of the study.

**Ethical Consideration**

This research funds by the researchers, while it considered as single independent research. The approval from the participants themselves to collect the data. The name of the participants did not use in the questioner to save the privacy of them.

**Data analysis :**

Data are analyzed through the use of SPSS (Statistical package for Social Sciences) version (20) application Statistical analysis system and Excel application. The researcher uses multiple testes to analyze the data: frequency and percentage, mean and Chi-Square.

**Results:**

Table (1.A.) shows that the majority of the studied sample were Male (51.7%), while their economic status is (200000-500000) for (41.7%) of the study sample. (32.0%) of the caregiver are smoking. While 20% & 19.2% of care givers were mothers and fathers, 67.5% were married and 20.8% of theme were graduated.

**Table (1.A.): Distribution of Caregiver Demographic Variables**

NO.		Characteristics	N	%
1.	<b>Gender</b>	Male	<b>62</b>	<b>51.7</b>
		Female	58	48.3
		Total	120	100.0
2.	<b>Relationship to cancer patients</b>	Father	<b>23</b>	<b>19.2</b>
		Mother	<b>24</b>	<b>20.0</b>
		Husband	11	9.2
		Wife	<b>21</b>	<b>17.5</b>
		Brother	<b>23</b>	<b>19.2</b>
		Sister	13	10.8
		Other	5	4.2
		Total	120	100.0
		3.	<b>Marital Statues</b>	Single
Married	<b>81</b>			<b>67.5</b>
Divorce	8			6.7
Widow	7			5.8
Total	120			100.0
4.	<b>Educational level</b>	Professional	14	11.7
		Graduate	25	20.8
		High school	21	17.5
		Secondary education	29	24.2
		Primary school	21	17.5
		Illiterate	10	8.3
		Total	120	100.0
5.	<b>Monthly income</b>	200000-500000	<b>50</b>	<b>41.7</b>
		550000-900000	38	31.7
		950000-1700000	29	24.2
		≥ 2000000	3	2.5
		Total	120	100.0
6.	<b>Personal habits</b>	Smoking	<b>39</b>	<b>32.5</b>
		Drinking alcohol	1	0.8
		Smoking and drinking	4	3.3
		Nothing	76	63.3
		Total	120	100.0

**N=frequency, %=percentage.**

Table (1.B) shows that the majority of families in this study have five of more children in (57.5%) while the number of adults was four to six in (52.5%). It also showed the majority of caregivers do not provided care of cancer patient before and (82.5%) of theme care for patient couldn't care for his/herself. Also, all caregivers define their selves as theist, and their patient have chemotherapy as a treatment for cancer (74.2%). Large number of caregiver care for cancer patient in home (83.3) and the patient is unable to self-care (82.5).

**Table (1.B.): Distribution of Caregiver Demographic Variables**

NO.		Characteristics	N	%
7.	Number of children in family	No children	2	1.7
		1-4 children	49	40.8
		≥ 5 children	<b>69</b>	<b>57.5</b>
		Total	120	100.0
8.	Number of adults in family	1-3	44	36.7
		4-6	<b>63</b>	<b>52.5</b>
		≥ 7	13	10.8
		Total	120	100.0
9.	Family history of cancer	Yes	38	31.7
		No	<b>82</b>	<b>68.3</b>
		Total	120	100.0
10.	Spiritual beliefs	Theist	<b>120</b>	<b>100.0</b>
		Atheist	0	0.0
		Total	120	100.0
11.	Treatment of cancer	Chemotherapy	<b>89</b>	<b>74.2</b>
		Radiation	5	4.2
		Chemo + Radiation	26	21.7
		Surgery	0	0.0
		Total	120	100.0
12.	How long patient diagnosed with cancer? (Month)	1-5 months	<b>83</b>	<b>69.2</b>
		6-11 months	32	26.7
		≥ 12 months	5	4.2
		Total	120	100.0
13.	How long the caregiver dealing with cancer patient? (Month)	1-5 months	<b>83</b>	<b>69.2</b>
		6-11 months	31	25.8
		≥ 12 months	6	5.0
		Total	120	100.0
14.	Have you provided care of cancer patient before?	Yes	31	25.8
		No	<b>89</b>	<b>74.2</b>
		Total	120	100.0
15.	Will you do patient care at home?	Yes	<b>100</b>	<b>83.3</b>
		No	20	16.7
		Total	120	100.0
16.	Patients' ability of self – care:	Yes	21	17.5
		No	<b>99</b>	<b>82.5</b>
		Total	120	100.0

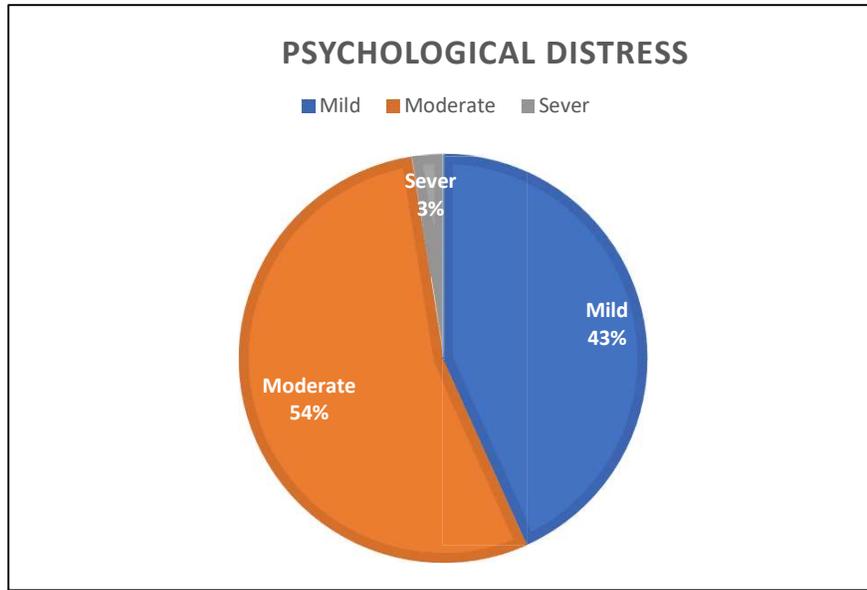
N=frequency, %=percentage.

Table 2. and Figure1. show that the majority of sample have psychological distress in a moderate degree.

**Table 2. Distribution of Psychological Distress among Cancer Patients Caregiver**

	Characteristics	%
Psychological Distress	Mild (0-12)	43.3
	Moderate (13-24)	<b>54.2</b>
	Sever (25-36)	2.5
	Total	100.0

N= frequency, %= percentage.



**Figure 1. Distribution of Psychological Distress among Cancer Patients Caregiver**

Table 3. shows the highest percentage was "Always" (65.8) % of “Loss of sleep over worry ”. And shows the lowest percentage was also "Always" (0) % of “Thinking of self as worthless”.

**Table 3. Psychological Status Scale Variables Distribution:**

No.	Items	Always F(%)	Usually F(%)	Sometimes F(%)	Never F(%)
1.	<b>Able to concentrate</b>	59(49.2)	43(35.8)	11(9.2)	7(5.8)
2.	<b>Loss of sleep over worry (N)</b>	<b>79(65.8)</b>	24(20.0)	14(11.7)	3(2.5)
3.	<b>Playing a useful part</b>	<b>94(78.3)</b>	22(18.3)	4(3.3)	0
4.	<b>Capable of making decisions</b>	<b>72(60.0)</b>	30(25.0)	14(11.7)	4(3.3)
5.	<b>Felt constantly under strain (N)</b>	39(32.5)	52(43.3)	13(10.8)	16(13.3)
6.	<b>Couldn't overcome difficulties (N)</b>	8(6.7)	13(10.8)	36(30.0)	<b>63(52.5)</b>
7.	<b>Able to enjoy day-to-day activities</b>	8(6.7)	11(9.2)	38(31.7)	<b>63(52.5)</b>
8.	<b>Able to face problems</b>	<b>62(51.7)</b>	38(31.7)	14(11.7)	6(5.0)
9.	<b>Feeling unhappy and depressed (N)</b>	23(19.2)	36(30.0)	35(29.2)	26(21.7)
10.	<b>Losing confidence (N)</b>	2(1.7)	12(10.0)	20(16.7)	<b>86(71.7)</b>
11.	<b>Thinking of self as worthless (N)</b>	0	3(2.5)	24(20.0)	<b>93(77.5)</b>
12.	<b>Feeling reasonably happy</b>	17(14.2)	26(21.7)	45(37.5)	32(26.7)

F= frequency, %= percentage, N=Negative.

Table 4. shows the relationship between psychological status and (Relationship to cancer patient, personal habits and Care for cancer patients in home).

**Table 4. Association between Psychological Distress among Cancer Patients Caregiver and Socio-Demographic Characteristics:**

Psychological status		Pearson Correlation	Sig. (2-tailed)
<b>Socio-Demographic</b>			
1.	<b>Gender</b>	<b>0.156</b>	<b>0.89</b>
2.	<b>Relationship to cancer patients</b>	<b>-0.207*</b>	<b>0.023 (S)</b>
3.	<b>Marital Statuses</b>	<b>0.134</b>	<b>0.144</b>
4.	<b>Level of Education</b>	<b>0.020</b>	<b>0.827</b>
5.	<b>Economic Status</b>	<b>-0.100</b>	<b>0.278</b>
6.	<b>Personal habits</b>	<b>0.185*</b>	<b>0.043 (S)</b>
7.	<b>Duration of diagnosis with cancer</b>	<b>-0.064</b>	<b>0.491</b>
8.	<b>Care of cancer patient before</b>	<b>0.013</b>	<b>0.890</b>
9.	<b>Patients' ability of self-care</b>	<b>0.057</b>	<b>0.534</b>
10.	<b>Care for cancer patients in home</b>	<b>0.183*</b>	<b>0.046 (S)</b>

**\*\*.** Correlation is significant at the 0.01 level (2-tailed).

**\*.** Correlation is significant at the 0.05 level (2-tailed).

**Discussion:**

The main findings of this study are as follows:

First, table (1. A) includes Gender, Relationship to cancer patients, Marital Status, Educational level, Monthly income and Personal habits. For gender, the majority of samples are males. These results differ from Cho Lee & et al., in China [13] the male and female ratios were equal in the study. The relationship with cancer patients includes fathers, mothers, sisters, brothers, husbands and wives, and others like friends. The majority of the samples were mothers and fathers. These results could match Sharma & et al., [14] Relationships: Wife, husband, other, father, mother, the brother then son).

Marital Status variables include Single, Married, Divorced, and Widow, the majority of the study sample were married that similar to Al-Dhawyani and et al., in Omani [15] when the majority of the study sample were married. While the educational level the majority of the samples complete high school, this is similar to Sharma & et al., [14] in that most of the population are having primary education and others are in intermediate education.

Regarding t monthly income: The majority of families were from the low salary category, with lower percentages, in the salary level, and lower percentages, in the higher salary category. Aymen & et al., [16] results show that the majority of the population more than half got a monthly income between 8760-17500. The economic status affects every detail in life for the patient and his\her family and reflects how the family could deal with illness and its treatment. The variable of personal habits including the majority of the samples was from people who neither smoke nor drink alcohol but Sharma and et al., [14] shows: (that 26%) of the sample were having smoking habits and the majority of them (95%) were not having anything.

Based on table (1. B) includes: Number of children in the family, Number of adults in the family, Family history of cancer, Spiritual beliefs, Treatment of cancer, and how long the patient diagnosed with cancer? (Month), How long is the caregiver dealing with a cancer patient (Months), Have you provided care to cancer patients before? Will you do patient care at home? Patients' ability of self-care. As regard the number of children in family: The number of children in the family of the study samples of this research is divided into three sections: The first section includes Caregivers with five children or more and includes the majority of the samples of this research. The second section includes caregivers who have from one to four children and are fewer than those with five or more children. And the last section which doesn't have children has very few percentages in this research. While LeSeure & Chongkham [17] results show the total number of children: No children: 15.7%, 1-2 children: 71.7%, 3-5 children 12.0 %, >5 children: 7%.

A number of adults in the family is between four and six adults and includes the majority of the samples of this research, while Sharma & et al., [14] results show the majority of the total number of adults >5 members. In another hand, the majority of samples have no family history of cancer while Sharma's research mention that, (31%) of patients are having GI cancers (76%) were in the 2nd stage and (54.7%) were having malignant type. All the study samples of this research believe in God, and the spiritual belief effect on the psychological status of human beings, also for Sharma & et al., [14] Spiritual beliefs are 100%, Theist. The study revealed that cancer treatment includes three types of treatments in this research: The first is chemotherapy, which includes the majority of the samples of this research. And the duration of diagnosis with cancer, that the majority of sample diagnosed from one to five months which mean from short duration and the families couldn't adapt with it. Also, the duration of cancer patients ranges from one to five months and constitutes the majority of the samples of this research. Also, the provision of care to cancer patients before the effect on dealing with families with illness, and the majority of the study sample had not previously cared for a cancer patient. As regard the caregivers who care for a cancer patient at home, the majority of the samples of this research have the experience of families dealing with cancer. While patients' ability of self – care that the majority of samples cannot take care of themselves. While in Litzelman [18] research that Patient ability of self –care: the majority of cancer answered by Yes.

The study revealed that the majority of samples have a moderate degree of psychological distress this results similar to Sharma & et al., [14] that the majority of the population have evidence of stress. Table 4 includes 12 parts negative and positive, for positive items the majority of the sample chose "always" for; (Able to concentrate, Playing a useful part, Capable of making decisions, Able to face problems) while choosing "never" only for (Able to enjoy day-to-day activities). And for negative items, the majority of the sample chose "always" for (Loss of sleep over worry) but chose "never" for (Losing confidence and thinking of self as worthless) this reflects the moderate degree of psychological status for caregivers. The last table includes the association between caregiver psychological status and many socio-demographic variables, there are statistical correlations with caregiver relationship to cancer. This relationship reflects that the relatives of the cancer patient are affected by their condition psychologically, Mosher & et al., in Midwestern US [19] Observe the patient suffer from various physical symptoms, such as pain, fatigue, diarrhea, weight loss, and sexual symptoms, which proved to be challenging for some caregivers. Feelings of helplessness, frustration, and sadness were common responses to patients' symptoms. Also, there is a significant association between the psychological status of caregivers and their habits, negative habits like smoking affect negatively on psychological status. Most of the study samples are smoking and this reflects the association between it and their psychological problems. And the last significant correlation is between psychological status and care of cancer caregiver and the care for cancer patients in a home this differ from Quipping & et al., [20] non-significant correlations between adults with cancer and family caregiver anxiety and/or depression were found in those who reported having a poor relationship with their family pre-cancer diagnosis; and/or the relationship with their family was worsening after the cancer diagnosis. While other variables gender, marital status, education level, economic status and duration of diagnosis with cancer, and care of cancer patients before and patients' ability to self-care have no significant association.

### **Conclusion:**

This research reveals about the psychological status of cancer patients' caregivers in Baghdad .in 3 main parts: The first part shows that the percentage of males Caregivers is greater than female. The majority of the studied sample were male, while their economic status is moderate to low for most of the study sample. Majority of the caregivers are smoking. The second part deals with psychological problems among cancer patient's caregiver and the majority of samples have psychological distress in a moderate degree. The third part shows a significant association between psychological status and relationship to cancer patient, personal habits and care for cancer patients in home.

**Acknowledgments:**

We acknowledge all the volunteers who participated in the online survey to make this study possible.

**Conflicts of Interest:**

The authors declare no conflict of interest. The funders had no role in the design of the study, in the collection, analyses, or interpretation of data, in the writing of the manuscript, or in the decision to publish the results.

**Author contributions, Funding and Data availability:**

The data that support the findings of this study are openly available in [Sharma, 2017]<sup>14</sup>. Researcher fund the research by themselves and no other funded source available.

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