

## ORIGINAL ARTICLE

# Correlation of Spiritual Well-Being and Hopelessness in Leukemia Patients at District Peshawar Cancer Hospitals

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## ABSTRACT

**Background:** Cancer is considered the most fatal diseases which is accountable for Cancer second leading cause of death in the developed country like United States and contributes to a high mortality rate in all age groups. Patient with cancer face life-threatening situation through the period of diseases process.

**Aim:** To explore the spiritual well-being and hopelessness among the leukemia patient and its correlation with each other.

**Methodology:** A descriptive correlation design was used while patient with leukemia were the study participants and HMC and IRNUM were study setting. Sample size of the study was 320 while using consecutive sampling technique. Data was collected through two valid and reliable questionnaires of spiritual well-being and hopelessness, after the approval of study by IRB.

**Results:** In the study majority of the participants were male 213(67%) and female 107(33%) In spiritual well-being the higher number of participants was moderate spiritual well-being (66%), followed by higher spiritual well-being (22%) and poor spiritual well-being (12%). The higher number of participant hopelessness were moderate (49%), then severe hopelessness (28%), and mild hopelessness (23%).

**Conclusion:** The study concluded that there is a positive correlation between spiritual well-being and hopelessness. Spiritual and religious well-being is important to cope with these issues and improves quality of life.

**Keywords:** Hopelessness, Cancer, spiritual well-being, leukemia

## INTRODUCTION

Worldwide the health care system faces a prominent problem in the shape of cancer that is the second leading cause in the United States<sup>1</sup>. Globally 9.6 million patients died each year among 15 million diagnosed cases<sup>2</sup>. According to the World Health Organization (WHO), approximately ten million people die from cancer each year, and approximately eighteen million people are diagnosed with cancer worldwide<sup>3</sup>. Similarly, cancer is the most lethal disease, with approximately half of patients dying within a year of being diagnosed<sup>4</sup>.

An individual's sense of his or her life's meaning or purpose is referred to as their spiritual wellbeing. Additionally, it emphasizes how an individual is connected to their community, culture, spirituality, values, beliefs, ethics, and mental models<sup>5</sup>. Life-threatening circumstances, such as aggressive signs and symptoms and long-term complications, are experienced by leukemia patients. Patients with leukemia frequently experience difficulties and consider their spiritual needs. Leukemia patients address their spiritual and religious needs in order to manage their illness, enhance their quality of life, and find greater life satisfaction. The health outcomes of leukemia patients and the advancement of the disease and patients' state of health are significantly influenced by their spiritual well-being. Additionally, it hastens the patient's recovery and raises their standard of living<sup>6</sup>.

The patient's condition and more adverse outcomes that result from unfulfilled spiritual needs may have an impact on how well the treatment works. Major national medical organizations and majority opinions have appropriately emphasized the significance of the spiritual needs of leukemia patients and confirmed that spiritual health is essential for high-quality care and a positive prognosis for patients with life-threatening illnesses like leukemia<sup>7,8</sup>. In the same way, terminally ill patients may need spiritual beliefs, may need to consider the meaning of life, and may desire to learn whether higher beings exist<sup>9</sup>.

Hopelessness is an emotional and subjective state that is too much with pessimistic future expectations, a lack of self-control, ambition, and motivation to pursue one's own objectives<sup>10</sup>.

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Typically, terminally sick people who need more time to recover from their illness become hopeless. The leukemia patient usually loses hope and has feelings of hopelessness when considering the death rate of malignancy, the prolonged therapy with various symptoms, and the serious complications<sup>11</sup>. Hopelessness typically manifests as depression or other mental health conditions. In addition, leukemia affects patients' morale and makes them feel dependent. Consequently, patients with leukemia are generally seen to be hopeless<sup>12</sup>.

The aim of this study was to investigate the impact of spiritual well-being on the hope of patients diagnosed with leukemia in an oncology hospital in Peshawar.

## METHODOLOGY

The study design was descriptive correlational, conducted in two hospitals in Peshawar, Hayatabad medical complex (HMC) and the institute of radiotherapy and nuclear medicine (IRNUM) from August 2020 to January 2021, having 320 sample sizes through 95% confidence level with a margin of 5% error, using consecutive sampling technique. The criteria for inclusion in the study were those patients who had been diagnosed with leukemia at least one month ago and those older than 18 years, while those patients who had terminal disease and those who did not want to be excluded from the study.

**Instrument for data collection and research:** The data collection from the participants was collected after granting permission from the advanced research board of Khyber Medical University. The purpose of the study was explained to each patient. The questionnaire and consent were printed on paper and, after the patient's agreement, the data was collected. The instrument used for the study was a valid and reliable questionnaire. The study was divided into two parts:

Part A: Gender, age, marital status, chronic diseases, and current treatment.

Part B: It contains two checklists

**Spiritual well-being (SIWB):** This checklist contains 12 items with a Likert scale of 5 points. The reliability of the checklist was 0.89.

Cutoff values were set; the maximum score was 60, while anything below 20 was considered poor spiritual well-being.

**Beck hopelessness scale (BHS):** A 20-item scale dichotomous (True/False) is included in this checklist. The maximum score was 20; a patient above 14 was considered hopeless.

SPSS was used to analyze the data (version 24). For all categorical variables, frequencies and percentages were calculated and mean and standard deviations were calculated for continuous variables. The data was subjected to a Pearson correlation test to identify the linear relationship between hopelessness and spiritual well-being (SWB).

**Ethical consideration:** The study was accepted by the advanced research board and IRB of Khyber Medical University. Permission was taken from the hospital administration of Hayatabad medical complex and IRNUM for data collection. Each participant agreed that their data would be kept confidential and used only for data collection.

**RESULTS**

**Demographic data of the patients:** The majority of the 320 participants were male (67%), with the age group (36 to 45 years) being older than the other age groups. The married patients (89.3%) were higher than that of single patients (10.7%). Patients with third-stage diseases were in the majority (50%), with chemotherapy treatment being more common (70%) than other treatments (Table 1).

Table 1: Demographic characteristics of the participants

Characteristics	Frequency	%age
<b>Gender</b>		
Male	213	67%
Female	107	33%
<b>Age</b>		
Less than 25	58	18%
26 to 35 years	67	21%
36 to 45 years	89	28%
46 to 55 years	80	25%
56 years and above	26	8%
<b>Marital status</b>		
Single	34	10.7%
Married	286	89.3%
<b>Disease stages</b>		
1st stage	3	1%
2nd stage	99	31%
3rd stage	160	50%
4th stage	58	18%
<b>Current treatment</b>		
Chemotherapy	224	70%
Radiotherapy	74	23%
Other treatment	22	7%

**Spiritual well-being (SWB) of the participants:** The responses of patients regarding SWB was collected through a 5-point Likert scale (Table 2).

Table 2: Overall SWB of the participants

Strongly disagree 1	609 (15.8%)
Disagree 2	1658(43.1%)
<b>Neither agree nor disagree 3</b>	960 (25%)
Agree 4	430 (11.1%)
Strongly agree – 1	183 (4.7%)

**Hopelessness among the participants:** The responses of the study participants to the hopelessness checklist of 10 items through a dichotomous (true/false) were reported in table 3.

**Level of Hopelessness and spiritual well-being) (SWB among the participants:** The spiritual well-being and hopelessness questionnaire were categorized as poor, moderate and high, table 4 shows the level of the hopelessness and spiritual well-being among the participants (Table 4).

Table 3: Hopelessness of the participants

Question	True	False
I am optimistic and excited about the future.	226 (70.6%)	94 (29.4%)
I might as well give up because there is nothing I can do to improve my situation.	239 (74.7%)	81 (25.3%)
When things aren't going well, I remind myself that they won't last forever.	258 (80.6%)	62 (19.4%)
I can't even imagine what my life will be like in ten years.	250 (78.1%)	70 (21.9%)
I have enough time to complete the tasks on my list.	286 (89.4%)	34 (10.6%)
In the future, I expect to be successful in the areas that are most important to me.	228 (71.3%)	92 (28.8%)
My future seems dark to me.	173 (54.1%)	147 (45.9%)
I happen to be exceptionally fortunate, and I anticipate receiving more good fortune than the average person.	265 (82.8%)	55 (17.2%)
I just can't seem to catch a break, and there's no reason to believe I will in the future.	186 (58.1%)	134 (41.9%)
My previous experiences have well prepared me for the future.	277 (86.6%)	43 (13.4%)

Table 4: Level of spiritual well-being and hopelessness

	Poor	Moderate	High
Spiritual well-being	39 (12%)	211 (66%)	70 (22%)
Hopelessness	73 (23%)	157 (49%)	90 (28%)

**Correlation of spiritual well-being and hopelessness:** Table 5 shows that SWB are correlated with hopelessness.

Table 5: Correlation of spiritual well-being and hopelessness

	Hopelessness	
Spiritual well-being	r -0.030	p-value 0.593

**DISCUSSION**

The study shows, the mean age of the patient was 39.59 years, with 28% falling between the ages of 36 and 45. According to a similar survey, the average age of participants was 41.22 years old, with 51% being older than 30 years old<sup>13</sup>. A study that supported this study discovered that the maximum number of patients (42%) ages was 30 and 40<sup>14</sup>. In contrast, a survey revealed that the average age of participants was 47.96 years, with 65% of individuals aged 40 - 50 years<sup>15</sup>.

The maximum number (67%) of patients in this study was men. The third stage of the disease affected 50% of individuals, and the second stage affected 31%. Participants were receiving chemotherapy in the majority (70%) of cases, while 23% were receiving radiation therapy and 7% were receiving other types of care. Leukemia patients that were male was higher in number (53%), while patient in 3rd and 4th stage of cancer were 61%, according to the study, which matched the above findings<sup>16</sup>.

According to the current study's findings, the majority (66%) of participants reported having a moderate level of SWB, 22% of participants reported having a high level of spiritual well-being, and 12% of participants reported having a low level of SWB. Another similar study reveals that 47% of leukemia patients overall reported having poor spiritual health<sup>17</sup>.

The study reveals that the majority (54%) of patients reported having a moderate level of spiritual well-being (SWB), which supports this study<sup>18</sup>. Another study that matched the findings of the current study found that 11% of leukemia patients reported high levels of SWB, while the higher number (69%) of participants reported average SWB. 20% of individuals reported poor SWB<sup>19</sup>. In contrast, research has shown that cancer patients had poor SWB in 61% of cases and in 47% of cases with

leukemia<sup>20,21</sup>. A high score of SWB was found in leukemia patients, according to the conclusions of several researches with a similar design but with varied results<sup>22,23,24</sup>.

According to the study's findings, 28% of participants expressed severe hopelessness, 23% reported mild hopelessness, and nearly half (49%) of individuals indicated moderate hopelessness. Results of a related investigation showed that patients had a considerable level of hopelessness, with a mean score (8.2) for hopelessness<sup>25</sup>. The majority of leukemia patients (54%) report feeling a moderate amount of hopeless, according to the results of this study and one related study<sup>26</sup>. In addition, 64.4% of leukemia patients reported feeling hopeless; the rest patients expressed mild or normal levels of hopelessness<sup>27</sup>. The same results were also revealed by another study, and leukemia patients reported feeling despondent. The study's findings showed that among leukemia patients, the mean hopelessness score was  $5.93 \pm 4.71$ <sup>28</sup>, while finding are supported by another study that shows moderate hopelessness among leukemia patients with mean score of  $5.20 \pm 4.39$ <sup>29</sup>.

In contrast, a study analyzed hopelessness and spiritual well-being among leukemia patients and discovered a strong relationship between hopelessness and SWB among leukemia patients<sup>30</sup>. In the same context, the findings of another study confirm different findings, and a strong connection between hopelessness and SWB among leukemia patients was revealed<sup>31</sup>. Similarly, another study found a substantial link between SWB and hopelessness<sup>32</sup>.

## CONCLUSION

The study concluded that patients with cancer face a lot of physical and psychological issues. Spiritual and religious well-being is important to cope with these issues and improves quality of life. The study also concludes that SWB is strongly associated with hopelessness.

**Declaration:** As a primary investigator of this study I declare that this is my original work and not yet submitted to any institute for review or publication.

**Conflict of interest:** As author and behalf of co-author I declared that there is no conflict of interest.

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