

ORIGINAL ARTICLE

Effect of the Quranic Verses Recitation on Depressive Symptoms among Cancer Patients at Tertiary Care Hospital, Karachi

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ABSTRACT

OBJECTIVE: To assess the effectiveness of recitation of the Quranic verses on depressive symptoms among cancer patients.

METHODOLOGY: This Pre-Post quasi-experimental single-group study was conducted from December 2021 to January 2022 in the Oncology department at Dr. Ziauddin Hospital Karachi. A total of 50 depressed Cancer patients participated in the study. Participants were recruited through the Consecutive sampling technique, which included being Muslim, having a one-month hospital stay, and a diagnosis of depression. Participants were assessed through the Hamilton Depression Scale (HAM-D). Data was analyzed through frequency and proportions for variables, and median and interquartile range differences were compared using the Wilcoxon signed-rank test. The association of depression was checked by Spearman rank correlation.

RESULTS: Out of 50 participants, 32(64%) were males, and 18(36%) were females; 46(92%) were married; 50(100%) participants were belongs to Muslim religion and had a length of stay for 1 to 3 months durations. The comparison of HAM-D total scores revealed a median of 20.5 (IQR= 21-20) in the pre-test, which decreased to 13 (IQR= 14-12) in the post-test after one-month intervention. This reduction was statistically significant ($p<0.05$).

CONCLUSION: The Quranic verses recitation is an effective and safe therapy for reducing depressive symptoms among cancer patients. The depression score significantly reduced after this intervention.

KEYWORDS: Recitation, Depression, Cancer, Tertiary Care Hospital

INTRODUCTION

Globally, among chronic illnesses, cancer disease is the second most common fatal illness, and it is estimated that 9.6 million deaths were reported in the year 2018 due to cancer¹. In 2022, a review article by Ali A et al.² shows that the overall prevalence of cancer cases in Pakistan stands at 19 million. A study found that an extensive treatment regimen and painful processes of cancer treatment drift a substantial number of cancer patients into clinical depression, which either remained neglected or undiagnosed among patients³. Mental health is the fundamental element of health as a whole, contributing to physical, spiritual, and emotional well-being⁴.

A tertiary care hospital in Pakistan reported more than 56 % prevalence of depression in cancer patients. The prevalence was found to be significantly higher in stage III cancer patients, being 80%, than in patients with stage I and II, which was found to be 31% and 56 %, respectively⁵.

Providing patients with their spiritual needs has been associated with a significant decrease in anxiety and depression, greater satisfaction and an improved quality of life⁶.

According to the National center for Complementary and Alternative Medicine, complementary/alternative therapies are a group of non-conventional practices used to ease psychological and physical suffering and improve physical, mental, and spiritual well-being in patients and families⁷.

Religious practices are used as complementary alternative therapy and have shown beneficial effects in cancer patients for reducing depression symptoms⁸.

During terminal illness, patients mainly deal with existential crises, such as making meaning and sense of their lives. During such life events, religion and religious practices have improved the sense of purpose among terminally ill patients⁹.

According to the review study, religious practices such as reciting Holy book verses, fasting, and spiritual prayer are commonly used in Saudi Arabia to cope with various disease experiences¹⁰.

Patients with terminal illnesses have spiritual or religious needs according to their beliefs and practices to help them cope with physical and mental illness. Particularly in depressed patients, recitation of religious verses has been associated with more outstanding treatment outcomes¹¹.

Spirituality is crucial to health being approached during illness to maximize patient health, wellness, and satisfaction¹². The World Health Organization states that health is a complete physical, mental, spiritual and social well-being, not merely the absence of disease and infirmity¹³. A large body of research literature demonstrates a consistent correlation between spirituality and psychological health and describes how spiritual and religious resources influence cancer patients' psychosocial well-being¹⁴.

The rationale of the study arises from the significance of the Holy Quran in the lives of Muslims and the scarcity number of scientific research available on the therapeutic benefits of recitation of Quranic verses in alleviating depressive symptoms and improving mental health among cancer patients.

METHODOLOGY

This Quasi-experimental (pre and post-test) single-group study was conducted among depressed cancer patients (18-65) in Karachi on 50 participants. Participants were approached after taking written informed consent; formal ethical approval was obtained from the Ethical Review Committee (ERC), Ziauddin University **Reference Code; 4310921FANUR October 26 2021**. Data were collected from December 2021 to January 2022 through Hamilton Depression Scale (HAM-D) consisting of 1 to 17 items. It is a validated and reliable tool with good internal consistency (Cronbach alpha 0.71) ¹⁵. Participants who had a score between 0 to 07 were considered normal, 08 to 16 were mild depressive, 17 to 23 were moderate depressive and 24 scores were regarded as severe depression. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 23.0. Variables like age and gender were computed using frequency and percentages. The Shapiro–Wilk test was used to decide the normality of sample distribution. Wilcoxon signed-rank tests were used to compare the median, Interquartile Range (IQR) and total scores of HAM-D in pre and post-test. Spearman Rank test was used to determine the association of baseline characteristics between pre and post-test groups. All participants with Muslim religious backgrounds willing to listen to the "Surah Yasin" were recruited using a convenience sampling technique from the cancer ward at Dr. Ziauddin Hospital in North Nazimabad, Karachi, Pakistan. Furthermore, Patients with hearing, neurological and cognitive impairments and Those receiving antidepressant medications were excluded from the study.

Data Collection Procedure and Intervention**Phase-I: Pre-Test**

Initially, in the first month, the primary investigator individually administered questionnaires to 40 admitted participants; each participant took approximately 15 minutes to complete. Out of these participants, twenty-six were willing to receive intervention. Again, in the second month, the primary investigator repeated this process with another 40 admitted participants, and twenty-four expressed interest in receiving interventions.

Phase-II: Intervention

From the Holy Qur'an, the Surah Yasin was recited in murattal style. Each session of Quranic recitation lasted up to 15 minutes. The primary investigator conducted the session with each participant at the bedside on alternative days (thrice a week) for four weeks. The verses were played through headphone mp3 players to the participants. Cubicle curtains were drawn in every session to maintain patients' privacy.

In the first month, out of twenty-six participants, 50% (13 participants) received intervention on Monday, Wednesday, and Friday from 6 pm to 12 pm, and the remaining 50% (13 participants) took sessions on Tuesday, Thursday, and Saturday in alternate days for four weeks. The primary investigator repeated the schedule in the second month with the other twenty-four participants. Half of them (12 participants) received intervention on Monday, Wednesday, and Friday from 6 pm to 12 pm, and the other half took interventions on Tuesday, Thursday, and Saturday for four weeks.

Phase-III: Post-Test

After the end of the first month, the post-test was conducted on the same questionnaire of the

first group of twenty-six participants to determine whether the level of depression had been reduced or not. Again, at the end of the second month, the post-test was repeated using the same questionnaire from the second group of twenty-four participants to determine if the level of depression had been significantly reduced. A similar questionnaire, which measures the score of depression, had been filled at the patient's bedside by participants, and it took approximately 15 minutes.

RESULTS

A total of fifty cancer patients with a response rate of 100% were included. The majority, 62%, of the participants were 36-45 years old, and 22% were 46-55. 64% were males, 82% were graduates, and 92% were married. 60% of participants reported first-stage cancer, and 32% reported less than once a month frequency of prayer. All participants, 100% of whom belong to the Muslim religion, stayed for a duration of 1 to 3 months, as shown in **Table I**.

Description of the comparison of HAM-D components at pre and post-intervention:

Study results in Pre-intervention showed that the median of depressed mood was 2, feeling of guilt was 2, suicide was 1, insomnia early was 1, insomnia middle was 1, insomnia late was 1, work and activity was 2, retardation was 2, agitation was 2, anxiety psychic was 0, anxiety somatic was 1, somatic symptoms gastrointestinal was 1, somatic symptoms general as 1, genital symptoms were 1, loss of weight was 2, and insight was 1. Whereas, Wilcoxon signed rank test shows a significant decrease in the median scores for depressed mood 1, feeling of guilt 1, insomnia early 0, insomnia middle 0, insomnia late 0, work and activity 1, retardation 1, agitation 1, and insight 1, components of HAM-D after the intervention with p-values less 0.05 (**Table II**).

Description of the median comparison of HAM-D total scores: results showed before the intervention, the median HAM-D was 20.5 (IQR=21 – 20), and after the intervention, it was 13 (IQR= 14-12); the decrease in HAM-D was statistically significant with $p<0.01$ (**Table III**).

Description of the outcomes of HAM-D after intervention with categorization of total HAM-D scores:

Before intervention there were 8% of participants were found to have mild depression, applying HAM-D scores between 8-16, and 92% of participants were found with moderate depression ranging scores of 17-23; however, after the intervention, 8% of participants were shifted to normal stage with HAM-D scores 0-7 and 92% Participants were found with mild depression with HAM-D scored between 8-16. There was a significant difference found in HAM-D outcomes before and after intervention ($p<0.01$) (**Table IV**).

Table I: Demographic characteristics (n=50)

<i>Characteristics</i>		<i>N</i>	<i>%</i>
Age group (years)	26-35	4	8
	36-45	31	62
	46-55	11	22
	56-65	4	8
Gender	Male	32	64
	Female	18	36
Education Level	Intermediate	9	18
	Graduation	41	82
Marital Status	Single	2	4
	Married	46	92
	Widow	2	4
Cancer Stage	I	30	60
	II	17	34
	III	3	6
Frequency of Prayer	Not at all	31	62
	Less than once a month	16	32
	Once a week	3	6
Length of Stay	1-3 months	50	100
Religion	Muslim	50	100

Table II: Comparison of HAM-D components using Wilcoxon signed-rank test

<i>HAM-D Components</i>	<i>Pre</i>	<i>Post</i>	<i>p-value</i>
	<i>Median (IQR)</i>	<i>Median (IQR)</i>	
Depressed Mood	2(2-2)	1(1-1)	<0.01*
Feelings of Guilt	2(2-2)	1(1-1)	<0.01*
Suicide	1(1-1)	1(1-1)	0.04*
Insomnia, Early	1(1-1)	0(1-0)	<0.01*
Insomnia, Middle	1(1-1)	0(1-0)	<0.01*
Insomnia, Late	1(1-1)	0(1-0)	<0.01*
Work and Activities	2(2-2)	1(1-1)	<0.01*
Retardation	2(2-2)	1(1-1)	<0.01*
Agitation	2(2-1)	1(1-1)	<0.01*
Anxiety Psychic	0(0-0)	0(0-0)	<0.01*
Anxiety Somatic	1(1-1)	1(1-1)	0.99
Somatic Symptoms Gastrointestinal	1(1-1)	1(1-1)	0.04*
Somatic Symptoms, General	1(1-1)	1(1-1)	0.08
Genital Symptoms	1(1-1)	1(1-1)	0.15
Hypochondriasis	0(0-0)	0(0-0)	0.99
Loss of Weight	2(2-2)	2(2-2)	0.18
Insight	1(1-1)	0(0-0)	<0.01*

*p<0.05 was considered statistically significant using the Wilcoxon signed rank test

Table III: Comparison of HAM-D Total Scores using Wilcoxon Signed Rank Test

<i>Variable</i>	<i>HAM-D total</i>		<i>p-value</i>
	<i>Pre Median (IQR)</i>	<i>Post Median (IQR)</i>	
HAM-D Total Score	20.5(21-20)	13(14-12)	<0.01*

*p<0.05 was considered statistically significant using the Wilcoxon Signed Rank test

Table IV: HAM-D Outcomes before and after intervention

<i>Depression Level</i>	<i>Before</i>		<i>After</i>		<i>p-value</i>
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	
Normal score 0-7	0	0.0	4	8.0	<0.01*
Mild Depression score 8-16	4	8.0	46	92.0	
Moderate Depression score 17-23	46	92.0	0	0.0	

*p<0.05 was considered statistically significant using the Wilcoxon Signed Rank test

DISCUSSION

The level of depression may differ by age and gender. In the current study, it appears that all participants were between 36 and 55 years old and had a high prevalence of mild to moderate depression levels, which might be supported by other studies conducted in Morocco¹⁶. A study conducted by Farooqui AA 2019¹⁷ showed that most of their participants were between 35 and 80 years old, possibly experiencing moderate to high depression levels. In the current study, it seems that male patients (69.6%) might have a higher prevalence of depression compared to female patients (39.4%). However, this finding could be inconsistent with previous studies, which generally suggest that females might experience more depression than males¹⁸.

The majority of the depressed participants in the current study were graduated (80.4%), and (91.3%) were married. Likewise, a study by Durumus M 2022¹⁹ also found that the majority of participants were literate with higher levels of depression. Additionally, a study revealed that married cancer patients experience higher levels of depression²⁰. In the present study, all participants belonged to the Islamic religion. Similar findings were found in other studies conducted in Malaysia and Iraq^{21,22}. In the Current research, the total HAM-D score has significantly reduced from a pre-intervention median (IQR) of 20.5(21-20) to a post-intervention median (IQR) of 13(14-12), with a significant p-value <0.01. These findings were similar to other studies highlighting the effectiveness of Al-Quranic murattal therapy in reducing the severity of depression. Saged AA et al.²³, indicated that the Holy Quran Recitation might have a significant effect on the healing of patients who have mental illness. Another study by Rafique R 2019²⁴ showed that Quranic Recitation therapy is an effective therapy for managing depression among adult psychiatric patients.

Many studies address that sound interacts with human emotions and increase the state of calmness and relaxation in mind²⁵. Appropriate sounds, like the Holy Quran recitation, heal humans and their minds, minimizing depression. It is also evident by the reduction of scores at every item of the HAM-D scale after intervention($p < 0.01$)²⁶. This study has a few limitations, including insufficient sample size to represent a large population and validate the results beyond the hypothesis. The study was limited to a tertiary care setting, reducing data variation and study power. A control group was absent from the study. All participants were Muslim cancer patients, limiting the generalizability to different racial and religious groups. The researchers recommend future randomized controlled trials of individual and group therapy using Quranic verse recitation for people with depression. In addition, longitudinal studies with large sample sizes and blinded researchers are needed. Moreover, future research could investigate whether outcome changes are associated with different Quranic verses. More education, training, and research can benefit healthcare workers by enabling them to employ Quranic recitation therapy to treat patients with depression and improve outcomes.

CONCLUSION

This study empirically shows that the intervention of Quranic verse recitation is a safe and effective way to reduce the severity of depression in cancer patients. Furthermore, the level of depression is significantly reduced ($p < 0.01$) after one month of implementing the Quranic verse recitation intervention, showing it is a non-pharmacological and safe therapy for depression.

Ethical permission: Ziauddin University, Karachi, Pakistan IRB letter No. 4310921FANUR.

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Data Sharing Statement: The corresponding author can provide the data proving the findings of this study on request. Privacy or ethical restrictions bound us from sharing the data publically. The questionnaire used in this is given in the Annexure.

AUTHOR CONTRIBUTION

Ahmed F: Conceived the research idea, study design, final version approval

Nazly A: Manuscript review and editing

Amarsi YN: Coordinated whole project, critical review of manuscript

Baashir S: Discussion, conclusion and Data analysis

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