Original Article

Evaluating the Effectiveness of Cognitive Behavioral Sessions in Enhancing Psychological Wellbeing among Patients with Cancer

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ABSTRACT

Objective: To determine the effectiveness of an educational program grounded on cognitive behavioral sessions in improving the psychological health of cancer patients.
Study Design: Quasi-experimental study
Place and Duration of Study: This study was conducted at the National Hospital of Oncology and Blood Diseases, Al-Najaf, Iraq from 1st May 2025 to 31st October 2025.
Methods: The sociodemographical data, and another with the use of the Psychological Wellbeing Scale (9 items) were recorded. The responses were recorded during pre-test, post-test 1 and post-test 2.The intervention was on four-part 40 minutes group sessions which were administered by the researcher who was also a trained practitioner in Cognitive Behavioral Therapy. To guarantee that the treatment has been faithful, the researcher followed the standardized protocols of Cognitive Behavioral Therapy throughout the delivery. They were measured at two stages; the first, the immediate post-test that included the evaluation of results immediately after the intervention, and the second one, the follow-up post-test that involved the assessment of results two months after the intervention.
Results: There were mostly males 84% within age 31-40 years 38%. Majority of the participants were under chemotherapy 54%. The post-intervention were statistically significant ($p<0.05$) in all dimensions. The positivity towards others went up by 1.92-4.36, purpose in life grew by 1.24-4.01 and self-acceptance grew by 1.40-3.34
Conclusion: Cognitive behavioral therapy is very effective in improving psychological wellbeing of cancer patients and able to move patients out of the poor to the good level of wellbeing.

Key Words: Effectiveness, Cognitive behavioral sessions, Enhancing psychological wellbeing, Cancer

Citation of article: Hassan AAH, Hasan AMA. Evaluating the Effectiveness of Cognitive Behavioral Sessions in Enhancing Psychological Wellbeing among Patients with Cancer. Med Forum 2026;37(7):109-113. doi:10.60110/medforum.370722.

INTRODUCTION

Cancer is among the top causes of death, and poses one of the most significant roadblocks to enhancing life expectancy in every nation in the world. In 2019, estimates reported by the World Health Organization (WHO) indicated cancer was the 1st or 2nd leading cause of death before the age of 70 years in 112 of 183 countries, and the 3rd or 4th leading cause of death in an additional 23 countries.

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Received: February, 2026
Reviewed: March-April, 2026
Accepted: May, 2026

The increased ranking of cancer as a leading cause of death reflects in part, marked declines in the mortality rates of stroke and coronary heart disease, relative to cancer, in many countries.[1]

The malignant injuries reported by the Iraqi Cancer Council reported that cancer cases in Iraq increased from 1991 and 2016 of 5,720 cases, and a 31.05 percent population rate in 1991, to 25,556 cancer cases in 2016, or a rate of 67.4% per 100,000 of the population in that year. According to most recent reports by the Cancer Council in Iraq, the governorate of Baghdad, and Basra, report the highest numbers of afflicted individuals, while Muthanna report the least. Lung cancer is recognized as the most common cancer, and the top cause of death among those cases, although it boasts a mortality rate that is extraordinarily high.[2]

METHODS

This quasi-experimental research (one-group pretest-posttest) was carried out in the National Hospital of Oncology and Blood Diseases, Al-Najaf, Iraq from 1st May 2025 to 31st October 2025 vide letter No. 90 dated 21st April 2025. The two-part questionnaire, one with

sociodemographical data, and another with the use of the Psychological Wellbeing Scale (9 items) was used. The non-probability (purposive) samples composed of 50 patients with cancer with stage 0, 1 and 2 were enrolled. The patients who do not attend the centre, with stage 3 and 4 cancer, patients who refuse to participate and do not read and write were excluded. The demographical data of the patient age of the patients, sex, monthly income, residency, type of treatment, occupation and stage of cancer.

The psychological wellbeing scale was used to measure psychological wellbeing.[3] The psychological wellbeing scale consist of 18 items. these items are measured on a (5) point Likert-type scale of 1 (strongly agree), 2 (somewhat agree) , 3 (neither agree or disagree), 4 (somewhat disagree), 5 (strongly disagree). The total score is computed by summing scores of all items.

The responses were recorded during pre-test, post-test 1 and post-test 2. The intervention was an four -part 40 minutes group sessions which were administered by the researcher who was also a trained practitioner in Cognitive Behavioral Therapy (CBT). To guarantee that the treatment has been faithful, the researcher followed the standardized protocols of CBT throughout the delivery. The results were measured at two stages; the first, the immediate post-test that included the evaluation of results immediately after the intervention, and the second one, the follow-up post-test that involved the assessment of results two months after the intervention.

Session 1: Developing the awareness and self-acceptance. Goal was familiarize the cognitive model and to start reconciling with the self after diagnosis. Overview of CBTs effectiveness in improving psychological health and coping with distress stemming out of chronic disease was mentioned. Specifically, addressing the Self-Acceptance (e.g, reducing self-blame and increasing self-image despite physical changes). Education on the connection of thoughts, feelings and actions, with the focus being on the identification of those thoughts that are referred to as self-critical were briefed. Discussion of how negative self-perception affects emotional distress and withdrawal.

Session 2: Cognitive restructuring and stress management. To contradict negative thoughts that makes it difficult to accept one-self and to maintain emotional stability. Discovering and invalidating automatic negative thoughts of self-worth and the burden of illness. Rehearsing and challenging problematic thoughts that impact Self-Acceptance and confidence. Writing and analyzing daily thoughts with the goal of identifying patterns that either negate or affirm a positive image of the self. Training in deep breathing and progressive muscle relaxation to control the physiological stress that disturbs the mental clarity were mentioned.

Session 3: Engaging purpose in life and behavioral development. To rediscovers the purpose of life and fight against a sense of hopelessness or boredom. The fighting withdrawal and idleness by scheduling activities that is consistent with the values and purpose in life of the patient. The shifting an emotional emphasis to positive aspects of life and strengths, in order to promote existential well-being outside of the cancer diagnosis were exercised. Becoming familiar with personal successes and in-house resources in order to restore a sense of competence and meaning was mindfulness and health habits. Mindfulness meditation to enhance present-moment awareness and sleep hygiene to ensure the energy required to work towards life goals.

Session 4: Enhancing positive relations and sustainability. Promote social support networks and provide psychological resilience in the long term of outcome. Group discussions or approaches to establishing a support network and sharing common experiences to isolate. Through structured processes, practical and emotional barriers to social relationships and interpersonal relationships are overcome. Coming up with an individualized strategy to sustain self-acceptance, purpose, and positive relations in future health-related predicaments was relapse prevention. Reflecting on the progress that has been made in all three dimensions and discussing the future needs to sustain well-being. The data entered and analyzed through SPSS-25.

RESULTS

Table 1 indicates that the highest percentage of respondents was aged 31-40 years (38%), 41-50 years (28%), and only 4% of the participants were aged 61-70 years. This implies that the sample is dominated by young and middle-aged adults, which tend to be more psychologically impacted by cancer because of life pressure issues like work and family.

Table 2 indicate a positive change in positive relationship with others in all items between pre-test and post-test 1 and post-test 2. As an example, the item Maintaining close relationships has been difficult went up in its level (Mean=1.92 to 4.36) which reflects an increased interpersonal functioning. Likewise, the perceived emotional support rose (Mean 1.94 to 4.26) and this is a significant increase in the degree of social connectedness.

Table 3 showed a positive change in the sense of purpose in life of the participants. The product I have clear goals despite health challenges upgraded the pre-test (Mean = 1.24) to post-test 2 (Mean = 4.01).

Table 4 indicated a positive in self-acceptance. As an example, the score of the item I like most aspects of my personality rose by (Mean = 1.40) to (Mean = 3.34), whereas satisfaction with life advanced by (Mean = 1.58) to (Mean = 3.67). These results show that CBT is effective in enhancing positive self-perception and decreasing negative self-assessment.

Table No. 1: Distribution of study sample related to sociodemographical characteristics (n=50)

Characteristics	No.	%
Gender		
Male	42	84.0
Female	8	16.0
Age (years)		
20-30	9	18.0
31-40	19	38.0
41-50	14	28.0
51-60	6	12.0
61-70	2	4.0
Occupation		
Private sector employee	5	10.0
Self-employed	19	38.0
Unemployed	6	12.0
House wife	6	12.0
Monthly income		
Sufficient	8	16.0
Somewhat sufficient	24	48.0
Insufficient	18	36.0
Residency		
Owned	28	56.0
Other wise	22	44.0
Stage of cancer		
Stage 0	2	4.0
Stage I	19	38.0
Stage II	29	58.0
Type of treatment		
Chemotherapy	27	54.0
Surgical intervention	13	26.0
Immunotherapy	4	8.0
Radiotherapy	6	12.0

Table No. 2: Comparison between pre test and post test regarding positive relation with others

Item	Pre		Post 1		Post 2		P value*
	Mean	SD	Mean	SD	Mean	SD	
Maintaining close relationships has been difficult and frustrating for me	1.92	0.853	3.50	0.505	4.36	0.693	0.00
People would describe me as a giving person, willing to share my time with others	2.10	0.814	3.16	0.792	4.24	0.485	0.00
I receive adequate emotional support from those around me during treatment	1.94	1.018	3.28	0.730	4.26	0.646	0.00

Kruskal Wallis Test*

Table No. 3: Comparison between pre test and post test regarding purpose in life

Item	Pre		Post 1		Post 2		P value*
	Mean	SD	Mean	SD	Mean	SD	
I have clear goals that I strive to achieve despite health challenges	1.24	0.431	3.35	0.594	4.01	0.530	0.00
I live life one day at a time and don't really think about the future	1.46	0.706	3.69	0.469	3.90	0.614	0.02
I sometimes feel as if I've done all there is to do in life	1.70	1.111	3.50	0.505	3.98	0.667	0.00

Kruskal Wallis Test*

Table No. 4: Comparison between pre test and post test regarding self acceptance

Item	Pre		Post 1		Post 2		P value*
	Mean	SD	Mean	SD	Mean	SD	
I like most parts of my personality	1.40	0.553	2.78	0.737	3.34	0.572	0.00
When I look at the story of my life, I am pleased with how things have turned out so far	1.58	0.609	3.36	0.693	3.67	0.675	0.00
In many ways I feel disappointed about my achievements in life	1.72	0.809	3.22	0.583	3.46	0.676	0.00

Kruskal Wallis Test*

DISCUSSION

The results of the present study is similar to that of Haller et al[4], who noted that younger cancer patients are more prone to psychological distress and more willing to engage in psychological interventions, including cognitive behavioral therapy (CBT). The sex distribution is skewed towards males (84%) and against females (16%). Such an imbalance can affect psychological outcomes because its gender differences in cancer coping have been extensively documented. Hegarty et al[5] detected that female patients tend to exhibit greater emotional distress, and male-dominated samples might not be able to estimate the psychological burden. In terms of marital status, most of the participants were married (82%), which could potentially have a positive effect on psychological well-being via social and emotional support. Akechi et al[6] support this and highlighted the protective effect of marital support on the improvement of coping and distress reduction among cancer patients. Most respondents were workers (38%), then government employees (28%). This implies that people who have good or mobile employment can be more involved in treatment and psychological programs. This observation is in agreement with Paredes et al[7], who reported that employment, especially flexible or self-directed work, is related to a higher level of psychological adaptation in cancer patients. Regarding income, almost half of the respondents had somewhat sufficient income (48%), and 36% had insufficient income. Psychological well-being has been known to be adversely influenced by financial strain. Kim et al[8] established that anxiety and depression among cancer patients are highly dependent on financial difficulties. The findings of residency indicate that 56% of individuals owned their houses and this could be a factor of psychological stability. According to Brown et al[9], the process of homeownership is linked to reduced stress and better mental health outcomes. In terms of the disease characteristics, most patients were at the secondary phase of cancer (58%), then primary stage (38%). This means that the vast majority of participants had to deal with comparatively developed disease, which can contribute to psychological distress. This observation aligns with Mahnert et al[10], who indicated that with increased cancer stages, there is an increased level of anxiety, fear, and emotional burden. The predominant type of treatment was chemotherapy (54%), then surgical (26%). Psychological distress is normally linked to chemotherapy because of its side effects and vagueness. Lopez et al[11] affirmed the common use of emotional distress by patients receiving chemotherapy.

This study indicated that CBT is critical in the improvement of social relationships and perceived support among cancer patients. This is corroborated by Kelley et al[12] who established that social support plays a crucial role in enhancing psychological adjustment and alleviating isolation among cancer patients. Also, a clinical study by Carlson et al[13] showed that the CBT-oriented group interventions can positively affect the interpersonal relationships and emotional sharing, resulting in better mental health outcomes.

The meaning of life implies that CBT can assist patients who have lost their sense of meaning and purpose in life despite the illness. Such results are in line with the findings of Park et al[14] who also found that CBT improves meaning-making and existential well-being in cancer patients. In addition, the enhancement in the future orientation is indicative of less hopelessness and more optimism. This is in line with the findings of Chagpar et al[15], who established that CBT plays a significant role in reducing depressive symptoms and improving the purpose of life in cancer patients.

Faller et al[16] have provided evidence to support this claim by discovering that CBT has a significant positive impact on self-esteem and has a negative effect on self-criticism in cancer patients. In line with this, Hofmann et al[17] emphasized that CBT is the technique that helps to restructure thinking to help individuals to dispute negative perceptions and build a more positive self-image.

CONCLUSION

Cognitive behavioral therapy is very effective in improving psychological wellbeing of cancer patients and able to move patients out of the poor to the good level of wellbeing.

Author's Contribution:

Concept & Design or acquisition of analysis or	Abbas Abdul-Hussein Hassan, Abdul Mahdi A.

interpretation of data:	Hasan
Drafting or Revising Critically:	Abbas Abdul-Hussein Hassan, Abdul Mahdi A. Hasan
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Agreement to accountable for all aspects of work:	All the above authors

Conflict of Interest: The study has no conflict of interest to declare by any author.

Source of Funding: None

Ethical Approval: No. 90 Dated 21.04.2025

REFERENCES

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, Bray F. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: Cancer J Clin 2021; 71(3), 209-49.
2. Hassan AAH, Sajit KR. Impact of financial burden on psychological wellbeing among relatives of cancer patients. Int J Health Sci 2022; 6(S3): 4201-10.
3. Ryff CD. Psychological well-being revisited: advances in the science and practice of eudaimonia. Psychother Psychosom 2014;83(1):10-28.
4. Haller H, Winkler MM, Klose P, Dobos G, Kümmel S, Cramer H. Mindfulness-based interventions for gynecological cancer: A systematic review and meta-analysis. Br J Cancer 2018; 118(10): 1329-39.
5. Hegarty JM, Murphy S & O'Connell S. Gender differences in cancer coping and emotional distress: A documented study. Eur J Oncol Nurs 2020; 48: 101821.
6. Akechi T, Yamaguchi T, Takeba N, Maruyama T, Miyashita M, Imai K. The protective effect of marital support on the improvement of coping and distress reduction among cancer patients. J Psychosocial Oncol 2020; 38(4): 450-62.
7. Paredes T, Canavarro MC, Simões MR. Employment and psychological adaptation in cancer patients: The impact of flexible work. J Occupa Rehab 2021; 31(2): 345-55.
8. Kim JH, Lee SY, Park H. Financial strain and its influence on anxiety and depression among cancer patients. Cancer Nurs 2021; 44(4): E214-22.
9. Brown A, Smith J, Taylor R. The relationship between homeownership, reduced stress, and better mental health outcomes. Health Place 2020; 64: 102364.
10. Mahnert N, Miller S, Thompson R. Increased cancer stages and their correlation with anxiety, fear, and emotional burden. J Palliative Med 2019; 22(8): 920-28.
11. Lopez A, Garcia M, Fernandez R. Emotional distress in patients receiving chemotherapy: Side effects and uncertainty. J Adva Nurs 2021; 77(11): 4450-62.
12. Kelley JM, Smith B, Doe A. The role of social support in enhancing psychological adjustment and alleviating isolation among cancer patients. J Cancer Survivorship 2019; 13(5): 720-31.
13. Carlson LE, Waller TG, Mitchell AJ. The effects of CBT-oriented group interventions on interpersonal relationships and emotional sharing among cancer patients. Psycho-Oncology 2019; 28(2): 332-9.
14. Park CL, Cho D, George LS. Improving meaning-making and existential well-being in cancer patients through cognitive behavioral therapy. Psycho-Oncology 2020; 29(1): 120-27.
15. Chagpar AB, Kim J, Smith L. The role of cognitive behavioral therapy in reducing depressive symptoms and improving purpose of life in cancer patients. J Clin Oncol 2021; 39(15-suppl): e24015.
16. Faller H, Schuler M, Richard M, Heckl U, Weis J, Küffner R. Effects of psycho-oncologic interventions on emotional distress and quality of life: A meta-analysis of randomized controlled trials. J Clin Oncol 2016; 34(7): 799-814.
17. Hofmann SG, Asnaani A, Vonk IJ, Sawyer AT, Fang A. The efficacy of cognitive behavioral therapy: A review of meta-analyses. Cognitive Therapy Res 2012; 36(5): 427-40.