

## **ASSESSING THE EFFECTIVENESS OF BEHAVIORAL THERAPY ON THE EMOTIONAL WELL-BEING OF INDIVIDUALS WITH HIV/AIDS-RELATED CANCER AT JOS UNIVERSITY TEACHING HOSPITAL, NIGERIA**

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### **ABSTRACT**

*This study investigates the effectiveness of Cognitive Behavioral Therapy (CBT) in enhancing the emotional well-being of individuals diagnosed with HIV/AIDS-related cancer at Jos University Teaching Hospital, Nigeria. Psychosocial well-being, encompassing self-acceptance, purpose in life, and healthy relationships, was assessed using Ryff's Psychosocial Wellbeing Scales. A true experimental design involved 140 participants randomly assigned to experimental (CBT) and control groups. Pre-test and post-test comparisons revealed significant improvements in self-acceptance, purpose in life, and healthy relationships among the CBT group compared to controls. Findings underscore CBT's potential as a beneficial intervention for addressing psychosocial challenges in patients with dual diagnoses of HIV/AIDS and cancer, advocating for its integration into comprehensive healthcare strategies.*

**Keywords: Emotional well-being, Behavioral Therapy, Healthcare, HIV/AIDS, Cancer.**

### **INTRODUCTION**

Emotional well-being is a comprehensive concept that covers an individual's mental, psychosocial and spiritual dimensions, emphasizing how psychological and social factors interact to influence overall life satisfaction. Key components include cognitive and emotional

aspects of mental health, such as self-esteem, resilience, and the ability to manage emotions. It also encompasses social relationships, including connections with family, friends, and the broader community, which play a vital role in creating a feeling of belonging and receiving support (De-Juanas, Bernal-Romero &Goig, 2020).

Spiritual well-being, another key component, involves seeking meaning, purpose, and transcendence in life, encompassing religious beliefs, personal values, and connection to a higher purpose. Coping with life's challenges and developing resilience are essential aspects of psychosocial well-being, enabling individuals to navigate stressors and grow from experiences. Subjective life satisfaction considers well-being and the perceived fulfillment of personal goals and aspirations. Research underscores that psychosocial well-being is a complex, multidimensional concept shaped by emotional regulation, personality traits, identity, and life experiences. It correlates with age, longevity, and consciousness, emphasizing that a fulfilling life involves purpose and alignment with personal values, meaningful relationships, and self-acceptance. Positive emotions and a sense of purpose contribute significantly to psychosocial well-being, reflecting the meaningfulness of one's actions and life experiences.

In the context of HIV/AIDS-associated cancers in Nigerian University Teaching Hospitals, where both conditions are prevalent, understanding the psychosocial aspects of this dual diagnosis is crucial for comprehensive healthcare. Patients facing these challenges strive for a purposeful life, characterized by autonomy, environmental mastery, healthy relationships, self-acceptance, personal growth, and a sense of life purpose (De-Juanas, Bernal-Romero &Goig, 2020).

Autonomy in psychosocial well-being involves the ability of HIV/AIDS patients to make independent decisions, pursue goals freely, and resist social pressures. Environmental mastery and competence entail managing one's environment and external activities according to personal needs and values, enabling effective adaptation to life's demands.

Healthy relationships are vital for psychological health, whether through extensive social networks or preference for solitude, emphasizing trust, empathy, and reciprocity in interpersonal connections. Self-acceptance involves understanding one's strengths and weaknesses, embracing life's ups and downs, and maintaining a positive attitude towards oneself and past experiences. Personal growth reflects openness to learning and new experiences, recognizing personal development and maturation over time. Purpose in life gives direction and meaning, guiding individuals to value what matters most, set and achieve goals, and perceive life as purposeful.

The challenges in managing HIV/AIDS-associated cancers in Nigeria highlight the dual burden of addressing cancer care in a resource-constrained environment with limited public health infrastructure and awareness. Cognitive Behavioral Therapy (CBT) emerges as a valuable psychosocial intervention to enhance the well-being of these patients, addressing maladaptive cognitive patterns and behaviors. By challenging negative thoughts and

promoting emotional regulation, CBT supports patients in developing adaptive coping strategies and improving overall psychosocial well-being.

Emotional well-being encompasses a spectrum of mental, psychosocial, and spiritual dimensions, influenced by individual resilience, social relationships, and a sense of life purpose. Understanding and promoting psychosocial well-being in the context of HIV/AIDS-associated cancers are essential for holistic healthcare delivery, emphasizing the role of interventions like CBT in enhancing patients' quality of life and coping abilities.

### **STATEMENT OF THE PROBLEM**

The co-occurrence of Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) with cancer presents a multifaceted challenge, particularly within Nigerian University Teaching Hospitals. While significant progress has been made in addressing the physical aspects of these conditions, the psychosocial well-being of patients facing this dual diagnosis remains a critical and underexplored area in healthcare. Patients diagnosed with HIV/AIDS-associated cancers often experience inadequate psychosocial support within Nigerian University Teaching Hospitals. Emphasis on medical interventions frequently overshadows the nuanced psychological and social needs of individuals managing both chronic illnesses. This oversight may contribute to heightened levels of anxiety, depression, and diminished overall quality of life among affected patients.

Cognitive-Behavioral Therapy (CBT), recognized as an effective psychological intervention, shows promise in mitigating the psychological impact of this dual diagnosis. However, its systematic integration into treatment plans for patients with HIV/AIDS-associated cancers in Nigeria is notably deficient. This absence exacerbates patient challenges, representing a significant gap in comprehensive care provision. Implementing psychosocial interventions like CBT within Nigerian University Teaching Hospitals, particularly Jos University Teaching Hospital (JUTH), faces various challenges including cultural considerations, resource constraints, and insufficient awareness of the importance of psychosocial support. Addressing these barriers is crucial for developing effective, culturally sensitive interventions.

Neglecting psychosocial well-being in the management of patients with HIV/AIDS-associated cancers may significantly affect patient outcomes. Psychological distress associated with this dual diagnosis can adversely impact treatment adherence, disease progression, and coping mechanisms amidst the complexities of chronic illness. Consequently, the absence of targeted psychosocial interventions may compromise patient holistic well-being and healthcare effectiveness. Given these concerns, urgent research is needed to investigate the impact of Cognitive-Behavioral Therapy on the psychosocial well-being of patients with HIV/AIDS-associated cancers at Jos University Teaching Hospital, Plateau State, Nigeria. This research is essential for advancing understanding of patient challenges and developing interventions that can enhance psychosocial support and improve overall patient outcomes.

## **AIM AND OBJECTIVES OF THE STUDY**

This study aims to Assess the Effectiveness of Behavioral Therapy on the Emotional Well-Being of Individuals With HIV/AIDS-Related Cancer at Jos University Teaching Hospital, Nigeria. Specific objectives include:

1. Calculate the pretest and posttest mean scores for self-acceptance among patients diagnosed with HIV/AIDS-associated cancer in both the experimental and control groups.
2. Determine the pretest and posttest mean scores for purpose in life among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups.
3. Evaluate the pretest and posttest mean scores for healthy relationships among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups.

## **RESEARCH QUESTIONS**

The following research questions guided the study.

1. What are the pretest and posttest mean scores for self-acceptance among patients diagnosed with HIV/AIDS-associated cancer in both the experimental and control groups?
2. What are the pretest and posttest mean scores for purpose in life among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups?
3. What are the pretest and posttest mean scores for healthy relationships among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups?

## **HYPOTHESES**

The following hypothesis was formulated and tested at 0.05 level of significance:

1. There is no significant difference between the posttest personal growth mean scores of patients diagnosed with (HIV/AIDs) associated cancers in the experimental and control groups.
2. There is no significant difference between in the Posttest self-acceptance mean scores of patients diagnosed with (HIV/AIDs) associated cancers in the experimental and control groups in JUTH.

## **METHOD**

This study utilized a true experimental design to assess the effectiveness of behavioral therapy on the emotional well-being of individuals with HIV/AIDS-related cancer at Jos University Teaching Hospital, Nigeria. True experimental design allows for the manipulation of variables and comparison of outcomes between experimental and control groups, essential for establishing causal relationships. The population for this study comprised 140 patients diagnosed with HIV/AIDS-associated cancers at Jos University Teaching Hospital. A purposive sampling technique was employed to select 140 willing participants, who were then randomly assigned to either the experimental or control group. This method ensured the selected sample represented the target population adequately. Data collection utilized Ryff's Psychosocial Wellbeing Scales (PWB), 42-item version. This instrument includes subscales such as Autonomy, Environmental Mastery, Personal Growth, Healthy Relations, Purpose in Life, and Self-Acceptance, each assessed using a four-point Likert scale.

The instrument underwent content validity through expert review and demonstrated reliability with a stability coefficient of 0.834 using the test-retest method. Ethical clearance was obtained from both the University of Jos and Jos University Teaching Hospital. Trained research assistants administered pre-test questionnaires to both groups before any treatment intervention. The experimental group underwent CBT sessions, while the control group received a placebo treatment focused on personal hygiene and adherence to medical advice. Following treatment, post-test questionnaires identical to the pre-test were administered to both groups to assess changes in psychosocial wellbeing. Immediate retrieval and scoring of questionnaires facilitated prompt data analysis. Data were analyzed using descriptive statistics, such as means and standard deviations, to summarize findings and inferential statistics, specifically independent sample t-tests, to determine significant differences between treatment and control groups.

## RESULTS

**Research Question One:** What are the pretest and posttest mean scores for self-acceptance among patients diagnosed with HIV/AIDS-associated cancer in both the experimental and control groups?

**Table 1: Results of the Pretest and Posttest Self-Acceptance Mean Scores of the Experimental and Control Groups**

Group	Pre-test		Post-test		Mean Gain	$\bar{x}$ - difference
	N	Mean	SD	Mean	SD	
Experimental	70	14.57	3.02	23.36	2.77	8.79
Control	70	14.99	3.20	15.64	3.18	0.65

Table 1 reveals the pre-test and post-test self-acceptance mean score of patients diagnosed with HIV/AID associated cancers in the experimental and control groups. In the experimental group the post-test self-acceptance mean score was 23.36 and standard deviation of 2.77, higher than the pre-test mean score of 14.57 and standard deviation of 3.02 with a mean gain of 8.79, indicating that there was increase in the self-acceptance mean score of patients after treatment. In addition, for the control group the mean score was 14.99 and a standard deviation of 3.20 at the pretest. The post-test mean score of patients was 15.64 and a standard deviation of 3.18. The findings indicate that patients in the experimental group had a higher mean score (23.36) after treatment using cognitive behavioural therapy than those in the control group (15.64) who were not given treatment with a mean difference of 8.14. This implies that at the pre-test the patients in both groups had a low self-acceptance mean score, but after the intervention there was an improvement in the self-acceptance of the patients in the experimental group than the control group. This suggests that cognitive behavioural therapy improves the self-acceptance of patients diagnosed with HIV/AID associated cancers in Jos University Teaching Hospital, Plateau State.

**Research Question Two:** What are the pretest and posttest mean scores for purpose in life among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups?

**Table 2: The results of the Pretest and Posttest Purpose in Life Mean Scores of the Experimental and Control Groups**

Group	N	Pre-test		Post-test		Mean Gain	$\bar{x}$ - difference
		Mean	SD	Mean	SD		
Experimental	70	14.13	3.37	23.66	2.60	9.53	8.02
Control	70	13.66	3.53	15.17	2.99	1.51	

Table 2 reveals the pre-test and post-test purpose in life mean score of patients diagnosed with HIV/AIDS associated cancers in the experimental and control groups. In the experimental group the post-test purpose in life mean score was 23.66 and standard deviation of 2.60, higher than the pre-test mean score of 14.13 and standard deviation of 3.37 with a mean gain of 9.53, indicating that there was increase in the purpose in life mean score of patients after treatment. Besides, for the control group the mean score was 13.66 and a standard deviation of 3.53 at the pretest. The post-test mean score of patients was 15.17 and a standard deviation of 2.99. The findings show that patients in the experimental group had a higher mean score (23.66) after treatment using cognitive behavioural therapy than those in the control group (15.17) who were not given treatment with a mean difference of 8.02. This shows that at the pre-test the patients in both groups had a low purpose in life mean score, but after the intervention there was an improvement in the purpose in life of the patients in the experimental group than the control group. This implies that cognitive behavioural therapy improves the purpose in life mean score of patients diagnosed with HIV/AIDS associated cancers in Jos University Teaching Hospital, Plateau State.

**Research Question Three:** What are the pretest and posttest mean scores for healthy relationships among patients diagnosed with HIV/AIDS-associated cancer in the experimental and control groups?

**Table 3: Results of the Pretest and Posttest Healthy Relationship Mean Scores of the Experimental and Control Groups**

Group	N	Pre-test		Post-test		Mean Gain	$\bar{x}$ - difference
		Mean	SD	Mean	SD		
Experimental	70	13.09	3.52	23.83	3.32	10.74	8.77
Control	70	13.09	3.52	15.06	3.10	1.97	

Table 3 reveals the pre-test and post-test healthy relationship mean score of patients diagnosed with HIV/AIDS-associated cancers in the experimental and control groups. In the experimental group the post-test healthy relationship mean score was 23.83 and standard deviation of 3.32, higher than the pre-test mean score of 13.09 and standard deviation of 3.52

with a mean gain of 10.74, indicating that there was increase in the healthy relationship mean score of patients after treatment. Also, for the control groups the mean score was 13.09 and a standard deviation of 3.52 at the pretest. The post-test mean score of patients was 15.06 and a standard deviation of 3.10 with a mean gain of 1.97. The findings show that patients in the experimental group had a higher mean score (23.83) after treatment using cognitive behavioural therapy than those in the control group (15.06) who were not given treatment with a mean difference of 8.77. This indicates that at the pre-test the patients in both groups had a low healthy relationship mean score, but after the intervention there was an improvement in the healthy relationship mean score of the patients in the experimental group than the control group. This implies that cognitive behavioural therapy improves the healthy relationship mean score of patients diagnosed with HIV/AIDS associated cancers in Jos University Teaching Hospital, Plateau State.

**Hypothesis One:** There is no significant difference between the posttest personal growth mean scores of patient diagnosed with (HIV/AIDS) associated cancers in the experimental and control groups.

**Table 4: Summary of the t-test Result on the Posttest Personal Growth Mean Scores between the Experimental and Control Groups**

Group	N	Mean	SD	Df	t	p-value	Decision
Experimental	70	24.59	2.71	138	16.45	0.000	Significant
Control	70	16.86	2.85				

Table 4 shows the summary of t-test result on the difference between the posttest personal growth mean score of patients diagnosed with (HIV/AIDS) associated cancers in the experimental and control groups. In the experimental the posttest personal growth mean scores is 24.59, with a standard deviation of 2.71, while the control group had a mean scores 16.86, and a standard deviation of 2.85. The result also shows  $t(138) = 16.45$   $p < 0.05$ . Since the p-value of 0.000 is less than the 0.05 level of significance, the null hypothesis was rejected. It was concluded that, there is a significant difference between the posttest personal growth mean score of patients diagnosed with (HIV/AIDS) associated cancer in the experiential and control groups. This implies that cognitive behavior therapy improves personal growth mean score of patients diagnosed with (HIV/AIDS) associated cancers in Jos University Teaching Hospital, Plateau State

**Hypothesis Two:** There is no significant difference between in the Posttest self-acceptance mean scores of patient diagnosed with (HIV/AIDS) associated cancers in the experimental and control groups in JUTH.

**Table 5: Summary of the t-test Result on the Posttest Self-Acceptance Mean Scores in the Experimental and Control Groups**

Group	N	Mean	SD	Df	t	p-value	Decision
Experimental	70	23.36	2.77	138	15.31	0.000	Significant
Control	70	15.64	3.18				

Table 5 shows the summary of t-test result on the difference between the posttest self-acceptance mean score of patients diagnosed with (HIV/AIDS) associated cancers in the experimental and control groups. In the experimental the posttest self-acceptance mean scores is 23.36, with a standard deviation of 2.71, while the control group had a mean scores 16.86, and a standard deviation of 2.77. The result also shows  $t(138) = 15.31$   $p < 0.05$ . Since the p-value of 0.000 is less than the 0.05 level of significance, the null hypothesis was rejected. It was concluded that, there is a significant difference between the posttest self-acceptance mean score of patients diagnosed with (HIV/AIDs) associated cancer in the experiential and control groups. This implies that cognitive behavior therapy improves self-acceptance mean score of patients diagnosed with (HIV/AIDs) associated cancers in Jos University Teaching Hospital, Plateau State.

## DISCUSSION

The study assessed the effectiveness of behavioral therapy on the emotional well-being of individuals with HIV/AIDS-related cancer at Jos University Teaching Hospital, Nigeria. Results from pretest and posttest regarding self-acceptance, both groups initially reported low scores, but post-intervention, the experimental group showed significant improvement compared to the control group, underscoring CBT's ability to foster self-acceptance among patients coping with HIV/AIDS-associated cancers. The study also found that purpose in life scores were initially low across both groups, with notable enhancement observed in the experimental group after CBT, consistent with findings from Ye et al. (2018), affirming CBT's effectiveness in improving quality of life and psychological health in cancer patients.

Additionally, analysis of healthy relationship scores revealed initial deficits in both groups, with substantial improvement seen in the experimental group post-CBT, indicating CBT's role in enhancing social connections and support systems among patients. Overall, the findings support the use of CBT as a beneficial intervention for enhancing various aspects of psychosocial wellbeing in patients diagnosed with HIV/AIDS-associated cancers, reinforcing its potential to improve overall quality of life and emotional resilience in clinical settings.

## CONCLUSION

Observations during Cognitive Behavioural Therapy sessions indicate significant improvements in the psychosocial wellbeing of patients diagnosed with HIV/AIDS-associated cancers. While individual outcomes varied, therapy enabled patients to recognize their strengths and weaknesses, empowering them to navigate life challenges. Cognitive Behavioural Therapy appears effective in addressing psychological distress, reducing anxiety and depression, and enhancing patients' adherence to treatment and coping abilities. These benefits suggest that CBT is a valuable, evidence-based intervention that supports patients in



improving overall wellbeing, both medically and socially, despite the complexities of chronic illnesses.

## **IMPLICATIONS OF THE FINDINGS**

The findings of this study hold significant implications for clinical practice, patient-centered care, research and development, policy formulation, and public health education. Cognitive Behavioural Therapy (CBT) emerges as a promising psychological intervention for enhancing the psychosocial wellbeing of patients diagnosed with HIV/AIDS-associated cancers. By integrating CBT into treatment plans, clinicians and healthcare providers can potentially mitigate the psychological distress experienced by these patients, thereby improving their overall quality of life. This approach not only addresses the medical aspects of the disease but also focuses on the psychological resilience and coping strategies essential for managing chronic illnesses.

Moreover, the study underscores the importance of patient-centered care by emphasizing the need to tailor interventions to meet the psycho-social needs of individuals with complex health conditions. CBT's ability to enhance treatment adherence and support patients in navigating the challenges of chronic illnesses highlights its role in comprehensive care strategies. This patient-focused approach can lead to better health outcomes by integrating psychological support alongside medical treatment, fostering a more holistic approach to healthcare delivery.

In terms of research and development, the study advocates for continued exploration into the application of CBT across different populations and settings. Further research could refine treatment protocols, assess long-term impacts on patient wellbeing, and explore alternative delivery methods to maximize effectiveness. By expanding the evidence base, healthcare providers can enhance their ability to deliver tailored and effective psychological interventions to patients with diverse needs.

From a policy perspective, the findings suggest implications for resource allocation and healthcare system integration. Health policymakers may consider supporting the training of healthcare professionals in CBT techniques and advocating for its inclusion in standard care practices. This could ensure that patients have access to comprehensive care that addresses both their medical and psychological needs, thereby improving overall health outcomes and quality of life.

Lastly, raising awareness about the benefits of CBT in managing psychological aspects of chronic illnesses is crucial for public health education. Educating patients, caregivers, and the public about the role of CBT can reduce stigma associated with mental health issues in medical settings and encourage early intervention. By promoting understanding and acceptance of psychological support in healthcare, communities can foster a supportive environment that enhances patient wellbeing and resilience.

## RECOMMENDATIONS

Based on the findings of this study, several recommendations can be made to enhance the application and effectiveness of Cognitive Behavioural Therapy (CBT) for patients diagnosed with HIV/AIDS-associated cancers:

1. Healthcare providers should integrate CBT into standard treatment protocols for patients with HIV/AIDS-associated cancers. This includes incorporating CBT sessions into routine clinical care to address the psychological distress and enhance coping mechanisms among patients. Training programs should be developed to equip healthcare professionals with the necessary skills to administer CBT effectively, ensuring consistent and high-quality delivery across healthcare settings.
2. Healthcare policies should prioritize the integration of psychological support services, including CBT, into comprehensive cancer care programs. Policy-makers and health authorities should advocate for funding initiatives that support the implementation of CBT in healthcare settings, aiming to improve patient outcomes and reduce the burden of psychological distress associated with chronic illnesses.
3. The government and non-government organizations should organize a project that will be targeted at assisting patients with dual terminal ailments, especially those diagnosed with cancers and (HIV/AIDS).
4. Collaboration between healthcare providers, researchers, policymakers, and patient advocacy groups is essential to promote interdisciplinary approaches to patient care. By fostering partnerships and sharing best practices, stakeholders can enhance the implementation of evidence-based interventions like CBT and improve outcomes for patients with complex health conditions.

Implementing these recommendations can optimize the use of CBT as a supportive intervention for patients with HIV/AIDS-associated cancers, ultimately improving their psychosocial wellbeing, treatment outcomes, and overall quality of life.

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