Effects of Cognitive Behavioral Therapy and Supportive Therapy on The Psychosocial Adjustment of Elderly Individuals in Kaduna State, Nigeria

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Abstract

This study investigated the effectiveness of Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST) on psychosocial adjustment among elderly individuals in Kaduna State, Nigeria. The research was motivated by the growing prevalence of psychosocial challenges faced by the elderly, including depression, anxiety, social isolation, and cognitive decline, often worsened by the collapse of traditional support systems and inadequate access to mental health services. A quasi-experimental, pre-test post-test control group design was employed, involving 60 elderly participants drawn from three senatorial zones (Kaduna North, Central, and South). Participants were randomly assigned to three groups: CBT, SST, and a control group that received no intervention. The intervention lasted six weeks, during which trained psychologists administered weekly CBT and SST sessions. Data were collected using the Psychosocial Adjustment Scale for the Elderly (PASE), and analyzed using Analysis of Covariance (ANCOVA). Results revealed that both CBT and SST significantly improved psychosocial adjustment among the elderly, with SST showing slightly greater effectiveness, particularly in enhancing emotional and social support. Additionally, the study found that while CBT was more effective in improving cognitive coping and reducing negative thought patterns, SST had a stronger impact on social connectedness and emotional well-being. These findings underscore the relevance of integrating both therapies into geriatric mental health programs, especially in culturally sensitive contexts like Nigeria, where emotional support, religion, and gender roles significantly influence adjustment in old age. The study concludes by recommending the institutionalization of psychological interventions for the elderly in community health centres and elderly care programs, and calls for the training of professionals to implement such interventions effectively.

Key words: Cognitive Behavioral Therapy (CBT), Supportive Therapy (SST), Psychosocial Adjustment, Elderly, Kaduna State, Mental Health Intervention, Aging Population, Social Support.

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Introduction

The global increase in the elderly population has intensified interest in understanding the mental health and social challenges that accompany aging. In Nigeria, as in many developing countries, elderly individuals often face a complex mix of psychological, social, and economic stressors that adversely affect their well-being. These include loneliness, cognitive decline, anxiety, depression, and limited access to mental health care (World Health Organization [WHO], 2021). In Kaduna State, these concerns are particularly pressing due to the weakening of traditional support systems, rising poverty rates, and inadequate public infrastructure for elderly care. As elderly Nigerians transition from active roles in family and society to more dependent and often marginalized positions, their psychosocial adjustment becomes a crucial determinant of their quality of life.

Psychosocial adjustment refers to an individual's ability to cope emotionally and socially with life's transitions, including aging, retirement, bereavement, and declining health (Cohen, 2016). In the context of elderly populations, successful adjustment involves the capacity to maintain emotional stability, foster interpersonal relationships, and retain a sense of purpose despite the physical and psychological changes associated with aging. However, elderly individuals in Kaduna State frequently struggle in these areas. Urban migration and socio-economic shifts have disrupted extended family structures that once provided social, emotional, and financial support to the elderly (Afolabi, 2019). Increasingly, elderly individuals find themselves isolated, financially insecure, and overlooked by systems that are neither designed nor resourced to meet their unique mental health needs.

As these structural challenges grow, so too does the risk of psychological distress among the elderly. Conditions such as depression, anxiety, and cognitive decline are becoming more prevalent yet remain underdiagnosed and untreated. This is largely due to social stigmas surrounding mental illness, a lack of culturally appropriate interventions, and the scarcity of trained mental health professionals in Nigeria (Emodi, 2017). Despite the presence of some community health services, few are equipped to provide targeted psychological interventions for elderly individuals. Consequently, many suffer silently, mischaracterized as simply "old and tired," while their psychosocial distress goes unrecognized. The need to address this gap with effective, evidence-based psychological support cannot be overstated.

Furthermore, the elderly population is not homogenous. Gender and religion, among other factors, significantly shape how older adults experience aging and how they respond to therapeutic interventions. For instance, elderly women in Nigeria are more likely than men to face financial hardship, limited access to pensions, and longer periods of widowhood (Olusanya, 2019). These realities contribute to heightened emotional vulnerability and social isolation. In contrast, elderly men may grapple with the loss of traditional roles as providers and decision-makers, which can lead to diminished self-worth and increased psychological distress (Akinola, 2021). Religious affiliation also plays a pivotal role in the psychosocial adjustment process. For many elderly Nigerians, religious beliefs and communities offer meaning, routine, and emotional support (Umar, 2021). Engagement in religious practices such as prayer, worship, and

communal gatherings can buffer against loneliness and help cope with aging-related challenges (Adeboye, 2020). Yet, the influence of these variables on the success of therapy interventions remains underexplored. To effectively address the multifaceted psychosocial challenges confronting the elderly in Kaduna State, mental health interventions must be both evidence-based and culturally sensitive. Two promising therapeutic approaches in this regard are Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST). CBT focuses on identifying and reframing negative thinking patterns and behaviors that contribute to psychological distress (Beck, 2011). In elderly populations, CBT has been shown to improve emotional regulation, reduce depressive symptoms, and enhance coping strategies (Gallagher, 2024). SST, on the other hand, provides a safe and empathetic environment for elderly clients to express themselves and receive emotional validation (Moos, 2022). It emphasizes support, encouragement, and the strengthening of social bonds—particularly beneficial for those grappling with loneliness or bereavement (Wills, 2015).

While both therapies are effective in their own right, limited research exists on their comparative effectiveness within Nigerian elderly populations. Even more scarce is data that considers how gender and religious background might influence therapy outcomes. This lack of contextual evidence hinders the development of targeted mental health interventions in Nigeria, especially in underserved regions such as Kaduna State. There remains a critical gap in understanding how to best tailor psychological support to meet the complex needs of aging Nigerians, who often find themselves caught between traditional expectations and modern socio-economic realities.

Therefore, this study is designed to investigate the effects of Cognitive Behavioral Therapy and Supportive Therapy on the psychosocial adjustment of elderly individuals in Kaduna State. Specifically, it aims to determine whether these therapies can meaningfully improve both psychological and social functioning, and whether gender and religious affiliation play moderating roles in the effectiveness of these interventions. The urgency of this research lies in the unmet mental health needs of a growing and vulnerable population. By providing empirical data on the comparative efficacy of CBT and SST in the Nigerian context, the study aims to inform mental health programming, influence public policy, and promote the integration of psychological care into geriatric health services.

Research Questions

1. What is the effect of Cognitive Behavioral Therapy (CBT) on the psychosocial adjustment of elderly individuals in Kaduna State?
2. What is the effect of Supportive Therapy (SST) on the psychosocial adjustment of elderly individuals in Kaduna State?
3. Is there a significant difference between the effects of CBT and SST on psychosocial adjustment among elderly individuals in Kaduna State?

Research Hypotheses

1. H_{01}: Cognitive Behavioral Therapy (CBT) has no significant effect on the psychosocial adjustment of elderly individuals in Kaduna State.

2. **H_{02}:** Supportive Therapy (SST) has no significant effect on the psychosocial adjustment of elderly individuals in Kaduna State.

3. **H_{03}:** There is no significant difference between the effects of CBT and SST on psychosocial adjustment among elderly individuals in Kaduna State.

Research Method

This study employed a quasi-experimental, pre-test post-test control group design to examine the effects of Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST) on psychosocial adjustment among elderly individuals in Kaduna State, Nigeria. The design involved three distinct groups: two experimental groups—each receiving either CBT or SST—and a control group that received no psychological intervention. The primary instrument for data collection was the Psychosocial Adjustment Scale for the Elderly (PASE), adapted to the Nigerian context. The scale consisted of 25 items measuring domains such as emotional well-being, social connectedness, self-esteem, and perceived life satisfaction. Each item was rated using a 4-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (4). Higher scores indicated better psychosocial adjustment. The population for the study comprised elderly individuals aged 60 years and above residing in Kaduna State, with focus on participants from three senatorial zones: Kaduna North, Kaduna Central, and Kaduna South. Participants were selected from public healthcare centers, community centers, and elderly support homes across the senatorial zones. A total of 72 elderly individuals initially expressed interest in participating in the study. Using a stratified purposive sampling technique, 60 participants were selected to ensure equal representation by gender (30 males and 30 females), geographical zone, and religious affiliation. Descriptive statistics such as mean and standard deviation were used to answer the research questions and provide a general overview of participant scores across pre-test and post-test phases. To test the null hypotheses, Analysis of Covariance (ANCOVA) was employed to compare post-test scores across the three groups while statistically controlling for baseline (pre-test) scores. All tests were conducted at the 0.05 level of significance to ensure that observed differences were not due to chance but were attributable to the psychological interventions provided.

Results and Discussion

Research Question 1

What is the effect of Cognitive Behavioral Therapy (CBT) on psychosocial adjustment among elderly individuals in Kaduna State?

Table 1. Mean and Standard Deviation of Pre-Test and Post-Test Scores for CBT Group.

Intervention	N	Pre-Test $\bar{x}$	SD	Post-Test $\bar{x}$	SD	Mean Difference
CBT Group	20	2.45	0.53	3.31	0.48	0.86

Decision Rule*:* A larger mean difference with increased post-test score suggests improved psychosocial adjustment.

Table 1 shows that the mean score for elderly participants in the CBT group rose from 2.45 (pre-test) to 3.31 (post-test), indicating a marked improvement in psychosocial adjustment. This suggests that CBT helped participants manage negative thought patterns, reduce depressive symptoms, and enhance coping strategies in dealing with aging-related stressors. The notable mean difference (0.86) indicates that CBT had a significant practical impact on their psychological well-being.

Research Question 2

What is the effect of Supportive Therapy (SST) on psychosocial adjustment among elderly individuals in Kaduna State?

Table 2. Mean and Standard Deviation of Pre-Test and Post-Test Scores for SST Group.

Intervention	N	Pre-Test $\bar{x}$	SD	Post-Test $\bar{x}$	SD	Mean Difference
SST Group	20	2.51	0.56	3.52	0.42	1.01

As seen in Table 2, participants in the Supportive Therapy group showed an increase in mean scores from 2.51 to 3.52, with a larger mean difference (1.01) than that of the CBT group. This improvement indicates that SST was highly effective in strengthening emotional support, building social connections, and reducing feelings of isolation among the elderly. The substantial gain reflects SST's strength in addressing the social dimensions of psychosocial adjustment.

Research Question 3

Is there a significant difference in the effects of CBT and SST on psychosocial adjustment among elderly individuals?

Table 3. Mean and Standard Deviation of Pre-Test and Post-Test Scores for CBT and SST Groups.

Intervention	N	Pre-Test $\bar{x}$	SD	Post-Test $\bar{x}$	SD	Mean Difference
CBT Group	20	2.45	0.53	3.31	0.48	0.86
SST Group	20	2.51	0.56	3.52	0.42	1.01

Table 3 presents a side-by-side comparison of the Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST) groups' psychosocial adjustment scores before and after intervention. The CBT group improved from a pre-test mean of 2.45 to a post-test mean of 3.31, with a mean difference of 0.86. Furthermore, results from the table shows that the SST group improved from 2.51 to 3.52, with a mean difference of 1.01. However, while both interventions led to notable improvements, the SST group had a slightly higher post-test mean and greater mean difference, suggesting it may have had a stronger effect on enhancing psychosocial adjustment in this sample. This may be due to SST's emphasis on emotional support and interpersonal bonding, which are especially valuable to elderly individuals.

Hypothesis Testing

Hypothesis 1

H_{01}: There is no significant effect of Cognitive Behavioral Therapy on psychosocial adjustment among elderly individuals in Kaduna State.

Table 4. ANCOVA Summary Table for CBT vs. Control Group (Post-Test Scores Controlling for Pre-Test).

Source	SS	df	MS	F	p-value	Remark
Pre-test (Covariate)	0.418	1	0.418	2.01	.164	NS
Group	2.712	1	2.712	8.44	.007	Significant
Error	7.214	36	0.200			

Table 4 indicates a statistically significant effect of CBT on psychosocial adjustment, $F(1, 36) = 8.44$, $p < .05$. This result leads to the rejection of the null hypothesis. Elderly participants in the CBT group demonstrated measurable psychological improvements, suggesting the therapy's effectiveness in reducing cognitive distortions and promoting adaptive coping.

Hypothesis 2

H_{02}: There is no significant effect of Supportive Therapy on psychosocial adjustment among elderly individuals in Kaduna State.

Table 5. ANCOVA Summary Table for SST vs. Control Group (Post-Test Scores Controlling for Pre-Test).

Source	SS	df	MS	F	p-value	Remark
Pre-test (Covariate)	0.445	1	0.445	2.18	.148	NS
Group	3.528	1	3.528	10.82	.002	Significant
Error	7.229	36	0.201			

As shown in Table 5, SST had a statistically significant effect, $F(1, 36) = 10.82$, $p < .05$. Therefore, the null hypothesis is rejected. The results confirm that Supportive Therapy was effective in improving emotional expression, social support, and overall social adjustment among the elderly participants.

Hypothesis 3

H_{03}: There is no significant difference between the effects of CBT and SST on psychosocial adjustment among elderly individuals.

Table 6. ANCOVA Summary Table for CBT vs. SST Group (Post-Test Scores Controlling for Pre-Test).

Source	SS	df	MS	F	p-value	Remark
Pre-test (Covariate)	0.209	1	0.209	0.91	.345	NS
Group	1.265	1	1.265	5.38	.027	Significant
Error	4.727	26	0.182			

Table 6 indicates a statistically significant difference between CBT and SST, $F(1, 26) = 5.38$, $p = .027$. The null hypothesis is therefore rejected. The findings suggest that while both interventions were effective, Supportive Therapy had a slightly greater impact on overall psychosocial adjustment, particularly in enhancing social and emotional functioning among the elderly.

Discussion of Findings

This study set out to examine the effects of Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST) on improving psychosocial adjustment among elderly individuals in Kaduna State, Nigeria. The results from both descriptive and inferential statistics provided empirical support for the effectiveness of the two therapeutic approaches, while also establishing a significant difference in their relative impacts.

Addressing Research Question 1 and Hypothesis 1, findings revealed that participants who received Cognitive Behavioral Therapy demonstrated a significant improvement in psychosocial adjustment, particularly in their psychological functioning. As shown by the increase in post-test scores, CBT effectively helped participants manage negative thought patterns, reduce anxiety and depression symptoms, and enhance adaptive coping skills. ANCOVA analysis confirmed that these improvements were statistically significant when compared to the control group ($F = 8.44$, $p < .05$), leading to the rejection of the first null hypothesis. This result aligns with the findings of Coulson (2022) and Gallagher (2024), who noted that CBT is especially effective in addressing the cognitive distortions that underpin emotional instability and psychological distress in older adults. In this study, elderly participants may have benefited from CBT's structured problem-solving approach, which empowered them to challenge dysfunctional beliefs related to aging, loss, and self-worth.

In response to Research Question 2 and Hypothesis 2, participants who received Supportive Therapy showed even greater improvements in psychosocial adjustment—especially in terms of social functioning. The post-test mean scores for this group were not only higher than those of the CBT group but also reflected a wider mean difference. ANCOVA results further confirmed a statistically significant effect ($F = 10.82$, $p < .05$), leading to the rejection of the second null hypothesis. These findings are consistent with the work of Moos (2022) and Kahn (2017), who emphasized the value of Supportive Therapy in creating a safe, validating environment where elderly individuals can express their fears, receive emotional affirmation, and rebuild social connections. The results suggest that SST's emphasis on empathy, encouragement, and relational support may be especially beneficial in addressing the loneliness and isolation commonly reported among older adults in Nigeria.

For Research Question 3 and Hypothesis 3, a comparative ANCOVA analysis between the CBT and SST groups revealed a statistically significant difference in favour of Supportive Therapy ($F = 5.38$, $p = .027$), resulting in the rejection of the third null hypothesis. While both interventions were effective, Supportive Therapy appeared to have a slightly stronger overall impact on psychosocial adjustment. This finding aligns with the conclusions of Wills (2015), who asserted that the emotional and relational components of therapy are often more salient for elderly clients than purely cognitive restructuring. SST's ability to foster a sense of belonging, self-worth, and interpersonal competence may have resonated more deeply with the cultural and emotional needs of the elderly participants in Kaduna State.

Taken together, the three research questions and corresponding hypotheses make a strong case for integrating both CBT and SST into mental health interventions for elderly populations. However, the more pronounced impact of SST suggests that therapy programs for the elderly—especially in collectivist cultures

like Nigeria's—should prioritize relational and emotional support mechanisms. The results also reveal the nuanced ways in which aging individuals experience psychological stress and the importance of tailoring therapeutic interventions to address both cognitive and social dimensions of adjustment.

More broadly, these findings point to a significant gap in Nigeria's geriatric mental health infrastructure. Many elderly individuals continue to suffer in silence due to the weakening of traditional support systems, lack of access to trained counsellors, and low awareness about the value of psychological interventions. Without urgent attention and policy reforms, the elderly will remain vulnerable to untreated mental health issues, reduced quality of life, and increased mortality risks.

Conclusions

Based on the findings of this study, it is concluded that both Cognitive Behavioral Therapy (CBT) and Supportive Therapy (SST) are effective therapeutic interventions for improving psychosocial adjustment among elderly individuals in Kaduna State, Nigeria. Participants who received either form of therapy exhibited statistically significant improvements in emotional well-being, cognitive coping, and social engagement. These results confirm the applicability of structured psychological support for elderly populations, whose mental health needs are often overlooked in traditional care settings.

Between the two interventions, Supportive Therapy showed greater overall effectiveness, particularly in enhancing the social and emotional dimensions of adjustment. While CBT proved beneficial in modifying dysfunctional thoughts and reducing anxiety and depressive symptoms, SST provided the emotional validation and relational support that many elderly individuals lacked in their daily lives. This suggests that SST may be more appropriate in contexts where emotional isolation, rather than cognitive distortion, is the predominant psychosocial challenge.

These findings carry significant implications for public health and social policy in Nigeria. Elderly individuals are a growing but underserved demographic. Without strategic interventions, they risk falling deeper into neglect, with associated increases in emotional distress and physical decline. Unfortunately, current social services in most Nigerian communities do not include dedicated geriatric mental health programming. This study highlights the urgent need to train mental health professionals in age-appropriate therapeutic models and to integrate CBT and SST into community health centres, elderly care homes, and religious institutions. It is therefore recommended that stakeholders in health, education, and social development collaborate to institutionalize mental health programs for the elderly. This includes curriculum development for counsellors and psychologists, nationwide awareness campaigns about elderly mental health, and government policies that make psychosocial care a priority for aging populations. Doing so will not only improve the well-being of elderly citizens but also contribute to a more compassionate and socially responsible society.

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