African Journal for the Psychological Studies of Social Issues

Volume 29 Number 2, June, 2026 Edition

Journal of the African Society for THE PSYCHOLOGICAL STUDY OF SOCIAL ISSUES % DEPT OF Psychology, University of Ibadan, Nigeria

ASSOCIATIONS BETWEEN ANXIETY, DEPRESSION, AND SUICIDAL IDEATION AMONG CANCER PATIENTS IN SOUTHWEST NIGERIA: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: *Suicidal ideation (SI) is a critical psychosocial concern among cancer patients, particularly in low- and middle-income countries where psychosocial oncology services remain limited. Anxiety and depression are common psychological responses to cancer diagnosis and treatment and have been consistently linked with suicidal ideation.*

Objective: *This study examined the associations between anxiety, depression, and suicidal ideation among cancer patients in Southwest Nigeria.*

Methods: *A cross-sectional survey was employed and 54 adult cancer patients with high risk for SI were recruited using multistage sampling approach. Data were collected with the Suicidal Ideation Attributes Scale (SIDAS) and the Hospital Anxiety and Depression Scale (HADS). Descriptive statistics, chi-square and correlational analyses were employed.*

Results: *Participants had a mean age of 51.2 ± 12.27 years, with 77.8% female. Results indicated 14.8% of participants fell into the low-risk group, 63.0% were classified as moderate risk, and 22.2% were identified as high risk for SI. Also, 46.3%, 33.3%, 20.4% of participants were classified under normal, borderline and abnormal anxiety levels respectively. Similarly, depressive levels were categorised as the normal (66.7%), borderline (18.5%), and abnormal (14.8%). The findings reported a significant association between anxiety and SI ($\chi^2(df = 4, N = 54) = 16.27$, p = .003) as well as significant association between depression and SI ($\chi^2(df=4, N = 54) = 11.05$, p = .026). A significant association between anxiety and depression on SI was also discovered as $\chi^2(df=4, N = 54) = 14.55$, p = .006.*

Conclusion: *Anxiety and depression are significantly associated with suicidal ideation among cancer patients in Southwest Nigeria. Routine distress screening and integrated psycho-oncological interventions are essential to mitigate suicidal risk and improve patient outcomes.*

Keywords: *Suicidal ideation, Cancer, Anxiety, Depression, Psycho-oncology, Nigeria*

INTRODUCTION

Suicidal ideation (SI) refers to thoughts, wishes, or preoccupations with ending one's life (Vuscan, et al, 2022) and is widely regarded as the earliest and most sensitive indicator of suicide risk (Zhang, et al, 2020). It is a suicidal behaviour which arises from overwhelming psychological pain and hopelessness stemming from real-life challenges such as emotional, social, physical, economic, or health-related issues. Aboagye, et al. (2022) also conceptualise suicidal ideation as a psychological state wherein an individual engages in contemplation, formulation, and cognitive processing of self-inflicted death, typically arising from profoundly personal and subjective motivations. Suicidal ideation can be delineated into two primary categories. Active ideation is marked by the presence of a concrete plan and explicit intent to engage in self-harm, whereas passive ideation is distinguished by pervasive hopelessness and the perception that life lacks meaning, accompanied by the belief that death may constitute a more desirable outcome (Wastler et al, 2023).

Cancer represents a major chronic non-communicable disease and remains a significant contributor to the global burden of disease (Fatiregun, et al., 2020). It is a distressing illness that often arises unexpectedly, characterised by abnormal changes in cell shape and a loss of differentiation (Nabipour, et al, 2018). This multifaceted health condition exerts significant effects beyond physical health, often disrupting mental and social functioning and resulting in numerous unmet psychological and psychosocial needs among survivors (Silvaggi, et al, 2023). The disease can affect individuals at any stage of life (childhood, youth, adulthood, or old age) disrupting key periods of growth, productivity, and relaxation. Cancer treatments, such as radiotherapy, chemotherapy and hormone therapy, can contribute to psychological distress including depression, anxiety, hopelessness, demoralisation, or existential distress, social isolation, limited support, fatigue, pain, and debilitating physical symptoms (Kolva et al., 2019; (Du, et al., 2021).

Arising from these, suicidal ideation constitutes a psychiatric emergency (Nigussie, et al, 2023) among individuals living with cancer due to its association with disease burden, treatment-related distress, functional impairment, and existential concerns. This was affirmed in Thapa, et al. (2023) where thoughts of suicide is described as a global issue among cancer patients with prevalence nearly twice as high as in the general population and approximately 28.5% among patients in Ethiopia (Hagezom et al. 2021), particularly during periods of diagnosis, disease progression, or treatment transition. Similarly, Molla et al. (2019) reported a survey in Korea involving patients with Chronic Obstructive Lung Disease (COLD), in which 16.0% to 23.8% of participants expressed suicidal thoughts, varying by disease severity. Supporting these findings, a study conducted in China found that 22.68% of lung cancer patients experienced suicidal ideation (Yu, et al, 2023).
It is worth of mention that suicidal ideation among cancer patients may be inevitable, as cancer which is one of the most prevalent chronic diseases can progressively evolve into a profound crisis, making it difficult for individuals to perform daily activities independently. This situation poses a significant threat to both patients and their families (Nabipour et al., 2018), leading some oncology patients to contemplate hastening their death if their condition worsens (Henry et al., 2018).

For elderly individuals, thoughts of death may arise as they prioritise a dignified burial over prolonged hospital treatments and escalating medical expenses (Martín-Abreu, et al, 2022). Meanwhile, young adults may experience a loss of direction in life, feel as though their world is collapsing, and develop suicidal thoughts due to declining physical strength and disruptions to their normal routines, which must be adjusted to accommodate treatment and disease management (Medaris, 2024). This disruption in daily life can lead to significant psychological distress, as individuals rely not only on basic survival needs such as food, water, air, and shelter but also on progress, social connections, autonomy, and self-determination.
Thus, the incidence of suicidal ideation in this population arises from a constellation of factors, including psychological stress related to the diagnosis, prolonged treatment duration, severe treatment side effects, frequent hospitalisations, disruptions to daily functioning, reduced quality of life, and immunological disturbances (Nigussie et al., 2023). Specifically, suicidal rates have been discovered to be higher among cancer patients with psychiatric diagnoses or psychological distress, such as depression, anxiety, hopelessness, demoralisation, existential distress, social isolation, limited support, advanced cancer stage, female gender and perceived stigma (Hagezom et al., 2021; Du, et al., 2021).
Suicidal ideation in oncology populations in sub-Saharan Africa is intensified by critical variables such as limited access to mental health services, stigma surrounding suicide,

and inadequate routine distress screening which further compound vulnerability to suicidal ideation among cancer patients.

Anxiety and depression are among the most prevalent psychological conditions experienced by individuals diagnosed with cancer, yet they are often overlooked (Uwayezu, et al, 2019). According to Asuzu and Adenipekun (2015) at the University College Hospital, Ibadan, 36.9% of cancer patients reported anxiety, while 31.6% experienced depression

Anxiety represents a natural emotional state in humans, marked by affective, cognitive, and behavioural reactions in response to perceived threats or potential harm. It is a natural reaction to stress, often expressed as fear, apprehension, or nervousness about the present or future (Wegbom, et al, 2023). Anxiety commonly manifests as excessive worry, fear of disease progression, and uncertainty about prognosis (Aruah & Eze, 2021).

Anxiety is a universal experience among living organisms, serving an adaptive function essential to survival. While everyone experiences symptoms of anxiety, it becomes persistent and severe when cognitive, physical, and behavioural symptoms cause substantial distress, hindering daily tasks, limiting social interactions, and affecting an individual's capacity to carry out daily life activities. Vuscan, et al. (2022) recognised anxiety as a key variable that can either increase or decrease suicidal risk. This was affirmed in other studies where a negative association between anxiety and suicidal ideation was discovered, suggesting that lower anxiety levels were linked to more intense suicidal intent and higher anxiety levels may elevate suicide risk (Ahookhosh, et al, 2016; Brown et al., 2018; Sauer et al, 2022).

Depression comes from the Latin word depressio, meaning sinking (Fadipe, et al, 2024). It is a mood dysregulation which may manifest as brief, situational feelings of sadness or as a chronic health condition with long-lasting, intense symptoms that differ significantly from normal emotional states (Nyenabone, 2023; Wardle, 2024). It is characterised by persistent sadness, emotional distress, leading to loss of interest in pleasurable activities, intense feelings of hopelessness, irritability, frustration, isolation, and impaired functioning (Adeyemo, et al, 2024). Sauer, et al. (2022) also emphasised that individuals experiencing severe depression often endure persistent sadness and a loss of interest in life, which diminishes their will to live and heightens suicidal ideation.

Depressive symptoms are established leading predictors of suicidal thoughts (Tegegne, et al., 2022). Beyond emotional symptoms, depression also affects physical and cognitive functioning, manifesting as: Fatigue and exhaustion, difficulty concentrating, crying spells, body aches, and decreased energy or libido, changes in appetite, weight fluctuations, and sleep disturbances. It further leads to: increased burden on caregivers, reduced quality of life, prolonged hospital stays, decreased adherence to prescribed treatments and higher mortality rates (Mausbach, et al, 2015).

Choudhury, et al (2023) reported a strong association between depression and suicidal ideation in patients with gastrointestinal cancer. This aligned with Aruah, et al (2021) report that cancer patients often experience excessive worry following diagnosis, mistakenly believing their condition is untreatable and inevitably fatal. This distress triggers depressive symptoms, further exacerbating their mental health struggles. Further supporting this, Zhong *et al*. (2017) conducted a survey among cancer inpatients at a university-affiliated hospital in Beijing, China, revealing a high prevalence of major depression among cancer patients. Thus, an escalation in

these symptoms can significantly increase suicide risk, prompting individuals to contemplate self-harm or suicidal actions.

It is worth of mention that Nigeria records approximately 124,815 cancer cases (Chidebe, et al., 2023), with the highest incidence rates observed in the southwestern and southeastern states, Oyo, Osun, Enugu, Kwara, Ogun, Ondo, Abia, and Lagos (Oguntoke, 2023). However, there is scarcity of research on psychological dimension of suicidal ideation among cancer patients Nigeria like numerous African nations. To address this gap, there is a need to investigate the associations between anxiety, depression, and suicidal ideation among cancer patients in the Southwest, Nigeria.

Aim and Objectives

The present study examined the associations between anxiety, depression, and suicidal ideation among cancer patients receiving care in tertiary hospitals in Southwest Nigeria. The specific objectives were to:

1. Examine the association between level of anxiety and suicidal ideation among cancer patients in Southwest, Nigeria.
2. Discover the association between level of depression and suicidal ideation among cancer patients in Southwest, Nigeria.
3. Determine the association between level of anxiety and depression on suicidal ideation among cancer patients in Southwest Nigeria.

Research Hypotheses

The study tested the following null hypotheses at the 0.05 level of significance.

H_{01}. There is no significant association between respondents' level of anxiety and suicidal ideation among cancer patients in Southwest, Nigeria.

H_{02}. There is no significant association between respondents' level of depression and suicidal ideation among cancer patients in Southwest, Nigeria.

H_{03}. There is no significant association between respondents' level of anxiety and depression among cancer patients in Southwest, Nigeria

METHODS

Research design

A cross-sectional quantitative survey design was adopted in this study. This design is a form of observational research that examines data from a defined population at a specific point in time (Hall & Lavrakas, 2008). It enables researchers to assess the prevalence of outcomes and exposures, identify relationships among variables, and propose hypotheses about potential causal connections for future investigation. By offering a snapshot of existing conditions, cross-sectional studies are particularly useful for describing population characteristics and exploring associations without requiring longitudinal follow-up.

Study Setting and Participants

Participants were recruited from three government-owned tertiary hospitals in Southwest Nigeria: Olabisi Onabanjo University Teaching Hospital, Sagamu; University College Hospital, Ibadan; and Lagos University Teaching Hospital, Idi-Araba. A multistage sampling approach was adopted, follow these stages:

Stage I: Three states were randomly selected from the six states comprising the South-West geopolitical zone through the ballot method of simple random sampling.
Stage II: The selection of study sites was carried out through simple random sampling, ensuring unbiased representation of government-owned teaching hospitals that provide cancer treatment in the selected states. The final selection included three randomly chosen hospitals: Olabisi Onabanjo University Teaching Hospital (OOUTH), Sagamu, Ogun State; University College Hospital (UCH), Ibadan, Oyo State; and Lagos University Teaching Hospital (LUTH), Idi-Araba, Lagos State**.**

Stage III: Purposive sampling approach was employed to recruit participants during this phase for the study. Participants were screened using the Suicidal Ideation Attribute Scale and only those who scored 21 on the scale and satisfied all inclusion criteria were recruited.

Inclusion Criteria

Eligible participants were adults aged 18 years and above with a confirmed cancer diagnosis and receiving active treatment; respondents with high risk of suicidal ideation (SIDAS score ≥ 21), individuals who willingly agreed to participate, with no form of coercion; and those who signed an informed consent. The inclusion criteria and consent to participate was met by 54 participants.

Study measures

Suicidal Ideation: Suicidal ideation was assessed using the Suicidal Ideation Attributes Scale (SIDAS), 5-item measure assessing frequency, and controllability, closeness to attempt, distress, and functional interference. SIDAS uses a 0–50 scoring range. Scores of 0 indicate no suicidal ideation, while higher scores reflect increasing severity. Research suggests that scores around 1-8 represent low risk, 9-20 indicate moderate risk, and ≥21 reflect high risk of suicidal behaviour (Van Spijker et al., 2014). Internal consistency in the present study was acceptable (α = .75).
Anxiety and Depression: Anxiety and depressive symptoms were assessed using the Hospital Anxiety and Depression Scale (HADS), comprising two 7-item subscales. In each subscale, scores 0-7 indicates a normal range, 8-10 reflects borderline symptoms, and ≥11 signifies abnormal levels suggestive of clinically significant anxiety or depression Internal consistency coefficients were high for both anxiety (α = .94) and depression (α = .92).

Ethical Considerations

Ethical approval was obtained from the Health Research Ethics Committees of all participating hospitals- Olabisi Onabanjo University Teaching Hospital (OOUTH), Sagamu, Ogun State (OOUTH/HREC/798/2024AP); University College Hospital (UCH), Ibadan, Oyo State (UI/EC/24/0395); and Lagos University Teaching Hospital (LUTH), Idi-Araba, Lagos State

(ADM/DSCST/HREC/APP/6797). Written informed consent was obtained from all participants. Study instruments were administered in English or Yoruba, depending on participant preference.

Method of Data Analysis

Data were analysed using IBM SPSS Statistics version 21. Preliminary screening was conducted to assess missing data, normality, linearity, and homogeneity of variance. No extreme outliers were detected. Descriptive statistics (means, standard deviations, frequencies, and percentages) were computed for demographic and clinical variables. Chi-square tests of association were employed as descriptive statistical tools; and were utilised for testing the hypotheses for the study. Statistical significance was set at $p < .05$.

RESULTS

Participants' Demographic Characteristics

Table 1 represents that the participants had a mean age of 51.2 ± 12.27 years. Most were female (77.8%), married (70.4%), and unemployed (55.6%). Breast cancer was the most common diagnosis (37%), and the majority of participants were unaware of their cancer stage (81.5%).

Table 1: Respondents' Demographic Information

Variables	Category	Frequency	Percentage (%)
Gender	Male	12	22.2
	Female	42	77.8
Age	21-40years (Adulthood)	9	16.7
	41-60years (Late adulthood)	34	63.0
	61 and above (Old age)	11	20.4
Tribe	Yoruba	44	81.5
	Igbo	6	11.1
	Others	4	7.4
Education	Primary	8	14.8
	Secondary	22	40.7
	NCE/ND	8	14.8
	BSC/HND	13	24.1
	Masters	2	3.7
	PHD	1	1.9
Marital Status	Single	8	14.8
	Married	38	70.4
	Widow	5	9.3
	Separated	3	5.5
Job Status	Self-employed	10	18.5
	Unemployed	30	55.6
	Disabled	1	1.9
	Retired	13	24.1

Cancer Type	Breast	20	37.0
	Cervical	6	11.1
	Prostate	6	11.1
	Others	22	40.8
Cancer Stage	Stage 1	5	9.3
	Stage 2	3	5.6
	Stage 3	2	3.7
	Stage 4	0	0
	I don't Know	44	81.5

Table 2 summarises the levels of suicidal ideation among cancer patients. Based on the scoring range (0–50) and the established criteria, scores of 1-8 indicating low risk, 9-20 indicating moderate risk, and ≥21 indicating high risk, the respondents were categorised accordingly (Van Spijker et al., 2014).

***Table 2*: Categorise of suicidal ideation level among cancer patients**

Category	Frequency	Percent
Low Risk	8	14.8
Moderate Risk	34	63.0
High Risk	12	22.2
Total	54	100.0

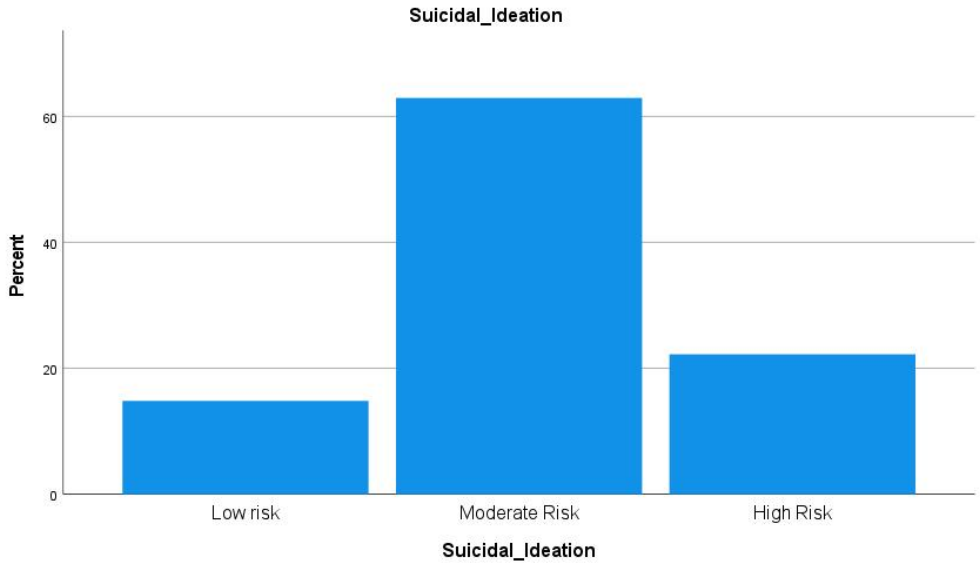


Figure 1. Bar chart illustrating the distribution of respondents across categories of suicidal ideation.

Results in table 2 and figure 1 show that eight participants (14.8%) fell into the low-risk group, 34 participants (63.0%) were classified as moderate risk, and 12 participants (22.2%) were identified as high risk for suicidal ideation.

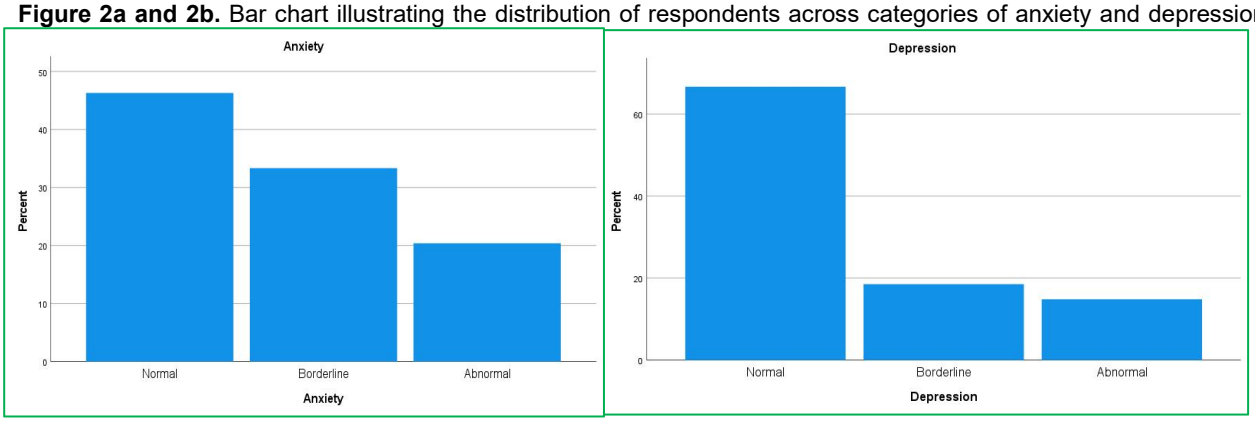
Anxiety and depressive symptoms were assessed using the Hospital Anxiety and Depression Scale (HADS), which consists of two 7-item subscales. In Table 3, each subscale categorises respondents into three groups based on their scores: 0-7 indicates a normal range, 8-10 reflects

borderline symptoms, and ≥11 signifies abnormal levels suggestive of clinically significant anxiety or depression.

***Table 3*: Categorisation of Anxiety and Depression Levels among Cancer Patients**

Category	Frequency	Percent
Anxiety		
Normal	25	46.3
Borderline	18	33.3
Abnormal	11	20.4
Total	54	100.0
Depression		
Normal	36	66.7
Borderline	10	18.5
Abnormal	8	14.8
Total	54	100.0

Figure 2a and 2b. Bar chart illustrating the distribution of respondents across categories of anxiety and depression



levels.

Table 3 summarises the distribution of respondents across categories of anxiety and depression. For anxiety, 25 participants (46.3%) were classified as normal, 18 participants (33.3%) as borderline, and 11 participants (20.4%) as abnormal. For depression, 36 participants (66.7%) fell within the normal category, 10 participants (18.5%) were categorised as borderline, and 8 participants (14.8%) were identified as abnormal.

Anxiety and Suicidal Ideation

Table 4: Cross-tabulation of Suicidal Ideation by Anxiety Level with Chi-Square Results

	Anxiety						
Suicidal Ideation	**Normal**	**Borderline**	**Abnormal**	**Total**	**χ^2**	**df**	**P**
Low Risk	5 (62.5%)	3 (37.5%)	0 (0.0%)	8 (100%)	16.27	4	.003
Moderate Risk	19 (55.9%)	11 (32.4%)	4 (11.8%)	34 (100%)			
High Risk	1 (8.3%)	4 (33.3%)	7 (58.3%)	12 (100%)			
Total	25 (46.3%)	18 (33.3%)	11 (20.4%)	54 (100%)			

Table 4 presents the cross-tabulation of respondents' levels of anxiety and suicidal ideation. The chi-square test of independence was conducted to examine the association between these two variables. The Pearson chi-square value was obtained as $\chi^2(df = 4, N = 54) = 16.27$, $p = .003$. Since the probability value is less than .05, the null hypothesis was rejected. This indicates that there is a statistically significant association between anxiety levels and suicidal ideation among the respondents.

Depression and Suicidal Ideation

Table 5: Cross-tabulation of Suicidal Ideation by Depression Level with Chi-Square Results

	Depression						
Suicidal Ideation	**Normal**	**Borderline**	**Abnormal**	**Total**	**χ^2**	**df**	**P**
Low Risk	7 (87.5%)	1 (12.5%)	0 (0.0%)	8 (100%)	11.05	4	.026
Moderate Risk	25 (73.5%)	6 (17.6%)	3 (8.8%)	34 (100%)			
High Risk	4 (33.3%)	3 (25.0%)	5 (41.7%)	12 (100%)			
Total	36 (66.7%)	10 (18.5%)	8 (14.8%)	54 (100%)			

Table 5 presents the cross-tabulation of respondents' levels of depression and suicidal ideation. A chi-square test of independence was conducted to examine the association between these two variables. The Pearson chi-square value was obtained as $\chi^2(df=4, N = 54) = 11.05$, $p = .026$. Since the probability value is less than .05, the null hypothesis was rejected. This indicates that there is a statistically significant association between depression levels and suicidal ideation among the respondents.

Table 6: Cross-tabulation of Anxiety by Depression Level with Chi-Square Results

	Depression						
Suicidal Ideation	**Normal**	**Borderline**	**Abnormal**	**Total**	**χ^2**	**df**	**P**
Low Risk	21 (84.0%)	3 (12.0%)	1 (4.0%)	25 (100%)	14.55	4	.006
Moderate Risk	10 (55.6%)	6 (33.3%)	2 (11.1%)	18 (100%)			
High Risk	5 (45.5%)	1 (9.1%)	5 (45.5%)	11 (100%)			
Total	36 (66.7%)	10 (18.5%)	8 (14.8%)	54 (100%)			

Table 6 presents the cross-tabulation of respondents' levels of anxiety and depression. A chi-square test of independence was conducted to examine the association between these two variables. The Pearson chi-square value was obtained as $\chi^2(df=4, N = 54) = 14.55$, $p = .006$. Since the probability value is less than .05, the null hypothesis was rejected. This indicates that there is a statistically significant association.

DISCUSSION

This study is one of the few psycho-oncology studies examining suicidal ideation among Nigerian cancer patients. It specifically examined the associations between anxiety, depression, and suicidal ideation among cancer patients receiving care in tertiary hospitals in Southwest Nigeria. The findings revealed significant association between between respondents' level of anxiety and suicidal ideation; respondents' level of depression and suicidal ideation; and respondents' level of anxiety and depression among cancer patients in Southwest, Nigeria; highlighting psychological distress as a critical determinant of suicidal ideation within oncology populations.

Anxiety and Suicidal Ideation in Cancer Patients

The present study demonstrated a significant association between anxiety and suicidal ideation among cancer patients (as shown in Table 4). This finding underscores anxiety as a salient

psychosocial risk factor in oncology, where uncertainty regarding prognosis, fear of recurrence, treatment side effects, and concerns about mortality can intensify anxiety symptoms and psychological distress.

Cancer-related anxiety differs qualitatively from anxiety in non-clinical populations, as it is often sustained by ongoing exposure to illness-related threats and perceived loss of control. Studies within oncology contexts consistently identify anxiety as a predictor of suicidal ideation. Cancer patients experience substantially higher rates of anxiety and suicidal ideation compared with the general population (Choi, et al, 2022). Anxiety is therefore a core psychological determinant of suicidal ideation in individuals diagnosed with cancer (Kolva, et al, 2019).

Although evidence from non-oncology populations supports the anxiety-suicidal ideation link (Grant, et al, 2023), its implications are particularly concerning in cancer care, where psychological distress may remain undetected or untreated. Anxiety, particularly death-related anxiety, has been conceptualised in suicidology literature as a potential protective factor that may discourage self-harm behaviour by reinforcing self-preservation instincts (Sauer et al., 2022). In line with this view, the present findings suggest that lower levels of fear of death may be associated with increased suicidal ideation. Theoretical models such as the Interpersonal Theory of Suicide propose that suicidal behaviour is more likely when individuals develop an acquired capability for self-harm, characterised by reduced fear of death and increased tolerance for pain, often through repeated exposure to painful or fear-inducing experiences (Joiner, 2005).

This interpretation may be particularly relevant in psycho-oncology, where patients are frequently exposed to illness-related stressors such as pain, invasive medical procedures, and ongoing awareness of mortality. Over time, such experiences may contribute to emotional habituation or desensitisation to death-related fear in some individuals. The present findings therefore identified the need for psycho-oncologists to assess not only elevated anxiety symptoms but also emotional numbing, detachment, or diminished fear of death among cancer patients.

Overall, anxiety emerges as a complex but critical indicator of suicide risk in oncology settings. Comprehensive anxiety assessment, including cognitive, emotional, and existential dimensions should form a routine component of cancer care, particularly in resource-limited contexts where psychosocial services are often underdeveloped.

Depression and Suicidal Ideation in Cancer Patients

Depression also demonstrated a significant association on suicidal ideation among cancer patients (as illustrated in Table 5), reinforcing its central role in psycho-oncology. Depressive symptoms such as hopelessness, loss of meaning and social withdrawal may profoundly undermine patients' capacity to cope with cancer-related stressors and diminish perceived reasons for living.

High rates of depression among cancer patients have been documented globally. Nearly one-third of patients attending a radiotherapy clinic in Ibadan, Nigeria exhibited depressive symptoms (Asuzu & Adenipekun, 2015), while over half of cancer patients in Ethiopia experienced depression (Molla, et al, 2022). A robust association between depression and suicidal ideation was established among patients with gastrointestinal cancer (Choudhury & Shahsavar, 2023), with a high prevalence report of major depression among Chinese cancer inpatients, and alarmingly low rates of psychiatric referral (Zhong, et al, 2017). The limited

recognition and treatment of depression in oncology settings may heighten the risk of suicidal thoughts and compound the overall disease burden.

Beyond its association with suicidal ideation, depression in cancer patients has been linked to poor treatment adherence, reduced quality of life, prolonged hospitalisation, and increased mortality (Zhang, et al, 2022). These outcomes identified depression as both a psychological and clinical concern, with implications for cancer survival and overall well-being.

In oncology contexts, hopelessness may be reinforced by advanced disease stage, uncontrolled pain, financial strain, and limited access to supportive care. These factors, when combined with depression, may accelerate psychological decline and increase vulnerability to suicidal thoughts. The present findings therefore reinforce the importance of early detection and effective management of depressive symptoms as a cornerstone of suicide prevention in cancer care.

Anxiety and Depression on Suicidal Ideation in Cancer Patients

This study identified a significant association between anxiety and depression (as illustrated in Table 6), indicating that comorbid psychological distress confers an elevated risk of suicidal ideation among cancer patients. This finding reveals the compounded vulnerability associated with co-occurring anxiety and depressive symptoms in oncology populations.

Cancer patients frequently experience anxiety and depression concurrently due to the cumulative impact of diagnosis, treatment side effects, functional impairment, and existential distress. Anxiety and depression were discovered to be prevalent among breast cancer patients (Akin-Odanye, et al, 2011), with similarly elevated rates across cancer types, relativity to population norms (Eichler, et al, 2015; Diaz-Frutos, et al, 2017; Choi, et al, 2022), with comorbid presentations posing the greatest threat (Wiebenga, et al, 2022). More so, Gorday, et al, (2018) discovered severe symptoms of suicidal ideation among individuals experiencing both conditions anxiety and depression.

Similarly, anxiety and depression mediate the relationship between social and family factors and suicidal intention, suggesting that disrupted support systems may exacerbate psychological distress (Lin, et al, 2023). Existential distress, hopelessness, and poor social support are also key contributors to suicidal ideation in cancer patients (Kolva, et al, 2019). Other factors that may further intensify risk when anxiety and depression co-occur include advanced disease stage, female gender, living alone, and impaired functional status (Araya & Gidey, 2020; Nigussie, et al, 2023).

It is worth of note that delayed recognition of psychological distress remains a major concern. This is because anxiety, depression, and suicidal tendencies often emerge early in the cancer trajectory but remain untreated due to limited screening and intervention (Hassan, et al, 2024). Inadequate psychosocial care may allow distress to escalate, leading to maladaptive coping, diminished quality of life, and increased suicidal ideation (Olamuyiwa & Alabere, 2024).

Implications for Practise

The findings of this study reveal the urgent need to strengthen psycho-oncology practise in Nigeria. The demonstrated associations between anxiety, depression, and suicidal ideation among cancer patients highlight the importance of integrating psychosocial care into routine

oncology services. Distress screening should be adopted as a standard clinical procedure, enabling early identification of patients at risk and ensuring timely psychological intervention.

Beyond screening, psycho-oncology practise must embrace culturally responsive approaches that reflect the social and spiritual contexts in which Nigerian patients experience illness. Many individuals may hesitate to disclose psychological distress due to stigma or reliance on non-medical coping strategies. Hence, these barriers require interventions that respect cultural values while providing structured psychological support.

The integration of psycho-oncology services within oncology clinics is essential to deliver holistic care. Collaboration between oncologists, psychologists, nurses, and social workers would ensure that both physical and emotional needs of patients are detected and managed simultaneously. This multidisciplinary model has the potential to improve treatment adherence, enhance quality of life, and reduce suicide risk among patients.

At a systemic level, the study points to the need for policy reforms that formally recognise psycho-oncology as a vital component of cancer care. Investment in training, capacity building, and patient education will strengthen the ability of healthcare providers to respond effectively to psychological distress. Expanding support programs and counselling services will further empower patients and reduce feelings of isolation.

Strengths and Limitations

This study focused on an important yet underexplored aspect of psycho-oncology in Nigeria by examining the associations between anxiety, depression, and suicidal ideation among cancer patients, thereby contributing context-specific evidence from a low- and middle-income setting where psychosocial oncology research remains limited. The study provides valuable insights by examining a population of high-risk patients hereby enhancing the relevance of the findings for clinical practise and psychological interventions.

Another major strength is the use of standardised and psychometrically validated instruments, Suicidal Ideation Attributes Scale (SIDAS) and the Hospital Anxiety and Depression Scale (HADS), which enhanced the reliability and comparability of the findings. The study also focused on a clinically vulnerable population at elevated psychological risk, thereby generating findings with important implications for psychosocial screening, early identification, and psychological interventions in oncology care.

In addition, the study contributes preliminary empirical data that may serve as a foundation for future large-scale longitudinal and interventional studies in psycho-oncology within Nigeria and similar resource-constrained settings. The findings further underscore the need for integrating routine psychological assessment and psychosocial support services into cancer care practice.

However, the cross-sectional design restricts the ability to infer causality; the associations reflected correlations at a single point in time rather than directional or temporal relationships. Also, the relatively small sample size (n = 54) may have reduced the statistical power of the analysis and limits the generalizability of the findings to the broader population of cancer patients in Nigeria. The study participants were also recruited from specific clinical settings within Southwest Nigeria, which may further restrict external validity across different geographical contexts.

Another limitation is that the study specifically recruited cancer patients with high risk of suicidal ideation. While this approach was appropriate for exploring psychological correlates within a high-risk group, it may have introduced selection bias and limits the applicability of the findings to cancer patients without suicidal ideation or those in community-based settings.

Despite these limitations, the study provides valuable preliminary evidence on psychosocial distress and suicidal ideation among cancer patients in a resource-limited setting. Future research employing longitudinal designs, larger and more diverse samples, and broader recruitment strategies would strengthen the evidence base and allow for more definitive conclusions.

Conclusion

Anxiety and depression are significantly associated with suicidal ideation among cancer patients in Southwest Nigeria, particularly when both conditions co-occur. Integrating routine distress screening and psycho-oncological interventions into cancer care may reduce suicidal risk and improve overall quality of life for patients.

Recommendations

Routine psychological distress screening should be implemented in cancer centres. Psycho-oncology services should be strengthened through the inclusion of trained psycho-oncologists within cancer care teams. Public health policies should prioritise equitable access to mental health support and cancer treatment to reduce psychosocial burden and suicide risk.

Acknowledgment
The authors appreciate all the study participants for taking part in this study.

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