
DEPRESSION: RISK FACTORS, MEDIA INTERVENTION, AWARENESS AND INFORMED DECISIONS AMONG STUDENTS OF SCHOOL OF NURSING, AGBOR

MORKA, EMMANUEL ONYEISI

Abstract

This study examined depression prevalence, risk factors, media intervention awareness, and informed decision-making among nursing students at the School of Nursing, Agbor, to inform evidence-based mental health support strategies. A cross-sectional descriptive design was employed with 120 nursing students selected through simple random sampling. Data were collected using structured questionnaires incorporating validated depression screening tools and digital mental health awareness assessments. Statistical analysis included descriptive statistics, chi-square tests, and correlation analyses using SPSS software. Depression prevalence was alarmingly high at 71.7%, with 39.2% experiencing mild depression, 24.2% moderate depression, and 8.3% severe depression. Academic stress emerged as the primary risk factor (74.2%), followed by clinical placement anxiety (63.3%) and sleep disturbances (68.3%). Digital mental health awareness remained limited,

with only 15% demonstrating high awareness. WhatsApp was the preferred platform for mental health information (51.7%). Significant associations were found between depression and gender ($p=0.041$), academic level ($p=0.048$), and family mental health history ($p=0.002$). Strong correlations existed between academic stress and depression ($r=0.672$) and digital awareness and help-seeking behaviour ($r=0.524$). The study revealed critical mental health challenges among nursing students, necessitating integrated institutional support systems, enhanced digital mental health literacy programmes, and WhatsApp-based intervention strategies to address the identified gaps in awareness and support.

Keywords: Depression, Nursing Students, Digital Mental Health, Academic Stress, Interventions

Introduction

Depression represents one of the most significant mental health challenges affecting young adults globally, with particularly concerning prevalence rates among nursing students who face unique academic and professional stressors. The World Health Organisation emphasises that mental health conditions among adolescents and young adults have reached alarming proportions, necessitating comprehensive understanding and intervention strategies. In educational settings, particularly in healthcare training institutions like nursing schools, students encounter multiple risk factors that can precipitate or exacerbate depressive symptoms. The contemporary landscape of mental health intervention has been transformed by digital technologies and media-based approaches. Digital mental health platforms and interventions have shown promise in addressing the growing mental health needs of young populations (Balcombe & De Leo, 2022). These technological solutions offer unprecedented opportunities for early detection, intervention, and ongoing support for students experiencing depressive symptoms.

Nursing students, in particular, face a complex array of stressors including academic pressure, clinical responsibilities, emotional demands of patient care, and the transition to professional identity. Research indicates that healthcare students demonstrate higher rates of mental health challenges compared to their peers in other disciplines. The demanding nature of nursing education, combined with exposure to human suffering and death in clinical settings, creates an environment where depression can develop or worsen without adequate support systems.

The integration of media interventions and digital platforms has emerged as a critical component in addressing these challenges. Internet-based interventions have demonstrated effectiveness in enhancing mental health literacy and providing accessible support for young adults (Chen et al., 2024). These approaches are particularly relevant for nursing students who often have limited time for traditional counseling services due to their intensive academic and clinical schedules.

Despite growing recognition of mental health issues among nursing students, significant gaps persist in understanding the specific risk factors that contribute to depression within this population, particularly in Nigerian educational contexts. The School of Nursing, Agbor, like many healthcare training institutions, faces challenges in identifying students at risk for depression and implementing effective intervention strategies.

University of Delta, Agbor

Corresponding Author
MORKA, EMMANUEL ONYEISI
E-mail: emmanuel.morka@unidel.edu.ng

Current evidence suggests that traditional mental healthcare services may not adequately meet the preferences and needs of younger populations (Cohen et al., 2021). Many students, particularly males, demonstrate reluctance to seek help through conventional channels, creating barriers to early intervention and treatment. This problem is compounded by limited mental health literacy among students, who may not recognise depressive symptoms or understand available resources.

The rapid evolution of digital mental health solutions presents both opportunities and challenges. While digital interventions show promise for supporting mental health among young adults (He et al., 2022), questions remain about their acceptability, effectiveness, and integration within educational settings. Furthermore, cultural factors, technology access, and digital literacy may influence the success of media-based interventions in Nigerian contexts.

Research indicates that barriers exist in the delivery and uptake of digital mental health interventions among diverse student populations (Kodish et al., 2023). These barriers may be particularly pronounced in resource-limited settings where technology infrastructure and mental health awareness vary significantly. Understanding these challenges is crucial for developing culturally appropriate and effective intervention strategies.

The primary objective of this study is to comprehensively examine depression among nursing students at the School of Nursing, Agbor, with specific focus on risk factors, media intervention effectiveness, awareness levels, and decision-making processes related to mental health support.

Specific objectives include identifying and analysing the prevalence and severity of depressive symptoms among nursing students, examining the relationship between academic stress, clinical exposure, and depressive manifestations. The study aims to evaluate the effectiveness of media-based interventions in increasing mental health awareness and promoting help-seeking behaviours among students.

Additionally, the research seeks to assess current levels of mental health literacy and awareness among nursing students, investigating their knowledge of depression symptoms, available resources, and intervention options. Mental health literacy programs have shown positive effects on student wellbeing and awareness (Kurki et al., 2021), suggesting the importance of educational approaches in addressing these challenges.

The study explores student preferences for mental

health support, including attitudes toward digital interventions, traditional counseling services, and peer support mechanisms. Understanding user preferences is crucial for developing effective digital mental health tools (Kornfield et al., 2022), particularly in educational contexts where students may have varying comfort levels with technology-based solutions.

This research holds substantial significance for multiple stakeholders within the healthcare education system and broader mental health community. For nursing education administrators, the findings provide evidence-based insights into the mental health needs of their students, informing policy development and resource allocation decisions. Understanding specific risk factors will enable targeted prevention and intervention strategies.

The study's focus on media interventions addresses a critical gap in knowledge about digital mental health solutions in Nigerian educational contexts. Digital transformation of mental health services represents a significant opportunity for improving access and outcomes (Bond et al., 2023), particularly in settings where traditional mental health resources may be limited.

For nursing students themselves, increased awareness and understanding of depression can lead to improved self-recognition, help-seeking behaviours, and peer support capabilities. Youth mental health first aid approaches have shown promise in improving adolescent mental health outcomes (Ng et al., 2021), suggesting that peer education and support can play crucial roles in addressing these challenges.

The research contributes to the broader literature on mental health in healthcare education, providing culturally specific insights that can inform similar studies across Sub-Saharan Africa. Additionally, the findings may influence the development of mental health policies and programs within nursing education curricula.

This study focuses specifically on students enrolled at the School of Nursing, Agbor, examining depression-related factors within this defined population. The research encompasses multiple dimensions including individual risk factors, environmental influences, media intervention effectiveness, and institutional support systems.

The scope includes assessment of depressive symptoms using validated instruments, evaluation of media-based intervention approaches, and analysis of awareness levels and decision-making processes related to mental health support. Mixed methods approaches have proven valuable in understanding the complex experiences of young people with digital mental health

interventions (Lilja et al., 2021).

Delimitations include the focus on a single institution, which may limit generalisability to other nursing schools or healthcare education settings. The study period and resources available may constrain the depth of intervention evaluation and long-term outcome assessment. Additionally, cultural and contextual factors specific to the Nigerian educational system may influence findings and their applicability to other settings.

Theoretical Framework

The effectiveness of digital mental health interventions presents a complex landscape of promising outcomes tempered by significant contextual limitations and methodological inconsistencies. While Chen et al. (2024) demonstrate the efficacy of internet-based approaches in enhancing mental health literacy, their findings are predominantly derived from high-income countries with robust digital infrastructure—a critical limitation when considering applicability to resource-constrained settings like Nigeria. This geographical bias in research represents a fundamental gap in understanding how cultural, technological, and socioeconomic factors influence intervention effectiveness across diverse populations.

The theoretical foundation for understanding depression interventions among nursing students reveals notable contradictions in the literature. Gericke et al. (2021) report positive qualitative experiences with internet-based CBT among university students, yet their findings conflict with earlier meta-analyses that suggest variable effectiveness across different cultural contexts. Particularly concerning is the lack of longitudinal follow-up data in many studies, raising questions about the sustainability of digital intervention effects beyond immediate post-intervention periods.

Cognitive Behavioural Theory

While CBT serves as a dominant framework for digital mental health interventions, critical examination reveals both strengths and significant limitations in its application to nursing student populations. The mechanistic approach of CBT, emphasising cognitive restructuring and behavioural modification, aligns well with digital delivery methods (He et al., 2022). However, this same systematic approach may inadequately address the complex intersection of academic stress, clinical exposure trauma, and professional identity development that characterises the nursing student experience.

A critical gap emerges when examining CBT-based interventions in Sub-Saharan African contexts. Martínez

et al. (2021) demonstrate feasibility among young adults, yet their study population lacks representation from African contexts where communal healing practices and spiritual frameworks may conflict with individualistic CBT approaches. This cultural mismatch raises fundamental questions about the appropriateness of Western-derived therapeutic models for Nigerian nursing students, particularly given the collectivist nature of many African societies.

The integration of CBT principles with digital delivery mechanisms leads to the hypothesis that structured, skills-based interventions will demonstrate measurable improvements in depression scores among nursing students. However, this hypothesis assumes cultural neutrality of CBT techniques—an assumption that may prove problematic in Nigerian contexts where indigenous healing practices and community-based support systems predominate.

Health Belief Model and Agenda Setting Theory

The combination of Health Belief Model (HBM) and Agenda Setting Theory creates an intriguing but potentially contradictory theoretical foundation. While HBM emphasises individual perception and decision-making processes, Agenda Setting Theory focuses on media's role in shaping collective attention and priority setting. This theoretical tension reflects a broader challenge in mental health intervention research: the simultaneous need to address individual psychological factors and broader social determinants of mental health. Platform-specific research reveals concerning disparities in effectiveness claims. Thabrew et al. (2023) advocate for WhatsApp and Instagram as optimal platforms for young adults, yet their recommendations are based primarily on engagement metrics rather than therapeutic outcomes. This emphasis on user engagement over clinical effectiveness represents a critical flaw in digital mental health intervention research, where platform popularity becomes conflated with therapeutic value.

The video intervention research by Ito-Jaeger et al. (2022) demonstrates improved mental health literacy but fails to establish causal pathways between awareness and behavioural change. This represents a fundamental weakness in applying Agenda Setting Theory to mental health interventions—the assumption that increased awareness automatically translates to help-seeking behaviour remains empirically unsubstantiated, particularly in contexts where mental health stigma remains pronounced.

The integration of HBM and Agenda Setting Theory supports the hypothesis that media-delivered interventions will influence both individual perceptions

of mental health resources and collective awareness of depression among nursing students. However, this theoretical synthesis fails to account for the potential disconnect between awareness and action in stigmatised health contexts, particularly in Nigerian settings where mental health carries significant social costs.

A systematic examination of digital mental health intervention research reveals stark geographical inequities that fundamentally limit generalisability to Nigerian contexts. The overwhelming majority of studies originate from high-income countries with established mental health infrastructure, robust internet connectivity, and cultural acceptance of mental health treatment. Dingwall et al. (2023) acknowledge technology access considerations but fail to address how fundamental differences in healthcare delivery systems might influence intervention effectiveness.

The absence of comparative effectiveness research across cultural contexts represents a critical methodological weakness. While Sawrikar & Mote (2022) recognise cultural factors in intervention effectiveness, the literature lacks head-to-head comparisons of digital interventions across different cultural settings. This gap is particularly problematic when considering Nigerian nursing students, who navigate complex intersections of traditional healing practices, religious frameworks, and Western medical education.

The synthesis of CBT, HBM, and Agenda Setting Theory creates a comprehensive but potentially unwieldy theoretical framework that may over-theorise relatively straightforward intervention mechanisms. While each theory contributes valuable perspectives, their integration risks theoretical dilution rather than enhancement. CBT provides the intervention methodology, HBM explains individual engagement decisions, and Agenda Setting Theory addresses collective awareness—yet the dynamic interactions between these theoretical components remain inadequately specified.

This theoretical integration supports several testable hypotheses while revealing fundamental limitations:

1. **Primary Hypothesis:** Digital CBT-based interventions will demonstrate significant depression reduction among Nigerian nursing students, mediated by changes in cognitive patterns and self-efficacy beliefs (CBT + HBM integration).
2. **Secondary Hypothesis:** Social media awareness campaigns will increase mental health literacy and help-seeking intentions through agenda-setting mechanisms (Agenda Setting Theory + HBM

integration).

3. **Exploratory Hypothesis:** The effectiveness of digital interventions will be moderated by cultural factors, technological access, and baseline mental health literacy—variables inadequately addressed in existing theoretical frameworks.

The critical examination of existing literature reveals fundamental limitations in applying Western-derived digital mental health interventions to Nigerian nursing students. The theoretical frameworks, while individually robust, require significant adaptation to address cultural, technological, and healthcare system differences that characterise the Nigerian context. This adaptation necessity represents both a methodological challenge and an opportunity to advance culturally responsive mental health intervention research.

The integration of multiple theoretical perspectives, while conceptually appealing, risks creating intervention complexity that may reduce rather than enhance effectiveness in resource-constrained settings. Future research must critically examine whether theoretical comprehensiveness translates to improved clinical outcomes or merely academic sophistication without practical benefit.

Methodology

Empirical research on depression among nursing students employed diverse methodological approaches to understand prevalence, risk factors, and intervention effectiveness. Mixed methods studies proved particularly valuable in capturing the complex experiences of young people with mental health challenges and digital interventions (Lilja et al., 2021). Recent research demonstrated that feasibility studies using pilot randomised controlled trials effectively evaluated digital mental health interventions among young adults transitioning to college environments (Suffoletto et al., 2021). Cross-sectional studies successfully examined mental health literacy and risk factors among college populations, providing essential baseline data for intervention development (to Cormier et al., 2022). The literature supported the use of validated instruments and structured questionnaires for assessing depression prevalence and associated factors in educational settings. This study employed a cross-sectional descriptive research design to examine depression risk factors, media intervention awareness, and informed decision-making among nursing students. The cross-sectional approach allowed for comprehensive assessment of current mental health status, awareness levels, and attitudes toward

digital interventions at a specific point in time. This design was particularly appropriate for establishing baseline prevalence data and identifying correlational relationships between variables of interest. The descriptive nature enabled detailed characterisation of the study population while providing foundational evidence for future longitudinal or experimental studies. The study population comprised all students enrolled at the School of Nursing, Agbor, across different academic levels. Using simple random sampling techniques, 120 participants were selected from the total student population to ensure representative coverage across year groups and demographic characteristics. Random sampling minimised selection bias and enhanced the generalisability of findings within the institutional context. The sample size of 120 participants provided adequate statistical power for detecting meaningful associations while remaining feasible within resource constraints. Inclusion criteria encompassed all currently enrolled nursing students regardless of academic year, while exclusion criteria included students on extended leave or those unable to provide informed consent.

A structured questionnaire served as the primary data collection instrument, incorporating validated scales for depression assessment, mental health literacy measurement, and technology acceptance evaluation. The instrument included demographic sections, standardised depression screening tools, and questions examining awareness of digital mental health interventions. Content validity was established through expert review by mental health professionals and nursing education specialists. Pilot testing with a small subset of students assessed instrument clarity, completion time, and item comprehension prior to full-scale data collection.

Data collection was conducted within the School of Nursing, Agbor, using self-administered questionnaires distributed during regular class periods to ensure optimal participation rates. Research assistants provided standardised instructions and remained available to clarify questions while maintaining participant anonymity. Informed consent procedures preceded questionnaire administration, emphasising voluntary participation and data confidentiality. The institutional setting facilitated efficient data collection while ensuring participant comfort and familiarity with the environment.

Quantitative data analysis employed descriptive statistics to characterise participant demographics, depression prevalence, and awareness levels. Inferential statistics including chi-square tests and correlation analyses examined associations between variables.

Statistical software facilitated comprehensive analysis, with significance levels set at $p < 0.05$. Findings were presented through tables, charts, and narrative descriptions to enhance interpretability and support evidence-based recommendations for institutional mental health programming.

Results

Socio-Demographic Profile of Respondents

The findings of this study reveal significant insights into depression prevalence, risk factors, and digital mental health awareness among nursing students at the School of Nursing, Agbor. The socio-demographic profile demonstrates a predominantly female population (68.3%), which aligns with global nursing education demographics. The majority of participants (43.3%) fall within the 21-23 years age group, representing the core nursing student population during peak academic stress periods.

Table 1: Socio-Demographic Characteristics of Respondents (N=120)

Variable	Frequency	Percentage (%)
Age Group		
18-20 years	45	37.5
21-23 years	52	43.3
24-26 years	23	19.2
Gender		
Male	38	31.7
Female	82	68.3
Academic Level		
First Year	32	26.7
Second Year	41	34.2
Third Year	47	39.2
Residence		
On-campus	71	59.2
Off-campus	49	40.8
Family History of Mental Health Issues		
Yes	28	23.3
No	92	76.7

Depression Prevalence and Severity

The results indicate an alarming prevalence of depression among nursing students, with 71.7% experiencing some level of depressive symptoms. Only 28.3% of participants showed no signs of depression, while 39.2% experienced mild depression, 24.2%

moderate depression, and 8.3% severe depression. These findings exceed global prevalence rates and align with research suggesting higher mental health challenges among healthcare students. The high prevalence supports concerns raised by the World Health Organisation regarding mental health among young adults in educational settings.

Table 2: Depression Prevalence and Severity among Respondents

Depression Level	Frequency	Percentage (%)
No Depression	34	28.3
Mild Depression	47	39.2
Moderate Depression	29	24.2
Severe Depression	10	8.3
Total	120	100.0

The distribution of depression severity suggests that early intervention programs could significantly impact the majority of students experiencing mild to moderate symptoms. This finding is particularly relevant given a research by He et al. (2022) demonstrating effectiveness of digital mental health interventions for young adults with depressive symptoms. The 8.3% experiencing severe depression represents a critical population requiring immediate professional intervention and intensive support services.

Digital Mental Health Awareness

The awareness levels of digital mental health interventions reveal concerning gaps, with only 15.0% demonstrating high awareness and 19.2% completely unaware of available digital resources. The 37.5% with limited awareness represents a significant opportunity for educational interventions. These findings reflect broader challenges in mental health literacy among young populations, as identified by Cormier et al. (2022) in their research on college students' e-mental health literacy.

Table 3: Awareness of Digital Mental Health Interventions

Awareness Level	Frequency	Percentage (%)
Very Aware	18	15.0
Somewhat Aware	34	28.3
Limited Awareness	45	37.5
Not Aware	23	19.2
Total	120	100.0

The preference for WhatsApp (51.7%) as the primary platform for mental health information aligns with research suggesting young adults prefer accessible, private communication channels (Thabrew et al., 2023). Instagram's secondary preference (23.3%) supports the effectiveness of visual content in mental health awareness campaigns, which is consistent with the findings by Ito-Jaeger et al. (2022) regarding digital video interventions.

Risk Factor Analysis

Academic stress emerged as the most prevalent risk factor (74.2%), with a high mean score of 4.2, confirming the demanding nature of nursing education. This finding supports the research by Suffoletto et al. (2021) highlighting academic transitions as critical periods for mental health intervention. Clinical placement anxiety (63.3%) and sleep disturbances (68.3%) represent additional significant stressors specific to nursing education, reflecting the unique challenges of healthcare training programmes.

Table 4: Preferred Social Media Platforms for Mental Health Information

Platform	Frequency	Percentage (%)
WhatsApp	62	51.7
Instagram	28	23.3
Facebook	18	15.0
TikTok	8	6.7
Twitter	4	3.3
Total	120	100.0

Table 4.5: Risk Factors Associated with Depression

Risk Factor	Yes (%)	No (%)	Mean Score (1-5)
Academic Stress	89 (74.2)	31 (25.8)	4.2
Clinical Placement Anxiety	76 (63.3)	44 (36.7)	3.8
Financial Difficulties	68 (56.7)	52 (43.3)	3.5
Social Isolation	45 (37.5)	75 (62.5)	2.9
Sleep Disturbances	82 (68.3)	38 (31.7)	3.9

Financial difficulties affected 56.7% of students, indicating socioeconomic factors as important contributors to mental health challenges. Social isolation, while less prevalent (37.5%), remains a concern given its strong association with depression severity in

young adult populations.

Statistical Associations

The chi-square analysis reveals significant associations between depression and several demographic variables. Gender differences ($p=0.041$) suggest that female nursing students may experience different patterns of depression, potentially related to additional societal pressures and expectations. The significant association with academic level ($p=0.048$) indicates that depression prevalence varies across educational progression, with implications for targeted intervention timing.

Table 4.6: Chi-square Analysis of Depression by Demographic Variables

Variable	χ^2 Value	df	p-value	Significance
Gender	8.24	3	0.041*	Significant
Academic Level	12.67	6	0.048*	Significant
Residence	2.18	3	0.536	Not Significant
Family History	15.32	3	0.002**	Highly Significant

* $p < 0.05$, ** $p < 0.01$

The highly significant association with family history of mental health issues ($p=0.002$) underscores the importance of genetic and environmental predisposition factors. This finding supports comprehensive screening approaches that consider family mental health history as identified in research by Radez et al. (2021) on help-seeking behaviours among young people.

Correlational Findings

The strong positive correlation between academic stress and depression ($r=0.672$, $p<0.001$) confirms academic pressure as a primary contributor to mental health challenges among nursing students. This relationship supports the implementation of stress management programmes and academic support services as prevention strategies.

Table 4.7: Correlation Analysis between Variables

Variables	Correlation Coefficient (r)	p-value	Significance
Academic Stress & Depression	0.672	0.000**	Highly Significant
Digital Awareness & Help-seeking	0.524	0.001**	Highly Significant
Age & Depression Severity	0.298	0.028*	Significant
Social Media Use & Awareness	0.445	0.003**	Highly Significant

The significant correlation between digital awareness and help-seeking behaviour ($r=0.524$, $p<0.001$) demonstrates the potential of digital mental health literacy programmes in promoting treatment engagement. This finding aligns with the research by Chen et al. (2024) on digital empowerment in mental health through internet-based interventions.

The positive correlation between social media use and mental health awareness ($r=0.445$, $p<0.003$) supports targeted social media campaigns for mental health education, consistent with media influence theories and successful digital intervention programmes documented in the literature.

These findings collectively indicate the need for comprehensive, multi-faceted approaches to addressing depression among nursing students, incorporating digital interventions, stress management programmes, and enhanced mental health literacy initiatives tailored to this specific population's needs and preferences.

Discussion of Findings

The study's findings reveal a concerning mental health landscape among nursing students at the School of Nursing, Agbor, with 71.7% experiencing some level of depressive symptoms. This prevalence significantly exceeds general population rates and underscores the urgent need for targeted interventions within healthcare education settings. The predominance of mild to moderate depression (63.4% combined) suggests that early intervention strategies could effectively prevent progression to severe mental health conditions, aligning with preventive mental health approaches advocated in contemporary literature.

The gender disparity in depression prevalence, with female students showing higher rates, reflects broader patterns observed in mental health research. This finding is particularly relevant given the female-dominated nature of nursing education (68.3% in this study) and suggests the need for gender-sensitive intervention approaches. The significant association between academic level and depression indicates that mental health challenges evolve throughout the educational journey, with implications for stage-specific support programmes.

Academic stress emerged as the most significant risk factor (74.2% prevalence), with clinical placement anxiety (63.3%) representing a profession-specific stressor unique to healthcare education. These findings highlight the multifaceted nature of stress in nursing education, encompassing both theoretical learning pressures and practical clinical responsibilities. The strong correlation between academic stress and

depression ($r=0.672$) demonstrates the critical need for comprehensive stress management programmes integrated into nursing curricula.

The limited awareness of digital mental health interventions (only 15% highly aware) represents a significant missed opportunity, particularly given the strong correlation between digital awareness and help-seeking behaviour ($r=0.524$). The preference for WhatsApp (51.7%) as a mental health information platform aligns with young adults' communication preferences and suggests practical pathways for intervention delivery.

The depression prevalence found in this study aligns with research demonstrating elevated mental health challenges among healthcare students compared to general populations. Studies have consistently shown that nursing students face unique stressors that contribute to higher rates of psychological distress (American College Health Association, 2022). The gender differences observed mirror findings from broader research on mental health disparities, where females demonstrate higher rates of internalising disorders during young adulthood.

The limited mental health literacy observed among participants reflects broader patterns identified by Cormier et al. (2022), who found concerning gaps in e-mental health literacy among college students. However, the correlation between digital awareness and help-seeking behaviour supports the findings by Chen et al. (2024), who demonstrated that internet-based interventions can effectively enhance mental health literacy and treatment engagement.

The preference for WhatsApp as a mental health information platform is consistent with research by Thabrew et al. (2023), who found that young people prefer digital communication tools that offer privacy and accessibility. This finding also aligns with studies demonstrating the effectiveness of mobile-based interventions for mental health support among young adults (Kornfield et al., 2022).

The academic stress patterns identified mirror those found in feasibility studies of digital interventions for college students, where academic transitions and educational pressures consistently emerged as primary risk factors (Suffoletto et al., 2021). The clinical placement anxiety specific to nursing students reflects findings from research on healthcare education, where exposure to patient care responsibilities creates additional psychological burden beyond traditional academic stress.

For nursing students, these findings highlight the normalcy of mental health challenges within their

educational experience while emphasising the importance of early recognition and intervention. The high prevalence of mild to moderate depression suggests that many students could benefit from accessible support services and peer-based interventions. The preference for digital platforms, particularly WhatsApp, indicates that students are receptive to technology-based mental health support when delivered through familiar channels.

Educational institutions must recognise the urgent need for comprehensive mental health programming that addresses both general academic stress and profession-specific challenges related to clinical training. The findings support implementing mental health literacy programmes similar to those described by Kurki et al. (2021), which demonstrated positive effects on student wellbeing. Integration of digital mental health tools, particularly those utilising preferred platforms like WhatsApp, could significantly enhance accessibility and engagement.

Healthcare policy makers should consider the implications of mental health challenges among future healthcare providers. Students experiencing depression may face compromised learning outcomes, increased attrition rates, and potential impacts on patient care quality. Investment in student mental health represents both individual welfare considerations and broader healthcare system quality assurance.

The strong correlation between family mental health history and student depression suggests the need for comprehensive screening and support programmes that consider genetic and environmental predisposition factors. This aligns with research by Radez et al. (2021) emphasising the importance of understanding help-seeking barriers among young people.

Technology developers and mental health service providers should recognise the opportunity to develop culturally appropriate, platform-specific interventions for nursing students. The preference for WhatsApp over other social media platforms suggests that intervention design should prioritise functionality and privacy over visual appeal, reflecting the practical communication preferences of this population.

These findings collectively indicate that addressing depression among nursing students requires coordinated efforts from healthcare education while leveraging students' technology preferences and communication patterns.

Summary of Major Findings

This study revealed a concerning 71.7% prevalence of depression among nursing students, with mild to moderate symptoms predominating (63.4% combined).

Academic stress emerged as the primary risk factor (74.2%), followed by clinical placement anxiety (63.3%) and sleep disturbances (68.3%). Gender and family mental health history showed significant associations with depression prevalence. Digital mental health awareness remained limited, with only 15% demonstrating high awareness, though WhatsApp emerged as the preferred platform (51.7%) for mental health information dissemination.

Conclusion

The findings confirm that nursing students face elevated mental health challenges requiring immediate attention. The strong correlation between academic stress and depression ($r=0.672$) underscores the need for integrated support systems within healthcare education. The limited digital mental health literacy represents a significant opportunity for intervention, particularly given the demonstrated correlation between awareness and help-seeking behaviour ($r=0.524$). These results align with Chen et al.'s research emphasising the importance of accessible, technology-based mental health interventions for young adults (2024).

Recommendations

- i. Institutional mental health policies should mandate routine screening and establish referral pathways for students experiencing depression. Investment in digital mental health platforms, particularly WhatsApp-based interventions, should be prioritised based on student preferences.
- ii. Mental health literacy programmes should be integrated into nursing curricula, following successful models demonstrated by Kurki et al. (2021). Stress management training and clinical placement support programmes require immediate implementation.
- iii. Healthcare providers should develop targeted interventions addressing academic stress and clinical anxiety. Digital platforms should incorporate CBT-based approaches, given their demonstrated effectiveness among young adults (He et al., 2022).

Contribution to Knowledge

This study provides the first comprehensive assessment of depression among nursing students in the Nigerian context, contributing valuable insights into culturally specific risk factors and intervention preferences. The identification of WhatsApp as the preferred mental health information platform offers novel guidance for digital intervention design in Sub-Saharan African educational settings, extending the literature on

technology acceptance among diverse student populations (Sawrikar & Mote, 2022).

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