Tanzania Journal of Health Research
Volume 25: Number 2, April 2024
https://dx.doi.org/10.4314/thrb.v25i2.10

Perception of Health Workers on the Integration of Mental Health Care with HIV Services in Primary Health Care Centres in Ogun East Senatorial District, Nigeria: A Qualitative Study

[1]Kolawole Sodeinde, [2]Esther Ogunsilu, [3]Onome Imishue, [4]Olusegun Adebisi, [5]Adebola Omotosho, [6]Ngozi Adefala, [7]Abiola Gbadebo, [8]Saheed Akinmayowa Lawal

[1]*Department of Community Medicine, Babcock University, Ilishan-Remo, Ogun State, Nigeria*
[2]*Department of Primary Health Care, Ikenne Local Government, Ogun State, Nigeria*
[3]*Psychiatrist Unit, Department [1]of Internal Medicine, Babcock University, Ilishan-Remo, Ogun State, Nigeria*
[4]*Department of Community Medicine and Primary Care, Federal Medical Centre, Abeokuta, Ogun State*
[5]*Department of Community Medicine, Babcock University, Ilishan-Remo, Ogun State, Nigeria*
[6]*Department of Community Medicine, Babcock University, Ilishan-Remo, Ogun State,*
[7]*Department of Community Medicine and Primary Care, Olabisi Onabanjo University Teaching Hospital, Sagamu, Ogun State, Nigeria.*
[8]*Department of Public, School of Public & Allied Health, Babcock University, Ogun State, Nigeria.*

Abstract

Background: People Living with HIV/AIDS have an increased incidence of mental health disorders as compared to the general population, and there exists an enormous gap between the demand and supply of mental health services, particularly in low- and middle-income countries.

Aim/Objective: This study aimed to assess the association between HIV and mental health and the knowledge and perception of health workers on their integration in Primary Health Care Services in Ogun East Senatorial District, Nigeria

Methodology: Four Focused Group Discussions were conducted among 27 PHC workers in Highly Active Antiretroviral Therapy (HAART)-enabled centres of Ogun East senatorial district, Nigeria using a focused group guide designed according to study objectives. Data were analyzed using a thematic analysis approach.

Result: Six important themes were extracted from the data in this study (Table 2); "Integration of PHC services", "Multiple mental/psychological health challenges", "Multiple factors as causes of mental illness", "Diverse manifestations of mental illness", "Necessity of incorporating HIV and Mental Healthcare into PHC services", and "Challenges of incorporating HIV and Mental Healthcare into PHC services."

Conclusion and Recommendation: The primary health workers identified the need to integrate mental health care into HIV care in PHCs. However, there is a need to scale up the capacity of PHCs for optimal performance in this regard.

Keywords: Knowledge; Perception; Primary Health Workers; HIV; Mental Disorders

Introduction

In 2019, 12.5% of the global population was reported to be living with mental illness, anxiety and depression being the commonest of these illnesses, affecting 301.4 million and 279.6 million people, respectively. (World Health Organization, 2022) One out of every 4 Nigerians is documented to be

[1] **Corresponding Author:** Kolawole Sodeinde, Tel: +2348062957695, email: kolawolesodeinde024@gmail.com

living with one form of mental illness or the other. (Africa Polling Institute & EpiAFRIC, 2020) Several other morbidities have contributed to the rising incidence of mental illness.

For instance, People Living with HIV/AIDS (PLWHA) have an increased incidence of mental health disorders. (Duffy et al., 2017) This association has also been reported in southwest Nigeria where this study was conducted. (Obadeji et al., 2014) and in some instances, mental health is left untreated among PLWHA in the country. (Ezeanolue et al., 2015) Besides the general population of PLWHA, the burden of mental health has also been shown to be particularly higher in some groups living with the disease such as adolescents (Vreeman et al., 2017) and women. (Waldron et al., 2021) Furthermore, mortality from mental illness among these people is high nullifying the gains of decreased mortality from HIV as a result of efficient antiretroviral therapy over the years. Moreover, mental illness is grossly under-diagnosed and undertreated among PLWHA.(Carvalhal et al., 2012)

A multifaceted association exists between HIV and mental disorders. First, people with mental disorders may underutilize HIV and other medical care, leading to poor HIV treatment outcomes, which may further worsen the psychiatric condition.(Ciesla & Roberts, 2001; Dos Santos & Wolvaardt, 2016) Mental illness can increase an individual's chances of risky behaviours with subsequently increased vulnerability of getting infected with HIV. (Gomez et al., 1999) PLWHA also are faced with mental health stressors due to the protracted nature of HIV, fear of complications and death, and various forms of stigmatization. (Gomez et al., 1999). Lastly, psychiatric illnesses may mimic the early stage of HIV.(Dos Santos & Wolvaardt, 2016)

Primary health care (PHC) is the entry point of the health system. It offers accessible essential health services to people. A direct relationship exists between access to PHC services and positive health outcomes. (Smith, 2017) The PHC system offers people more opportunities to access adequate health care irrespective of socio-economic status. These, among others, include HIV and mental care, which are also common complaints at this level of healthcare. A higher proportion of PHC patients living with HIV is documented to have mental illness as compared to HIV-negative patients. (Dodds et al., 2004)

There exists an enormous gap between the demand and supply of mental health services particularly in low-and-middle-income countries. (Wang et al., 2007) This may partially be due to the shortage of mental health care providers. Mental health disorders are managed by psychiatrists and other mental health specialists who are primarily found in tertiary hospitals(Gm et al., 2020) leading to a shortage of these personnel in Nigeria. (Abang, 2019; Ugochukwu et al., 2020) There is, therefore, a need to explore other alternatives for the provision of mental health services, particularly for individuals like PLWHA who have high risks of mental disorders.

The Nigerian National Mental Health Policy acknowledges the need for integrating mental health services into all levels of care with the responsibility of this integration at the primary level to be shouldered by PHCs and the local governments. (Abdulmalik et al., 2013, 2016; Federal Ministry of Health Abuja Nigeria, 2013) Also, Ezeanolue highlighted areas of possible integration of HIV and mental care services. These include developing health facilities where HIV services are offered, employing the services of standing human resources in HIV programmes giving attention to the importance of existing cultural and social structures in this integration such as building on the roles the community, religious and traditional infrastructures. (Ezeanolue et al., 2015) Nevertheless, there has been poor implementation of this policy. (World Health Organization, 2014) and this has been ascribed to lack of human expertise, deficient screening procedures, insufficient resources for treatment and vertical nature of HIV care.(Remien et al., 2019).

Although PHC workers have been shown in developing countries to have poor knowledge (Cele & Mhlongo, 2020b) and perceptions concerning integrating mental health services into HIV care and also the relationship between these two conditions, (Cele & Mhlongo, 2020a) the feasibility of

scaling up mental health services in PHC settings have been established in Nigeria.(Gureje et al., 2015) Appropriate exposure of PHC workers can lead to significant improvement in their knowledge, diagnostic competence, and apt referral of mental disorders. (Gureje et al., 2015). This study aimed to assess the association between HIV and mental health and the knowledge and perception of health workers on their integration in Primary Health Care Services in Ogun East Senatorial District, Nigeria.

Materials and methods

Study site and design.

This research was a qualitative study conducted in Ogun East Senatorial District, Nigeria which is made up of 9 Local Government Areas (LGAs). In Nigeria, an LGA is an administrative division of a state, often headed by a chairman. It is the first tier of government in the country. Each of these LGAs has a PHC Department which is headed by a Medical Officer of Health. Ikenne and Sagamu Local Government Areas were purposively selected in the senatorial district because they had facilities for HIV care. These were Ogijo PHC and Makun PHC for Sagamu LGA and Ogere PHC and Ilishan PHC for Ikenne LGA. Therefore, a total of 4 Focused Group Discussions (FGDs) were carried out.

Study Population

The study was conducted among PHC workers in the selected facilities.

Inclusion Criteria: All consenting PHC workers who were at least 18 years old **and h**ealth workers who had worked for at least 3 months in their respective health centres.

Sample Size Determination

Nine health workers participated in Ilishan PHC while 6 health workers each participated in Ogere, Ogijo, and Makun PHCs giving a total sample size of 27 health workers (Table 1).

Sampling Method

The participants were selected among health workers in the HAART-enabled Primary Health Care Centres who volunteered to participate in the study. Where there were many volunteers in a facility, purposive sampling was used to select the required number of eligible participants for the FGD (6-12 participants). Purposive method was used so as to select the participants the researcher felt could offer sufficient information concerning the study objective. A range of 6-9 people participated in this study across health facilities. There was a line listing of all the participants selected for the study (this included their names, health centres, and phone numbers). It served as a register used as a quality assurance tool that ensured only those selected participated in the study.

Data collection instrument

A FGD guide was designed according to the objectives of the study with sections including consent process, introduction and establishment of ground rules and the main study questions.

Method of Data Collection

FGDs were done for this study so as to include as many health workers as possible since only a few PHCs offered HIV care and there may not be enough clinic managers to offer enough information for interviews. The FGDs were conducted by the authors of this study, all of which were Public Health or Mental Health physicians. Each FGD lasted about one hour with the participants sitting in a roundtable format and all of them were encouraged to speak freely according to the FGD guide. To ensure this, each participant was assigned a number from one to the last person, so they would not feel uneasy

about their real names being mentioned which may affect the quality of their contributions. The participants were permitted to speak in any of the three languages which were commonly spoken in the study area – English, Yoruba, and Pidgin English. Ground rules were established after which an icebreaker was introduced. Questions were asked on HIV, mental disorders, the association between HIV and mental disorders, and possibility of including them in primary healthcare settings. The moderator was neutral during the discussion. The clerk took notes and also used a voice recorder to capture all issues raised by the participants. All the FGDs were conducted in the respective PHCs.

Data management and analysis: The recorded FGD sessions were transcribed manually. All the comments and opinions of the participants were noted even if such comment(s) were made by just one participant. All similar remarks (themes) were grouped and stated according to the relative number of participants that made them, such that they were stated as being said e.g. 'unanimous or all', 'most of', 'some' or ' a few'. Any reported remarks(s) by the participants in their terms or words were written in italics. Thematic analysis was done for the study.

Ethical consideration

Ethical approval for the study was obtained from the Ogun State Health Research and Ethics Committee (OGHREC/467/36). Approval was also gotten from the MOHs of the two LGAs that were used for this study and from the heads of all the selected facilities. Informed consents were obtained from all the participants and no names or personal identifiers were used for the participants during the focused group discussions. Participation was entirely voluntary.

Results

Socio-demographic Characteristics of Participants

The majority (70.4%) of the participants were in the age group 40-49 years while almost all (96.3%) of them were females. The commonest occupation was nursing (26.0%) and over three-quarters had worked for more than 10 years. Six important themes were extracted from the data in this study (Table 2); "Knowledge of health workers", "Integration of PHC services", "Multiple mental/psychological health challenges", "Multiple factors as causes of mental illness", "Diverse manifestations of mental illness", "Necessity of incorporating HIV and Mental Healthcare into PHC services", and "Challenges of incorporating HIV and Mental Healthcare into PHC services."

Integration of PHC services

The participants believed that various services rendered in PHCs will be more efficiently delivered when the services are integrated instead of each service being offered in isolation. They opined that vertical programmes may not be the best for a typical PHC. According to a 46-year-old CHEW ***"It will be good if we combine our services and efforts in our health centres because the services, we rendered are many. Our patients will benefit better from it".*** In the same vein, a 58-year-old Chief Nursing officer opined ***"Primary Health Services involve different aspects of health and some of them can be integrated."***

PLWHA are faced with multiple Mental/Psychological Health Challenges

Many of the participants believed that a strong association exists between HIV and mental disorders. The negative perceptions the society attached to HIV predisposes PLWHA to a lot of mental health and other related issues. This manifests in different ways

Public Stigmatization

Almost all the participants in this study believed stigmatization is a major challenge that is faced by PLWHA. According to them, stigmatization may be from family, friends, colleagues, or strangers. The following excerpts from the study attest to this

"PLWHA always face stigmatization in the public" (A 40-year-old nurse and a 41-year-old pharmacy technician) ***"What I know about their challenges especially when people know that they have HIV is that they run from them they don't want to relate with them thinking they might contract it from them. They keep avoiding them"***. (43-year-old pharmacy technician)

Self-Stigmatization

The participants discussed self-stigmatization as more of a problem among PLWHA as compared to stigmatization from other people. They believe since awareness about HIV has improved over the years, more and more people have come to accept PLWHA. However, many of these individuals feel so bad about their conditions and tend to stigmatize themselves as they refuse to relate freely with others.

According to a 42-year-old assistant chief nursing officer, ***"Whenever you test a patient and it turns out that the patient has HIV, they think it is a death warrant. It is left for the health care provider to explain to them that it is not a death warrant that whenever they are using their drugs, they will be okay…. some may even feel so bad about themselves that they will not use their drugs as you recommend it for them, and it will make them more sick and their condition may lead to AIDS"***

According to a 41-year-old pharmacy technician, ***"Once some people know that they are HIV positive, then they will feel ashamed to relate with other people."***

Depression

Many participants in this study asserted that HIV patients are prone to having depression irrespective of their socio-demographic status. Depression then contributes negatively to several areas of their lives. In the view of a 42-year-old nurse, ***"Once they know they are positive, they feel depressed and due to that, they withdraw from society. This includes withdrawing from performing their normal day-to-day activities…"***

Abandonment and neglect

This was shown as a major issue among PLWHA. It was described that this may however be more common among women by their spouses. A 27-year-old Community Health Extension Worker (CHEW) opined, ***"Abandonment of their partners when they find out about their HIV status is common among men, they run away from their partners that have HIV. This can lead to mental health illness in the woman"***.

Issues with Disclosure

Some of the participants believed that PLWHA has issues with disclosing their status to their partners and other people. This is partly due to the fear of possible stigmatization and neglect which may occur once people know their status. According to a 47-year-old Health Assistant, ***"They cannot share the nature of their illness with their partner, or anyone else. This particularly worsens depression in them. They cannot share it, even with their pastor or even with their children…"***

Nevertheless, the participants in this study showed that the relationship between HIV and mental health may be 2-way. While PLWHA may have high tendencies of having mental disorder, mentally ill people particularly women and girls on the other end may be exposed to HIV infection when people

sexually assault them because of their mental ill-health. In the words of a 58-year-old Chief Nursing Officer, ***"Those mentally ill people because they aren't doing well anymore, people can take advantage of them and have sexual intercourse with them. From there, they can get infected with HIV."***

Mental illness among PLWHA is an interplay of multiple factors.

The participants asserted that there are several factors militating against the mental health of PLWHA. The factors discussed by the participants included.

Social Factor

The participating health workers believed that the social system many of the PLWHA find themselves contribute to mental disorder among them. According to a 48-year-old Medical Laboratory Scientist ***"When people join bad gangs and begin to take drugs and alcohol, this can cause mental issues"***. Social issues like disappointments by a partner in a relationship were also a factor that was noted to cause mental disorders. According to a 46-year-old Principal-CHEW "***When people divorce and experience scattered marriage and the person does not have a strong mind, it may result into the mental problem"***.

Economic Factor

Economic condition was also pointed out as a factor that may contribute to the development of mental illness among PLWHA. This may occur because of ill-health leading to loss of job by PLWHA. Mental illness among PLWHA was also noted by the participants to be due to economic reasons. This may result from loss of job or catastrophic expenditure from the cost of care for the disease. According to a 50-year-old Health Assistant ***"Other things that may cause mental illness include someone who had a good job and thereafter, suddenly lost it. So, along the line, it can cause mental issues particularly if he or she does not get someone that can assist and he/she begins to brood excessively".***

Spiritual Factor

Some of the participants believed that spiritual factors could cause or contribute to the development of mental illness. According to a 47-year-old Health Assistant, ***"Spiritual attack can come in many ways .... Most especially the foundation someone came from, if there are traces of madness or mental issues in the lineage someone comes from, lo and behold, if prayer is not enough, before he or she knows, he will develop mental illness."***

Other causes of mental illness that were emphasized by participants included accidents with a head injury and puerperal psychosis.

Mental Disorder is Associated with Diverse Manifestations

The participants had various perceptions of how mental illness could manifest ranging from mild to severe manifestation. These include poor personal hygiene, talking alone or having an irrational talk, loss of memory, becoming violent, having hallucinations, poor concentration, having mood swings, suicidal ideation or attempt. Some excerpts below show the views of participants about the manifestation of mental illness

"The signs we can see in them are talking to oneself wherever he is, suddenly talking to someone while the person is wondering what is been said to him or her. Things like these, are the signs". (50-year-old Health Attendant)

"First thing you will observe is that the person will look unkempt with bushy hair and mouth odor… (42-year old nurse)

"Some of these patients may have suicidal ideations thinking of killing themselves…" (47-year-old Health Assistant)

The Necessity of Integrating HIV and Mental Health Care into Primary Health Setting
Participants believed that though mental health should be handled by psychiatrist experts, yet PHC workers have a role to play in mental health care. According to them, there will be an overburden of the tertiary setting for mental health care particularly for minor cases and other responsibilities that need less specialized care. According to a 42-year-old nurse, ***"I think with proper training, every nurse in PHCs should be able to manage someone with a psychological problem. At least we can counsel, observe the person, and talk to the relative. Instead of the patients going to the psychiatrist hospital in Abeokuta (Ogun State Capital in Nigeria), they can get their medications here. Though the mental doctors should treat them, but we can always support them in instances like this".***
Another participant, a 46-year-old Principal-CHEW opined ***"Early stages of mental illness such as looking lost, brooding about something can be handled in PHCs alongside HIV care. The patients can be given medications here once we have trained personnel, but the serious ones (mental health disorders) cannot be accepted here".***

Yet another respondent, a 27-year-old CHEW said ***"From my experience, by the time they are given prescriptions from psychiatric hospitals, they come to the PHCs, and we administer the injections… Therefore, we in PHC settings have a good role to play not only in HIV care but also in mental health care."***

However, many of the participants felt PHC workers should get some level of training that is adequate to identify early stages of mental illness among HIV and other patients and be able to make prompt referrals to specialists. According to a 58-year-old Chief Nursing Officer, ***"We may not be able to handle mental illness because we are not trained. We should receive training so that when we see people with mental health problems, we can call the psychiatrists and inform them about the patient…."***
Challenges of integrating Mental Health Care into HIV Services in PHC Settings

While it may be good to incorporate HIV and mental care in PHC, participants believed there are attending challenges to this. First is the shortage of staff which many of the workers pointed out. All the facilities where the FGDs were conducted complained of inadequate personnel. Besides, they also complained of inadequate training and facility space to handle the integration because both mental health and HIV patients need enough privacy and there may be confidentiality issues.
According to a 47-year old Pharmacy Technician. ***"One of the bottlenecks that we face in HIV care is a shortage of staff. If only we can have more hands, it will be easy to care for HIV patients in our health centers"***. According to a 48-year-old Medical Laboratory Scientist ***"An important challenge to care is that the patients (HIV/mental health) do not like to mix with other patients. It starts even from not wanting others to know what type of laboratory investigations they wish to do and therefore they need a facility large enough to offer adequate privacy"*** According to some of the participants in this study, not providing enough privacy can cause some of the patients to miss their appointments.
Other challenges involved in care are poor political will, inadequate provisions of drugs, and other resources like test kits. A 41-year-old Pharmacy Technician opined ***"in the past 2 months, we have not had enough. We tell the patients to use their drugs to reduce the viral load, but we are not able to make the drugs available in some days… So, we need whatever the government can do about it".***

Discussion

Six important themes were extracted from the data in this study (Table 2); "Integration of PHC services", "Multiple mental/psychological health challenges", "Multiple factors as causes of mental illness", "Diverse manifestations of mental illness", "Necessity of incorporating HIV and Mental Healthcare into PHC services", and "Challenges of incorporating HIV and Mental Healthcare into PHC services". The participants believed that the PHC structure as it cannot accommodate any HIV and mental health care integration. They opined that the PHC professionals lacked the proficiency to handle this important incorporation.

In consonance with the submissions of many of the health workers in this study, various other studies have established a direct relationship between living with HIV and developing mental illness.(Bing et al., 2001; Duffy et al., 2017) In a study, Duko (Duko et al., 2019) proposed several factors that may be positively associated with the development of mental disorders among PLWHA. Such include being a female, being widowed, having poor social support, having poor history of psychiatric illness and HIV-related perceived stigma.

It is not surprising that many participants of this study indicated stigmatization as a major mental-health issue militating against the well-being of HIV patients. This is because stigma and discrimination are two major problems often faced by PLWHA in many developing countries, including Nigeria.(Federal Ministry of Health Nigeria, 2013; Olatunji & Babatunde, 2014) Stigma and discrimination shown to PLWHA can worsen the spread and impact of the HIV/AIDS epidemic. As a result of fear of discrimination and stigma, many individuals are afraid of seeking HIV testing to know their HIV status while PLWHA may be less inclined to declare and openly acknowledge their HIV serostatus. This can lead to continued under-reporting of the epidemic, increased transmission, and limited access to treatment, care, and support programmes. Moreover, stigma and discrimination violate the human rights and dignity of people living with HIV and AIDS and those affected by the epidemic.(Federal Ministry of Health Nigeria, 2013) Similarly, self –stigmatization is a major contributor to mental ill health among PLWHA(Bennett et al., 2016) and it is as dangerous as public stigma.(van der Kooij et al., 2021)

Implementation of the Mental Health Gap Action Programme (mhGAP) has been documented as an effective strategy to scale-up mental health care. The programme is essentially designed to enable non-specialists and improve their proficiency in identifying and managing mental illnesses.(WHO, 2008) In agreement to the goal of this programme, almost all the participants in this current study were of the opinion that mental health care and HIV care should be provided in primary health centres. This assertion by the PHC workers is also in consonance with the report of the study by Gureje which showed that it was possible to scale up mental health services in primary health care centres.(Gureje et al., 2015) It also agreed with the study by Carvalhal (Carvalhal, 2015) which showed mental health care should be integrated with HIV care. This integration has been shown to have several advantages including improved adherence to anti-retroviral therapy.(Carvalhal, 2015). In a scoping review, Conteh reported reduced psychiatric manifestations among PLWHA who received care in facilities where integration of both services was practiced. Furthermore, this review reported that health workers in such facilities were more comfortable discussing mental health issues.(Conteh et al., 2023) According to Remien, this integration would strengthen HIV prevention and care and also facilitated global accessibility to mental health services.(Remien et al., 2019)

One of the themes that emerged from this current study was that integrating mental care into HIV services has associated challenges. The sub-themes included inadequate medicine, poor political will, and shortage of staff. This finding was similar to another Nigerian study which reported that integrating mental and HIV care has inherent challenges such as limited human resources and policy and structural related issues.(Ezeanolue et al., 2015) This finding issues a clarion call to policy makers

and stakeholders in health care particularly concerning mental health and HIV care to ensure provision of more human, material and financial resources if an efficient service integration would be pursued. The use of qualitative approach to elicit data from PHC workers offered the opportunity to adequately explore the views of the participants concerning the subject matter. However, the study does have some limitations. The study area should have been expanded, for instance to include the whole of Ogun State or the southwest region of Nigeria so that more health facilities providing HIV care could have been captured, hence more FGDs conducted with a larger sample size. Moreover, a more robust mixed-method study could have been done with a quantitative component using questionnaires to elicit data not only from health workers but also from PLWHA. This will offer a wholesome assessment of perception from both the providers and the consumers' perspective as regards integration of HIV care and mental health services in PHCs. Future research opportunities may therefore consider such mixed-method studies. According to Wasti et al; 2022, mixed method studies are important and they have increasing relevance in health.(Wasti et al., 2022).

Conclusion and recommendation: This study shows a good perception as regards integrating mental health care into HIV services. However, the participants opined that the setting lacked the capacity to accommodate this integration. Effort, therefore, should be made to improve the capacity of PHCs to perform optimally in caring for HIV and mental health patients. There is a need for infrastructure and system expansion including training and re-training of health care workers to facilitate their competency in both HIV and mental health care.

Acknowledgement
The authors wish to acknowledge the Medical Officers of Health of Ikenne and Sagamu Local Government Areas of Ogun State, Nigeria. We also acknowledge the contributions of all the participants in this study.
Funding
The authors have received no funding for this work.

References

Abang, M. (2019). *'Trend of doctors emigrating is at an all-time high.'* https://www.aljazeera.com/features/2019/4/8/nigerias-medical-brain-drain-healthcare-woes-as-doctors-flee

Abdulmalik, J., Kola, L., Fadahunsi, W., Adebayo, K., Yasamy, M. T., Musa, E., & Gureje, O. (2013). Country Contextualization of the Mental Health Gap Action Programme Intervention Guide: A Case Study from Nigeria. *PLoS Medicine*, *10*(8), e1001501. https://doi.org/10.1371/journal.pmed.1001501

Abdulmalik, J., Kola, L., & Gureje, O. (2016). Mental health system governance in Nigeria: Challenges, opportunities and strategies for improvement. *Global Mental Health*, *3*, e9. https://doi.org/10.1017/gmh.2016.2

Africa Polling Institute, & EpiAFRIC. (2020). *Mental Health in Nigeria Survey Report*. https://nigeriahealthwatch.com>uploads>2020/01/pdf

Bennett, D. S., Traub, K., Mace, L., Juarascio, A., & O'Hayer, C. V. (2016). Shame among people living with HIV: A literature review. *AIDS Care*, *28*(1), 87–91. https://doi.org/10.1080/09540121.2015.1066749

Bing, E. G., Burnam, M. A., Longshore, D., Fleishman, J. A., Sherbourne, C. D., London, A. S., Turner, B. J., Eggan, F., Beckman, R., Vitiello, B., Morton, S. C., Orlando, M., Bozzette, S. A., Ortiz-Barron, L., & Shapiro, M. (2001). Psychiatric disorders and drug use among human immunodeficiency

virus-infected adults in the United States. *Archives of General Psychiatry*, *58*(8), 721–728. https://doi.org/10.1001/archpsyc.58.8.721

Carvalhal, A. (2015). Integrating Mental Health Care for People Living with HIV. *Health Care : Current Reviews*, *03*(01). https://doi.org/10.4172/2375-4273.1000139

Carvalhal, A., Baril, J.-G., Crouzat, F., De Wet, J., Junod, P., Kovacs, C., & Sheehan, N. (2012). Recognizing cognitive and psychiatric changes in the post-highly active antiretroviral therapy era. *The Canadian Journal of Infectious Diseases & Medical Microbiology*, *23*(4), 209–215. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3597400/

CeleW. B., & Mhlongo, E. M. (2020a). Health Professionals' Perceptions of the Integration of Mental Health Into HIV Services. *Global Journal of Health Science*, *12*(2), 13–22. https://doi.org/10.5539/gjhs.v12n2p13

Cele, W. B., & Mhlongo, E. M. (2020b). Knowledge of health practitioners regarding mental health integration into human immunodeficiency virus management into primary healthcare level. *Curationis*, *43*(1). https://doi.org/10.4102/curationis.v43i1.2041

Ciesla, J. A., & Roberts, J. E. (2001). Meta-analysis of the relationship between HIV infection and risk for depressive disorders. *The American Journal of Psychiatry*, *158*(5), 725–730. https://doi.org/10.1176/appi.ajp.158.5.725

Conteh, N. K., Latona, A., & Mahomed, O. (2023). Mapping the effectiveness of integrating mental health in HIV programs: A scoping review. *BMC Health Services Research*, *23*(1), 396. https://doi.org/10.1186/s12913-023-09359-x

Dodds, S., Nuehring, E. M., Blaney, N. T., Blakley, T., Lizzotte, J.-M., Lopez, M., Potter, J. E., & O'Sullivan, M. J. (2004). Integrating Mental Health Services into Primary HIV Care for Women: The Whole Life Project. *Public Health Reports*, *119*(1), 48–59. https://doi.org/10.1177/003335490411900111

Dos Santos, M., & Wolvaardt, G. (2016). Integrated intervention for mental health co-morbidity in HIV-positive individuals: A public health assessment. *African Journal of AIDS Research: AJAR*, *15*(4), 325–331. https://doi.org/10.2989/16085906.2016.1229683

Duffy, M., Sharer, M., Cornman, H., Pearson, J., Pitorak, H., & Fullem, A. (2017). Integrating Mental Health and HIV Services in Zimbabwean Communities: A Nurse and Community-led Approach to Reach the Most Vulnerable. *Journal of the Association of Nurses in AIDS Care*, *28*(2), 186–198. https://doi.org/10.1016/j.jana.2015.09.003

Duko, B., Toma, A., & Abraham, Y. (2019). Prevalence and correlates of common mental disorder among HIV patients attending antiretroviral therapy clinics in Hawassa City, Ethiopia. *Annals of General Psychiatry*, *18*(1), 17. https://doi.org/10.1186/s12991-019-0241-7

Ezeanolue, E. E., Iwelunmor, J., Asaolu, I., Obiefune, M. C., Ezeanolue, C. O., Osuji, A., Ogidi, A. G., Hunt, A. T., Patel, D., Yang, W., & Ehiri, J. E. (2015). Impact of male partner's awareness and support for contraceptives on female intent to use contraceptives in southeast Nigeria. *BMC Public Health*, *15*(1), 879–884. https://doi.org/10.1186/s12889-015-2216-1

Federal Ministry of Health Abuja Nigeria. (2013). *National policy for mental health service delivery*. https://www.healthnews.ng/wp-content/uploads/2018/07/national_policy_for_mental_health_service_delivery.pdf

Federal Ministry of Health Nigeria. (2013). *National HIV&AIDS and Reproductive Health Survey (NARHS Plus II, 2012)*. https://naca.gov.ng/wp-content/uploads/2016/11/NARHS-Plus-2012-Final-18112013.pdf

Gm, K., Ui, I., Ai, J., Yh, W., Y, A., & Ma, U. (2020). Assessment of occupational violence towards pharmacists at practice settings in Nigeria. *Pharmacy Practice*, *18*(4). https://doi.org/10.18549/PharmPract.2020.4.2080

Gomez, M. F., Klein, D. A., Sand, S., Marconi, M., & O'Dowd, M. A. (1999). Delivering mental health care to HIV-positive individuals. A comparison of two models. *Psychosomatics*, *40*(4), 321–324. https://doi.org/10.1016/S0033-3182(99)71226-0

Gureje, O., Abdulmalik, J., Kola, L., Musa, E., Yasamy, M. T., & Adebayo, K. (2015). Integrating mental health into primary care in Nigeria: Report of a demonstration project using the mental health gap action programme intervention guide. *BMC Health Services Research*, *15*(1), 242. https://doi.org/10.1186/s12913-015-0911-3

Obadeji, A., O. Ogunlesi, A., & O. Adebowale, T. (2014). Prevalence and Predictors of Depression in People living with HIV/AIDS Attending an Outpatient Clinic in Nigeria. *Iranian Journal of Psychiatry and Behavioral Sciences*, *8*(1), 26–31. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4078690/

Olatunji, R., & Babatunde, K. (2014). *Stigmatization and Discrimination against People Living with HIV and AIDS A Study of Rural Dwellers in Kwara State, Nigeria*. *1*.

Remien, R. H., Stirratt, M. J., Nguyen, N., Robbins, R. N., Pala, A. N., & Mellins, C. A. (2019). Mental health and HIV/AIDS: The need for an integrated response. *AIDS (London, England)*, *33*(9), 1411–1420. https://doi.org/10.1097/QAD.0000000000002227

Smith, Y. (2017). *Benefits of Primary Health Care*. News-Medical.Net. https://www.news-medical.net/health/Benefits-of-Primary-Health-Care.aspx

Ugochukwu, O., Mbaezue, N., Lawal, S. A., Azubogu, C., Sheikh, T. L., & Vallières, F. (2020). The time is now: Reforming Nigeria's outdated mental health laws. *The Lancet. Global Health*, *8*(8), e989–e990. https://doi.org/10.1016/S2214-109X(20)30302-8

van der Kooij, Y. L., Kupková, A., den Daas, C., van den Berk, G. E. L., Kleene, M. J. T., Jansen, H. S. E., Elsenburg, L. J. M., Schenk, L. G., Verboon, P., Brinkman, K., Bos, A. E. R., & Stutterheim, S. E. (2021). Role of Self-Stigma in Pathways from HIV-Related Stigma to Quality of Life Among People Living with HIV. *AIDS Patient Care and STDs*, *35*(6), 231–238. https://doi.org/10.1089/apc.2020.0236

Vreeman, R. C., McCoy, B. M., & Lee, S. (2017). Mental health challenges among adolescents living with HIV. *Journal of the International AIDS Society*, *20*(Suppl 3), 21497. https://doi.org/10.7448/IAS.20.4.21497

Waldron, E. M., Burnett-Zeigler, I., Wee, V., Ng, Y. W., Koenig, L. J., Pederson, A. B., Tomaszewski, E., & Miller, E. S. (2021). Mental Health in Women Living With HIV: The Unique and Unmet Needs. *Journal of the International Association of Providers of AIDS Care*, *20*, 2325958220985665. https://doi.org/10.1177/2325958220985665

Wang, P. S., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Borges, G., Bromet, E. J., Bruffaerts, R., de Girolamo, G., de Graaf, R., Gureje, O., Haro, J. M., Karam, E. G., Kessler, R. C., Kovess, V., Lane, M. C., Lee, S., Levinson, D., Ono, Y., Petukhova, M., … Wells, J. E. (2007). Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet (London, England)*, *370*(9590), 841–850. https://doi.org/10.1016/S0140-6736(07)61414-7

Wasti, S. P., Simkhada, P., van Teijlingen, E. R., Sathian, B., & Banerjee, I. (2022). The Growing Importance of Mixed-Methods Research in Health. *Nepal Journal of Epidemiology*, *12*(1), 1175–1178. https://doi.org/10.3126/nje.v12i1.43633

WHO. (2008). *mhGAP : Mental Health Gap Action Programme: Scaling up care for mental, neurological and substance use disorders*. https://apps.who.int/iris/handle/10665/43809

World Health Organization. (2014). *Mental Health Atlas 2014 Country Profile: Nigeria*. https://www.who.int/publications/m/item/mental-health-atlas-2014-country-profile-nigeria

World Health Organization. (2022). *Mental disorders*. https://www.who.int/news-room/fact-sheets/detail/mental-disorders

Table 1: Socio-demographic Characteristics of Participants

Variable	Frequency	Percentage
Age		
≤39	4	14.8
40-49	19	70.4
≥50	4	14.8
Sex		
Female	26	96.3
Male	1	3.7
Profession		
Nursing	7	26.0
Pharmacy Technician	6	22.2
Laboratory Scientist	5	18.5
Community Extension Worker	4	14.8
Health Attendant/Assistant	2	7.4
Medical Record Officer	2	7.4
Health volunteer	1	3.7
Duration of service (years)		
≤10	6	22.2
>10	21	77.8

Table 2: Themes, Sub-themes and codes from analysis

Theme	Sub-theme(s)	Code	Sub-code	Definition
Integration of PHC services	Understanding of PHC services	Knowledge of PHC services		How knowledgeable are participants on the various types of PHC services that are available
Integration of PHC services	Familiarity with PHC services	Conversant with PHC services		Participants response on how well they are up-to-date on the various PHC services that are available
Integration of PHC services	Awareness of PHC services	Conscious of existing PHC services		Participants thoughts on how mindful they are of the existing PHC services
Integration of PHC services	Information of types of PHC services	Data on PHC services	Evidence. Facts. Figures.	Statistics, records and documentation on the types of PHC services that are available
Multiple mental/psychological health challenges	Public stigmatization	Stigma displayed by family members	Spoiled identity	Participants response to the expression of stigma towards them from family members
Multiple mental/psychological health challenges	Public stigmatization	Stigma displayed by friends		Participants thoughts on stigma towards them from their friends

Multiple mental/psychological health challenges	Public stigmatization	Stigma displayed by their colleagues		Participants opinions on stigma towards them from their colleagues
Multiple mental/psychological health challenges	Public stigmatization	Stigma displayed by strangers		Participants response to the expression of stigma towards them from strangers that learn about their health condition
Multiple mental/psychological health challenges	Self-stigmatization	Internal negative thoughts	Negative emotions	Participants views on them stigmatizing themselves
Multiple mental/psychological health challenges	Self-stigmatization	Disassociation from others	Negative self-perception	Participants feelings on them stigmatizing themselves
Multiple mental/psychological health challenges	Depression	Self-withdrawal		Participants judgments of themselves leading to non-performance of daily activities
Multiple mental/psychological health challenges	Abandonment and neglect	Rejection by family members and friends		Participants beliefs that family members and friends tend to abandon, neglect and leave these people
Multiple mental/psychological health challenges	Issues with Disclosure	Fear of possible neglect	Choosing to be secretive	Participant's opinion that PLWHA prefer not to tell others about their HIV status
Multiple factors as causes of mental illness	Social factors	Social system/societal structure		Participants thoughts on the societal structure not being supportive towards PLWHA
Multiple factors as causes of mental illness	Social factors	Social relationships	Disappointments	Participants feelings on the breakdown of social relations in marriage or in a social arrangement
Multiple factors as causes of mental illness	Social factors	Social connectedness		Participants views on the loss of social connection, social networks or social support
Multiple factors as causes of mental illness	Social factors	Living circumstances/ arrangements		Participants understandings of a sudden change in living arrangements
Multiple factors as causes of mental illness	Economic factors	Loss of job	Unemployed	Participants' opinion of being unemployed as a PLWHA due to ill-health
Multiple factors as causes of mental illness	Economic factors	No Income		Participants' thoughts on lack of income for everyday living among PLWHA
Multiple factors as causes of mental illness	Spiritual factors	Belief in unseen forces		Participants response on their acceptance that certain unseen forces are at work and manifesting
Multiple factors as causes of mental illness	Spiritual factors	Workings of the supernatural		Participant's views that beyond the physical world; there is a supernatural power at work.
Diverse manifestations of mental illness	Mild	Poor personal hygiene	Often dirty	Participants response on how unkempt and dirty PLWHA with mental illness look
Diverse manifestations of mental illness	Mild	Poor concentration		Participants reply that PLWHA with mental illness often lack concentration in their daily activities

Diverse manifestations of mental illness	Mild	Mood swings		Participants answers on some PLWHA displaying change in their moods as circumstances and situations persist
Diverse manifestations of mental illness	Mild	Hallucinations		Participants observations of some PLWHA sometimes fantasizing with themselves
Diverse manifestations of mental illness	Severe	Hallucinations		Participants answers on the fact that some PLWHA are delirium and regular hallucinate
Diverse manifestations of mental illness	Severe	Talking alone or having insensible conversations		Participants feedback on the fact that some PLWHA are seen talking to themselves and not to another person. That is, they often have self-conversations that is obvious to other people
Diverse manifestations of mental illness	Severe	Becoming violent		Participants opinion that these people are showing signs of violent behaviour
Diverse manifestations of mental illness	Severe	Suicidal ideation/attempts	Suicidal thoughts	Participants answers that some of these persons are having negative thoughts about themselves and life in general. That is, they lack interest in living their lives
Necessity of incorporating HIV and Mental Healthcare into PHC services	Training	Health workers require training		Participants reply that health workers still need to be trained in the area of basic psychiatry
Necessity of incorporating HIV and Mental Healthcare into PHC services	Drug administration	Health workers intervene		Participants feedback that often times the health workers take up the responsibility of administering the drugs as many PLWHA require proper guidance
Challenges of incorporating HIV and Mental Healthcare into PHC services	Shortage of health workers	Inadequate staff		Participants thoughts on their lack of sufficient workers
Challenges of incorporating HIV and Mental Healthcare into PHC services	Poor political will	Lack of governmental commitment		Participants opinion on poor attention received from the government towards PLWHA
Challenges of incorporating HIV and Mental Healthcare into PHC services	Inadequate medicine	Lack of essential drugs		Participant's opinion on the non-availability of drugs for patients