Assessing interprofessional and integrated care in providing sexual and reproductive health services to adolescents at primary healthcare level in Nigeria

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Abstract

Purpose: Sexual and reproductive health (SRH) interventions demand diverse services, encompassing medical, social, and psychological care to ensure the overall wellbeing of service users. In the absence of multidisciplinary response to SRH interventions, service users could be deprived of crucial SRH services, which could undermine their safety. Based on this knowledge, our study was designed to map the interprofessional space in primary healthcare (PHC) facilities in Ebonyi State, Nigeria that deliver SRH services.

Methodology: Interviews with 20 health workers and group discussions with 72 young people aged 15-24 years provided the data for the study. We analysed data deductively, focusing on the assessments of the presence or absence of specific professionals that are typically expected to provide different aspects of SRH services.

Findings: We found conspicuous absence of laboratory diagnostic, social care, psycho-cognitive, and some medical services expected of primary care. These absences necessitated unnecessary referrals, encouraged breaches in confidentiality, undermined social care and justice, increased cost of care, and discouraged young clients from utilizing SRH services provided in PHCs. Our study, therefore, emphasizes the need for integrated care in the delivery of SRH services, which would involve relevant diverse professionals contributing their expertise toward comprehensive care for users for SRH services.

Originality: The study provides human resource insights toward strengthening primary healthcare in Nigeria vis-à-vis efficient delivery of SRH services to guarantee the health security of service users.

Keywords: Integrated care, interprofessional care, multidisciplinary care, sexual and reproductive health, social care, Nigeria

Introduction

Interprofessional or multidisciplinary care comprises one of the expectations of a functional health facility (Perron et al., 2022). This is because, the diverse professionals within health facilities should focus on the core areas of their training, providing comparative advantages (Lavander et al., 2016). A typical health facility should be staffed by professionals, such as nurses, midwives, medical doctors, health recorders, social workers, psychologists, laboratory scientists, radiologists, pharmacists, health attendants, to mention but a few. These professionals are drawn from clinical, social care, administrative, and psychological fields (Tsakitzidis et al., 2017). While they are expected to deliver on their specialties, it is equally expected that they collaborate to provide comprehensive and patient-centred care to service users (Uzochukwu et al., 2023).

Studies have argued that the presence of interprofessional care in any health facility is an important measure to assess resilience, which can be defined by public trust and confidence in the facility, and its response to crisis (Gantayet-Mathur et al., 2022; Tsakitzidis et al., 2017; Weiss et al., 2014). Uzochukwu et al (2023), posited that lack of interprofessional care in health facilities exacerbates healthcare complexities and puts service users at risk.

Evidence from studies on interprofessional collaboration and relationship in health facilities in Nigeria showed that it is grossly lacking (Kitema et al., 2023; Mohammed et al., 2022; Veta, 2023). The studies present the diverse reasons for these poor results to include excessive monopolization of patients by clinicians, weak interprofessional education in schools of training, and absence of standard operating procedures for interprofessional communication and relationship.

The minimum standards for primary healthcare in Nigeria locates SRH services as among services within the purview of primary healthcare (National Primary Healthcare Development Agency, 2012). The policy document also identified professionals that should work in the primary health facilities, including equipment and facilities that must be present. However, it appears to have lacked clarity pertaining to laboratory and social care/justice services and was not emphatic about medical doctors being an integral part of the primary healthcare system. The implications of not having some of these professionals in PHCs, particularly medical doctors and psychosocial professionals, have been documented in previous studies (Agwu, 2023; Aluko et al., 2019; Chukwu et al., 2022). Yet connections between their absence, including the absences of other healthcare professionals and the delivery of quality and timely SRH services to young people in Nigeria is understudied.

Some studies documented negative treatment outcomes for adolescents in need of SRH services because the clinicians that attended to them lacked expertise in stimulating shared decision making (Kazmerski et al., 2019; Sawyer et al., 2001). In another study, sexually exploited adolescents who needed legal protection struggled to secure such, because the relevant professionals to committedly link and help them manage such resources were absent (Pfeffer et

al., 2017). Dearth of justice for SRH service users who have been abused could slow recovery or even place victims at further risk of returning to their predators after recovery.

We identified four important professional services that are indispensable in providing quality and timely SRH services to young people based on the review of studies on SRH services (Elliott et al., 2017; Hensen et al., 2023; Kazmerski et al., 2017). They include, (a) Medical Laboratory services (b) Social care and justice services (c) Psycho-cognitive services, and (d) doctor-provided medical care. This paper adds new contextual knowledge on the: (a) the availability of the four important professional services; (b) how these services are offered (c) by whom, and (d) how service users perceive receiving such services in Nigeria. While this interprofessional care analysis will be relevant in assessing the quality and timeliness of SRH services in PHCs, it will also provide insights for strengthening the human resource components of PHCs in Nigeria.

Methods

Study area

We conducted the study in Ebonyi State, southeast Nigeria. Over six million people reside in Ebonyi state, with about 40% tagged as adolescents (Agu et al., 2022; Ebonyi State Government, 2023). A survey analysis of Ebonyi State reported that sexual debut among adolescents in Ebonyi state occur between 13 – 15 years (Mbachu, Agu, & Onwujekwe, 2020), and of adolescents who are sexually active, about 10% of adolescent females have begun child bearing, with over 35% of them facing mortality incidents (Agu et al., 2022; Ajah et al., 2015). This led the Government of Ebonyi State to map specific local government areas (LGAs) in high need for SRH interventions (Mbachu, Agu, Eze, et al., 2020). It was out of these LGAs that three urban and three rural LGAs were selected for the study, focusing on catchment areas with Primary Healthcare Centers (PHCs) that provide SRH services to adolescents.

There are over 28,000 public PHCs in Nigeria, managed by the National Primary Healthcare Development Agency (NPHCDA) at the national level, and State Primary Healthcare Development Agencies (SPHCDAs) at the subnational levels (Federal Ministry of Health, 2019). They derive regulations from the Minimum Standards for Primary Healthcare, Ward Health System, the Civil Service Rule (CSR), and other legislations that govern primary health services, such as the National Mental Health Policy, Maternal and Neonatal/Child Health Policy, National Reproductive Health Policy, etc.

Besides the CSR that focuses on regulating conducts of civil servants, which include health workers, other policy documents recognise the various services delivered at the primary healthcare level, with some of them stipulating types and cadres of human resources that should be present in the facilities (Federal Ministry of Health and Social Welfare, 2023; National Primary Healthcare Development Agency, 2012). Unfortunately, earlier studies that assessed the

interprofessional composition of primary health facilities reported it to be suboptimal (Uzochukwu et al., 2023; Veta, 2023).

Sampling and data collection

Of the prioritized LGAs receiving SRH interventions, we selected six LGAs with an even representation of urban and rural areas. In each of these LGAs, we found already existing facilities established by the government to provide SRH services, and we selected six to represent the six LGAs. Twenty PHC workers from the facilities, evenly divided across the urban and rural areas were selected. That means, three health workers were interviewed in each of the facilities, with two more health workers randomly selected from any of the facilities in the rural and urban groups respectively.

We held twelve (12) Focus Group Discussions (FGDs) with 72 young people (six persons per group) across the six LGAs. We ensured an equitable representation of male and female adolescents throughout the conduct of the FGDs. To ensure balance of power among the interviewed adolescents, we organized the group discussions in a way that permitted those that were between 15-18 years to be organized independently of those that were between 19-24 years. Thus, in each of the selected LGAs, we ensured that FGDs were either conducted with a younger female group and an older male group, or an older female group and a younger male group. We sought written informed consent from the caregivers of those under the age of 18 years. So, in all, 92 participants were involved in the study.

A team of qualitative experts collectively designed the tools used to interview both service providers and users. The tools, among other areas of interest, included questions that sought to assess availability of professionals and vital services for SRH, service satisfaction, limitations in providing services, gaps needing expert interventions, among others. Before deploying the tools, we conducted a pretest on the targeted population in a state not selected for the study to check for management of respondents' fatigue, unclear questions, and reactions to asked questions. Findings from the pretest were instrumental to the revision of the tools before the main data collection.

We gave written informed consent forms to the participants and their parents (those under 18 years) before commencing any interview session. The informed consent forms contained details about the study in line with full disclosure, confidentiality, recording, and anonymity. Participants had to read the informed consent forms before appending their signatures, which signaled their consent for participation. The health workers were mainly interviewed in the facilities, while the service users were interviewed elsewhere away from the facilities to prevent undue influence from health providers on their responses. Participants were allowed to determine the language they are most comfortable with, and they all chose English language.

Data analysis

All recordings from the interviews and group discussions were transcribed verbatim in English language. The predetermined framework we had to check for the availability of interprofessional care was used as codes, implying that we resorted to a deductive coding method using NVivo software. Supportive narratives were placed under each of the themes and were validated in a team's meeting. Disagreements were identified and referred to two independent peers to resolve.

Ethics

The project proposal was submitted to a Health Research Ethics Committee in the country where we undertook the study.

Results

We present results from the study under five themes that include (a) sociodemographic description of participants, as well as the availability and efficacy of: (b) medical laboratory services (c) social care and justice services (d) psycho-cognitive services, and (e) doctor-provided medical care.

Sociodemographic description of participants

The 20 health workers selected for this study were drawn from the six LGAs, and they evenly represented rural and urban areas. They were all females, reflecting the female-dominant workforce in PHCs. Fifty percent of them were aged 39-44 years, while the rest 50% were above 44 years. The health workers were all married. The majority of them (85%) recorded more than 20 years of service in primary healthcare, and 65% of them had below a Bachelor's Degree, reflecting how those with community health extension certification dominate PHCs.

We also selected the 72 adolescents in a manner that evenly represented rural and urban areas, as well as the male and female gender. Fifty percent of the adolescents were within the age category of 15-18 years and the other fifty percent, 19-24 years. The majority of the adolescents had achieved completion of secondary education (84.7%), 9.7% had completed primary education, and 5.5% had attained tertiary educational qualification.

Assessment of medical laboratory services in SRH interventions

We discovered that PHCs in the study do not provide laboratory diagnosis under the same roof, and they lacked laboratory professionals, leading to regular outward referrals of patients, even in cases of emergency.

> *Sometimes, some of them will come down with maybe bruises or even raped. Like the case we had some time ago; a girl of 19 years was raped, and she was brought to the facility.*

> *We had to first refer her to a laboratory to confirm if she was infected or had contracted any form of disease … [IDI, Health Worker, Urban LGA]*

Health workers mentioned that outward referrals may not be received well by service users, who may become burdened by extra costs in terms of paying for the tests and commuting to the laboratories. And service users felt it exposed their concerns a lot more to people at the referral destinations, resulting in abandoning referrals and succumbing to alternative care that could be harmful.

> *We do not do Sexually Transmitted Infection (STI) tests here; we do not do such services here. All we do is to counsel and advise patients based on the information they need. We advise them and tell them to go and do the tests and bring the results for us to see […] Yes, it is more money for them […] Truthfully, some of them do not return to us when they are told to go do tests [IDI, Health worker, Rural LGA]*

Assessment of social care and justice services in SRHThere was a clear absence of social care and justice professionals like social workers in the PHCs. Community Health Extension Workers (CHEWs) and other clinical service providers undertook social care and justice roles. It was unsurprising that service users complained about the poor social care and justice services available to them. We document their complaints in seven categories of: (a) lack of regards for self-determination (b) breach of confidentiality (c) lack of regards for rights and being judgmental (d) application of deceit to service delivery (e) absence of safe space (f) absence of financial protection, and (g) absence of complaint channel.

(a) Lack of regards for self-determination

In this study, we found several abuses of self-determination of SRH service users. Very common was health facilities prohibiting SRH service users from utilizing abortion services.

> *[…] people were carrying pregnancies and wanted to abort, but this health centre here, they did not allow people to do abortion. Once you are pregnant you must give birth, no matter your age [FGD, Older Adolescent Male, Rural LGA]*

The health workers also did not respect the opinion and choices of service users.

> *Normally, some nurses do not consider our right. I came here and I told them that I do not take injections, but I will prefer drugs. The health worker said no and went ahead to force me to take the injection. I lost consciousness […] [FGD, Younger Adolescent Female, Urban LGA]*

(b) Breach of confidentiality

Young people presented narratives that showed they had lost trust in the system, because confidentiality was breached.

In the health centre, when you are pregnant and they notice that you are a girl of something like 15 or 16 years, the first question they will ask you is if your school is aware. They go as far as reporting you to your school, which could make your school to expel you. [FGD, Older Adolescent Female, Rural LGA]

Presently in this area, hardly before you see any of us go to the health centre to expose what is wrong with us. Because, before you will finish, your parents at home will become aware, and even the entire community. It is because of these bad experiences that we now take herbs, including me. Those people that give us herbs know how to keep our secrets. [FGD, Younger Adolescent Female, Urban LGA]

(c) Lack of regards for rights and being judgmental

Young people seeking SRH services want to be respected, and our data seem to show otherwise. Issues of being judgemental were rife in the facilities, among other discriminatory practices.

If you go to the PHC and they ask you of your marital status and if you tell them that you are married, they might stop the conversation and proceed to take care of you. But once you say that you are not married, they will start insulting you, asking you how old you are that you got pregnant without being married. They will say that no man will accept to marry you. Some patients get angry and leave and never visit them again. [FGD, Older Adolescent Male, Rural LGA]

As a boy or girl, if you go to the health centre to collect condom, that woman will start telling you that you are too young. She will tell you that your mates are in school. She can call you prostitute. That is why some boys just decide to have sex without condoms, which will lead to someone becoming pregnant [FGD, Younger Adolescent Female, Urban LGA]

(d) Application of deceit to service delivery

Female service users mentioned that they had experienced being deceived to keep pregnancies when they sought for abortion services, which was completely against their will. This was said to be more applicable to young women from poor homes.

To take for instance, if you are pregnant and from a poor family, then you go to the health centre and ask them to give you abortion pills. They will say okay but go ahead to give you pills that will rather enhance the growth of the baby in your womb. But the children of the rich cannot experience that. They will take their kids to the hospital and abortion will be done. [FGD, Older Adolescent Female, Urban LGA]

(e) Absence of safe space

Key to a safe space is the fact that young people should express themselves and feel protected. In many cases, this was found to be absent.

It affects a lot because I go there with a doubting mind. I see their actions toward people like me and I get encouraged to run away, and even leave the girl with her pregnancy. What comes out from the mouths of the health workers should never be. They use their tongues to lash people like us that have made these mistakes […] [FGD, Older Adolescent Male, Rural LGA]

(f) Absence of financial protection

Most young people in our study are not in paid labour and do not have the means to pay for SRH services that are not provided without charges. It was observed that in some cases they were expected to pay some tokens which they did not have and consequently were deprived of using SRH services in some PHCs.

Yes, I told them that I do not have money to deposit for treatment and they told me that they could not treat me if I do not pay money. I asked them what if I was unconscious. They still refused and told me to go get money before they can treat me. I was sad and I left the health centre very angry [FGD, Younger Adolescent Female, Rural LGA]

(g) Absence of complaint channels

There were no complaint channels to address young peoples' social care and justice concerns. This made them to be completely helpless.

The best you can do is to report to your friend. Just so that your friends will know what you are passing through and not become victims tomorrow [FGD, Younger Adolescent Male, Rural LGA]

Even if you report them to their fellow health workers, they will not do anything. It is your name that will still spoil. They will tell everyone that you are infected with a sickness [FGD, Younger Adolescent Female, Rural LGA]

Assessment of psycho-cognitive services in SRH

Just as we did not find social care workers and social justice professionals in the facilities, we also did not find psychologists in the facilities. The health workers appeared to have been trained to provide basic counselling services, which sometimes could contrast with best practice because they lack some expertise.

Yes, they give us counselling, but they teach us that we should run away from sex before marriage. And that if you cannot avoid sex then you should use protection, because by so doing one will run away from diseases. [FGD, Younger Adolescent Male, Rural LGA]

They have counselling centres where people not informed about sex should go and seek advice. When you get there, the health worker will preach to you on what you should do and what you should not do. [FGD, Older Adolescent Male, Urban LGA]

We found some unprofessional conducts displayed by the health workers who had taken up counselling roles. Some could be insensitive and judgmental, and in certain cases the health workers were not professional enough to bring the service users to a level where they felt comfortable discussing their plights.

> *From my experience with my girlfriend that had abortion, she was taken to a health facility. Immediately they discovered that she was not married, they began scolding her and used a lot of painful words on her, causing her to cry […] [FGD, Older Adolescent Male, Urban LGA]*

> *You know, most of my colleagues do scold or react whenever they see these young individuals seeking for post-abortion care, but I always advise against that […] [IDI, Health Worker, Rural PHC]*

On being judgmental, a common narrative during the FGD was that the health workers could judge appearances of young people that come to them for counselling services.

> *As for me, I am usually scared to go to the hospital, because after looking at my condition and how I appear and the way the health workers will react, I just run away. [FGD, Older Adolescent Female, Rural LGA]*

Assessment of medical care in SRH interventions

Finally, the absence of medical doctors in the facilities was an issue. Treatment procedures that were to be conducted at the level of the PHC facilities were referred. Again, leading to poor health seeking practices.

> *We do not treat sexually transmitted infections here, especially the complicated ones and that is because of no medical doctor. Some of these young people may have gone to medicine vendors or even have abortion before coming here, and we do not have the skills to handle that. So, we refer them to a doctor. [IDI, Health Workers, Rural PHC]*

Table 1 presents a mapping of the interprofessional care space within the PHCs rendering SRH services, identifying the gaps and their consequences. It further goes to show that the human resource component of PHCs is yet to be optimal and constrains optimal delivery of SRH services among other health interventions expected of a PHC facility in Nigeria.

Insert Table 1 about here

Discussion

This qualitative study explored interprofessional and integrated care in the provision of SRH services to young people in primary healthcare (PHC) facilities in Ebonyi, Nigeria. Our study found the absence of multidisciplinary/interprofessional care in PHCs that deliver SRH services in Nigeria, hence compromising service users' health security. This finding aligns with previous studies, citing that interprofessional gaps in the provision of SRH services are a major challenge

to achieving client satisfaction in many developing countries (Cappiello et al., 2016; Chen et al., 2022).

Collaborations among diverse professionals within health facilities contribute to health systems resilience, and is considered very vital in the management of complexities that characterize health systems (Uzochukwu et al., 2023). The goal is to provide relevant health services under one roof, in line with patient-centred care and safety of health service users (Agreli et al., 2016). Unfortunately, the current study found interprofessional gaps in PHCs, especially in terms of absence of the relevant professionals.

Interprofessional care assessment in Nigerian PHCs is an area of health systems literature where much work is yet to be done. Understandably, the minimum standards for PHCs in Nigeria is silent on interprofessional care, seeming to have restricted PHCs to community health workers and community health officers (National Primary Healthcare Development Agency, 2012). Since 2012, the standards are yet to be reviewed to reflect recommendations of scholars and healthcare stakeholders to beef up the interprofessional space of PHCs, just as is obtainable in other parts of world (Agwu & Okoye, 2021; Aluko et al., 2019; Balogun, 2021; Doty et al., 2020). The implications of this are overreaching, leading to community health workers in facilities undertaking roles beyond their expertise, which could lead to errors in care, and most times, unnecessary referrals. These scenarios came out strongly in our study, and they profoundly undermined SRH interventions for young people.

Unnecessary referrals for SRH services were common in the PHCs. Particularly, laboratory diagnostic and doctor-provided medical care were absent, and the PHCs were forced to regularly refer SRH service users to seek those services elsewhere. It was clear that the PHCs were structured not to make provisions for such services, as they lacked medical laboratory departments, laboratory equipment, medical laboratory professionals or technicians, and had no medical doctor. While referrals can be seen as good practice, referrals from PHCs for services that naturally and formally comprise primary care make no sense. For instance, referring service users to higher facilities and laboratories for treatment of sexually transmitted infections like gonorrhea and asking them to visit laboratories for HIV/AIDS and bacteria culture tests, undermine the essence of primary healthcare. The neglect of laboratory services in primary health was also identified as a problem in India, suggesting that improving the comprehensiveness of primary care services delivered by primary health facilities should be an agenda for primary healthcare in the global south (Jain & Rao, 2019).

Unnecessary and unwarranted referrals permitted avoidable consequences such as service users refusing to visit the referred destination because they do not want to further expose their health conditions or that they had no money. As a result, some of the SRH service users resorted to self-medication and had to patronize the use of herbs, as well as other informal health practices. Studies have criticized most referrals from PHC facilities as unwarranted, unnecessary, and counterproductive (Lengeler et al., 2022; Nsemo et al., 2022; Uzochukwu et al., 2023). These

studies also agree that PHC facilities will be effective when the full reach of primary care services is provided under one roof.

Just in the same way medical doctors and medical laboratory professionals were absent, our study found complete absence of psychosocial professionals like social workers and psychologists. The roles of psychosocial professionals in SRH interventions cannot be overstated. Essentially, they undertake social care and justice services, counselling, rehabilitation, social protection, and in many cases, they play case management roles where they coordinate a wide range of services for clients (Chandra-Mouli et al., 2019; Dongarwar & Salihu, 2019). For instance, it was reported that some service users who sought abortion services were treated unfairly and disrespectfully, which may not be disconnected from the conservativeness of Nigeria's culture and law against abortion. However, with professionals like social workers and psychologists who are trained and measured by their responsibilities toward social care, human rights, and social justice, we believe that such service users will be protected and treated with dignity. Social workers' roles in helping those who seek abortion elsewhere in Africa and America have received commendations and their commendable roles have been structured into standard operating procedures (Sekudu & Carbonatto, 2006; Witt et al., 2022).

Furthermore, unlike the other clinical services for SRH that had health workers in PHCs making referrals, we found that health workers undertook psychosocial roles themselves, and in many cases, undermined them. The effects included patronage of informal providers and complete avoidance of PHCs by service users who felt the PHCs were not sensitive to their plights, lacked a reporting channel, did not regard their confidentiality, hardly recognized their self-determination, and did not provide them with social care and protection. Disappointingly, those who had experienced abusive treatment in the PHC facilities wished not to return and went ahead to advise those with common issues not to visit the facilities. This goes to show that the ripple effects of not having an optimal psychosocial service component within PHCs and in SRH interventions can undermine clinical expectations and outcomes. A similar study argued that when social justice is missing in SRH services, the implications could be overwhelming, manifesting in slowly paced recovery; exposure to further threats after recovery (for those that have been abused), and diminished trust in a system that only cater to physical health (Pfeffer et al., 2017).

The neglect of interprofessional care in SRH services in PHCs seems to have evolved into a practice and/or culture, where actors in the system might have normalized these gaps and are either filling them inappropriately or creating inappropriate alternatives. It is worsened by the lack of revision of relevant policy documents to reflect prioritization of interprofessional care in PHCs, which questions the design of PHCs in Nigeria to optimally deliver comprehensive primary care services. Perhaps, the weak emphasis of interprofessional care in the policy documents accounts for why actions are yet to be taken to ensure that PHCs in Nigeria are accommodative of the relevant professionals that can guarantee the full reach of primary care. This is apparently dangerous for the health system, and not just SRH services alone.

Therefore, a whole-of-system approach is proposed to address this limitation in Nigeria's PHC system, which include a scientific appraisal of the interprofessional gaps in the system to provide insights for needed funding to close the gaps; retraining of current healthcare staff on the limits and scope of practices; exposure of healthcare staff to the demands and responsibilities of the professional training of other professionals, and issuing sanctions when lines are crossed and when demarcated responsibilities are not sufficiently met. The idea of exposing SRH service providers to recurring interprofessional education and meetings is extensively discussed in a similar study (Kazmerski et al., 2019).

Limitations

The lack of explicit interventions to address the identified gaps is a limitation but can be addressed by future studies. To strengthen research on this subject, future studies should help provide robust quantitative data of missing relevant professionals in PHCs and what the overall health system (not just SRH interventions) loses because of their absences. Filling these gaps will consolidate findings from the present study.

Conclusion

A systematic review on SRH interventions showed that integrated services yielded better treatment outcomes (Desrosiers et al., 2020). The study also concluded that PHCs are the best home for SRH interventions since they are closest to the grassroots. However, they may be unable to deliver best outcomes for SRH interventions if the services they render are not comprehensive and inclusive of relevant professionals. The study has shown that not only are the expected services for SRH interventions not integrated in PHCs, but they are also conspicuously absent in the primary care system. Stakeholders in health systems must begin to elevate conversations on 'a-whole-of-facility' approach to not just SRH interventions, but the entire primary healthcare. Pertaining to SRH interventions, services from medical doctors, medical laboratory professionals, social workers, and psychologists are crucial for SRH interventions. Based on evidence from this study, the minimum standards for primary healthcare in Nigeria should be reviewed, revised, and enforced to provide for missing roles and expertise in the primary healthcare system.

References

Agreli, H. F., Peduzzi, M., & Silva, M. C. (2016). Patient centred care in interprofessional collaborative practice. *Interface-Comunicação, Saúde, Educação*, *20*, 905-916.

Agu, C., Mbachu, C., Agu, I., Iloabachie, U., & Onwujekwe, O. (2022). An analysis on the roles and involvements of different stakeholders in the provision of adolescent sexual and reproductive health services in Southeast Nigeria. *BMC Public Health*, *22*(1), 2161.

Agwu, P. (2023). Strengthening social work services in the health sectors of Low-and Middle-Income Countries: Taking lessons from social work actions/inactions in Covid-19 response in Nigeria. *Social Work and Social Sciences Review*, *24*.

Agwu, P., & Okoye, U. (2021). Social work and COVID-19: A gap in Nigeria's intervention. *International Social Work*, *64*(5), 761-770.

Ajah, L. O., Onubogu, E. S., Anozie, O. B., Lawani, L. O., Iyoke, C. A., Onwe, E. O., & Ajah, M. I. (2015). Adolescent reproductive health challenges among schoolgirls in southeast Nigeria: role of knowledge of menstrual pattern and contraceptive adherence. *Patient preference and adherence*, 1219-1224.

Aluko, J. O., Anthea, R., & Marie Modeste, R. (2019). Manpower capacity and reasons for staff shortage in primary health care maternity centres in Nigeria: a mixed-methods study. *BMC Health Services Research*, *19*, 1-15.

Balogun, J. A. (2021). *The Nigerian Healthcare System: Pathway to universal and high-quality health care*. Springer.

Cappiello, J., Levi, A., & Nothnagle, M. (2016). Core competencies in sexual and reproductive health for the interprofessional primary care team. *Contraception*, *93*(5), 438-445.

Chandra-Mouli, V., Ferguson, B. J., Plesons, M., Paul, M., Chalasani, S., Amin, A., Pallitto, C., Sommers, M., Avila, R., & Biaukula, K. V. E. (2019). The political, research, programmatic, and social responses to adolescent sexual and reproductive health and rights in the 25 years since the International Conference on Population and Development. *Journal of Adolescent Health*, *65*(6), S16-S40.

Chen, Q., Carpenter, E., & White, K. (2022). Non-physician's challenges in sexual and reproductive health care provision for women of reproductive age with cancer: a scoping review of barriers and facilitators. *Supportive Care in Cancer*, *30*(12), 10441-10452.

Chukwu, N., Agwu, P., Ajibo, H., & Aronu, N. (2022). Challenges faced by informal caregivers of patients in a Nigerian hospital and implications for social work. *Journal of Social Work*, *22*(5), 1189-1206.

Desrosiers, A., Betancourt, T., Kergoat, Y., Servilli, C., Say, L., & Kobeissi, L. (2020). A systematic review of sexual and reproductive health interventions for young people in humanitarian and lower-and-middle-income country settings. *BMC Public Health*, *20*(1), 1-21.

Dongarwar, D., & Salihu, H. M. (2019). Influence of sexual and reproductive health literacy on single and recurrent adolescent pregnancy in Latin America. *Journal of Pediatric and Adolescent Gynecology*, *32*(5), 506-513.

Doty, M. M., Tikkanen, R., Shah, A., & Schneider, E. C. (2020). Primary Care Physicians' Role In Coordinating Medical And Health-Related Social Needs In Eleven Countries: Results from a 2019 survey of primary care physicians in eleven high-income countries about their ability to coordinate patients' medical care and with social service providers. *Health Affairs*, *39*(1), 115-123.

Ebonyi State Government. (2023). *Ebonyi State Profile*. Retrieved July 13 from https://www.ebonyistate.gov.ng/profile.aspx

Elliott, S., Hocaloski, S., & Carlson, M. (2017). A multidisciplinary approach to sexual and fertility rehabilitation: the sexual rehabilitation framework. *Topics in Spinal Cord Injury Rehabilitation*, *23*(1), 49-56.

Federal Ministry of Health. (2019). *Nigeria health facility registry*. Retrieved August 28 from https://hfr.health.gov.ng/facilities/hospitals-search?_token=UmD0tZTjW0Gu30ieC19mXu8Z2mJcgryJREVqPwhD&state_id=114&lga_id=&ward_id=0&facility_level_id=0&ownership_id=1&operational_status_id=1&registration_status_id=0&license_status_id=0&geo_codes=0&service_type=0&service_category_id=0&facility_name=&entries_per_page=20

Federal Ministry of Health and Social Welfare. (2023). *National Mental Health Policy*. Author

Gantayet-Mathur, A., Chan, K., & Kalluri, M. (2022). Patient-centered care and interprofessional collaboration in medical resident education: Where we stand and where we need to go. *Humanities and Social Sciences Communications*, *9*(1), 1-24.

Hensen, B., Floyd, S., Phiri, M. M., Schaap, A., Sigande, L., Simuyaba, M., Mwenge, L., Zulu-Phiri, R., Mwape, L., & Fidler, S. (2023). The impact of community-based, peer-led sexual and reproductive

health services on knowledge of HIV status among adolescents and young people aged 15 to 24 in Lusaka, Zambia: The Yathu Yathu cluster-randomised trial. *PLoS Medicine*, *20*(4), e1004203.

Jain, R., & Rao, B. (2019). Assessment of primary laboratory facilities for rural health care preparedness in Osmanabad District, India.

Kazmerski, T. M., Borrero, S., Sawicki, G. S., Abebe, K. Z., Jones, K. A., Tuchman, L. K., Weiner, D. J., Pilewski, J. M., Orenstein, D. M., & Miller, E. (2017). Provider attitudes and practices toward sexual and reproductive health care for young women with cystic fibrosis. *Journal of Pediatric and Adolescent Gynecology*, *30*(5), 546-552.

Kazmerski, T. M., Nelson, E. B., Newman, L. R., Haviland, M. J., Luff, D., Leichtner, A. M., Hayes, M. M., Miller, E., Emans, S. J., & Sawicki, G. S. (2019). Interprofessional provider educational needs and preferences regarding the provision of sexual and reproductive health care in cystic fibrosis. *Journal of Cystic Fibrosis*, *18*(5), 671-676.

Kitema, G. F., Laidlaw, A., O'Carroll, V., Sagahutu, J. B., & Blaikie, A. (2023). The status and outcomes of interprofessional health education in sub-Saharan Africa: A systematic review. *Journal of Interprofessional Care*, 1-23.

Lavander, P., Meriläinen, M., & Turkki, L. (2016). Working time use and division of labour among nurses and health-care workers in hospitals–a systematic review. *Journal of Nursing Management*, *24*(8), 1027-1040.

Lengeler, C., Burri, C., Awor, P., Athieno, P., Kimera, J., Tumukunde, G., Angiro, I., Tshefu, A., Okitawutshu, J., & Kalenga, J.-C. (2022). Community access to rectal artesunate for malaria (CARAMAL): a large-scale observational implementation study in the Democratic Republic of the Congo, Nigeria and Uganda. *PLOS Global Public Health*, *2*(9), e0000464.

Mbachu, C. O., Agu, I. C., Eze, I., Agu, C., Ezenwaka, U., Ezumah, N., & Onwujekwe, O. (2020). Exploring issues in caregivers and parent communication of sexual and reproductive health matters with adolescents in Ebonyi state, Nigeria. *BMC Public Health*, *20*(1), 1-10.

Mbachu, C. O., Agu, I. C., & Onwujekwe, O. (2020). Survey data of adolescents' sexual and reproductive health in selected local governments in southeast Nigeria. *Scientific Data*, *7*(1), 438.

Mohammed, E., McDonald, W. G., & Ezike, A. C. (2022). Teamwork in Health Care Services Delivery in Nigeria: A Mixed Methods Assessment of Perceptions and Lived Experiences of Pharmacists in a Tertiary Hospital. *Integrated Pharmacy Research and Practice*, 33-45.

National Primary Healthcare Development Agency. (2012). *Minimum standards for primary health care in Nigeria*. Author.

Nsemo, A. D., Malau, S. M. Z., & Ojong, I. N. (2022). Referral and counter-referral practices in obstetric emergencies among health-care providers in selected health facilities in Plateau state, Nigeria. *Journal of Integrative Nursing*, *4*(3), 127.

Perron, D., Parent, K., Gaboury, I., & Bergeron, D. A. (2022). Characteristics, barriers and facilitators of initiatives to develop interprofessional collaboration in rural and remote primary healthcare facilities: A scoping review. *Rural and Remote Health*, *22*(4), 1-10.

Pfeffer, B., Ellsworth, T. R., & Gold, M. A. (2017). Interviewing adolescents about sexual matters. *Pediatric Clinics*, *64*(2), 291-304.

Sawyer, S. M., Tully, M.-A. M., & Colin, A. A. (2001). Reproductive and sexual health in males with cystic fibrosis: a case for health professional education and training. *Journal of Adolescent Health*, *28*(1), 36-40.

Sekudu, J., & Carbonatto, C. L. (2006). *Abortion: guidelines for social work intervention*. https://repository.up.ac.za/handle/2263/74870

Tsakitzidis, G., Anthierens, S., Timmermans, O., Truijen, S., Meulemans, H., & Van Royen, P. (2017). Do not confuse multidisciplinary task management in nursing homes with interprofessional care! *Primary health care research & development*, *18*(6), 591-602.

Uzochukwu, B., Agwu, P., Okeke, C., Uzochukwu, A., & Onwujekwe, O. (2023). Ensuring Safety of Patients in Complex Health Systems: A Focus on Primary Healthcare Service Relations in Nigeria. *Health & Social Work*.

Veta, O. D. (2023). Challenges and Enhancement of Medical Social Workers in Public Health Facilities in Nigeria. *Social Work in Public Health*, *38*(1), 1-10.

Weiss, D. F., Tilin, F. J., & Morgan, M. J. (2014). *The interprofessional health care team: Leadership and development*. Jones & Bartlett Publishers.

Witt, H., Younes, M. K., Goldblatt Hyatt, E., & Franklin, C. (2022). Examining social work students knowledge of and attitudes about abortion and curriculum coverage in social work education. *Affilia*, *37*(2), 215-231.