Knowledge, Perception, and Attitudes of Clients and Health Service Providers in Family Planning and HIV Clinics in Healthcare Facilities in Abuja, Nigeria

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Abstract: - Family planning (FP) use among women living with HIV has a great impact on preventing unintended pregnancy and preventing new HIV infection in children. Studies have documented the influence of the knowledge of health integrated services on clients' satisfaction, the uptake of HIV test services (HTS) and FP services. This study aimed at assessing the knowledge, perception, and attitudes of clients and health service providers in FP and HIV clinics in healthcare facilities in Abuja, Nigeria. This study was conducted in both FP and HIV clinics in seven general hospitals in Abuja, Nigeria. Both HIV infected and non-infected non-pregnant women of childbearing age (15-49), either receiving HIV care and treatment or FP services the General Hospitals were included. The healthcare service providers were also interviewed. Data were collected using structured questionnaires and were analysed using SPSS version 25.0. The most common respondent's age group was 20 - 29 (53.0%) and the majority were married (88.2%), had at least secondary education, (38.0%) and were self-employed (57.5%). More than four of every five (86.1%) of the women had good knowledge of HIV and 73.2% had good knowledge of FP. One hundred and seventy-seven (61.7%) of the respondents have had a discussion on FP with their service providers but the majority did not know the stage at which FP should be discussed with PLWHA. Only 34.8% of the women have ever used any form of FP while 25.1% were using FP method at the time of interview. The most used form of FP was 'implants' 30.0% and injection 29.0% while only 10% used condoms. Sixty percent (60%) of the service providers had knowledge of Integrating HIV counselling and testing (HCT) into FP services and 80% had the knowledge of Integrating FP/SRH into services to prevent mother-child-transmission of HIV while none (0.0%) had the knowledge of both Integrating FP/SRH into HIV counselling and testing and Integrating FP/SRH into HIV treatment, care, and support programs. The majority already had previous training on FP procedures (80.0%) and HIV services (100.0%) with the most training being PMTCT and all needed more training on new trends and ART drugs. Only one integrated model was averagely known by the HIV service providers. This study recorded a very low uptake of FP among HIV infected women of reproductive age in Abuja. This low uptake may be attributed to the poor knowledge of FP-HIV services integration among both the clients and the healthcare providers. Therefore, we advocate for regular training of both the clients and the service providers on the benefits of FP-HIV

service integration. Also, the necessary tools should be made available in healthcare facilities in order to achieve a successful implementation of the program in Nigeria.

Keywords: Family planning, Service integration, HIV, Counselling

I. INTRODUCTION

HIV/AIDS is one of the world's most serious public health challenges. According to UNAIDS[1], there were approximately 36.9 million people worldwide living with HIV/AIDS in 2017, 1.8 million of these were children (below 15 years old) and an estimated 1.8 million individuals worldwide became newly infected with HIV between 2017 and 2018 which is approximately 5,000 new infections per day including 180,000 children (below 15 years). In 2017, approximately 75% of people living with HIV globally were aware of their HIV status while the remaining 25% (over 9 million people) still need access to HIV testing services. Since the peak in 2004, AIDS-related deaths have been reduced by more than 51%. In 2004, 1.9 million people died of AIDS-related illnesses worldwide, compared to 1.4 million in 2010 and 940, 000 in 2017[1].

Family planning(FP) use among women living with HIV has a great impact on preventing unintended pregnancy and preventing new HIV infection in children. Most efforts to prevent Mother to Child Transmission of HIV (MTCT) have focused on the third prong. A strategy which offers antiretroviral (ARV) drugs to HIV-infected pregnant women and their exposed infants. However, the effective use of contraceptives to prevent unplanned pregnancies among women living with HIV is more effective in reducing HIV MTCT. Evidence from literature has shown its effectiveness (dual methods) in preventing both horizontal and vertical HIV transmission.

There is anecdotal evidence of HIV surge in Abuja Municipal and Bwari Councils of the Federal Republic of Nigeria. HIV infected women in these communities are likely to contribute to paediatric HIV infection if their FP needs are not met. This has necessitated the study to explore the integration of FP in HIV clinics and assess the level of unmet need for FP in these communities.

The Nigerian government has recommended the implementing partners, international organizations, funders, and communities to unconditionally support the integration of FP and HIV service delivery and programs in order to meet contraceptive and other reproductive health needs of PLHIV. Like all women of reproductive age, women living with HIV have diverse fertility intentions that change over time and are influenced by interrelated factors at the individual, couple, family, and community levels [2]. The aim of this study is to assess the knowledge, perception, and attitudes of clients and health service providers in FP and HIV clinics in healthcare facilities in Abuja, Nigeria.

II. MATERIAL AND METHOD

This study was conducted in both FP and HIV clinics in seven general hospitals in Abuja, the federal capital territory (FCT) of Nigeria. Both HIV infected and non-infected non-pregnant women of childbearing age (15-49) either receiving HIV care and treatment orFP services the General Hospitals. The healthcare service providers were also interviewed. Convenience sampling which is a suitable method for all-inclusive of clients over a specific time frame was used.

The FP contraceptive prevalence rate of 15% (NHS, 2013) was used to calculate the sample size. The minimum sample size for the number of women who were interviewed at FP and HIV clinics was calculated using the **Leslie and Kish formula** for descriptive studies as shown below:

$N = P (1-P) Z^2/D^2$

Where N is the minimum sample size needed

D is the level of error that can be tolerated (0.05 chance of error)

P is the estimated prevalence rate (0.15) of contraception prevalence rate for women of childbearing age.

Z is the standard variation corresponding to the confidence level. At a confidence level of 95%, Z= 1.96

 $N = 0.15 (1-0.15) 1.96^2 / 0.05^2$

N = 196

Data were collected using structured questionnaires and were analysed using SPSS version 25.0. Ethical approval was obtained for this study from the Federal Ministry of Health (FMOH) in Abuja with reference number FREC/2018/01/131/13-11-18. The facilities were assured of data security and confidentiality. The women of childbearing age (15-49 years) in both FP and HIV clinics who were willing to participate in the study were interviewed. Women who were not of childbearing age (15-49 years) in both FP and HIV clinics and those who were not willing to participate in the study were excluded from interviews.

III. RESULTS

A. Socio-demographics Characteristic of respondents

The most common age group among the respondents was 20 – 29 (152, 53.0%) and the majority were married 253 (88.2%), had at least secondary education, 109 (38.0%) and more than half of the respondents were self-employed (57.5%) as shown in Table I.

Table I: Socio-demographics Characteristic of patients attending health facilities in FCT

Variable (n = 287)	Frequency	Percentage
Age (years)		
Below 20	5	1.7
20-29	152	53.0
30-39	117	40.8
40-49	13	4.5
Marital Status		
Single	7	2.4
Married	253	88.2
Separated	19	6.6
Widowed	1	.3
No response	7	2.4
Highest Education		
No formal education	5	1.7
Primary	30	10.5
Secondary	109	38.0
Tertiary	143	
Occupation		
Employed	51	17.8
Self Employed	165	57.5
Public Sector Employed	32	11.1
Private Sector Employed	17	5.9
Others	17	5.9
No response	5	1.7

B. Knowledge of FP and HIV

Figure I shows the knowledge of women interviewed about HIV and FP. More than four of every five (86.1%) of the women had good knowledge of HIV and 73.2% had good knowledge of FP. One hundred and seventy-seven (61.7%) of the respondents have had a discussion on FP with their service providers but the majority did not know the stage at which FP should be discussed with the people living with HIV/AIDS and all needed more information on FP during clinic visits (Table II).

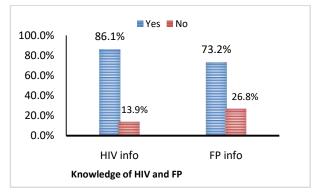


Figure I: Patients knowledge of HIV and FP

Table II: Counselling on FP for People living with HIV/AIDS

Variable	Frequency	Percentage
Has the health provider discussed FP with you? Yes	177	61.7
No	110	38.3
FP should be discussed at what stage(s) of HIV services? After birth During clinic visits During HIV Testing During pregnancy labour/delivery Don't know Not necessary Need more information on FP	2 77 11 9 187	0.7 26.8 3.8 3.1 65.2 0.3
during clinic visits?		
Yes No	100 187	34.8 65.2

C. FP update and perception among women of reproductive age attending healthcare facilities in Abuja

As shown in Table III, only 100 (34.8%) of the women attending the seven health facilities have ever used any form of FP while on 72 (25.1%) were using any FP method at the time of interview. Also, among the 100 that have ever used any FP method, the most used form of FP was implants 30.0% and injection 29.0% while only 10% used condoms.

The majority (66.9%) of the respondents have had 1-3 children at the time of the interview while 20.9% were yet to have any child. Over 70% still wanted more children and 40.4% could only wait for 1-2 years before having another child. The majority (54.0%) believed that the ideal number of children per family should be four and 43.2% were willing to have four children, Table IV.

Table III: FP uptake among women of reproductive age living with HIV in

Variable	Frequency	Percentage
Ever used an FP method?		
Yes	100	34.8
No	187	65.2
If yes, which FP method have you used?		
Condom	10	10.0
Implant	30	30.0
Injectable	29	29.0
IUD	2	2.0
Pills	13	13.0
Two or more methods	10	10.0
Others	4	4.0
Total	100	100.0
Currently using any FP method?		
Yes	70	25.1
No	72	25.1
***	215	74.9
What are you doing to prevent getting		
pregnant?	1576	20.4
Nothing	176	39.4
Modern FP	72	18.1
Abstinence	5	1.7
Natural Methods	17	5.9
Others	22	7.3

Table IV: The attitude of women attending healthcare facilities in Abuja towards FP

Variable	Frequency	Percentage
How many children do you have?		
One	90	31.4
Two	64	22.3
Three	38	13.2
Four	14	4.9
Five	7	2.4
More than 5	2	0.7
No response	12	4.2
No child yet	60	20.9
Would you like to have another child later?		
Yes	205	71.4
No	70	24.4
No response	12	4.2
How long would you like to wait before		
having another child?		
1-2 yrs	116	40.4
3-4 yrs	67	23.3
5 or more yrs	10	3.5
No more children	21	7.3
Not sure	15	5.2
No response	58	20.2
What is the ideal number of children for		
each family?		
Two	9	3.1
Three	73	25.4
Four	155	54.0
Five	29	10.1
More than five	16	5.6
No response	5	1.7
How many children would you like to have?		
One	1	0.3
Two	16	5.6
Three	92	32.1
Four	124	43.2
Five	29	10.1
More than five	19	6.6
	19	0.0

D. Result of the perception of health providers in FP clinics

Due to a limited number of staff in FP clinics in Abuja, one FP provider was interviewed from each of the healthcare facilities and the summary of all the responses were presented in percentages in this section.

All FP service providers in this study were full-time employees and work for a maximum of 8 hours a day. With special reference to the set-up of their workplaces, 80% and 20 % of FP providers believed that HIV Testing Services (HTS) and Prevention of mother-to-child transmission/Antiretroviral Therapy (PMTCT/ART) respectively were the HIV services that can be made available in their facilities (Figure II). When asked about the integrated model the FP service providers were aware of, 60% had knowledge of Integrating HIV counselling and testing (HCT) into FP services and 80% had the knowledge of Integrating FP/SRH into services to prevent mother-child-transmission of HIV while none had the knowledge of both Integrating FP/SRH into HIV counselling and testing and Integrating FP/SRH into HIV treatment, care, and support programs. The majority already had previous

training on FP procedures (80.0%) and HIV services (100.0%) with the most training being PMTCT and all needed more training on new trends and ART drugs as shown in Table V.

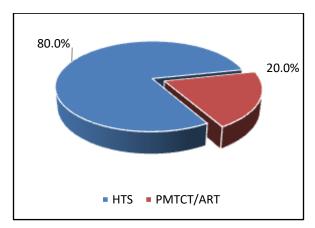


Figure II: Possible HIV programs in the facilities

Table V: Knowledge and training on FP and HIV integrated model

Variable	Response	Percentage
	Integrating HIV counselling and testing (HCT) into FP	
	services	60.0
	Integrating FP/SRH into HIV	
The integration model you know	counselling and testing	0.0
	Integrating FP/SRH into	90.0
	services to prevent mother- child-transmission of HIV	80.0
	Integrating FP/SRH into HIV	0.0
	treatment, care, and support	0.0
	programs	
Have had any training on FP procedures	Yes	80.0
Type of FP training	FP	40.0
received	PMTCT	40.0
	FP/PMTCT	10.0
Have had training HIV services	Yes	100.0
Type of HIV training	HTS/PMTCT	20.0
received	IHVN	20.0
- ICCCIVCU	PMTCT	60.0
Things needed to	Training of new HIV trend	60.0
adequately address	and guidelines	40.0
your FP	The different ART drugs	

Some people think that FP centres should offer a more complete set of services to clients, including voluntary counselling and testing, while others feel that it is not necessary or appropriate to offer HIV services during FP visits. The opinions of the FP service providers on this discourse showed that 60.0% of the responses were in support of conducting HIV tests in FP clinics, while 20.0% each were in favour of both counselling and testing as well as a complete HIV services and procedures. The majority (60.0%) of the respondents opined that offering HIV services in FP clinics will Enhance ability to prevent new HIV infections, especially among infants and youths and suggested that the most appropriate time to discuss HIV services is during FP visits

while 40.0% suggested that it is better discussed before FP counselling (Table VI).

Table VI: Respondents opinion on FP-HIV integration

Variable	Response	Percentage
Personally, what HIV services, if any, do you think should be offered to FP clients in this centre?	Counselling/testing Counselling/testing/ART/referral Testing	20.0 20.0 60.0
What do you see as the advantages of offering HIV services to FP clients?	Enhanced ability to prevent new HIV infections, especially among infants and youths Improved access to better-quality FP/SRH and HIV services tailored to meet the needs of people living with HIV Greater support for dual protection against unintended pregnancy and disease	60.0 20.0 20.0
In your opinion, when—if ever—is the most appropriate time to discuss HIV services during FP visits?	Before FP counselling During the provision of FP service	40.0 60.0

E. Knowledge of integrated models among HIV service providers

As shown in Figure 10, only one integrated model was averagely known by the HIV service providers. The well-known model was 'integrating FP/SRH into services to prevent mother to child transmission of HIV (52.9%). Based on the current set-up of HIV services in their centres, the majority (64.6%) of the service providers reported they provide condom only for HIV clients in their units could offer clients, while 17.0% believed that they could not offer any form of FP (Figure III).

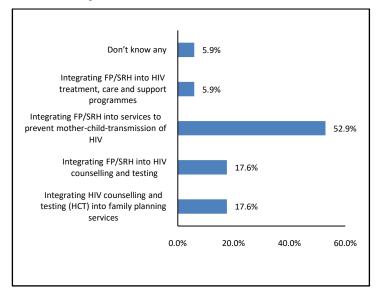


Figure III: Knowledge of integrated service models among HIV service providers in Abuja

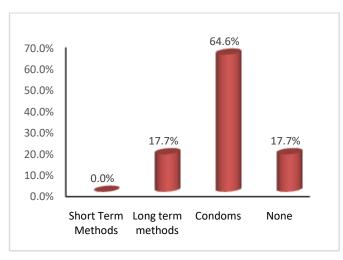


Figure IV: possible FP services in HIV clinics

F. FP service offered in HIV clinics, training on FP and HIV procedures

The majority (88.2%) of the HIV service providers also counsel clients on FP with most counselling sections lasting for more than 5 minutes (70.6%) and mostly for 8 hours in a week (64.7%). Most (41.2%) service providers attend to at least 15 clients on average per day and mostly did not turn clients away because of limited time (Table VIII). Only 17.6% of the HIV service providers have had any training on the procedures of offering FP services but the majority (88.5%) have been trained on the procedures of offering HIV services. However, they indicated the need for additional training/information on FP counselling and direction and FP procedures (Table IX).

Table VIII: FP in HIV clinics and workload

Variable	Response	Percentage
Do you counsel clients on FP?	Yes	88.2
Average time spend with a client to discuss FP	less than 5min 5m to 10min >10min No response 2-3 Hours	17.6 35.3 35.3 11.8 5.9
How many hours a week do you spend providing FP services?	4-5 Hours 6-7 Hours 8 Hours 1-5	5.9 23.5 64.7 5.9
On an average day, how many ART clients do you see?	6-10 11-15 >15	5.9 11.8 41.2
Have you ever periods you don't counsel clients for FP because they were more than you had time to see?	Yes No No response	17.6 76.5 5.9

Table IX: Training on FP and HIV procedures

Variable	Response	Percentage
Have you ever had any training in the procedures of offering FP services?	Yes No	17.6 82.4
What type of in-service training have you attended related to your	FP, PMTCT,	5.9 5.9
responsibilities? Have you ever had any training in	HTS	35.3
the procedures of offering HIV services?	Yes No	88.5 11.5
What (additional) information or training, if any, do you feel you need	Counselling and direction on FP	59.6
to adequately address your FP clients' HIV/AIDS needs or concerns?	Training FP procedures	40.4

IV. DISCUSSION

In recent times, there has been a rise in the interest of feasibility, acceptability, researchers the on implementation of integration of health services, especially in developing countries. Several authors have shown that integration of health services is feasible and acceptable (Haberlen et al., 2017; Kennedy, Kennedy, & Lind, 2011; Mutisya et al., 2019; Narasimhan et al., 2019). There are also claims that weaknesses within the healthcare facilities have an influence on the quality of integrated services (Mcginn et al., 2015; Reynolds & Sutherland, 2013). The major aim of this study is to assess the level of implementation of FP-HIV services integration in Abuja, the Federal Capital Territory (FCT) of Nigeria.

Knowledge of clients and healthcare service providers in FP and HIV clinics in Abuja

This study recorded a very good knowledge of HIV and family planning among women of reproductive age (15 – 49 years) attending both FP and HIV clinics in Abuja. Some of the clients have had a discussion on FP with their service providers but the majority had poor knowledge of integrated health services; only a few knew the stage at which family planning should be discussed with the people living with HIV/AIDS. This study also found a very low uptake of FP (34.8%) among the women attending HIV clinics in Abuja.

The knowledge of both the FP and HIV providers on health services integrated models was not very good. For examples, only a few had good knowledge of integrating HIV counselling and testing (HCT) into family planning services. Also, the majority had poor knowledge of the integration of FP/SRH into services to prevent mother-child-transmission of HIV, while none had the knowledge of both integrating FP/SRH into HIV counselling and testing and integrating FP/SRH into HIV treatment, care, and support programs. However, most of the healthcare service providers have had previous training on FP procedures and HIV services, particularly on PMTCT. Therefore, the low uptake of family planning among the interviewed clients can be attributed to

poor knowledge of integrated health services among both the clients and the service providers.

Previous studies have documented the influence of the knowledge of health integrated services on clients' satisfaction, the uptake of HIV test services (HTS) and family planning (FP) services. In a review of six papers by Narasimhan et al. (2019), they found that five of the six papers linked HIV care and treatment; dual method use; client satisfaction and service quality to provider' knowledge and attitudes about integrating HTS [3]. In another study, Mutisay et al. in a study on 'Strengthening integration of family planning with HIV/AIDS and other services' conducted in Kenya, reported that there was no FP knowledge from service providers in HIV/AIDS comprehensive care clinics in all levels of integration despite the observed provision of counselling and referral for FP services and suggested training and mentoring of providers to improve knowledge of integrated service offerings [6].

Similar to the finding of this study, Mutisya *et al.* also reported poor knowledge of integrated services among clients and suggested an additional time to adequately counsel each client to enable them to make an informed FP decision [6]. Also, it has been emphasized that effective integration of health services requires not only behavioral change interventions for health care providers but also increased understanding of clients to respond Experience. to their needs based on their knowledge, attitude, and risk perception (Kangudie *et al.*, 2019). According to Scholl and Cothran, training provides health care workers with the knowledge and skills to assess needs beyond the core discipline for which they initially received training, and then to either refer or provide the additional services needed by the client [10].

This study did not assess the knowledge of health services integration before the integration and after integration in Nigeria. However, researchers had reported that healthcare services integration improves clients' knowledge, and awareness about contraceptive methods and their appropriateness for women living with HIV [2]. Another study reported that the integration of FP services with other important health service areas such as HTC or HIV/AIDS care services can increase efforts in training and mentoring of service providers to enhance knowledge of integrated service offerings, strengthening supply chain support, and improving health service infrastructure [6].

Integrated FP-HIV services, the perception of healthcare providers

The family planning service providers gave varied opinions on whether family planning centres should offer a more complete set of services to clients, including voluntary counselling and testing or whether it is not necessary or appropriate to offer HIV services during family planning visits. While some were in support of conducting HIV tests in FP clinics, others were in favour of both counselling and testing as complete HIV services and procedures. Also, most

of the healthcare service providers believed that offering HIV services in FP clinics help in reducing new HIV infections. Some healthcare service providers suggested that HIV services can be best discussed during family planning visits while others suggested that it is better discussed before FP counselling.

Several studies have described the benefits of HIV-FP integrated services. In 2015, Mcginn et al described integrating FP and HIV services as an effective service delivery approach to address the high unmet need for FP among all women, particularly, among HIV infected women[8]. They further explained that this can be achieved through an enhanced FP counselling and HIV testing coverage among women of childbearing age, increased access to FP services, by focusing on the FP needs of HIV-positive women [8]. Integration of FP and HIV services has also been described as an effective way for healthcare providers to ensure that these women not only have access to contraceptives but also access to information and counselling on how to safely become pregnant if they desire, and how to do so while reducing the risk of transmitting HIV to their infants or partners, which can be achieved through offering provider-initiated FP (PIFP) as the standard for integrated service delivery [11].

In the report of a systematic review of the integration of HIV testing services into FP services, Narasimhan *et al.* reported that HIV counselling and testing was increased significantly in integrated than non-integrated sites [3]. They, in agreement with other studies concluded that global advancement and breakthrough for attaining Sexual Reproductive Health and HIV targets depends on success in Sub-Saharan Africa where women bear a high burden of both unintended pregnancy and sexually transmitted infections, including HIV [3,9,12-13].

This study recorded a very low uptake of FP among HIV infected women of reproductive age in Abuja. This low uptake may be attributed to the poor knowledge of FP-HIV services integration among both the clients and the healthcare providers. Therefore, we advocate for regular training of both the clients and the service providers on the benefits of FP-HIV service integration. Also, the necessary tools should be made available in healthcare facilities in order to achieve a successful implementation of the program in Nigeria.

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