



Evaluate the Existing Integration of Sexual Reproductive Health Services with HIV Treatment in Oromia Regional State, Ethiopia

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Abstract

In settings where high, HIV prevalence and unmet need for sexual and reproductive health services is critical to reducing HIV transmission and maternal mortality in a resource-limiting area, integration of these services are very crucial. The study aimed to evaluate the existing 'integration of sexual reproductive health services with HIV services.

Methods: A Health facility-based cross-sectional study design was conducted with multiple data collection approaches was used to collect data from women living with HIV attending ART clinics. Self-administrated interview questionnaires were used to collect data from supervisors, health managers, and healthcare providers by the total census of 16 ART/PMTC services provide, supervisors, and 15 Health offices/Bureau managers, and randomly selected 654 Women Living with HIV (WLHIV) for the study. The collected data were analyzed by SPSS.

Result: This study assessed the existing 'integration of sexual reproductive health services with HIV treatment for women living with HIV and attending ART in Oromia Region, Ethiopia. Such integration ranged from the provision of maternal, family planning, neonatal health services, and health education on sexual reproductive health combined with HIV services for women living with HIV. Almost all respondents (n=635, 97.1%) preferred integrated sexual reproductive health and HIV services at the same facility. Also, most of the providers (n=622, 95%), were in favor of 'integrated family planning'/HIV services. The current study revealed that the integration of family planning with HIV services includes counseling on available family planning methods in the ART room, to the provision of 'family planning methods such as condoms, pills, injectable methods, implants in the ART rooms, and referrals for long-acting and permanent methods.

Conclusion: These study findings showed considerable disparities between the availability of elements of integrated family planning/HIV services, and the actual delivery of sexual reproductive health services that are fully integrated; where both HIV- and family planning-related elements are incorporated into the visit.

Abbreviations

AIDS: Acquired Immune Deficiency Syndrome; ART: Antiretroviral Therapy; AOR: Adjusted Odds Ratio; CSA: Central Statistical Agency; CI: Confidence Interval; COR: Crude Odds Ratio; FHI: Family Health International; FMOH: Federal Ministry of Health; HIV: Human Immunodeficiency Virus; IUD: Intra-Uterine Devices; MOH: Ministry of Health; MNCH: Maternal Neonatal Child Health; PMTC: Prevention of Mother to Child Transmission of HIV; OR: Odds Ratio; ORHB: Oromia Regional Health Bureau; SPHMMC: Saint Paul's Hospital Millennium Medical College; STIs: Sexually Transmitted Infections; WLHIV: Women Living with HIV; UNAIDS: United Nations Program on HIV/AIDS; UNICEF: United Nations International Children's Emergency Fund; UNISA: University of South Africa; USAID: United States Agency for International Development; WHO: World Health Organization

Introduction

Maternal deaths among women living with HIV are mostly attributed to indirect obstetric causes, particularly non-pregnancy-related infections [1]. The 'Sustainable Development Goals (SDGs)

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recommendations, member countries should 'ensure universal access to sexual and reproductive healthcare services, and the integration of reproductive health into national strategies and programs by the end of 2030' [2]. According to a study by Kendall and Danel [2] integration of health service delivery is key to addressing improvements in MNCH services and 'HIV care and treatment in sub-Saharan African countries. Public health programs emphasize that the 'integration of family planning services with HIV treatment to increases dual contraceptive methods' utilization will ensure protection from both unintended pregnancy and STIs, including HIV/AIDS [3].

There were beneficial synergies in terms of increased 'Sexually Transmitted Infection' (STI) prevention, including syphilis screening and treatment, and early childhood immunization [4]. Another peer-reviewed study illustrated how best to integrate other interventions, such as postpartum contraception or tuberculosis screening and treatment, into services that are already providing some parts of integrated HIV care for pregnant and postpartum women, which is almost non-existent [5].

Statement of the problem

In 2013, the 'United Nations Population Fund' highlighted that the sexual and reproductive health rights agenda should be a key feature of the next development goals, in the 'post-Millennium Development Goals' era [6]. In 2015, the United Nations General Assembly on Sustainable Development Goals, the SDG 3, called for countries to ensure healthy lives and promote wellbeing for all ages. The SDG 3.7 calls for member countries to ensure universal access to sexual and reproductive healthcare services, and the integration of reproductive health into national strategies and programs by 2030 [6]. Accordingly, the WHO [6] highlighted that universal access to reproductive health was a necessary condition for achieving the SDGs. Meeting the unmet needs for family planning in sub-Saharan Africa could make an important contribution to improving maternal health through early studies or initiatives. 'Programs that have succeeded in promoting condom use and providing HIV prevention and treatment services in this region have largely missed the opportunity to address the contraceptive needs of the key populations they serve. Therefore, the research statement for this study is "What is the status of existing integration of sexual reproductive health services with HIV services for women of reproductive age living with HIV attending healthcare facilities in Oromia Region, Ethiopia?"

Methods

Research setting

This study was conducted in the Oromia Region surroundings of Finfinne Oromia, Ethiopia. Currently, there are 27 health centers with 98.5% potential health service coverage. 13 health centers have been providing ART and family planning services in the zone, of which five were randomly selected as the study setting. The total number of 'people living with HIV enrolled at ART clinics' in the zone was 9,421, of which 2,380 were 'women of reproductive age, and of these, 1,557 were from five randomly selected health centers (Office Finfinne Special Zone 2018). The target population was HIV-positive women of reproductive age who had attended ART follow-up services for at least six months from randomly selected healthcare facilities in the Oromia Region, Ethiopia. The accessible sample was 1,557 eligible women of reproductive age living with HIV attending ART clinics in public health centers.

'A Health facility-based cross-sectional study design was

conducted with quantitative data collection approach was used to collect data from 'women living with HIV' attending ART clinics.

Sample size determination

The sample size was determined through a single population proportion formula by using a case study found in integrated sites in Ethiopia, where 40% of women were family planning users (P) [7,8]. By considering the design effect of 2, with correction formula since the total population was less than 10,000 (2,380) and with a 5% non-response rate considered, the final sample size was 670 women living with HIV and healthcare providers, supervisors, and Health offices/Bureau managers [9-12].

Sampling procedure

All hospitals and health centers found in the Special 'Zone of Oromia Region' that provide ART services were identified and randomly selected by computer-generated methods to be included in the study. A list of all women living with HIV from each facility, aged between 18 and 49 years of age, was randomly created. Study sites were prepared and entered into SPSS version 23 by using their pre-ART registration numbers from the Health Management Information System (HMIS) database [12]. A simple random sampling technique by computer-generated samples was utilized at each health center to select 670 study respondents. The number of study respondents was allocated proportionally for the five health centers, based on their total number of ART clients [9-12].

A total census of supervisors, supervisors, experts of Woreda, zonal and regional health bureau who were working in the MNCH and HIV treatment prevention office, and healthcare providers working in the ART clinics of selected health facilities, were purposively included in the study.

Data collection

The questionnaire used for data collection was initially prepared in English, and translated to Afaan Oromo, and back to English for language experts to confirm its consistency. Finally, the corrected Afaan Oromo version was used to collect the data from women living with HIV attending ART clinics. The questions included in the questionnaire were adapted and prepared by reviewing different related literature and variables identified to be measured. The training was given to data collectors and supervisors by the primary researcher for two days. Data collectors cross-checked the pre-ART card numbers of women living with HIV who came to the ART clinic with sampled card numbers daily. Five trained data collectors collected data from women of reproductive age. The completed questionnaires were collected and checked daily for consistency and completeness by supervisors and the primary researcher. Data were collected using a 'pre-tested structured Afaan Oromo version' of the questionnaire. A pre-test of the questionnaire was done on 5% of the women living with HIV at Ambo health center, to identify any ambiguity, to confirm consistency in the questionnaire, to determine acceptability, and to make necessary corrections one week before the actual data collection process [9,11,12]. The respondents were guided through a questionnaire and chart abstraction conducted at their health facility by trained data collectors and Self-administrated structured questionnaires were used to collect data from supervisors, healthcare providers, and Health offices/Bureau managers.

Data management and analysis

The 'returned questionnaires were checked for completeness, cleaned manually, coded and entered into EPI INFO 7.1.6 version, and

then transferred to SPSS version 23 for further analysis. Frequencies, percentages, mean and Standard Deviation (SD) was used to summarize descriptive statistics of the data and text. Moreover, tables and graphs were used for data presentation [9,11,12].

Result

This study assessed the existing integration of family planning services with HIV treatments, guidelines, policy, protocols and healthcare managers. The study also sourced information from the healthcare providers in respect of the level of provision of both HIV and family planning services in practice in the healthcare facilities. The findings in this regard are presented next. A total census of

16 ART/PMTC services provides were participated in the study, which gave the complete response rate of 100% (16/16) and 654/670 (97.6%) for reproductive-age women living with HIV. There were 654 respondents whose ages ranged between 18 and 49 years. The mean age of the respondents was 31.86 years with an SD of ± 6.0 years (Table 1).

Existing integration of family planning and HIV services. Integration of sexual reproductive health services with HIV treatment

Out of a total number of women living with HIV in their reproductive age (n=654), the majority (n=472, 72.0%) were attended

Table 1: Integration of sexual reproductive health services with HIV treatment for women living with HIV attending ART in Oromia, Ethiopia, 2018.

Integration of sexual reproductive health services - ART/PMTC	Services/Categories	Frequency (%)
Health facilities visited on the day of data collection	Family planning	157 (24)
	TB screening and prophylaxis	8 (1.2)
	HIV monitoring and treatment/AR follow up	471 (72.0)
	PMTCT	13 (2.0)
	Sickness for treatment	5 (0.8)
Services received on the day of data collection	Family planning	233 (35.6)
	Management of STI s	54 (8.3)
	Maternal and new-born care	311 (47.6)
	PMTCT	49 (7.5)
	Others/TB screening and Rx	7 (1.1)
Referred to any other services	Yes	44 (6.7)
	No	610 (93.3)
The need for other services on the day of data collection	Family planning	198 (30.3)
	Management of STI s	22 (3.4)
	Maternal and new-born care	31 (4.7)
	PMTCT	19 (2.9)
	Condom services	181 (27.7)
	HIV monitoring and treatment/AR follow up	155 (23.7)
	Other specify	4 (0.6)
Preference for sexual reproductive health services and HIV services at the same facility	Prefer same facility/site	635 (97.1)
	Prefer a different facility/site	6 (0.9)
	No preference	13 (2.0)
Some possible benefits of receiving all these services from the same facility at one time	Reduce the number of trips to the facility	355 (54.3)
	Improve the efficiency of services	336 (51.4)
	Reduce transportation costs	360 (55.0)
	Reduce Fees	141 (21.6)
	Reduce waiting time	366 (56.0)
	Good opportunity to access additional services	195 (29.8)
	Reduce HIV-related stigma	332 (50.8)
Preference for sexual reproductive health services and HIV services from the same provider	Prefer the same provider	634 (96.9)
	Prefer referral to another provider	1 (0.2)
	No preference	19 (2.9)
Healthcare provider provided health education on sexual reproductive health services during data collection for clients during follow up	Family planning	349 (53.4)
	Use of condoms to prevent unintended pregnancy	442 (67.6)
	Use of condoms to prevent HIV /STI	395 (60.4)
	HIV is treatable with ART	519 (79.4)
	STI management	229 (35.0)
	HIV prevention /PMTCT	249 (38.1)

Table 2: Distribution of service providers in the ART clinic and PMTCT room in Oromia Ethiopia 2018.

Service providers	Category	Frequency (N)	Percentage (%)
Health facilities	Holeta (A)	2	12.5
	Burayu (B)	3	18.8
	Chancho (C)	5	31.3
	Sululta (D)	4	25
	Legatafo (E)	2	12.5
Sex	Male	8	50
	Female	8	50
Age in years Mean age 34.19	≤ 30 years	11	68.8
	≥ 31+ years	5	31.2
Professional background	BSc nurse	7	43.8
	Midwife (BSc)	1	6.3
	Midwife (Diploma)	3	18.8
	Health officer	5	31.3
Work experiences	1 to 4 years	9	56.3
	5 to 9 years	7	43.8
Title and role of respondent	ART focal person	11	68.8
	PMTCT focal person	5	31.2

Table 3: Essential sexual reproductive health services are offered and integrated with HIV services in Oromia Ethiopia 2018.

Sexual reproductive health integrated with HIV services	Categories	Frequency (%) Yes	Frequency (%) No
Essential sexual reproductive health services are offered at this facility	Family planning	16 (100)	0 (0.0)
	Prevention and management of STIs	16 (100)	0 (0.0)
	Maternal and new-born care	14 (87.5)	2 (12.5)
	Prevention and management of gender-based violence	7 (43.8)	9 (56.3)
Category of essential sexual reproductive health services are offered at this facility	Offered	13 (81.2)	
	Not offered	3 (18.8)	
Essential sexual reproductive health services are integrated with HIV services at this facility	Family planning	16 (100)	0 (0.0)
	Prevention and management of STI s	9 (56.3)	7 (43.8)
	Maternal and new-born care	6 (37.5)	10 (62.5)
	Prevention and management of gender-based violence	11 (68.8)	5 (31.2)
	Prevention of unsafe abortion and management of post-abortion care	12 (75)	4 (25)
Category of essential sexual reproductive health services are integrated with HIV services at this facility	Integrated	9 (56.3)	
	Not Integrated	7 (43.8)	
Health facility offer sexual reproductive health services within HIV counseling and testing services	Located in the same service site with the same provider	16 (100%)	0 (0.0)
	Offered on the same day	16 (100%)	0 (0.0)

HIV monitoring and ART follow-up and received family planning services. Respondents reported that 311 (47.6%) received maternal and newborn care, and 233 (35.6%) were received family planning, excluding those provided outside of the facility by referral.

Of all the respondents, only 44 (6.7%) were referred to any other services, but 198 (30.3%) respondents mentioned a need to received family planning services, 22 (3.4%) needed STI management, and 19 (2.9%) needed to received PMTCT services from those facilities (Table 1).

Of the total respondents, almost all (n=635, 97.1%) preferred the integration of sexual reproductive health with HIV services at the same facility or site. Moreover, 96.9% preferred to receive sexual

reproductive health with HIV services from the same providers. These respondents mentioned some possible benefits to receiving all these services from the same facility during a single visit, such as reduced wasted time (n=366, 56.0%), transportation costs (n=360, 55.0%), number of trips to the facility (n=355, 54.3%), and improved efficiency of services (n=336, 51.4%).

Respondents stated that healthcare providers offered health education on major components of sexual reproductive health and HIV services for women living with HIV during follow up, as follows; HIV is treatable with ART (n=519, 79.4%), use of condoms to prevent HIV/STIs (n=395, 60.4%), use of condoms to prevent unintended pregnancy (n=446, 67.6%), and family planning (n=349, 53.4%) (Table 1).

Table 4: HIV services provided in family planning and condom provision services in Oromia Ethiopia 2018.

HIV services	Categories	Frequency (%) Yes	Frequency (%) No
HIV services are provided in family planning services	Provider-initiated testing and counseling	8 (50)	8 (50)
	Prophylaxis and treatment for people living with HIV (OIs and HIV)	13 (81.3)	3 (18.8)
	Home-based care	4 (25)	12 (75)
	Psycho-social support	8 (50)	8 (50)
	prevention for and by people living with HIV	13 (81.3)	3 (18.8)
	HIV prevention information and services for general population	16 (100)	0 (0.0)
	Condom provision	15 (93.8)	1 (6.3)
	PMTCT (four prongs)	13 (81.3)	3 (18.8)
Category HIV services provided within family planning service	Provided within family planning	9 (56.2)	
	Not Provided within family planning	7 (43.8)	
Sexual reproductive health services provided in condom provision services	Family planning	16 (100)	0 (0.0)
	Prevention and management of STI s	16 (100)	0 (0.0)
	Maternal and new-born care	8 (50)	8 (50)
	Prevention and management of gender-based violence	4 (25)	12 (75)
	Prevention of unsafe abortion and management of post-abortion care	12 (75)	4 (25)
Category sexual reproductive health services provided in condom provision services	Provided within condom provision	10 (62.5)	
	Not Provided within condom provision	6 (37.5)	
Health facility offer sexual reproductive health services within condom provision services:	Located in the same service site with the same provider	16 (100%)	0 (0.0)
	Offered on the same day	16 (100%)	0 (0.0)

Service providers in the ART clinic and PMTCT room (n=16)

Table 2 shows the professional background of service providers. The majority (n=8, 43.8%) were nurses with 1 to 4 years of work experience in HIV therapy and family planning service provision (n=9, 56.3%). The mean age of service providers was 34.2 years. Table 4 [16] shows the information on the service providers and the distribution in ART and PMTCT healthcare facilities; 11 (68.8%) were ART supervisors, followed by 5 (31.2%) who were PMTCT supervisors (Table 2).

Essential sexual reproductive health services are offered and integrated with HIV services

The findings reveal that health centers in Oromia Region, Ethiopia essentially provided sexual reproductive health; family planning, prevention, and management of STIs were provided in all health centers, while only 43.8% provided services on the prevention and management of gender-based violence.

When categorized, all components based on total count scored greater than or equal to the mean value of 13 (81.2%) health centers that provided essential sexual reproductive health services, of which only 9 (56.3%) provided integrated essential sexual reproductive health services with HIV services. All health centers offered sexual reproductive health services within HIV counseling and testing services and were located in the same service site with the same provider and offered on the same day, which accounted for 16 (100%). Table 3 indicates that the overall integration of essential sexual reproductive health services offered with integrated HIV services was provided by 9 (56.3%) health centers, while the programs have been provided on the same day with the same healthcare providers See Table 3.

HIV services provided in family planning and condom provision services

HIV services provided within family planning services ranged from 4 (25%) home-based care providers to 16 (100%) HIV prevention information sessions and services to the general population. However, based on the mean value scored of all components, only 9 (56.3%) provided HIV services within the family planning service. Similarly, HIV services provided with condom provision ranged from 4 (25%) among HIV prevention information services for the general population, to 16 (100%) among family planning and prevention, and management of STI services. On average, 10 (62.5%) HIV services were provided with condom provision in the study area, as reflected in Table 4.

Table 4 illustrates that all health facilities offered sexual reproductive health services with condom provision services located in the same service site, with the same provider, and offered on the same day.

Sexual reproductive health services provided within PMTCT services

Of all components of sexual reproductive health services provided within PMTCT services, only 2 (12.5%) provided information on the prevention and management of gender-based violence and all 16 (100%) provided maternal neonatal care.

While categorizing all components based on total count scored greater than or equal to mean value, 15 (93.8%) health facilities provided sexual reproductive health services in PMTCT services. All health facilities offered sexual reproductive health services within PMTCT services located at the same service site with the same provider and offered on the same day see Table 5.

Table 5: Sexual reproductive health services provided within PMTCT services in Oromia Ethiopia 2018.

Sexual reproductive health services provided within PMTCT services	Categories	Frequency (%) Yes	Frequency (%) No
Sexual reproductive health services provided in PMTCT services	Family planning	15 (93.8)	1 (6.2)
	Prevention and management of STIs	16 (100%)	0 (0.0)
	Maternal and new-born care	16 (100%)	0 (0.0)
	Prevention and management of gender-based violence	2 (12.5)	14 (87.5)
	Prevention of unsafe abortion and management of post-abortion care	15(93.8)	1(6.2)
Category Sexual reproductive health services provided within PMTCT services	Provided within PMTCT services	15 (93.8)	
	Not Provided within PMTCT services	1 (6.2)	
Health facility offer Sexual reproductive health services within PMTCT services	Located in the same service site with the same provider	16 (100%)	0 (0.0)
	Offered on the same day	16 (100%)	0 (0.0)

Table 6: Structural collaboration with Sexual reproductive health organization and protocols that support integrated service delivery in Oromia Ethiopia 2018.

Structural collaboration with Sexual reproductive health and protocols	Categories	Frequency (%) Yes	Frequency (%) No
SRH services have been reoriented to accommodate clients living with HIV	Capacity building	13 (81.2)	3 (18.8)
	Links with networks of people living with HIV	11 (68.8)	5 (31.2)
	Support groups	14 (87.5)	2 (12.5)
	Staff training with regards to attitudes	11 (68.8)	5 (31.2)
Structural collaboration (formal arrangement) with Sexual reproductive health organization	Monthly meetings	5 (31.2)	11 (68.8)
	Memorandum of understanding	5 (31.2)	11 (68.8)
	Memorandum of agreement	4 (25)	12 (75)
Protocols/ guidelines support integrated service delivery	Protocols/guidelines available were ART and family planning	11 (68.8)	5 (31.2)
	They are used	11 (68.8)	5 (31.2)
Constraints for offering linked Sexual reproductive health with HIV services at this facility	Shortage of equipment for offering integrated services	10 (62.5)	6 (37.5)
	Shortage of space for offering private and confidential services	12 (75)	4 (25)
	Shortage of staff time	10 (62.5)	6 (37.5)
	Shortage of staff trained manpower	11 (68.8)	5 (31.2)
	Inappropriate/insufficient staff supervision	5 (31.2)	11 (68.8)
	Low staff motivation	9 (56.2)	7 (43.8)

Structural collaboration with sexual reproductive health organization and protocols that support integrated service delivery

The reoriented accommodation needed for sexual reproductive health clients living with HIV showed that 13 (81.2%) needed capacity building, and 11 (68.8%) needed links with networks for people living with HIV and staff training with regards to attitudes.

Of all the health facilities, 5 (31.2%) had a formal monthly meeting arrangement, and the same percentage had a memorandum of understanding. Only 4 (25%) had a memorandum of agreement on structural collaboration with sexual reproductive health organizations for people living with HIV.

The study results revealed that 11 (68.8%) health facilities had protocols/guidelines that support integrated service delivery and ART and family planning guidelines, and the same percentage (n=11, 68.8%) were used as a reference during service provision.

This study identified constraints in offering integrated sexual reproductive health with HIV services as follow: 10 (62.5%) had a shortage of equipment for offering integrated services/shortage of staff and time, and 12 (75%) had a shortage of space for offering private and confidential services (Table 6).

The potential impact of integrated sexual reproductive health, family planning, and HIV services. According to this study, the immediate potential impact of integrated sexual reproductive health, family planning, and HIV services on the identified service dimensions was reported as follow: Costs of services for the facility, efficiency of services, workload for providers, time spent per client, and equipment, supplies, and drugs were increased by 16 (100%), 12 (75%), 16 (100%), 15 (93.8%), and 10 (62.5%), respectively. Conversely, cost services for clients, stigmatization of HIV, and sexual reproductive health clients decreased by 14 (87.5%), 14 (87.5%), and 13 (81.2%), respectively (Table 7).

Levels of integrating family planning with HIV services at Health Centre in Oromia Region. Of total service providers, 14 (87.5%) provided counseling on family planning methods, methods' ability to prevent STIs and HIV infection, and guidance for performing risk/intention assessment for pregnancy or spacing for women of reproductive age living with HIV.

It was also found that level of integration of family planning with HIV services ranged from information on the availability of family planning services to the provision of condoms, pills, injectable, and in some health facilities, the provision of implants in the ART rooms. However, the level of integration of family planning with HIV

Table 7: Potential impact of integrated Sexual reproductive health, family planning and HIV services in Oromia Ethiopia 2018.

Impact of integrated services	Categories	Increase	Decrease
The likely impact of integrated Sexual reproductive health, family planning and HIV services on the identified service dimensions	Costs of services (facility)	16 (100)	0 (0)
	Cost of services (client)	2 (12.5)	14 (87.5)
	Efficiency of services	12 (75)	4 (25)
	Stigmatization of HIV clients	2 (12.5)	14 (87.5)
	Stigmatization of Sexual reproductive health clients	3 (18.8)	13 (81.2)
	Workload for providers	16 (100)	0 (0)
	Time spent per client	15 (93.8)	1 (6.2)
	Space and privacy	12 (75)	4 (25)
	Need for equipment, supplies, and drugs	10 (62.5)	6 (37.5)

Table 8: Show levels of integrating family planning into HIV services of the onsite provision of contraceptive information, counseling and method options in Oromia, Ethiopia 2018.

Levels of integrating family planning with HIV services of onsite provision	Frequency (%) Yes	Frequency (%) No
Guidance for performing risk/intention assessment for pregnancy or spacing	14 (87.5)	2 (12.5)
Counseling on family planning methods, methods' ability to prevent STI and HIV infection	14 (87.5)	2 (12.5)
Information on family planning method choices available and where to access them, dual protection and hormonal methods	14 (87.5)	2 (12.5)
Condoms, instructs for and demonstrates correct use	16 (100)	0 (0)
Emergency contraceptive pills	16 (100)	0 (0)
Referral to use other family planning methods not offered onsite	16 (100)	0 (0)
Oral contraceptives with instructions for use	16 (100)	0 (0)
Counseling on potential drug interactions with oral contraceptives	16 (100)	0 (0)
Injectable contraception, with instructions for use and with caution to return on schedule for reinjection without delay	16 (100)	0 (0)
Intrauterine Device (IUD), with instructions on how to use	0 (0)	16 (100)
Implant with instructions for correct use	5 (31.2)	12 (68.8)
Information on surgical contraceptive methods, with instructions for self-care	0 (0)	16 (100)

services did not include the IUD, with instructions on how to use, or information on surgical contraceptive methods, with instructions for self-care in the study area see Table 8.

Distribution of health managers and supervisors of ART/PMTCT (N=15)

A total census of 15 Health offices/Bureau managers has participated in the study, which gave a complete response rate of 100% (15/15).

Of all healthcare managers and supervisors who participated in this study, 6 (40%) were Woreda Health Office ART/PMTCT supervisors and 5 (33.3%) were from the primary healthcare unit (Table 9).

Management of integrated family planning/HIV services

According to zonal, regional experts, and Woreda Health Office supervisors' ART/PMTCT interviews and checklist observation, there were no policy barriers for the integration of family planning with HIV services. No budget line for family planning commodities, instruments, ARV drugs, equipment, and supplies had been established within the HIV health facilities sector in the study area. Also, there was no health system financing mechanism to cover integrated family planning/HIV services.

Out of all health facilities involved in the study, 7 (46.7%) had client brochures reflecting messages regarding integrated family planning/HIV services, and 10 (66.7%) had messages on the facility's

posters visibly reflecting integrated family planning/HIV in the study area.

In 13 (86.7%) of the health facilities, staff was available to provide family planning counseling and methods throughout the continuum of HIV services (such as VCT, ART/PMTCT) and 13 (86.7%) ART staff had trained in family planning counseling and method provision with ART service provision, as evidenced in Table 9.

Eight (53.3%) zonal and regional experts stated that the existing services would be able to adopt a level of family planning/HIV service integration without compromising the quality of the services currently being offered (Table 9).

Evaluation of Integration of family planning/HIV services

Finally, the overall integration of family planning/HIV services was evaluated by service providers and services utilizes in order of priority indicators as follow:

Services provider-related indicators and evaluation

The proportion of HIV-related service-delivery points which have family planning/HIV integrated services in Oromia Region health facilities revealed that:

- 15 (93.8%) health facilities provided sexual reproductive health services in PMTCT services.
- 13 (81.2%) provided essential sexual reproductive health services.

Table 9: Management of integrated Family Planning/HIV Services in Oromia, Ethiopia 2018.

Health managers and focal persons of ART/PMTCT	Frequency (%)	
	Yes	No
Regional Health Bureau ART and PMTCT expert and supervisor	2 (13.3)	
ZONAL health office ART and PMTCT expert and supervisor	2 (13.3)	
Woreda Health Office ART and PMTCT focal person	6 (40.0)	
Primary healthcare unit Director	5 (33.3)	
Total	15 (100)	
Management of family planning with HIV services	Yes	No
Policies in place that defines health personnel tasks for integrated family planning/HIV service delivery	13 (86.7)	2 (13.3)
Service-delivery guidelines (SDGs) for family planning to be included in ART	14 (93.3)	1 (6.7)
Policy barriers to integrating family planning to HIV services	0 (0)	15 (100)
Financial donors receptive to supporting integration	13 (86.7)	2 (13.3)
The budget line for family planning commodities, instruments, ARV drugs, equipment, and supplies been established within the HIV sector	0 (0)	15 (100)
Health system's financing mechanism cover integrated family planning/HIV services	0(0)	15(100)
Client brochures reflect messages integrating family planning and HIV services	7 (46.7)	8 (53.3)
Messages on the facility's posters visibly reflect integrated family planning to HIV services	10 (66.7)	5 (33.3)
Periodically done through supervision using standardized integrated family planning/HIV service performance tool	13(86.7)	2(13.3)
ART services provide counseling on fertility decision-making and family planning, including family planning method provision	15 (100)	0 (0)
Staffing available to provide family planning counseling and method provision throughout the continuum of HIV services (such as VCT, ART/PMTCT)	13 (86.7)	2 (13.3)
Reorganize work to accommodate additional tasks of family planning/HIV integration	10 (66.7)	5 (33.3)
ART staff trained in family planning counseling and method provision	13 (86.7)	2 (13.3)
ART staff trained in the system for maintaining a supply of family planning commodities, instruments, and supplies	7 (46.7)	8 (53.3)
Service providers/counselors aware of the current guidelines for contraceptive use by women who are HIV-positive	14 (93.3)	1 (6.7)
Management tools reflect family planning/HIV integrated performance of staff	9 (60)	6 (40)
Service statistics reflect family planning/HIV integrated service activities	13 (86.7)	2 (13.3)
Have family planning commodities, instruments and supplies been added to the HIV services standardized list?	10 (66.7)	5 (33.3)
The mechanism for maintaining a reliable supply of family planning and HIV service needs	9 (60)	6 (40)
The community understands the benefits of integrated services	8 (53.3)	7 (46.7)
Other organizations that you know that provide integrated family planning and HIV services	12 (80)	3 (20)
Ongoing community outreach activities into which family planning/HIV integration awareness activities can be incorporated	6 (40)	9 (60)
The existing services are able to adopt Level family planning/HIV service integration without compromising the quality of the services currently being offered	7 (46.7)	8 (53.3)

- 9 (56.3%) provided integrated sexual reproductive health services with HIV services.

- 10 (62.5%) offered HIV services and condoms.
- 9 (56.3%) had HIV services that provided family planning services.

- The proportion of facilities with personnel trained in integrated family planning/HIV services were 13 (86.7%) ART staff who had trained in family planning counseling and method provision

- The proportion of HIV-related service providers who screened reproductive-aged women living with HIV for family planning needs was 14 (87.5%).

Services utilize-related indicators and evaluation

- The proportion of HIV-related service clients who were screened, counseled, and provided with injectable family planning was 422 (64.5%); and 151 (23.1%) women living with HIV were provided with an implant in the ART room by trained healthcare providers.

- The proportion of HIV-related service-delivery point clients who received family planning methods or referral after family planning counseling was 548 (83.8%).

- The proportions of female clients of reproductive age attending HIV-related service-delivery points with an unmet need for family planning were 106 (16%).

- The proportion of repeat care and treatment women of reproductive age living with HIV who reported unintended pregnancy was 140 (21.4%).

- The proportion of reproductive-aged women living with HIV who reportedly received more than one service were 311 (47.6%) who received maternal and newborn care, and 233 (35.6%) had received family planning in addition to HIV services.

- The proportion of women of reproductive age living with HIV who reportedly received more than one service by referral were 44 (6.7%) to any other services during data collection follow-up care in the study area.

Discussion

Integration of sexual reproductive health services with HIV treatment

In this study, 97.1% of the respondents preferred integrated sexual reproductive health with HIV services at the same facility or site, and 96.9% preferred to receive sexual reproductive health with HIV services from the same providers. This correlates with the observation made during the study where quite a high number of women showed up for integrated services. For example, 64.5% of ART clients were screened, counseled, and provided with injectable contraception, and 80.1% received counseling on informed decision-making and consent for permanent contraceptive methods from healthcare providers. Only 23.1% of respondents were counseled for an implant in the ART room. This finding was supported by other studies conducted in Lusaka which revealed that more than 80% of respondents accessed family planning services in ART clinics, and 99% used modern contraception of which 60% used male condoms, 15% used injectable contraception, and 11% used oral contraceptive pills [13]. The study findings were supported by service providers who shared that all health facilities offered sexual reproductive health services as well as HIV services. The services such as PMTCT, ARTs, and contraceptive methods-including condoms-were all located in the same facility offered by the same provider on the same day. The proportion of services provided at each service-delivery point were as follows: 93.8% of health facilities provided sexual reproductive health services in PMTCT, 56.3% offered integrated essential sexual reproductive health services with HIV services, 56.3% offered HIV services within family planning services, and 62.5% of HIV services were provided within condom provision reflected in the study area.

Women of reproductive age attending ART/PMTCT in Oromia Region, Ethiopia revealed that 54.3% received family planning counseling from trained health professionals in the waiting room, and were referred to the family planning unit within the same facility for consultation for long-acting and permanent methods. The study revealed that 88.8% were referred for implants, 61.3% for IUDs, and 29.1% were for tubal ligation. According to this study, 95% of women were satisfied with the utilization of integrated family planning/HIV services. This finding was supported by a study conducted in Tanzania [14], which showed that 85% of clients were screened with at least one of the three questions on the screening job aid, of which 75% discussed contraceptive methods. Method-specific discussions increased for condoms 52% to 63%, pills 26% to 62%, injectable 26% to 62%, implants 16% to 48%, IUDs 12% to 44%, female sterilization 5% to 19%, and male sterilization 1% to 14% from pre-intervention to post-intervention. Therefore, in line with the findings of the current study, the largest multi-country studies demonstrate significant unmet sexual reproductive health service needs for people living with HIV attending HIV clinical care facilities. HIV care providers are uniquely placed to provide reproductive health information, given their frequent contact with patients over a long period [15].

Conclusion

This study assessed the existing integration of family planning services with HIV treatments, guidelines, policy, protocols and healthcare managers. This study assessed the existing integration of sexual reproductive health services with HIV treatment for women living with HIV and attending ART in the Oromia Region, Ethiopia. Such integration ranged from the provision of maternal, family planning, neonatal health services, and health education on

sexual reproductive health combined with HIV services for women living with HIV. Almost all respondents (n=635, 97.1%) preferred integrated sexual reproductive health and HIV services at the same facility. Also, most of the providers (n=622, 95%), were in favor of integrated family planning/HIV services.

This study indicated that the integration of family planning with HIV services includes counseling on available family planning methods in the ART room, to the provision of family planning methods such as condoms, pills, injectable methods, implants in the ART rooms, and referrals for long-acting and permanent methods.

These study findings showed considerable disparities between the availability of elements of integrated family planning/HIV services, and the actual delivery of sexual reproductive health services that are fully integrated; where both HIV- and family planning-related elements are actually incorporated into the visit.

Recommendation

- The MOH, in collaboration with others stakeholders, should take the lead and responsibility for ensuring the implementation of integrated sexual reproductive health services-including family planning/HIV services-with chronic care of ART. The involvement of stakeholders and partners is imperative to guarantee universal access to the integrated family planning/HIV services (HIV prevention, therapy, and chronic care) at primary healthcare units.
- The FMOH, the ORHB, and the researcher should organize and facilitate a workshop on the developed strategic plans for all service providers, supervisors, and healthcare managers to enhance and scale up integrated family planning/HIV services to different health facilities in order to ensure its accessibility and availability.
- FMOH and ORHB should emphasize the integration of sexual reproductive health services-including family planning/HIV services-with chronic care of ART, and it should be included as a key performance indicator. This will help to regularly follow up on the activities.
- Engage women in the planning, implementation, and evaluation of the integrated family planning/HIV services to empower them to decide on their choices regarding family planning/HIV services.
- Educating clients to increase awareness regarding the integrated family planning/HIV services by conducting comprehensive health education throughout the sexual reproductive health services and chronic HIV care in the waiting room area.
- Self-assessment by service providers and supportive supervision by the ORHB to check the quality of counseling according to the standard protocols.
- Utilizing health extension workers and mother-to-mother support groups to conduct intensive post-test counseling (WHO 2016:246) aimed at strengthening counseling on dual contraceptive methods for effective protection of women and their partners. Moreover, partners are notified with permission.
- In line with the WHO (2016:246), more HIV-positive people should be identified and their early referral to care in some settings should be promoted.
- Improving the integration of services such as the provision of ART in antenatal care.

- Self-management, including personal care assessment of family planning/HIV service utilization and sexual reproductive health service utilization plans with ART/PMTCT treatment plans.
- Developing and promoting peer educator and mother-to-mother support group-based integrated family planning/HIV service assessment, counseling, and support programs.
- Conducting annual patient satisfaction surveys to determine their level of satisfaction with integrated family planning/HIV services.
- Conducting outreach services for the underserved, including mobile units with health extension workers to minimize transportation by providing one-stop comprehensive services fully integrated based on women's needs.
- Community engagement to facilitate women living with HIV empowerment in terms of integrated family planning/HIV prevention, treatment, and care.
- Expanding integration of family planning/HIV services to the primary healthcare-based systems in order to increase availability and accessibility.
- Advocating for the mitigation and reduction of harmful sexual reproductive health and family planning cultural practices.
- Monitoring peer educators and mother-to-mother support groups' engagement and support, and establishing a referral system.

Declarations

Ethics approval and consent to participate

The researcher submitted a letter seeking ethical approval and permission to conduct the study from the University of South Africa, and obtained ethical clearance (Ref. No HSHDC/710/2017), then submitted it to the Research and Technology Transfer Core-process of Oromia regional health Bureau (ORHB) and received approval (Ref. No BEFO/HBT64/18/2564). Thereafter, a letter of permission to conduct this research was also obtained from the ORHB who requested support for the researcher from each study site to facilitate the data collection process (Ref. No BEFO/HBT64/18/2569). Informed consent from each study participant was obtained after the nature of the study was fully explained in their local languages as was attached in the questionnaire. The respondents' right to refuse or withdraw from the study at any stage was respected. Information collected from respondents was kept confidential, and the collected information was stored in a locked space, in a file without the name of the study respondent (anonymously), but codes were assigned for each respondent and have not been disclosed to others except the principal investigators. Scientific integrity was ensured by avoiding plagiarism, being honest in reporting on the findings, and accurately citing all consulted sources.

A formal letter of cooperation was written to all selected Health institutions. Written informed consent was obtained from study participants after fully explaining the nature of the study in their local languages as is attached in the questionnaire. The collected information was kept confidential without the name of the study participants.

Availability of data and materials

Datasets used in the current study are available from the corresponding author upon reasonable request.

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Author Contributions

DBD contributed to the conception, design, and conduct of the study, analyzed and interpreted the data, and prepared the manuscript. RMP contributed to the conception, design, and conduct of the study, analyzed and interpreted the data, and prepared the manuscript. DBD contributed to the design and conduct of the study, analyzed and interpreted the data, and prepared the manuscript. All authors read and approved the final manuscript.

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