
FERTILITY, CONTRACEPTIVE USE AND CLIENT- PROVIDER DISCUSSIONS REGARDING FERTILITY PLANS AMONG WOMEN LIVING WITH HIV IN WESTERN ETHIOPIA

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Statement of originality

I hereby certify that the work embodied in this thesis is my own work, conducted under normal supervision.

This thesis contains published scholarly work of which I am a co-author. For each such work, a written statement, endorsed by my supervisors, attesting to my contribution to the joint work has been included.

This thesis contains no material which has been accepted, or is being examined, for the award of any other degree or diploma by any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository, subject to the provisions of the Copyright Act 1968 and any approved embargo.

Tesfaye Regassa Feyissa

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List of abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
AOR	Adjusted Odds Ratio
APR	Adjusted Prevalence Ratio
ART	Anti-Retroviral Therapy
CD ₄	Cluster of Differentiation 4
CI	Confidence Interval
DHS	Demographic and Health Survey
EBF	Exclusive Breastfeeding
EDHS	Ethiopian Demographic and Health Survey
HBM	Health Belief Model
HEWs	Health Extension Workers
HIV	Human Immunodeficiency Virus
HCPs	Healthcare Providers
HREC	Human Research Ethics Committee
IUD	Intrauterine contraceptive Device
km	Kilometer
km ²	Square kilometer
LARC	Long-Acting Reversible Contraception
MTCT	Mother to Child Transmission
OR	Odds Ratio
PCA	Principal Component Analysis
PrEP	Pre-exposure prophylaxis

PR	Prevalence Ratio
PLHIV	People Living With HIV
PMTCT	Prevention of Mother to Child Transmissions of HIV
REDCap	Research Electronic Data Capture
SSA	sub-Saharan Africa
STIs	Sexually transmitted infections
U=U	Undetectable equals untransmittable
UNAIDS	Joint United Nations Program on HIV/AIDS
WHO	World Health Organization
WLHIV	Women Living with HIV

Definitions of terms

Ambivalence towards family planning: contradictory feelings about whether one wants to use family planning at a particular moment.

Antiretroviral therapy: a combination of at least three HIV drugs to maximally suppress the HIV and stop the progression of HIV disease.

Consistent condom use: using a condom during every sex act in the previous six months.

Contraception: the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures.

Demographic and Health survey: a nationally representative household survey that provides data for a wide range of monitoring and impact evaluation indicators in the areas of population and health.

Family planning: the practice of controlling the number of children one has and the intervals between their births, particularly by means of contraception.

Fecundability: measures the potential to produce a live birth.

Fertility desire: the wish to have a child or children in the future.

Fertility intentions: plans regarding having (or not having) children in the future.

Fertility: actual production of live births.

Hormonal contraception: birth control methods that act on the endocrine system: implants, injections, and pills.

In-depth interviewing: a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea or situation.

Key informant interview: interviews with people who have a firsthand knowledge and understanding of what is taking place in the community regarding the needs of women living with HIV.

Peer counsellor for HIV: People living with HIV who provide social support and counselling to other HIV patients, mostly voluntarily or with some financial compensation.

Preconception care: to pregnancy planning, reducing unplanned pregnancies, and optimizing maternal and child health prior to pregnancy.

Safer conception: the process of choosing one or more risk reduction strategies to try and minimise HIV transmission and acquisition risks while attempting to achieve a healthy pregnancy.

Unintended pregnancy: pregnancies that are reported to have been either unwanted or mistimed.

Unmet need for modern contraception: refers to any sexually active reproductive-aged (being fecund) woman who said she wanted to stop or delay childbearing but was not using a modern contraceptive method.

Thesis publications and presentations

Publications

Feyissa, T.R., Harris, M.L., Melka, A.S., & Loxton D. Unintended Pregnancy in Women Living with HIV in Sub-Saharan Africa: A Systematic Review and Meta-analysis. AIDS and Behavior 23, 1431–1451 (2019) doi:10.1007/s10461-018-2346-4

Feyissa TR, Harris ML, Loxton D. Discussing Reproductive Plans with Healthcare Providers by Sexually Active Women Living with HIV in Western Ethiopia. AIDS and Behavior, 2020; 24(10): 2842–2855.

Feyissa TR, Harris ML, Forder PM, Loxton D. Fertility among women living with HIV in western Ethiopia and its implications for prevention of vertical transmission: a cross-sectional study. BMJ Open, 2020;10(8):e036391.

Feyissa TR, Harris ML, Forder PM, Loxton D. Contraceptive use among sexually active women living with HIV in western Ethiopia. PLOS One, 2020; 15(8): e0237212.

Feyissa TR, Harris ML, and Loxton D. “They haven’t asked me. I haven’t told them either”: Fertility plan discussions between women living with HIV and healthcare providers in western Ethiopia. Reproductive Health, 2020;17(1):124.

Conference Presentations

2019 ***Feyissa T.R, Harris M, Loxton D, 'Contraceptive use among sexually active women living with HIV in western Ethiopia', Newcastle, Australia (2019)***

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Abstract

In the last decade, there has been improvement in the life expectancy of people living with HIV due to improved drug therapy and care and support programs. Improved health and survival allows women living with HIV (WLHIV) to provide and care for their families. Importantly, WLHIV who intend to have children need information and services focused on safe conception strategies while those who do not desire a child need access to effective contraceptive methods. However, fertility rates, contraceptive use and reproductive plans among this population are largely unknown, as are the ways in which practitioners and WLHIV might discuss fertility. This thesis therefore aimed to assess fertility, contraceptive use and client-provider discussions regarding reproductive plans among WLHIV in western Ethiopia.

A multi-method approach comprising of a systematic review, a cross-sectional survey and qualitative study was used. The **first aim** was to determine the magnitude of unintended pregnancies in WLHIV in sub-Saharan Africa and to summarise findings on factors associated with unintended pregnancies among these women. A high magnitude of unintended pregnancy was found (55.9%) and unintended pregnancy was significantly higher among women living with HIV than for women who do not have HIV.

The remaining four aims were based on original data. A facility-based cross-sectional survey was conducted in 2018 among 1,082 reproductive-aged (15-49 years) WLHIV in western Ethiopia. The **second aim** was to examine fertility (defined as live births) and its associated factors among WLHIV in western Ethiopia in the last 3 years. A total of 12.5% of WLHIV in Ethiopia reported having children in the last 3 years. Among these, 18.2% of pregnancies were

reported as mistimed and 26.4% as unwanted suggesting that strengthening family planning programs for WLHIV is important.

The **third aim** was to assess contraceptive use among sexually active WLHIV in western Ethiopia. Among sexually active WLHIV who reported being fecund and sexually active within the previous six months but not wanting to have another child within the next two years (n=360), 75% used contraception and 25% had an unmet need for contraception. Compared to women having no children after HIV diagnosis, having two or more children after HIV diagnosis was associated with increased use of contraception. However, sexually active unmarried women were less likely to use contraception compared to their sexually active married counterparts. Importantly, WLHIV who reported high and medium perceived susceptibility towards pregnancy were associated with higher prevalence of contraceptive use than WLHIV with low perceived susceptibility.

The **fourth aim** assessed discussions between healthcare providers and sexually active WLHIV in western Ethiopia regarding their reproductive plans. Among sexually active WLHIV (n=475), 30.7% reported having had a general discussion regarding pregnancy and HIV with healthcare providers. However, only 16.8% of WLHIV had discussions with their providers regarding their personal reproductive plans. Unmarried sexually active women and women accessing health centers for antiretroviral therapy (ART) were less likely to report both general and personalized discussions than married women and women who accessed ART through hospitals, respectively. Following this, the **fifth aim** used a qualitative approach to gain deeper insights into the perceptions surrounding fertility plan discussions between WLHIV in western Ethiopia and their healthcare providers. Thirty-one interviews (27 with WLHIV and 4 with healthcare providers working at HIV clinics) were conducted. Training of healthcare providers regarding safer conception, non-judgmental counselling, improving the

integration of services along with improved human resources, and improving partner involvement were found to be crucial to client-centered reproductive healthcare.

Given WLHIV are both having and intending to have children, it is important to provide safe conception practices that eliminate or lower the chance of HIV being passed on to the child during pregnancy and childbirth. The findings in this thesis highlighted that the delivery of fertility plan discussions occur inconsistently and underscore the need for policy and provider-training in order to provide clear, consistent and sensitive reproductive counselling to WLHIV. Importantly, redirecting tasks such as fertility plan counselling to mother support groups and adherence counsellors could be used as a strategy for people to achieve safer conception. It is also important to strengthen family planning services given the high rate of unplanned pregnancies, and the high rate of unmet needs for contraception.