



Fertility Desire and Reproductive Health Education Needs of Women Living with HIV Receiving Care at Regional Hospital Limbe HIV Treatment Centre

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Authors' contributions

This work was carried out in collaboration between all authors. Author LRT conceived the study, collected data, assisted in data analysis and wrote the first draft of the manuscript. Authors AHT, NST, NFF and MJN conducted interviews and contributed in writing the manuscript. Author NFF analysed the data and reviewed the manuscript. Authors RNN and JFTKA supervised theory, design, approved the protocol and reviewed the manuscript. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/BJMMR/2016/25879

Editor(s):

(1) Roberto Manfredi, Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy.

Reviewers:

(1) Johnstone Kumwenda, University of Malawi, Malawi.

(2) Simeon Achunam Nwabueze, Nnamdi Azikiwe University, Nigeria.

Complete Peer review History: <http://sciencedomain.org/review-history/14307>

Original Research Article

Received 24th March 2016

Accepted 18th April 2016

Published 25th April 2016

ABSTRACT

Aims: Fertility desires among persons living with HIV (PLHIV) could have important HIV prevention and demographic implications particularly in high prevalence settings such as Cameroon. There is a paucity of data on fertility desires and associated factors among PLHIV in Cameroon. The aim of the study was to determine whether HIV positive women desire having children so as to improve on the sexual and reproductive health messages and services provided to them.

Study Design: This was a facility based cross-sectional study.

Place and Duration of Study: Regional Hospital Limbe (RHL) HIV treatment centre between May and June 2014.

Methodology: Systematic sampling was used to select 250 women between the ages of 15–49

years as they consulted at the clinic. Participants were recruited and data collected using an interviewer administered questionnaire.

Results: Mean age was 32 years and 75.9% were sexually active. In this study, 51.4% were not married while 48.6% were married. Fertility desires was high (83.3%) and child bearing after HIV diagnosis was common (48%) with 71.2% of them not going in for preconception counseling. In multivariate analysis, older age (OR: 20.895, 95%CI: 5.3-83.5), not using condom (OR: 30.021, 95% CI: 3.4-262.6) and not being married (OR: 4.87, 95%CI: 1.4-17.6) were having a significantly higher chance of desiring children in future. Majority of WLWHIV (86.9%) indicated a need for RH education. Fertility desire (OR: 11.013, $P=.001$), previous RH discussions (OR: 7.49, $P=.001$) and knowledge of PMTCT (OR: 3.647, $P=0.021$) were the best predictors of RHE need.

Conclusion: A substantial number of WLWHIV attending RHL HIV treatment centre desire having children and there is unmet Reproductive Health Education needs for these women. There is need to sought new strategies to address reproductive health care services so as to satisfy reproductive health care needs of HIV positive woman in Cameroon.

Keywords: Fertility desire; reproductive health education; HIV; WLWHIV.

1. INTRODUCTION

Cameroon like many countries in Sub Saharan Africa is still strongly affected by the HIV/AIDS pandemic [1]. The 2011 Demographic and Health Survey and Multiple Indicators Cluster Surveys [2] (DHS-MICS) indicated that, the overall prevalence of HIV in Cameroon was 5.3% and that 4.3% of adult Cameroonian aged 15-49 years were HIV-positive. The prevalence among women (5.6%) is almost twice as high as men (2.9%). In this survey, the prevalence in women, living in urban areas is higher (6.4%) than those living in rural areas (4.6%).

In 2001, Cameroon initiated a large national program to improve access to ART, based on the decentralization of HIV care. This program has recorded enormous successes in improving the life of people living with HIV in the country, with many more being recruited into care [3]. The 2013 WHO [4] report indicated that 64% of HIV positive pregnant women in Cameroon eligible for ART were actually receiving it. The increase availability and use of ART across Africa has increased the fertility desires among women living with HIV [5,6].

Research findings, especially in countries where highly active antiretroviral therapy (HAART) is widely available, indicate that increased use of antiretroviral drugs has led to great improvements in both quality of life and life expectancy of people living with HIV/AIDS (PLWHA) since 1996. As a result, a number of PLWHA feel encouraged to include parenthood in the planning of their lives [7].

Although many women living with HIV may desire (additional) children, some studies

suggest that HIV-positive women may have lower fertility intentions than their HIV-negative counterparts [8-10]. Other studies demonstrated that fertility desires change over time, especially in relation to health status and antiretroviral therapy" [11-13].

Not much is known about fertility desire in Cameroon. One Cross-sectional, population-based study using data from 4493 sexually active women aged 15 to 49 years concluded that fertility rates were lower in HIV-positive than HIV-negative women in Cameroon [14]. Meanwhile another study demonstrated that the desire to have a child is frequent among ART-treated WLHA of reproductive age in Cameroon [15]. Amidst these controversies, it is important to know the current trends of fertility desires among WLHA to better tailor the care provided to them.

Given that most HIV transmission occurs through sexual intercourse, it is critical to include sexual and reproductive health (SRH) education in HIV programming. In fact, several European governments have revised their international policies, recognizing that HIV/AIDS is a sexual and reproductive health issue [16].

Sexual and reproductive health (SRH) includes availability and access to services that support healthy sexuality and reproduction such as services and support to help women plan their families, including pre-conception support and/or access to contraception as well as attention to infertility [17].

Many women living with HIV have an unmet need for contraception, counseling on pregnancy planning, addressing infertility and information about sexuality, among other needs [18].

Although, discussing child bearing plans with HIV-infected women of reproductive age has many benefits, these discussions often occur too late, after conception has occurred [17]. The reality is that there are few available data regarding fertility desire of WLHA and whether these women have unmet reproductive health care needs in Cameroon. This study aims to address this gap by assessing: (1) the desire for childbearing among women living with HIV (2) To establish whether these women have unmet needs for reproductive health education.

2. MATERIALS AND METHODS

2.1 Study Site, Population and Design

2.1.1 Study setting

The survey was conducted among women living with HIV (WLWHIV) attending the HIV treatment clinic of Regional Hospital Limbe (RHL) situated in Limbe I Sub Division, in the South Western Region of Cameroon. This hospital is a publicly funded secondary institution, which serves along with Buea Regional Hospital as the major referral centers for other public and private Hospitals within the South West Region and beyond.

The HIV treatment unit has approximately 3700 registered people living with HIV, 1087 males and 1963 females of which 1793 were of child bearing age (15-49 years) This clinic offers multidisciplinary but solely outpatient care to HIV-infected individuals in the South West Region and its environs, including free continuous supply of antiretroviral drugs to all who are eligible. A total of 3200 (including children) are active and visit the centre monthly for their treatment and follow up.

Those who require inpatient care are managed in the hospital wards by specialized physicians. In addition to antiretroviral therapy, the clinic also provides adherence counseling, laboratory monitoring and evaluation, psychosocial assistance, nutritional support and counseling, HIV support group and home-based care.

2.1.2 Study sample and procedures

The study sample size was 240 study participants, determined using the formula for sample size determination given by Watson [19]. Three hundred and fifty (350) women were targeted to take care of non responses and (or) drop outs. The women were recruited into the

study using systematic sampling. The first woman (15-49 years) who received services at the beginning of May 2014 was identified using the monthly register, then a kth number was chosen (which was 5, obtained by dividing the total number of WLHIV within child bearing age [1798] by the targeted sample [350]). Every fifth woman who was within the required age group was approached for consent. The women were questioned using a semi structured questionnaire adapted from previous studies done in other parts of Africa [20,21].

2.1.3 Measures

Two outcome variables were used in this analysis: the desire for children and unmet need for reproductive health education. The desire for children was measured by whether a woman would like to have a child in the future. Respondents were asked two separate questions; "Do you intend to have a child in the future?" and "How many children do you want to have in the future?" Women who reported a number greater than zero were coded as desiring or intending a future child.

Unmet need for reproductive counseling comprises women who desire having children, want to have discussions with health care providers on pregnancy and child bearing, but have not. To measure this, the respondents were asked the following questions; "Do you have need to discuss reproductive health issues with a health care provider?" and "Have you ever discussed this need with a health care provider?" The response options for both questions were "yes" or "no." Those who answered 'yes' to the second question were further asked two follow up questions. First, "What was discussed?" with respondents selecting any or all of the following response options: "Prevention of mother-to-child transmission (MTCT), pregnancy (or) child bearing and HIV, Safe abortion services, emergency contraception, condoms and other." Second, "Do you think that the health care provider adequately covered your needs in the discussion?" Responses in this case were; "Yes", "I don't think" and "I don't know" with "I don't think" and "I don't know" being considered as not satisfied.

2.2 Statistical Analysis

Descriptive statistics were used to determine the proportion of women who desired children and those who want to discuss and have discussed

future reproductive plans with their primary HIV care provider. To test associations of demographic, individual, and clinical factors with fertility desires and provider communication, we used bivariate analysis with dichotomous variables. Variables identified to be significant at $p=.05$ were included in the multivariate models to determine factors associated with both fertility desire and communication with provider.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Socio-demographic characteristics

This study recruited a total of 250 HIV positive women of child bearing age at Limbe Regional Hospital. Two hundred and seventy one women were approached for consent to get 250 participants, giving a response rate of 92.3%. Five questionnaires were not complete and therefore were not included in analysis. A total of 245 participants were subsequently analyzed.

The age range of participants was 15-49 years. One hundred and fifty nine (64.9%) of the respondents were in the age group of 15-34

years (Table 1). The mean age of the respondents was 32 years and age standard deviation was 5.7. The majority of the respondents 236 (96.3%) were Christians. One hundred and seventy four (71%) of the study participants live in urban areas while 71 (29%) lived in rural areas. Many of the respondents had more than six years of formal education 163 (66.5%). The majority of participants were not married 126 (51.4%).

3.1.2 Sexual behavior and condom use characteristics

One hundred and eighty six (75.9%) of the participants were sexually active within the past 3 months prior to the study, of whom 157 (84.4%) were having sex with regular partners and 29 (15.6%) with non regular partner(s) (Table 2). Condom usage was reported by 118 (48.2%) participants. The most common reason mentioned by the participants for none use of condom was partner's dislike ($n=56$; 43.8%), followed by a wish to have children ($n=52$; 40.6%). Among those who used condoms, their main reasons were: partner's status is negative ($n=59$; 46.0%) followed by the fear to get infected with other strains ($n=45$; 35.2%).

Table 1. Socio-demographic characteristics of the study population

Characteristics	Frequency	Percentage
Religion		
Christian	236	96.3
Moslem	7	2.9
Others	2	0.8
Residence		
Rural	71	29
Urban	174	71
Education		
< 6 years of Formal Education	82	33.5
> 6 years of formal education	163	66.5
Age group		
15-19 years	2	.8
20-24 years	17	6.9
25-29 years	68	27.8
30-34 years	72	29.4
35-39 years	52	21.2
40-44 years	32	13.1
45-49 years	2	.8
Marital Status		
Married	119	48.6
Single	126	51.4
Duration of sickness		
<5 Years	162	72.6
> 5 Years	61	27.4

Table 2. Sexual behavior and condom utilization by HIV positive women in the ART unit in Regional Hospital Limbe

Characteristics	Frequency	Percentage
Had sex in last 3 months		
Yes	186	75.9
No	59	24.1
With whom did you have sex		
Regular Partner (husband or friend)	157	84.4
Non Regular Partner	29	15.6
Did you use condom		
Yes	118	60.2
No	78	39.8
Why did you use condoms		
Advice by health care provider	17	13.3
Fear of other STIs	7	5.5
Fear of re-infection with new strains	45	35.2
My partner is HIV negative	59	46.0
Reasons for non condom use		
I don't like it	6	4.6
I want to have children	52	40.6
My partner does not like it	56	43.8
My partner status is positive	12	9.4
I don't know where to get it	2	1.6
History of STI in last 12 months		
Yes	42	17.4
No	200	82.6
Where did you get treatment for STI?		
The ART unit	14	33.3
Public health institution	19	45.2
Private institute	8	19
Others	1	2.5

Forty two (17.4%) of the women have had signs and symptoms of STI within the past 12 months prior to the study. Among these, only 14 (33.3%) received STI treatment from the ART unit. Others sought treatment elsewhere (Table 2).

3.1.3 Knowledge of PMTCT

Majority of the participants 79.2% (n=194) were aware that HIV can be transmitted from mother to child. However, a good number of them either did not know (16.7%; n=40) or denied the fact that HIV could be transmitted from mother to child (4.1%; n=10). We also sought to know when transmission from mother to child could occur from those who accepted the possibility of transmission. The majority of participants identified breastfeeding (n=100; 41.5%) as the major route of mother to child transmission, followed by during delivery (n=41; 20.4%) and pregnancy (n=37; 18.4%) respectively. Twenty-three (11.4 %) did not know any route through which transmission could occur.

3.1.4 Fertility desire of women living with HIV

Two hundred and four (83.3%) women desired to have children (Fig. 1). A good number of these (n=188; 76.7%) indicated that their desire for children was not influenced by their HIV status. However, 53(21.6%) did feel their decision was influenced by their HIV status. Some of the reasons advanced that influenced their decisions were: Fear to infect the unborn child, not being healthy enough (low CD4 Count).

3.1.5 Inferential analysis of associations with fertility desire

A significant relationship was obtained between desire for children and duration of illness (Table 3). Those who have been sick for less than five years (n=152, 79.6%) desired children much more than those who had been sick for greater than 5 years ($\chi^2=32.218$, $p=.0001$). Those who did not have children because they have been living with HIV (n=112, 54.9%) expressed more desire for children than those who had children.

The difference was significant ($\chi^2=5.888$, $p=.02$). Also, there was a significant association between fertility desire and age group ($\chi^2=60.038$, $p=.0001$), marital status ($\chi^2=14.411$, $p=.0001$), education ($\chi^2=11.323$, $p=.001$), condom usage ($\chi^2=8.253$, $p=.004$), haven had sexual intercourse in the last 3 months ($\chi^2=19.835$, $p=.0001$) (Table 3).

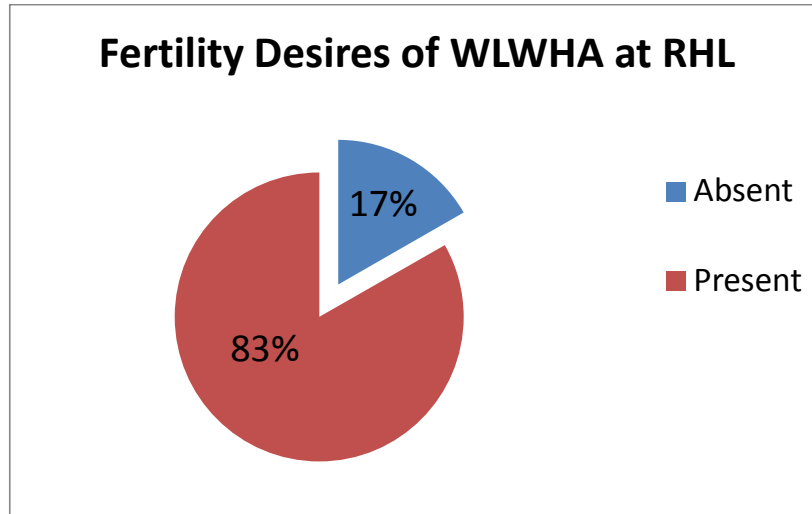


Fig. 1. Fertility desires of WLWHA attending LRH treatment centre

Table 3. Bivariable analysis of the association between fertility desire and predictors

Predictors	Responses	Fertility desire		Chi-square value (p-value)
		Yes	No	
Age group	15-34 Years	154 (75.5%)	5 (12.2%)	60.038 (.0001)
	>34 Years	50 (24.5%)	36 (87.8%)	
Marital status	Married	88 (43.1%)	31 (75.6%)	14.411 (.0001)
	Not Married	116 (56.9 %)	10 (24.4%)	
Residence	Rural	57 (27.9%)	14 (34.1%)	0.639 (.42)
	Urban	147 (72.1%)	27 (65.9%)	
Education	< 6 years of education	59 (28.9%)	23 (56.1%)	11.323 (.001)
	> 6 years of education	145 (71.1%)	18 (43.9%)	
Duration of illness	< 5 years	152 (79.6%)	10 (31.2 %)	32.218 (.0001)
	>5 years	39 (20.4 %)	22 (65.9%)	
Had children during the period of illness	Yes	92 (45.1%)	27 (65.9%)	5.888 (.015)
	No	112 (54.9 %)	14 (34.1%)	
Had sex in last 3 months	Yes	166 (81.4%)	20 (48.8%)	19.835 (.0001)
	No	38 (18.6%)	21 (51.2%)	
Condom use	Yes	100 (56.8%)	18 (90.0%)	8.253 (.004)
	No	76 (43.2%)	2 (10.0%)	
Currently on ART	Yes	194 (95.1%)	40 (07.6%)	0.483 (.49)
	No	10 (4.9%)	1 (2.4%)	
Does ART and PMTCT affect fertility desire	Yes	57 (28.4%)	6 (14.6%)	3.331 (.07)
	No	144 (71.6%)	350 (85.4%)	

Multiple logistic regression (adjustment) analysis, revealed that the desire to have children among the HIV positive women increased with increase in age (OR=20.895, $p=.0001$); as marital status shifts from married to singles (OR=4.872, $p=.016$) with single women having a stronger desire to have children (56.9%) than married women (43.1%). Although use of condoms was also associated with a strong desire to have children (OR=30.021, $p=.002$) those who used condoms (56.8%) had a stronger desire to have children than those who did not use condom (43.2%). The rest of the other variables were excluded from the equation (Table 4).

3.1.6 Reproductive health education needs

Two hundred and thirteen women (86.9%) declared interest in discussing RH issues with their health care providers (Table 5). Among these, 118 (48.2%) had previously discussed RH issues with their provider. Condom and sexuality were the RH issues most often discussed with the health care providers. Only 56 (22.9%) were satisfied with the discussions they had with their primary health care providers.

From the time they became infected, 119 (48%) of women have had children. Among these, only

34 (28.8%) received preconception counseling from a health care provider while 71.2% had no counseling. The difference was significant ($\chi^2=30.999$, $p=.0001$) (Table 5).

There was a significant difference between the need for reproductive health education and knowledge on PMTCT, haven had sexual intercourse in the last 3 months, haven discussed reproductive health care need with health provider, desire for children, duration of illness and level of education of participants (Table 6).

Multiple logistic regression (adjustment) showed that there was a significant association between reproductive health education needs and fertility desire (OR=11.013, $p=.001$). Thus, those who desired children were 11 times more likely to express a need for RHE compared to those who did not desire children (Table 7). Those who had previously discussed RH issues with health providers were 7 times more likely to express a need for RHE compared to those who had never discussed RH issues with health provider (OR=7.494, $p=.001$). Those who had knowledge on PMTCT were 3 times more likely to seek RHE compared to those who had no knowledge on PMTCT (OR=3.647, $p=.021$). The rest of the variables were excluded from the equation.

Table 4. Adjusted analysis of variables associated with fertility desire among positive women aged 15–45 years at RHL HIV treatment centre

Predictors	Responses	Fertility desire		Adjusted O.R (95% C.I)	p- value
		Yes	No		
Age group	15-34 years	154 (75.5%)	5 (12.2%)	20.895 (5.227 - 83.524)	.0001
	>34 years	50 (24.5%)	36 (87.8%)		
Marital status	Married	88 (43.1%)	31 (75.6%)	4.872 (1.349 - 17.596)	.016
	Not married	116 (56.9 %)	10 (24.4%)		
Education	< 6 years of education	59 (28.9%)	23 (56.1%)	b	b
	> 6 years of education	145 (71.1%)	18 (43.9%)		
Duration of illness	< 5 years	152 (79.6%)	10 (31.2 %)	b	b
	>5 years	39 (20.4 %)	22 (65.9%)		
Had children during the period of illness	Yes	92 (45.1%)	27 (65.9%)	b	b
	No	112 (54.9 %)	14 (34.1%)		
Had sex in last 3 months	Yes	166 (81.4%)	20 (48.8%)	b	b
	No	38 (18.6%)	21 (51.2%)		
Condom use	Yes	100 (56.8%)	18 (90.0%)	30.021 (3.432- 262.578)	.002
	No	76 (43.2%)	2 (10.0%)		
Does ART and PMTCT affect fertility desire	Yes	57 (28.4%)	6 (14.6%)	b	b
	No	144 (71.6%)	350 (85.4%)		

b- Variables excluded from the equation in multivariable analysis

Table 5. Counseling on reproductive health care issues among women in the ART units at Regional Hospital Limbe

Characteristics	Frequency	Percentage (%)
Need for discussing RH issues		
Yes	213	86.9
No	32	13.1
Ever discussed RH issues with Provider		
Yes	118	48.2
No	127	51.8
RH issues most often discussed		
Condoms	34	28.8
Family planning and contraception	14	11.9
PMTCT	12	10.1
Pregnancy and (or) child bearing and HIV	27	22.8
Sexuality	29	24.5
Unwanted pregnancy	2	1.9
Did Health provider adequately cover RH issues		
Yes	56	22.9
I don't think	52	21.2
I don't know	137	55.9
Had children during time of ill-health		
Yes	119	48.6
No	126	51.4
Preconception counseling for those who had children		
Yes	34	28.8
No	84	71.2

Table 6. Bivariable analysis for association with reproductive health education needs

Predictors	Responses	Reproductive health education need		Chi-square value (p -value)
		Yes	No	
Age group	15-34 years	143 (67.1%)	16 (50.0%)	3.586 (.58)
	>34 years	70 (32.9%)	16 (50.0%)	
Education	< 6 years of education	67 (31.5%)	15 (46.9%)	2.971 (.001)
	> 6 years of education	146 (68.5%)	17 (53.1%)	
Duration of illness	< 5 years	147 (75.0%)	15 (55.6 %)	23.997(.0001)
	>5 years	49 (25.0 %)	12 (44.4%)	
Fertility desire	Yes	187 (87.8%)	17 (53.1%)	4.515 (.035)
	No	26 (12.2 %)	15 (46.9%)	
Had discussed RHC needs with health provider	Yes	111 (52.1%)	7 (21.9%)	10.188(.001)
	No	102 (47.9%)	25 (78.1%)	
Had sex in last 3 months	Yes	170 (79.8%)	16 (50.0%)	13.524(.0001)
	No	43 (20.2%)	16 (50.0%)	
Knowledge on PMTCT	Yes	89 (42.4%)	7 (21.9%)	4.879 (.027)
	No	121 (57.6%)	25 (78.1%)	

Table 7. Multivariable analysis for association with reproductive health education need

Predictors	Responses	Reproductive health education need		Adjusted O.R (95% C.I)	p- value
		Yes	No		
Age group	15-34 years	143 (67.1%)	16 (50.0%)	b	b
	>34 years	70 (32.9%)	16 (50.0%)		
Education	< 6 years of education	67 (31.5%)	15 (46.9%)	b	b
	> 6 years of education	146 (68.5%)	17 (53.1%)		
Duration of illness	< 5 years	147 (75.0%)	15 (55.6 %)	b	b
	>5 years	49 (25.0 %)	12 (44.4%)		
Fertility Desire	Yes	187 (87.8%)	17 (53.1%)	11.013 (3.643 - 33.299)	.001
	No	26 (12.2 %)	15 (46.9%)		
Had discussed RHC needs with health provider	Yes	111 (52.1%)	7 (21.9%)	7.494 (2.292 - 24.506)	.001
	No	102 (47.9%)	25 (78.1%)		
Had sex in last 3 months	Yes	170 (79.8%)	16 (50.0%)	b	b
	No	43 (20.2%)	16 (50.0%)		
Knowledge on PMTCT	Yes	89 (42.4%)	7 (21.9%)	3.647 (1.215 - 10.949)	.021
	No	121 (57.6%)	25 (78.1%)		

b- Variables excluded from the equation in multivariable analysis

3.2 Discussion

3.2.1 Fertility desire of HIV positive women

In Cameroon, a country with one of the highest HIV prevalence rates in Central Africa and a total fertility rate (TFR) of 4.5 births per woman, reducing the level of mother-to-child transmission of HIV is of critical importance. Knowledge of the fertility desire and associated factors of HIV-positive women can help identify strategies to reduce fertility levels and, hence, mother-to-child transmission.

This study revealed that 83.3% (n=204) of HIV positive women within reproductive age (15-49 years) attending Regional Hospital Limbe HIV treatment centre desire having children in the future. The finding is consistent with another study conducted in Cameroon by Marcellin *et al.* [15] as well as other studies across Sub Saharan Africa [7,22,23]. The desire for children among HIV-positive women was highest among those who were singles, younger, and without children. These factors are likely to be associated with fertility preferences in most contexts. Other studies have shown similar results [23,24].

Level of education was shown to have significant association with fertility desires as those who had more than six years of formal education (71.1%) desired children much more than those with less

education (28.9%). This is similar to what has been observed in a study conducted in South Africa [25]. This could be attributed to the fact that participants who had under gone formal education might better appreciate the effects of ART on their health status. Furthermore, education especially of women empowers them to make informed decisions on fertility issues and family planning. Studies have shown that women's decision-making autonomy, independent of men authority, facilitates fertility regulation [26,27].

An important determinant of fertility desire identified in this study is the age of the respondents. Similar to the observation of other workers [13,28], our findings showed that fertility desires increased with decreasing age of the women and vice versa. In Cameroon, Youths with few economic resources and those with less stable living environments are more likely than other youths to engage in sexual behaviors that put them at risk of contracting HIV [29]. For a disease that is most prevalent among adolescents and young adults, this relationship between age and fertility desire has significant consequences [13]. It is, therefore, critical to establish reproductive health service programs in HIV clinics to assist WLWHA in the prevention of unwanted pregnancies and also to ensure that desired conception and birth take place as safe as possible.

PMTCT knowledge did not correlate with desire for a child in this study: women independently desire a child regardless of whether they knew how to prevent vertical transmission or not. Cameroon has been implementing PMTCT services for more than 10 years; therefore, awareness of the possibilities and choices offered through these services are expected to contribute to the empowerment of WLWHA in particular. It therefore means more extensive advocacy, awareness and promotion of PMTCT services is needed.

Being on ART did not significantly affect fertility desire of HIV positive women in Limbe. The reported dissociation of ART status and fertility desires appears to differ with the findings of Beyeza- Kashesya et al. [30] who suggested that being asymptomatic in the recent past (previous six months) was associated with elevated fertility desires. This apparent difference could be explained by the fact that, ART in Cameroon is started on asymptomatic individuals (CD4 count threshold of 500 cells/ml).

3.2.2 Reproductive health education needs of women living with HIV

HIV treatment centers in Cameroon are not integrated with Reproductive Health Education. The absence of personalized communication is particularly troubling among women who have pregnancy desires and want to discuss them with their HIV provider, but have not (n=127, 51.8%). Given the important health-oriented topics covered in the personalized discussions, which are positively associated with accurate knowledge of MTCT risk, the 51.8% unmet need for personalized reproductive counseling warrants attention to improve women's health, their understanding of transmission risks, and health of their partners and future children.

In this study, a good proportion of women living with HIV (48.6 %, N=119) indicated that they have had children since they became infected, but only 16.2 % of them went for preconception counseling. This shows lack of knowledge of the value of family planning practices. It also shows lack of knowledge of the risks HIV-positive women are exposed to during pregnancy. This finding on lack of knowledge of pregnancy risks by HIV-positive women agrees with findings of studies conducted in Nigeria [23,24], other parts of Sub-Saharan Africa [30] and in Ontario, Canada [31]. RHE is not an integral part of HIV care in Cameroon, indicating missed

opportunities which could be exploited to reduce vertical transmission of HIV in the country.

A significant factor associated with need for RHE was previous RH discussion with health care provider. Those women who had never discussed with a health care provider were more likely to have unmet need for RHE. This finding is corroborated by a study conducted in Switzerland [28]. Possible explanation for this finding is that these women may have felt health care providers would not sufficiently address their concerns regarding relationships, sexuality, and fertility intentions. This was evident as 66.1% of those who had discussed with these healthcare providers were not confident that all the necessary RH issues were adequately covered. Other studies show that given the stigma HIV-infected women may experience when considering childbearing, they may have a heightened fear of disapproval from their HIV provider. As a result, these women may hesitate or avoid discussing their desire for childbearing, and may rely on the provider to initiate the conversation [32].

In this study, significant association was also observed between the need for RHE and the desire to have children in the future. HIV positive women who did not want any children in the near future were more likely to seek RHE. This may be explained by the fact that these women may be in need for information from healthcare providers on the various contraceptive options they could exploit.

Lastly, there are unmet RHE needs of PLWHA in Cameroon despite its high HIV prevalence. The fact that the respondents were still eager to have babies despite known health risks confirms this. With the high desire to have more children, there is absolute need for health care professionals to concentrate on providing services that would prevent horizontal and vertical transmissions as well as reduce poor pregnancy outcomes especially for women with no living children. HIV treatment clinics in Cameroon need to embrace RHE as an integral part of the care they provide to PLWHA, making sure that they are provided comprehensive health education during their counseling sessions. Therefore, clinicians and other workers who counsel these patients should be as clear and simple as possible to impact and empower these women to make informed choices regarding their reproductive health decisions.

4. CONCLUSIONS

Fertility desire is very high among WLWHIV attending RHL treatment centre, and this desire is mainly associated with age, marital status, education and whether or not the individual already has children. A good number of these women have had children since the time they were diagnosed with HIV but majority of them did not seek preconception counseling. Unmet needs for RHE is evident among these women showing significant associations with education, being sexually active, having knowledge on PMTCT, desire for children, and haven had previous discussion on RH with health providers. Non-judgmental counseling that examines future reproductive desires of HIV-infected clients and planning is needed to assist clients in acquiring knowledge and accessing reproductive health services appropriate to their needs.

CONSENT

Informed consent was obtained from all participants. The questionnaire was provided in English and French. The right to refuse recruitment or withdraw at any point without consequence was clearly spelt out. Anonymity was assured through the non-use of participant identifiers and confidentiality guaranteed by storing data in a password protected computer only accessed by the investigator.

ETHICAL APPROVAL

Ethical approval to conduct this study was obtained From the Faculty of Health Sciences Institutional Review Board (FHSIRB) of the University of Buea. Administrative clearance was obtained from the Regional Delegation of Public Health and Regional Hospital Limbe. The Faculty of Health Sciences Institutional Review Board Project number is 2014/184.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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