Intimate Partner Violence and Contraceptive Method Choice: Evidence from Malawi and Zambia

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Abstract

Intimate partner violence (IPV), a universal form of violence against women perpetrated by husband or intimate male partner, has become frequent in sub-Saharan Africa. IPV has been found to be associated with range of negative health outcomes (still birth, premature delivery, low birth weight, high risk of STI, low use of maternal health care and unintended pregnancies) for women and their children.

Objective

A number of studies have examined factors that influence contraceptive use but there are no studies that examine how intimate partner violence influences contraceptive method choice.This paper seeks to identify the association between intimate partner violence and contraceptive method choice among women in Malawi and Zambia.

Methodology

Data came from a nationally representative (Demographic and Health Surveys) sample of 23,020 women (aged 15-49) in Malawi and 7,146 women in Zambia The multinomial regression method has been applied to examine the influence of intimate partner violence on contraceptive method choice (no method, reversible, permanent and traditional methods).

Results

There was no significant association between intimate partner violence and contraceptive method choice in the two countries but age, education and number of living children was strongly linked to method choice.

Conclusion

Use of permanent methods increased with age and an increase in educational attainment showed an increased use in reversible method. Permanent methods should be made readily available to older women who have completed their family size.

Keywords: Intimate Partner Violence, Contraceptive Method Choice

Background

Malawi and Zambia are among the countries in Southern Africa with a high fertility of 5.7 and 5.8 children per woman (CIA, 2012). The high fertility rate in these two countries suggests that the two countries have a high population growth rate which may affect their economies if family planning programs are not strengthened. Some women now understand the implications of high fertility and due to technological advancements in the 21st century; they have knowledge about contraceptive methods which has social and economic significance for women and society at large. Presently, more than 200 million women worldwide need, but do not have access to contraceptives, and majority of these women live in Africa (WHO, 2013). There exist noticeable unmet need for contraceptives which has resulted in the persistent high fertility and unintended pregnancies. One of the reasons for unmet need is the lack of proper understanding of women's contraceptive method choice and low bargaining power.
It was mandated at the International Conference on Population and Development that appropriate methods for couples and individuals which differ according to socio-demographic characteristics be recognized. It was also decreed that men and women should have information and access to feasible range of dependable and effective contraceptive methods in order to facilitate their ability to exercise their free and informed choice (United Nations Population fund, (UNFPA), 1996). The quality and mixture of methods available to countries can serve as determinants of contraceptive prevalence (Ross, 2012). Limited choices of contraceptive methods remain a challenge in Sub-Saharan Africa which makes it difficult for women to choose methods that is suitable for their needs. Studies have proven that limited choice of contraceptive methods results in low levels of contraceptive prevalence in countries (Phillips, 1989; Ross, 2002).

In Zambia, family planning and reproductive health services are not uniformly available throughout the country, and more than half (60%) of currently pregnant women in Lusaka which is the capital city report that the pregnancy was unwanted. Although 100 percent of women reporting unwanted pregnancies report being familiar with at least one method of modern contraception, only 48 percent have ever used any modern method of contraception,

and only 37 percent currently use modern contraceptives (USAID, 2009). In Malawi, just 42% of women use modern contraceptives regularly which leave thousands of women without the ability to plan the timing and spacing of their children (PRB, 2012). Even when women have access to contraceptives, they are usually out of stock and their method choice may not be available, thereby limiting women's ability to choose a method that best suits their needs. Despite the vast literature on contraceptives, knowledge about contraception is still very essential and this should not be limited to the adoption of contraceptives alone. It is also important to understand the suitable methods that would be effective for women overtime.

Uptake of different contraceptive methods differs by region and country (Seiber, 2007). According to a report by Population Reference Bureau's (PRB) (2008), female sterilization remains the most commonly used method globally, used by about one-fifth of the married women of reproductive age. It is followed by intrauterine devices (IUDs), pills, condoms, injections, male sterilization, and several traditional methods. Other modern methods, such as hormonal implants, diaphragms, and spermicides, account for a very small percentage of total use.A number of countries in sub-Saharan Africa have a biased method mix, where a single method accounts for more than half of contraceptive use (Sullivan, 2006).

For instance, female sterilization is hardly utilized in North Africa or Sub-Saharan Africa and it has been concluded that, the pill is the most commonly used method in developing countries, followed by the IUD and injectables (Lande et al., 2006). In developing countries, there has been no change in the use of condoms despite international and local efforts that have been put in place to advocate this method type (Seiber, 2007). In addition, traditional methods which are rarely used globally as only 7% of couples worldwide make use of this method make up more than half of family planning use in many countries in sub-Saharan Africa.

The main methods currently available in Malawi include; Female Sterilization, Pill, IUD, Injectables, Implants and Male Condom and they are conveniently accessible through government and private health services, or commercial pharmacies (Palamuleni, 2008). In Zambia, contraceptives are available in public clinics, private clinics, or pharmacies. Contraceptive pills and condoms can be obtained in most pharmacies and injectable

contraceptives can also be purchased. All three methods, along with contraceptive implants and intra-uterine devices (IUDs), are available for free through public clinics (Ashraf et al., 2010).

Contraceptive method choice remains a key measure in determining the quality of care in a family planning program (Stephenson, 2008), because the likelihood of a program meeting the range of contraceptive needs of different clients depends largely on the availability. In addition, contraceptive prevalence rates tend to increase with the increment of contraceptive methods. According to Ross, (2012) before the mid-1960s, there were few contraceptive methods to offer. Soon after, the contraceptive environment has been remodelled with the introduction of the IUD, the pill, simpler sterilization, improved condoms, and later, the injectable.

Research has concluded that knowledge on contraceptive method choice is very essential especially in countries that have high HIV prevalence rates (Mark et al., 2007). This is because women can utilize the dual method approach by using condoms to guard against HIV and other STI's and utilize long acting contraceptives to prevent pregnancy. These methods protect women and children from heterosexual and perinatal HIV transmission respectively.

Studies have documented several factors that can influence method choice. Availability of methods, cost and accessibility have been seen to be associated with the choice of methods (Harries et al., 2007). Religion and culture can also have an effect on women's method choice. Some religious affiliations do not encourage the use of condoms while others are totally against the use of contraception. Previous research has shown that fertility intentions could also influence method choice (Laher *et al.,* 2009; Imbuiki *et al.,* 2010)

Evidence from Africa has proven that excess fertility reflects the outcome of bargaining between partners with divergent fertility preferences (Ashraf et al., 2010). This may be due to the fact that men are in control of sexual relations and contraception which may limit women's power and influence fertility outcomes. One of the most common forms of violence against women is that inflicted by a husband or other intimate male partner (Campbell, 2002). Intimate partner violence is a global complexity and its prevalence in Sub-Saharan Africa is high compared to other developing regions (McCloskey et al., 2005), where about 13% and 54% of

women report experiencing IPV during their lifetimes (Garcia-Moreno, et al., 2006). It exists among different cultural, socio-economic and religious groups (Oyediran and Isiugo-Abanihe, 2005; Devries, Kishor and Johnson, 2010; WHO, 2012).

Intimate partner violence in this study uses the WHO definition which can be described as any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship. Examples include physical, sexual, emotional and controlling behaviours. According to WHO, 2013, over 38% of women worldwide have experienced intimate partner violence and the prevalence was seen to be highest in Africa compared to other regions where 37% reported to have experienced violence from their partners.

About 41% and 48% of the women in Malawi and Zambia respectively have experienced intimate partner violence (National Statistical office (NSO) and ICF Macro, 2011). Research in Malawi has shown that women regardless of their demographic and social status such as age, marital status, educational level, employment status and number of children, are exposed to violence by their husbands or partners (Chakwana, 2004).

IPV can lead to a number of negative sexual and reproductive health consequences for women. These consequences include unintended and unwanted pregnancy, abortion and unsafe abortion, maternal deaths and sexually transmitted infections which include HIV. Research has identified IPV as a factor that may be associated with contraceptive noncompliance (Williams, et al., 2008). IPV has an indirect effect on women's health as it makes it difficult for them to negotiate the contraceptive method that is appropriate for them.

Some studies have concluded that IPV increases women's risk of having many children by reducing their ability to control the timing of sexual intercourse and use of contraception (Heise et al., 2002), suggesting that violence might constrain their access to FP services. Others report that women subject to IPV are more likely to use FP/RH services clandestinely for fear of retaliation from their intimate partners (Garcia-Moreno et al., 2006). When men consistently use coercion or violence to prevent women from using condoms to prevent diseases and other forms of contraception to prevent unintended pregnancies, women may seek contraception through FP services without knowledge of their casual or permanent partners.

The relationship between IPV and contraceptive use has been investigated in several studies in sub Saharan Africa and most of these studies have focused on use and non-use of contraceptives (Diop, 2006; Alio, 2009). The aim of this study is to investigate the impact of intimate partner violence on contraceptive method choice among married and cohabiting women of reproductive age in Malawi and Zambia. This is important as the relationship between intimate partner violence and contraceptive method choice has not been fully explored in Malawi and Zambia. Women who experience intimate partner violence may be faced with psychological and social factors that may have an impact on the methods of contraceptives they want to use.

Also, according to a family planning study commissioned by USAID (2005), contraceptive prevalence increased more for Malawi and Zambia compared to Ghana but Ghana was the only country that experienced the most significant decline in fertility. Therefore, there is a need for the study of the type of contraceptive methods women in Malawi and Zambia use so as to better understand the situation.

Based on this background, this study is an attempt to examine the influence of intimate partner violence on contraceptive method choice. We hypothesize that women who are abused by their partners may not possess control over their reproductive choices and have little or no access to their preferred method of contraceptives. This may be partly because women may rely on methods that can be hidden from their partner (Heise, 1993) or they lack the negotiating power (Heise, Moore, & Toubia, 1995). Also, other studies have concluded that women who are in abusive unions may lack control over the timing of sexual intercourse which may obstruct the performance of some methods like barrier methods (Morewitz, 2004).

Data and Methods

The study utilized secondary data from the 2010 Malawi and 2007 Zambia Demographic and Health Survey (MDHS). The target population for this study were currently married women (aged 15-49) who were using any method of contraceptives. A total number of 23,020 women were interviewed in Malawi while 7,146 women were interviewed in Zambia. Information obtained from responses to the questionnaire provided data on the socio-economic, cultural

and demographic characteristics of users of different contraceptive methods. Data analysis was limited to currently married women 15-49 years of age who were not pregnant at the time of the survey. Currently married women include those who are legally married and those living in consensual unions. After weighting was applied, the final samples included 15,445 women for Malawi and 4,003 for Zambia.

Variables

The dependent variable which is contraceptive method choice explains the different contraceptive methods women are using. For the purpose of this study, the dependent variable will be characterized following Rajaretnam, (2000), as no method, reversible methods (IUD, Pills, Injectibles and Condoms), permanent methods (male and female sterilization) and traditional methods (Withdrawal and other).

The main independent variable captures two dimensions of violence which are the physical and sexual violence. Physical violence was assessed using eight questions (ever pushed, ever slapped, ever punched, ever kicked, ever strangled, ever twisted and ever attacked) and sexual violence which was assessed asking whether a woman has been forced to have sex or engaged in forced sexual acts.

Explanatory variables were selected based on their previous significance in other studies that have looked at contraceptive behavior or their association with method choice. They are grouped into socio-economic and demographic factors and they include age, educational level, region, place of residence, occupation, household wealth, religious affiliation, number of living children and exposure to family planning. Religion is considered because various religious affiliations have different moral considerations of method choice. Place of residence usually explains the rural-urban variation.

Analysis

Firstly, at the univariate level, descriptive analysis was done to come up with the percentage distribution of socio-economic and demographic characteristics of the study sample. Secondly, at the bivariate level, a model comprising of intimate partner violence was built to assess its

independent effect on contraceptive method choice. Finally, at the multivariate level, a model comprising of intimate partner violence and all other independent variables was built to assess the net effect of all the variables in the study on contraceptive method choice. A multinomial logistic regression was fitted because the dependent variable is in four categories (reversible methods, permanent methods, traditional methods) where no method is the reference category. Multinomial logistic regression is derived from the binary logistic regression model, but it has the capability of analysing a polytomous (more than two categories) dependent variable. The results are presented in terms of the odds of change occurring in a dependent variable resulting from a unit change in an independent variable (defined as either continuous or categorical measures). Formula applied for multinomial logistic regression is as follows:

$$Ln(P_2 / P_1) = b_0 + b_1x_1 + b_2x_2 + b_3x_{3+\ldots\ldots} + b_ix_i \ldots\ldots\ldots\ldots\ldots\ldots(i)$$

$$Ln(P_3 / P_1) = b_0 + b_1x_1 + b_2x_2 + b_3x_{3+\ldots\ldots} + b_ix_i \ldots\ldots\ldots\ldots\ldots\ldots(ii)$$

Where, P_2 = Probability of P_2 with respect to P_1.; P_3 = Probability of P_3 with respect to P_1; P_1 = Reference category; b_0 = Intercept; $b_1, b_2, b_3 \ldots b_i$ is the regression coefficient of $x_1, x_2,$ and $x_{3\ldots\ldots}$ respectively. Stata 11 was used for this analysis and in order to avoid problems of oversampling from sample, appropriate weighting factors were used in the analysis. Thus, this study utilized weights for all analysis excluding multivariate analysis. A test for multi-collinearity was also carried out using variance inflation factor (VIF) and the mean VIF was 1.18.

Results

Results presented in Table 1 indicate that there were slightly more women using no methods in Zambia (64%) than in Malawi (55%). More women in Malawi were using reversible methods (32%) compared to 26% of women using reversible methods in Zambia. Also, about 10% of the women were using permanent methods in Malawi compared to 2% of the women in Zambia. The use of traditional methods was higher in Zambia (8%) compared to the use in Malawi (4%). Close to three quarter of the women in Malawi (72%) reported having experienced IPV compared to about one fifth (22%) of their counterparts in Zambia.

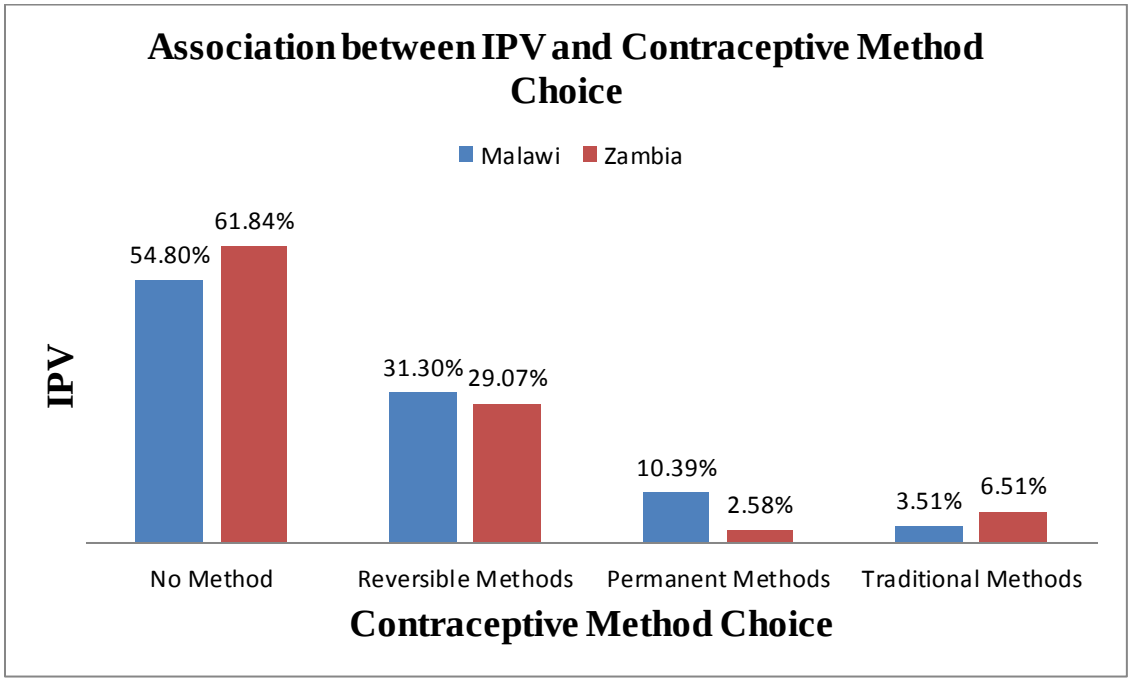
Table 1: Overall Characteristics of the Sample for Malawi and Zambia

Dependent Variable	Malawi %	Zambia %
Method Choice		
No Method	55.13	64.26
Reversible Methods	31.75	26.24
Permanent Methods	9.99	2.01
Traditional Methods	3.12	7.49
Main Independent Variable		
Intimate Partner Violence		
No	28.38	78.37
Yes	71.62	21.63
Control Variables		
Age		
15-24	29.88	26.55
25-34	40.92	42.70
35+	29.20	30.75
Type of place of residence		
Urban	17.30	34.98
Rural	82.70	65.02
Highest educational level		
None	18.20	13.00
Primary	65.89	60.84
Secondary and Higher	15.91	26.16
Partner's Educational Level		
None	10.88	8.20
Primary	60.07	46.60
Secondary and Higher	290.6	45.20

Occupation		
Not Working	23.78	41.99
Formal employment	2.02	3.90
Sales	17.74	19.20
Agricultural Employment	45.28	28.23
Other	11.18	6.68
Wealth index		
Poor	37.09	40.36
Middle	21.27	20.20
Rich	41.64	39.44
Religion		
Christian	65.13	78.57
Catholic	19.68	1.42
Muslim	13.76	
Other	1.4	1.94
Region		
Northern	12.05	
Central	43.00	
Southern	44.95	
Central		9.95
Copperbelt		15.87
Eastern		15.66
Luapula		8.25
Lusaka		14.09
Northern		14.88
North Western		5.27
Southern		10.15
Western		5.87
No of Living Children		

0	6.44	7.16
1-2	36.34	33.13
3-4	31.82	30.71
>=5	25.39	29.00
Exposure to Family Planning		
No	37.16	56.03
Yes	62.84	43.97

The purpose of this study was to identify association between intimate partner violence and contraceptive method choice in Malawi and Zambia so a Pearson chi square was employed to test the association at the bivariate level.



P-value 0.015 (Malawi) and 0.154 (Zambia)

The graph above displays the association of women who experienced IPV and contraceptive method choice. More than half of the women who experienced IPV in Zambia (62%) and Malawi (55%) were not using any method of contraceptives. 31% of the women in Malawi reported the use of reversible methods compared to 29% in Zambia. More women in Malawi (10%) made use of permanent methods compared to 3% of women utilizing permanent

methods in Zambia. Finally, a higher number of women in Zambia (7%) were using traditional methods compared to 4% in Malawi. The chi square shows that intimate partner violence is significantly associated with contraceptive method choice in Malawi while the results in Zambia show no significant association.

The multinomial model was fitted to examine the association between IPV and method choice controlling for other independent variables.

Table 4 Sample Characteristics and Adjusted Multinomial Regression Models of Contraceptive Method Choice in Malawi

Characteristics	**Reversible Method**	**Traditional Method**	**Permanent Method**
	RRR (adj) (95% CI)	**RRR (adj) 95% CI**	**RRR (adj) 95% CI**
Intimate Partner Violence			
No (RC)	1.00	1.00	1.00
Yes	0.97 (0.87-1.07)	0.88 (0.68-1.14)	1.15 (0.97-1.38)
Age			
15-24 (RC)	1.00	1.00	1.00
25-34	0.72* (0.63-0.82)	0.59* (0.39-0.89)	4.75* (2.44-9.24)
35+	0.36* (0.30-0.43)	0.57* (0.37-0.89)	12.37* (6.27-24.42)
Type of place of residence			
Urban (RC)	1.00	1.00	1.00
Rural	0.85 (0.72-1.00)	0.78 (0.49-1.24)	0.65* (0.50-0.85)
Highest educational level			
No Education (RC)	1.00	1.00	1.00
Primary	1.26* (1.09-1.45)	1.42* (1.01-1.98)	1.16 (0.95-1.42)
Secondary and Higher	1.72* (1.40-2.11)	1.87* (1.14-3.08)	1.19 (0.82-1.72)

Partner's Educational Level	1.00	1.00	1.00
No Education (RC)	1.09 (0.93-1.29)	1.44 (0.94-2.20)	1.07 (0.84-1.38)
Primary	1.19 (0.98-1.45)	1.32 (0.80-2.17)	1.51* (1.1-2.09)
Secondary and Higher			
Occupation			
Not Working (RC)	1.00	1.00	1.00
Formal employment	1.46 (0.95-2.23)	2.10 (0.78-5.70)	2.74* (1.54-4.91)
Sales	1.45* (1.23-1.70)	1.60* (1.10-2.34)	1.46* (1.12-1.89)
Agricultural	1.09 (0.96-1.23)	1.25 (0.93-1.70)	1.16 (0.93-1.43)
Employment	1.32* (1.11-1.57)	1.58* (1.05-2.38)	1.42* (1.5-1.90)
Other			
Wealth index			
Poor (RC)	1.00	1.00	1.00
Middle	1.05 (0.92-1.19)	0.85 (0.63-1.15)	1.29* (1.03-1.62)
Rich	1.08 (0.95-1.23)	0.71* (0.52-0.96)	1.62* (1.32-1.98)
Religion			
Christian (RC)	1.00	1.00	1.00
Catholic	1.03 (0.93-1.19)	1.12 (0.84-1.50)	0.86 (0.72-1.05)
Muslim	0.57* (0.49-0.67)	1.28 (0.89-1.84)	0.37* (0.28-0.49)
Other	0.76 (0.45-1.29)	0.68 (0.22-2.16)	1.21 (0.65-2.25)
Region			
Northern (RC)	1.00	1.00	1.00
Central	1.33* (1.45-1.55)	0.34* (0.25-0.45)	1.38* (1.09-1.74)
Southern	1.39* (1.20-1.62)	0.29* (0.22-0.40)	0.94 (0.74-1.19)
No of Living Children			
0 (RC)	1.00	1.00	1.00
1-2	13.5* (8.93-20.63)	8.58* (3.06-24.04)	3.44* (1.09-10.84)
3-4	24.8* (16.10-38.07)	15.31* (5.23-44.85)	15.04* (4.95-45.65)

5+	29.7* (19.03-46.38)	36.24* (12.31-106.607)	34.29* (11.26-104.41)
Exposure to Family Planning			
No (RC)	1.00	1.00	1.00
Yes	1.11* (1.00-1.23)	1.25 (0.97- 1.61)	1.20* (1.01-1.43)

Table 5 Sample Characteristics and Adjusted Multinomial Regression Models of Contraceptive Method Choice in Zambia

Characteristics	**Reversible Method**	**Traditional Method**	**Permanent Method**
	RRR (adj) (95% CI)	**RRR (adj) 95% CI**	**RRR (adj) 95% CI**
Intimate Partner Violence			
No (RC)	1.00	1.00	1.00
Yes	0.97 (0.78-1.22)	0.89 (0.61-1.31)	0.97 (0.51-1.85)
Age			
15-24 (RC)	1.00	1.00	1.00
25-34	0.63* (0.49-0.81)	0.60* (0.39-0.94)	0.89 (0.11-7.35)
35+	0.31* (0.22-0.43)	0.59* (0.35-0.99)	7.12* (1.01-50.06)
Type of place of residence			
Urban (RC)	1.00	1.00	1.00
Rural	0.92 (0.69-1.21)	0.79 (0.52-1.21)	1.33 (0.59-2.98)
Highest educational level			
No Education (RC)	1.00	1.00	1.00
Primary	1.55* (1.11-2.15)	1.14 (0.74-1.76)	0.44* (0.20-0.97)
	2.38* (1.60-3.41)	1.27 (0.70-2.30	1.03 (0.41-2.61)

Secondary and Higher			
Partner's Educational Level	1.00	1.00	1.00
No Education (RC)	1.24 (0.83-1.85)	1.65 (0.95-2.87)	0.51 (0.21-1.27)
Primary	1.55* (1.02-2.35)	1.21 (0.63-2.31)	1.17 (0.48-2.87)
Secondary and Higher			
Occupation			
Not Working (RC)	1.00	1.00	1.00
Formal employment	1.93* (1.18-3.13)	1.69 (0.55-5.200	5.35* (1.96-14.57)
Sales	1.18 (0.93-1.50)	1.92* (1.19-3.10)	1.16 (0.50-2.69)
Agricultural	0.84 (0.65-1.09)	1.29 (0.86-1.94)	1.00 (0.36-2.83)
Employment	1.19 (0.82-1.70)	2.12* (1.14-3.94)	2.62* (1.02-6.73)
Other			
Wealth index			
Poor (RC)	1.00	1.00	1.00
Middle	0.91 (0.69-1.18)	0.80 (0.54-1.19)	1.76 (0.62-5.04)
Rich	1.74* (1.23-2.44)	0.64 (0.39-1.06)	5.38* (1.57-18.43)
Religion			
Christian (RC)	1.00	1.00	1.00
Catholic	0.88 (0.69-1.11)	1.28 (0.90-1.83)	0.77 (0.38-1.55)
Muslim	-	-	-
Other	0.94 (0.47-1.89)	0.84 (0.30-2.37)	0.39 (0.04-3.35)
Region			
Central (RC)	1.00	1.00	1.00
Copperbelt	0.97 (0.69-1.38)	1.84 (0.89-3.78)	5.59* (1.17-26.52)
Eastern	1.85* (1.31-2.61)	1.42 (0.70-2.86)	13.19* (2.60-66.90)
Luapula	0.33* (0.21-0.50)	0.26* (0.09-0.72)	3.36 (0.55-20.25)

Lusaka	1.05 (0.75-1.47)	2.29* (1.14-4.60)	3.32 (0.65-16.77)
Northern	0.87 (0.60-1.26)	4.81 * (2.62-8.82)	3.09 (0.53-18.05)
North Western	0.94 (0.63-1.39)	2.11* (1.06-4.17)	13.30* (2.45-71.98)
Southern	1.66* (1.17-2.35)	0.82 (0.35-1.93)	2.09 (0.33-13.24)
Western	1.46 (0.91-2.03)	2.56 (1.28-5.13)	3.99 (0.51-31.30)
No of Living Children			
0 (RC)	1.00	1.00	1.00
1-2	7.79* (4.51-13.48)	15.45* (2.06-115.74)	12.01* (3.73-38.66)
3-4	14.43* (8.13-25.62)	27.78* (3.55-217.10)	24.71* (9.32-65.47)
5+	15.81* (8.62-29.00)	35.41* (4.47-280.13)	35.98* (1.82-160.07)
Exposure to Family Planning			
No (RC)	1.00	1.00	1.00
Yes	1.37* (1.14-1.66)	0.80 (0.56-1.14)	1.15 (0.56-2.20)

After controlling for explanatory variables, results indicate that intimate partner violence does not have a significant association with contraceptive method choice in Malawi and Zambia (see Tables 4 and 5).

Variables such as age, place of residence, respondents' education, partner's education, occupation, wealth index, religion, region, number of living children and exposure to family planning messages was found to be significantly associated with contraceptive method choice in Malawi (see Table 4). In Zambia, age, respondent's education, partner's education,

occupation, wealth index, region, number of living children and exposure to family planning messages were significantly associated with contraceptive method choice.

Age was inversely associated with the use of reversible and traditional methods. In other words, the use of these methods reduced with the increase in age. Women aged 25-34 had 0.72 lower odds of using reversible methods and women aged 35 even had lower odds at 0.36 of using reversible methods. The odds also decreased with age for women using traditional methods as women aged 25-34 were 0.59 times less likely to use traditional methods and women aged 35 and above were 0.57 times less likely to use traditional methods. Older women were more likely to use permanent odds as results indicated that women aged 25-34 had 4.75 odds of using permanent methods and odds increased to 12.37 for women aged 35 and above. Results were similar for Zambia as women aged 25.34 were 0.63 times less likely to use reversible methods with older women (35+), having reduced odds of 0.31 for reversible methods. Women aged 35 and older were 7.12 times more likely to use permanent methods.

Women in the rural areas were 0.6 times less likely to be using permanent methods compared to women in the urban areas. This reason for the rural-urban differential may be due to accessibility and cost of sterilization process. There was no significant association between place of residence and method choice in Zambia.

Women with primary education were 1.3 times more likely to use reversible methods and women who had attained secondary and higher were 1.7 times more likely to use reversible methods. Also, women with primary education were 1.4 times more likely to use traditional methods. The odds of using traditional method also increased with educational attainment as women with secondary and higher education were 1.9 times more likely to use traditional methods. For Zambia, women with primary education were two times more likely to use reversible methods and women with secondary and higher education were three times more likely to use reversible methods. Women with primary education were 0.44 times less likely to use permanent methods and this association was significant. The odds of using traditional method increased with educational attainment but this association was not significant. Also,

women may prefer reversible or traditional methods compared to permanent methods because of the fears associated with the sterilization process.

The odds of using reversible methods increased with partner's education but this association was not significant. Partners who had secondary and higher education were two times more likely to use permanent methods and this association was significant. This could be because, permanent methods may require a particular level of educational attainment and understanding from partners. The results were different in Zambia where partners who had attained secondary and higher education were two times more likely to use reversible methods and this association was seen to be significant.

By occupation, women in sales were two times more likely to use reversible methods. Women who were involved in other (unskilled and manual labour) were 1.3 times more likely to use reversible methods. Women in sales and other forms of employment were two times more likely to utilize traditional methods. The odds of using permanent methods were about three times more for women in the formal sector. The odds reduced for women in sales and other forms of employment but they were 1.5 times and 1.4 times more likely to use permanent methods and these associations were significant. Contrary to the results from Malawi, women in the formal sector were two times more likely to use reversible methods with a significant association in Zambia. Similar to Malawi, women in sales and other forms of employment were about two times more likely to use traditional methods. In addition, women in formal employment were five times more likely to use permanent methods and women in other forms of employment were three times more likely to use permanent methods.

By wealth status, the odds of using permanent methods increased for richer women in Malawi. Women in the rich category had 0.71 lesser odds of using traditional methods. The odds of using permanent methods increased by wealth status, women in the middle class were 1.3 times more likely to use permanent methods and rich women were 1.6 times more likely to use permanent methods. In Zambia, rich women were 1.7 times more likely to use reversible methods and they were five times more likely to utilize permanent methods.

In Malawi, women who practised Islam were 0.57 times less likely to use reversible methods and 0.37 times less likely to use permanent methods. There was no significant association between religion and method choice in Zambia. This could be because majority of the women are predominantly Christian.

By region in Malawi, women in the central and southern region were 1.3 and 1.4 times more likely to use reversible methods. There were both 0.3 times less likely to use traditional methods. Women in the central region were 1.4 times more likely to use permanent methods and this association was significant. In Zambia, women in the Eastern, Southern and Western region were about two times more likely to use reversible methods. Women in Lusaka (2.9), Northern region (4.8) and North western region (2.11) all had higher odds of using traditional methods. Women in Luapula were 0.3 times less likely to use traditional methods. Women in Copperbelt (5.6), Eastern (13.2) and North western (13.3) had higher odds of using permanent methods.

The odds of using reversible, traditional and permanent methods increased with number of living children for the two countries and the association was seen to be significant.

In Malawi, women who reported to be exposed to family planning were 1.1 times more likely to use reversible methods and 1.2 times more likely to use permanent methods and this association was significant but in Zambia, women who were exposed to family planning messages for 1.4 times more likely to use reversible methods.

Discussion and Conclusion

The use of contraceptives depends on the choices available to women and a large amount of method mix can improve contraceptive prevalence. The research objective was to examine the influence of intimate partner violence and contraceptive method choice. Currently married women were the study population and method choice was grouped into four categories. In this study, we have gone beyond traditional analyses of socioeconomic and demographic determinants of contraceptive use or non-use and have looked at method choice. Method

choice appears to vary by abuse status among women in Zambia and Malawi at the bivariate level.

Further results showed that older women were more likely to use permanent methods. This may be due to the fact that older women are more likely to have reached their desired fertility and may opt for permanent methods which are more effective in preventing pregnancies while younger women go for temporary methods that are more effective in preventing STI's. Also, adolescents who are sexually active and at high risk of unintended pregnancy usually use reversible method as contraceptive option. The methods are inexpensive, reversible and require little or no maintenance. In addition, IUD's are safe for women who have not had children. Sexually active young women who want to delay pregnancy until after marriage may want long term reversible methods against pregnancy as protecting young women from unintended pregnancy will also protect their health.

Use of reversible methods was seen to increase with educational level of women. Reversible methods can serve as a very good option for women and couples living with HIV or AIDS. IUDs and implants can be used by all women with HIV or AIDS. Traditional methods have lower rates of effectiveness. Our findings contrast research by Mogadi, 2003 in Kenya, who found that use of injectables declines with increasing educational attainment.

The results show that educated men have higher odds of using permanent methods. For men who have achieved their desired family size, vasectomy, which is a permanent method, is the only method that offers highly effective, permanent protection from unintended pregnancies. Also their high educational attainment may allow them understand the advantages of limiting fertility when they have reached their ideal family size.

Women in rural areas were less likely to utilize permanent methods in Malawi. This could partly be because of restricted mobility, inadequate information about permanent methods and lack of trained personnel as qualified doctors usually migrate from rural to urban areas. This study is similar to research done in South Africa which found out that women residing in urban areas were less likely to be using the pill but were significantly more likely to be using a more permanent contraceptive method (Stephenson et al., 2007).

Religion can influence the use of contraceptives in distinct ways. When a woman's religious beliefs are dissimilar to those of the health care provider, medical recommendations may be made that are not in line with the woman's values. In Malawi, Muslim women were less likely to use reversible and permanent methods this may be because some Muslims insist that any form of contraception violates God's intentions. There was no significance relationship between the religious denominations and the choice of contraceptive methods among women in Zambia. These findings are similar to results of a longitudinal study done in Nigeria which concluded that there was no significant association between religion and method choice (Ade-Ojo et al., 2013).

The finding that the Southern and Central regions were more likely to use reversible methods when compared to the Northern region despite the former two having the least socioeconomic conditions is consistent with findings from Lawrence (2000). This suggests that there could be socio-cultural factors at community levels such as cultural norms which promote high birth rates which can influence women in the Northern region not to adopt reversible methods despite better socioeconomic conditions which favour LARC use (Clements 2004).

The mass media is always an important source of information for most of the women. Women in Zambia were more likely to use reversible methods and this is similar to a study in the Philippines which demonstrated that prolonged use of injectables is more likely to occur among women who have learned about family planning from posters and brochures.

Various studies have concluded that poorer women use contraception much less than wealthier women (Sedgh et al., 2011). Our findings support this argument as women in the middle and rich class were significantly more likely to use permanent methods in Malawi. In Zambia, rich women were more likely to use reversible methods and permanent methods. also, due to the general belief that that poorer women are less likely to use contraception than wealthier women, quality information and services may not be as available in poor or hard-to-reach areas.

Conclusion:

Providing women with greater contraceptive access and options will have a significant effect in these two countries. It would also help in preventing maternal and infant mortality and improve the health of the women and children. Increasing access to quality services for long-acting and permanent methods is essential to increasing women's contraceptive choices and choice of power. Women must be empowered as it may help in the reduction of their experience of intimate partner violence. This would further help in promoting gender equality and national development. Efforts should be made in educating men on intimate partner violence as it would reduce the risk factors affecting women's health and wellbeing. Knowledge of contraceptive method remains vital in assisting policymakers, program managers and donor agencies meet current contraceptive demand and estimate future needs in developing countries.

While women undoubtedly should be able to use their method of choice, it is well known that many women in the countries under review here have limited options, given pervasive knowledge-related, access-related, and societal barriers, as well as resource constraints.

Limitations

The study has some limitations. First, the study made use of secondary datasets; hence there may underreporting of IPV. We argue that this may be due to the fact that IPV is culturally accepted in some setting in sub-Saharan Africa where Malawi and Zambia are no exceptions which may allow women underreport. Also the dependent variable- contraceptive method could also be underreported by women in abusive relationships especially if they are using contraceptives without the knowledge of husband or relatives. Secondly, the cross-sectional nature of the dataset makes it impossible for causal direction to be determined. While access was not mentioned as a primary barrier to use in the DHS data used in our analysis, it may still be a significant issue.

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