

Influence of Women Factors on Modern Contraceptive Usage among Currently Married Women in Malawi

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Abstract

Family planning and family planning interventions are among the most cost-effective health interventions especially considering their close link with maternal and infant health and survival. This study employed logistic regression analysis to assess the influence of women factors on modern contraceptive use among currently married women in Malawi using 2010 Malawi demographic and health survey data. Findings of logistic regression analysis show that level of education of the woman, current age of the woman and the fertility preference of the woman are significantly related to modern contraceptive use when analysis is done on the association of contraceptive use with women factors. Controlling for couple factors, the analysis found level of education of the woman, current age of the woman, fertility preference of the woman, religious affiliation and type of place of residence to be significantly related to modern contraceptive use. Results in the full model which controlled for both couple and partner factors found current age of the woman, fertility preference of the woman, religious affiliation and current age of the partner to be significantly related to modern contraceptive use among Malawian women. The fact that the fertility preference of a woman remains statistically significant throughout the analysis is a pointer on how policy makers and program implementers need to come in to support Malawian women to ensure that their contraceptive needs are met. Availing a wide range of contraceptive choice for all women will help to address the unmet need for family planning services and hence contribute towards improving the health of both mothers and children, reducing mother-to-child transmission of HIV, and reducing family sizes by limiting unintended and unwanted pregnancies.

Key words: women factors, modern contraceptive use, binary regression analysis, Malawi

Introduction

Family planning is acknowledged in most developing countries as an effective way of improving the health of mothers and children, and plays a key role in mortality and fertility transitions besides influencing women empowerment (Palamuleni 2014). In the year 2012, among women of reproductive age in sub-Saharan Africa, out of 42 percent who were reported as wanting to avoid pregnancy, only 17 percent were using modern contraception (Singh & Darroch 2012). Aside, progress in sub-Saharan Africa towards meeting the demand of women for contraception has been uneven. Between 2008 and 2012, contraceptive use increased from 20 percent to 27 percent among married women aged 15-49 years in Eastern Africa and from 54 percent to 58 percent in Southern Africa. However, no progress was reported in Western and Middle Africa during that period of time, regions in which contraceptive use among married women remains low, at 9 percent and 7 percent respectively. Singh and Darroch (2012) reported that use of modern contraceptives in sub-Saharan Africa will prevent 12 million unintended pregnancies which in turn will avert almost seven million unplanned births, almost four million abortions, two million miscarriages and 35,000 maternal deaths, and prevent an estimated 397,000 infant deaths.

Since the turn of the millennium, contraceptive prevalence for any method increased from 13 percent in 1992 to 46 percent in 2010 in Malawi, whereas the increase was from 7 percent in 1992 to 42 percent in 2010 for any modern method of contraception (NSO & ICF Macro 2011). Whereas female sterilisation steadily increased from 2 percent in 1992 to 10 percent in 2010, male condom remained constant at 2 percent among currently married women. Over the same period of time, total fertility rate declined from 6.7 in 1992 to 5.7 in 2010 while infant mortality rate declined from 134 in 1992 to 66 in 2010. This is an indicator that an increase in contraceptive use results in a decrease in childhood mortality which results in a decrease in fertility, a support to the theory of demographic transition that a decline in fertility is a response to a decline in mortality.

Studies done on contraceptive use in Malawi (example, Palamuleni 2014; Kalanda 2010; Cohen 2000; Kishindo 1995) have focussed on small areas, examined the general determinants of contraceptive use or made use of earlier datasets. Considering that adoption of contraceptive use changes with time, and given a new dataset, there

is need to re-assess the correlates of contraceptive use in Malawi. Specifically, this study assesses the influence of women factors on modern contraceptive usage among currently married women in Malawi while controlling for other confounders. Yes the role of men cannot go unappreciated on the whole matter of contraceptive use but it is important to first understand the role of women, a sex exposed to the risk of child bearing, on contraceptive use before welcoming in the role played by men. Such an understanding will enable policy makers and program implementers to put in place programs and services that will enable women to appreciate and adopt various family planning services that will eventually yield to a reduced population growth rate. Reducing population growth enables environmental conservation, reduced poverty and improves on the general quality of life of the people and hence strengthening national economies. An increase on contraceptive usage will work towards preventing unintended pregnancies, reducing the number of abortions, allowing women to time their births, lowering the incidences of death and disability related to complications of pregnancy and childbirth, ensuring healthier outcomes for children by preventing mother-to-child transmission of HIV, and increasing education for women who would have otherwise dropped out of school because of unintended and unwanted pregnancies.

Literature Review

Numerous studies have hypothesized and found a positive correlation between contraceptive use and level of educational attainment. Women who have been to school are more likely to visit a health clinic and receive advice and/or services about family planning and go on to use contraception than women who have not been to school (Jejeebhoy 1995). While studying “Demographic and socioeconomic factors affecting contraceptive use in Malawi”, Palamuleni (2014) found women with no education to be 1.71 times less likely to use contraception than women with secondary and higher educational qualifications and that women with primary educational qualifications were 1.64 times less likely to use contraception than women with some secondary educational qualifications. The decrease in odds ratio as education level of women increases indicates that the likelihood of using contraception increases with increase in educational attainment level. Education enables decision making among women, makes them have control over their earnings, and breaks down barriers to communication regarding contraception between spouses. Educated women are more familiar with contraceptive knowledge and approve contraception, and know how to acquire, where to acquire, and how to appropriately use contraceptives. The influence of education of husbands on the reproductive behaviour of their wives has been documented by a number of studies. Boateng and Dodoo (2005) found that, when examined alone, the higher the man’s educational qualification the more likely the wife would use contraception. It was however observed that, in the presence of other confounders, the effect of men’s education become less important, and as a result, the woman’s education becomes the strong determinant of her use of contraception. While studying “Domestic violence and contraceptive use among currently married women in Kenya”, Wanjiru and Omedi (2014) found the odds ratio of practicing contraception to be 1.068 for women with some secondary education in comparison with those women with no education, and 0.908 for women whose husbands had some secondary education in comparison with those women whose husbands had no any educational qualification. Lasee and Becker (1997) did observe that, in sub-Saharan Africa, men are more likely than women to be literate and have better access to information that may theoretically put men in a better position than women to make decisions that are critical to the wellbeing of the family, and this includes supporting the woman’s decision to do family planning.

Modern contraceptive use is higher in urban than rural areas, with such urban-rural differences being highly depicted in sub-Saharan Africa where the rate is more than twice as high among urban than among rural residents (Curtis & Katherine 1996). Such a trend is due to differences in the availability of social services such as educational information about family planning, and the greater access to family planning and health care services (Palamuleni 2014; Wanjiru & Omedi 2014). Because of the urban advantage, areas considered sub-urban and peri-urban are able to depict higher contraceptive usage than remotely-placed rural areas.

Wealthier women are more likely to use modern family planning methods than poor women. In sub-Saharan Africa, three times as many wealthy women use modern contraception as do poor women (Gribble & Haffey 2008). This implies that reaching the poor women with appropriate information and high quality family planning services will yield to a higher contraceptive prevalence rate. Women in the wealthiest households are more likely than women in the poorest households to use long-term contraception that is more expensive compared to short-term contraception, and usually provided at health clinics. Closing the gap between the rich and the poor especially in developing countries will address women’s access to contraceptives and make all methods affordable by all.

Considering religious affiliations, Catholics and Muslims have been regarded as pronatalists in their ideology on contraception: they observe population increase as positive and object artificial fertility control mechanisms. However, as mentioned by Palamuleni (2014), the strength of one’s religiosity or degree of one’s adherence to the norms of a given religion may exert an influence on one’s mode of life including reproductive behaviour. In a study conducted in India by Ullah and Chakraborty (1996), it was found that even though the average number

of children born to a Muslim or Christian couple was higher than that born to a Hindu couple, the acceptance of sterilisation to limit family size was greater among Muslims and Christians than Hindus.

Robey et al. (1992) found contraceptive use to be lowest among the young women, reaches a peak among women in their thirties and declines among older women. Palamuleni (2014) explains that this is indicative of the high desire for children bearing among young women, and a high growing interest of spacing births among women in their thirties, and that old ages are not at a risk of pregnancy. Generally, also, teenage couples perceive sexual intimacy as an expression of trust, and may thus perceive discussing contraception as implying lack of trust. When intercourse is infrequent, some teenagers say that they do not need prescription methods because their current method is “good enough”, and that they will seek prescription methods later on in anticipation of frequent intercourse (Zabin & Clark 1981). Other studies have pointed out that, as women grow older by age, they tend to achieve their anticipated fertilities (Wanjiru & Omedi 2014), and that they depict reduced coital frequency and therefore may not need contraception to space their births (Robey et al. 1996; Casterline et al. 1997). Using 2004 Malawi Demographic and Health Survey data, Palamuleni (2014) found women in age groups 30-34, 35-39 and 40-44 to be 1.46, 1.44 and 1.16 times more likely to use contraceptives than women in age group 45-49. On the men’s side, old men have been perceived to coerce young women sexually because of power inequalities. According to Landry and Forrest (1995), coercion undertones associated with age differences between a woman and her partner may affect the negotiation of contraceptive use especially when those differences imply distinct stages in life. Gleit (1999) found the effect of partner’s age on contraceptive use to be largely driven by teenagers younger than 18 years of age. Having a partner aged more than three years older substantially decreased the probability of contraceptive use by 67 percent but had little effect among women aged at least 18 years.

Knowledge of family planning and family planning services is an essential pre-condition for practicing contraception. Studies have documented that some of the obstacles faced by individuals or couples who want to delay or avoid a birth include lack of knowledge about methods and how to use or where to obtain family planning services (Robey et al. 1992). In Malawi, contraceptive knowledge is universal with 98 percent of all women and 99 percent of all men knowing at least one method of contraception. All currently married women reported knowledge of a modern method of family planning (NSO & ICF Macro 2011). The most commonly used methods are the short-acting methods of injectables (61.3 percent), male condom (19.6 percent), pill (15.1 percent) whereas usage of long acting methods is 9.7 percent for female sterilisation, 2.2 percent for implants, 0.9 percent for intrauterine devices (IUDs) and 0.2 percent for male sterilisation. It should however be noted that the very effective methods of contraception such as the pill, injectable and implant either require an initial medical visit or provide ongoing long-term protection. For young women, who are victims of infrequent and irregular sexual activity patterns, these methods are less suitable. On the other hand, while condoms may be relatively easy to obtain and use, they require male cooperation and must be on hand at the time of intercourse.

Data and Methods of Analysis

The study employed 2010 Malawi Demographic and Health Survey couples’ data. The survey, which was implemented by the National Statistical Office and the Community Health Sciences Unit, sought to provide up-to-date information on fertility, family planning, childhood mortality, domestic violence and HIV prevalence among others areas. The use of demographic and health survey data is informed by the fact that it is the only nationally representative data that is used by policy makers to evaluate the demographic and health status of the population of a given country or region.

Data analysis was done at two levels: descriptive analysis and binary regression analysis. Descriptive statistics that entailed cross tabulation analysis was used to examine differentials in the uptake of contraception across women, couple and partner (husband) factors. Binary regression analysis was done to estimate the occurrence of an outcome (modern contraceptive use) due to the effect of several explanatory variables. This modelling allows for the adjustment of many explanatory variables and controlling for many confounders at the same time as it enables easy detection of the interaction between explanatory factors.

Three models were estimated:

Model 1: Association of modern contraceptive use with women factors (level of education of the woman, current age of the woman, fertility preference of the woman, woman’s knowledge of contraception)

Model 2: Association of modern contraceptive use with women and couple factors (level of education of the woman, current age of the woman, fertility preference of the woman, woman’s knowledge of contraception, type of place or residence, religious affiliation, household wealth index)

Model 3: Association of modern contraceptive use with women, couple and partner (husband) factors (level of education of the woman, current age of the woman, fertility preference of the woman, woman’s knowledge of contraception, type of place or residence, religious affiliation, household wealth index, partner’s level of education, partner’s current age)

Descriptive Statistics

Cross tabulation analysis was done to bring out differentials in the usage of modern contraception among currently married women in Malawi. The results are as shown in Table 1 which portrays a general picture that modern contraception among currently married women in Malawi is below average. The findings indicate that modern contraceptive use increases with increase with women’s educational attainment. More than half of married women with some secondary educational qualifications are practicing modern contraception whereas only 38.1 percent of those women with no educational qualifications are practicing modern contraception. The same pattern is observed considering the educational qualifications of the partner though with modest differences. Unlike women whose 38.1 percent of those with no education were practicing modern contraception, the descriptive statistics indicate that 37.8 percent of women whose partners had no educational qualifications were practicing modern contraception.

Considering the age of the woman, the study found women aged less than 20 years to be less users of modern contraception (27.7 percent) whereas those women aged 30 – 39 years were the most users of modern contraception (49.3 percent). The proportion of women using contraception however decreases to 43 percent when women attain the ages of 40-49, a trend observed in a more recent study in Kenya (Wanjiru & Omedi 2014). Wanjiru and Omedi (2014) attributed the low proportion of women aged above 40 practicing contraception to low probabilities of conception due to infecundity coming in and that such ages also depict reduced coital frequencies. On the other hand, the proportion of women’s contraceptive use in Malawi increases with increase in the age of their spouses. Women whose partners are aged less than 20 years are the least users of modern contraception (8.3 percent) whereas those whose partners are aged above 40 years are the most users of modern contraception (47.3 percent).

On the measure of fertility preference among women, the results indicate that the category of women who reported not wanting another child has the highest proportion of users of modern contraception (41.2 percent), followed by the category of women who reported wanting another child (38.4 percent) and finally those women who were undecided on whether they wanted another child or not (33.3 percent). Such undecided women with a lesser proportion of them on contraception make them be prey to unwanted pregnancies that leads to increased fertility. Also, undecided women might lack knowledge of modern contraception, a factor that yields into low usage of contraception. Results in Table 1 indicate that women with some

Table 1 Differentials in the uptake of contraception among currently married women in Malawi

Variable name	Proportion	
	Contracepting	Not contracepting
Level of education of the woman		
No education	38.1	61.9
Primary education	45.3	54.7
Secondary and above education	50.3	49.7
Current age of the woman		
15 – 19	27.7	72.3
20 – 29	45.1	54.9
30 – 39	49.3	50.7
40 – 49	43.0	57.0
Woman's fertility preference		
Wants another child	38.4	61.6
Undecided	33.3	66.7
Does not want another child	41.2	58.8
Knowledge of contraception		

No	41.0	59.0
Yes	46.5	53.5
Type of place of residence		
Urban	53.3	46.7
Rural	43.7	56.3
Religious affiliation		
Catholics	45.8	54.2
Presbyterians	49.4	50.6
Other Christians	45.3	54.7
Muslims	32.7	67.3
Household wealth index		
Low	41.2	58.8
Medium	41.8	58.2
High	50.1	49.9
Partner's education level		
No education	37.8	62.2
Primary education	42.9	57.1
Secondary and above education	51.7	48.3
Partner's current age		
15 – 19	8.3	91.7
20 – 29	40.0	60.0
30 – 39	47.0	53.0
40 – 54	47.3	52.7

contraception knowledge were the majority users of modern contraception (46.5 percent) compared to those who had no knowledge of contraception (41 percent).

As expected, a greater proportion of urbanite women use modern contraception than their rural counterparts, and that Muslim women are the least practisers of modern contraception. Urban areas have generally good family planning service provision in terms of availability and accessibility, and such services are in abundance to ensure that they are safe to every woman. Rural areas, on the other end, have limited supply of family planning services and some women have reportedly mentioned being adversely affected by the available ones, and so they tend not to use them further. Islam culture does not support family planning thus the less use of contraception in the affected population. Though 45.8 percent of Catholic women reported using modern contraception, this is at the backdrop of the stand by the Roman Catholic Church that has for ages supported Marxians in viewing population growth as positive and objecting artificial birth control measures such as use of condoms.

Proportions of modern contraception increases with increase in the household wealth index: 41.2 in low wealth index households, 41.8 percent in medium wealth index households, and 50.1 percent in high wealth index households. A rich family is able to afford contraception that suits its use and it is enlightened on family planning and family planning services on media and through interactions with experienced people in the society. A poor household is unable to afford contraception especially when it is not within their reach. To them, the few resources they have would rather be channelled towards basic needs other than family planning services.

Role of Women Factors on Modern Contraceptive Use in Malawi

Binary regression analysis was done at three levels to bring out a picture of the key role played by women factors on modern contraceptive use among currently married women in Malawi. Results in Model I of Table 2 show that modern contraceptive use increases as the level of educational qualification of a woman increases. Unlike women with no education, women with primary education are 29 percent more likely to practice contraception whereas those with some secondary education are 58 percent more likely to practice contraception. Education prepares girls for jobs and livelihoods, raises their self esteem and their status in their households and communities, and gives them more say in decisions that affects their lives (Omedi 2014),

including whether and when to adopt contraception. Educated women attract jobs that limit their maternity leaves, and wish better lives for their children, factors of which make them to limit the number of children they bear through family planning. However, this statistical significance fades when the analysis is done while controlling for couple factors and disappears in the full model. As can be seen in Model II, women with primary educational qualifications were found to be 22 percent more likely to be practicing contraception than their counterparts with no educational qualifications while secondary and above educational qualifications had no statistical significance on contraceptive use.

Table 2 Role of women factors on modern contraception in Malawi

Variable name	Model I		Model II		Model III	
	S.E	Exp(β)	S.E	Exp(β)	S.E	Exp(β)
Level of education of the woman						
No education	-	1.000	-	1.000	-	1.000
Primary education	0.101	1.294**	0.103	1.220***	0.104	1.194
Secondary and above education	0.134	1.581*	0.144	1.310	0.150	1.155
Current age of the woman						
15 – 19	-	1.000	-	1.000	-	1.000
20 – 29	0.142	1.908*	0.142	1.887*	0.151	1.675*
30 – 39	0.155	1.569*	0.156	1.541**	0.183	1.359
40 – 49	0.191	0.672***	0.192	0.652***	0.227	0.589***
Woman's fertility preference						
Wants another child	-	1.000	-	1.000	-	1.000
Undecided	0.254	0.893	0.255	0.880	0.256	0.863
Does not want another child	0.083	1.354*	0.084	1.324*	0.085	1.311*
Knowledge of contraception						
No	-	1.000	-	1.000	-	1.000
Yes	0.077	1.136	0.079	1.125	0.079	1.115
Type of place of residence						
Urban			-	1.000	-	1.000
Rural			0.121	0.766***	0.122	0.795
Religious affiliation						
Catholics			-	1.000	-	1.000
Presbyterians			0.12	1.041	0.121	1.042
Other Christians			0.09	1.028	0.091	1.048
Muslims			0.14	0.675**	0.142	0.708***
Household wealth index						
Low			-	1.000	-	1.000
Medium			0.093	0.960	0.094	0.939
High			0.089	1.136	0.093	1.062
Partner's education level						
No education					-	1.000
Primary education					0.135	1.113
Secondary and above education					0.156	1.470
Partner's current age						
15 – 19					-	1.000
20 – 29					0.753	4.500***
30 – 39					0.758	4.942***
40 – 54					0.765	4.869***
χ – test		483.851		506.246		532.099
-2 Log likelihood		4684.879		4656.895		4631.042

* $p < 0.001$; ** $p < 0.01$; *** $p < 0.05$

Young women are less likely to be on contraception compared to old women. Results of regression analysis indicate that, unlike women aged 15-19, Malawian women of the 20-39 reproductive ages are more likely to be using modern contraception, an observation that holds in all the three models. In Model I that considered the association of modern contraceptive use with women factors, women aged 20-29 and 30-39 are 91 percent and 57 percent respectively, more likely to be on contraception than their colleagues aged 15-19. These significances decrease when other confounders are introduced in the analyses. In Models II and III, women aged 20-29 are 89 percent and 68 percent respectively, more likely to be using contraceptives than their colleagues aged 15-19. Young women might not be in need of contraceptives because they are new in marriage and therefore need to prove their fertilities and bare children, which is one of the key reasons for marriages. On the other hand, some of these young women might be school dropouts who have no knowledge of contraception, are economically unstable and have no command on family planning and family planning services in their marriages, all of which denies them the ability to be on contraception. The results however indicated that contraception is low among women aged at least 40 compared to those aged under 20. Women in such older ages have reached their anticipated fertilities, are depicting low coital frequencies, and ushering in infecundity, and so reduced risks of conception which makes them less likely to be on contraception. The likelihood of contraceptive use was also found to increase with increase in the age of the spouse (husband) in Model IV: women whose husbands are 20-29, 30-39 and 40-54 years old were 350 percent, 394 percent and 387 percent respectively, more likely to practice modern contraception than those women whose husbands are aged less than 20 years.

As documented by Gillespie et al. (2007), and Dey and Goswami (2009), ideal family size is one of the indications of the attitude of women towards childbearing, even though the actual reproductive behaviour often differs from stated desires. In Malawi, the average ideal family size in 2010 was 4.0 children, a figure below the observed total fertility rate of 5.7 (NSO & ICF Macro 2011). Sometimes total fertility rate surpasses the wanted ideal family size as couples get extra children in anticipation of the death of some of them especially in high mortality regions. As observed in the descriptive statistics, 62 percent of women who reported wanting another child were not on contraception unlike 59 percent who reported not wanting another child. This implies that a woman who does not want to have more children than she currently has is more likely to use contraceptives than one who wants more children than she currently has. The analytical results show the influence of fertility preference of women to persist throughout the three models. Women who reported not wanting another child were 35 percent, 32 percent and 31 percent in Models I, II and II respectively, more likely to be using contraceptives than those women who reported wanting another child.

On assessing the association of women factors on modern contraceptive usage while controlling for couple factors, the analytical findings indicate that women residing in rural areas are 23 percent less likely to be practicing contraception than their urban counterparts. Urban residents are exposed to the small family norms, are likely to be more educated and literate, and enjoy far better access to family planning services than rural residents that consequently yields in higher likelihood of practicing contraception than rural residents. Also, compared to Catholics, Muslim women were found to be 32 percent and 29 percent less likely to practice modern contraception in Models II and III respectively. Islam culture discourages artificial family planning leading to higher fertilities in households of such religious affiliations. In Kenya, for example, North Eastern region which is majorly inhabited by Muslims has a total fertility rate of 5.9 unlike Central region's total fertility rate of 3.4 of whom majority of the inhabitants are Presbyterians (KNBS and ICF Macro 2010). A woman's knowledge of contraception, household wealth quintile and partner's educational qualifications were found to be insignificantly related to a Malawian woman's contraceptive uptake. However, the analytical results indicated that a woman with some knowledge of contraception, from a high wealth quintile household, and whose partner has some educational qualifications is more likely to practice modern contraception than one with no knowledge of contraception, from a low wealth quintile household, and whose partner has no any educational qualifications.

Conclusions

This study aimed at assessing the influence of women factors on modern contraceptive use among currently married women in Malawi while controlling for other confounders. Findings of regression analysis indicate that women's educational qualifications, current age and fertility preference are significantly related to modern contraceptive usage in Malawi whereas women's knowledge of contraception is not significantly related to contraceptive use. Generally, the higher the educational qualification of a woman the higher the likelihood of using modern contraceptives. Unlike other ages, women's old age leads to lesser probabilities of using contraception as such women have reduced coital frequencies and are welcoming infecundity. Though statistically insignificant, women who are undecided on whether or not to have another child are less likely to use contraceptives whereas those who do not want another child are significantly more likely to be on contraception compared to those who want another child. While controlling for couple and partner factors,

results of regression analysis show that type of place of residence, religious affiliation and partner's current age are significant determinants of women's use of modern contraception whereas household wealth quintile and partner's educational qualifications are insignificantly related to women's modern contraceptive use in Malawi. There is need to invest substantial efforts in female education that shall see to it that Malawian women stay in school and thus marry late, get educational empowerment that shall make them economically stable, beware of family planning services and have a say in terms of family planning and choice of family planning methods to use. Early marriages should be condemned in Malawi, a nation whose 26 percent of teenagers aged under-20 have already began childbearing. This is because such teenagers have no say about family planning, and even if they had, most of them lack the economic ability to afford them. Extra efforts should be put in place to reduce on mother-to-child transmission of HIV in Malawi so as to ensure the survival of births that shall lead to increased use of contraception to reduce on fertility as families attain their ideal family sizes. A wide range of contraceptives should be equitably availed countrywide to enable each woman access that which she feels comfortable to use and thus eliminate on unmet need.

The study has however a number of limitations. The use of demographic and health survey data, which is cross-sectional in nature, only reveals associations rather than causal relationships between covariates and outcome of interest. Although the wealth index has been widely employed to explore health inequalities using demographic and health survey data, there is concern that it is strongly influenced by community-and-household-level factors (Howe et al. 2010) and may thus not be robust enough to examine changes in health inequalities (Andrees et al. 2011). Also, the study lacked data on contraceptive supply-side factors such as distribution mechanisms, stock-outs, changes in family planning program strength or donor's financial support which is not captured in demographic and health surveys yet it can greatly influence the overall use of contraception and the method mix.

References

- Andreea A. C., Duff G., Sabrina K. & Amy O. T. "Low Use of Contraception among Poor Women in Africa: An equity Issue". World Health Organisation Bulletin, 2011.
- Boateng, J., & Doodoo, F. N. (2005). Does education make men in sub-Saharan Africa more receptive to women's use of contraception? pp 1-16.
- Casterline J. B., Perez A. E. & Anne B. E. 1997. "Factors Underlying Unmet Need for Family Planning in the Philippines". *Studies in Family Planning*, 28 (3): 173-191.
- Cohen B. "Family Planning Programs, Socioeconomic Characteristics, and Contraceptive Use in Malawi". *World Development*, 28(5): 843-860, 2000.
- Dey S. & Goswami S. "Fertility Pattern and Its Correlates in North-East India". *Journal of Human Ecology*, 2009; 26(2): 145-152
- Gillespie D., Ahmed S., Tsui A. & Radloff S. "Unwanted Fertility among the Poor: An Inequity". World Health Organisation, 2007.
- Glei D. A. "Measuring contraceptive use patterns among teenage and adult women". *Family Planning Perspectives*, 31(2), 1999.
- Gribble J. & Haffey J. "Reproductive Health in sub-Saharan Africa". Population Reference Bureau, 2008.
- Howe L. D., Hargreaves J. R., Ploubidis G. B., De Stavola B. L. & Huttly S. R. "Subjective Measures of Socioeconomic Position and the Wealth Index: A Comparative Analysis". *Health Policy Plan*, 2010.
- Jejeebhoy SJ. 1995. *Women's Education, Autonomy, and Reproductive Behaviour: Experience from Developing Countries*. Oxford, England: Clarendon Publications.
- Kalanda B. "Repositioning Family Planning through Community-based Distribution Agents in Malawi". *Malawi Medical Journal*, 22(3): 71-75, 2010.
- Kenya National Bureau of Statistics and ICF Macro. 2010. Kenya Demographic and Health Survey 2008/09. Calverton, Maryland: KNBS and ICF Macro.
- Kishindo P. "Family Planning and the Malawian Male". *Nordic Journal of African Studies*, 4(1): 26-34, 1995.
- Landry D. J. & Forrest J. D. "How old are US fathers?" *Family Planning Perspectives*, 27(4): 159-161, 1995.
- National Statistical Office and ICF Macro. 2011. Malawi Demographic and Health Survey 2010. Zomba, Malawi and Calverton, Maryland, USA. NSO and ICF Macro.
- Omedi G. "Adolescent Motherhood in Kenya". *Journal of Research on Humanities and Social Sciences*, Volume 4, Number 23, 2014.
- Palamuleni M. E. "Demographic and Socio-Economic Factors Affecting Contraceptive Use in Malawi". *Journal of Human Ecology*, 46(3): 331-341, 2014.
- Robey B., Ross J. & Bushan I. "Meeting Unmet Need: New Strategies". *Population Reports*, 43:1-35, 1996.
- Singh S. & Darroch J. E. "Adding it up: Costs and Benefits of Contraceptive Services- Estimates for 2012". New York, Guttmacher Institute and United Nations Population Fund, 2012.

- Wangila S. W. 2001. *Factors Underlying Unmet Need for Contraception in Kenya*. Unpublished Master of Arts Thesis, PSRI, University of Nairobi.
- Wanjiru G. & Omedi G. “Domestic Violence and Contraceptive Use among Currently Married Women in Kenya”. *Southern Social Science Journal*, Volume 1 Number 1, 2014.
- Ullah S. & Chakraborty N. “Factors Affecting the use of Contraception in Bangladesh: a Multivariate Analysis”. *Asia-Pacific Population Journal*, 8(3): 19-30, 1993.
- Zabin L. S. & Clark S. “Why they delay: a study of teenage family planning clinic patients”. *Family Planning Perspectives*, 21(3): 110-114, 1981

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