Contraceptive Uptake Among Married Women in Uganda: Does Empowerment Matter?

Simon P.S. Kibira\textsuperscript{1Y}, Patricia Ndugga\textsuperscript{2}, Elizabeth Nansubuga\textsuperscript{2}, Andrew Sewannonda\textsuperscript{2} and Betty Kwagala\textsuperscript{2}

\textsuperscript{1}Makerere University, School of Public Health, Department of Community Health and Behavioural Sciences
\textsuperscript{2}Makerere University, School of Statistics and Planning, Department of Population Studies

Abstract

Although contraceptive prevalence increased from 24% to 30% between 2006 and 2011, this uptake is still below global level of 62% and low levels of women empowerment could be a factor. Data was extracted from 2011 UDHS to examine associations between women’s empowerment and contraceptive uptake. We developed four empowerment indices symbolising economic and social empowerment, established associations between them and contraceptive use. Most women (83%) were from the rural areas and 61% were married for 10+ years. Most (59%) scored low on power over earnings and domestic violence indices. All indices independently were positively associated with contraceptive use, but only the reproductive health rights index was significant before (OR 2.13, 95% CI; 1.52-2.98) and after adjusting for background characteristics (AOR 1.72, 95% CI; 1.07-2.73). Empowered women were more likely to use contraceptives. More efforts in sensitisation of women about their sexual and reproductive health rights as well as ensuring more control over their earnings.

Keywords: Women; Empowerment; Contraceptives; Reproductive health; Uganda

Résumé

Bien que la prévalence de la contraceptionait augmenté de 24% à 30% entre 2006 et 2011, cette adoption est toujours au-dessus du niveau mondial de 62%. La faible autonomisation des femmes pourrait être un facteur. Nous avons utilisé l’UDHS de 2011 et nous avons examiné la relation entre l’autonomisation de femmes et l’adoption de la contraception. Nous avons réalisé quatre indices d’autonomisation symbolisant l’autonomisation économique et sociale, nous avons aussi établi des liens entre eux et la contraception. La plupart des femmes (83 %) étaient des zones rurales et 61% marié depuis plus de 10 ans. La plupart (59%) se situent au bas de la puissance par rapport au bénéfice et les indices de violence conjugale. Tous les indices ont été indépendamment associé à la contraception mais seulement l’indice de santé de la reproduction était important avant (OR 2.13, 95% CI; 1.52-2.98) et après avoir ajusté pour le caractéristique de fond. (AOR 1.72, 95% CI; 1.07-2.73). Les femmes autonomes étaient plus susceptibles à utiliser la contraception. Il faut plus d’effort pour sensibiliser les femmes au sujet de leurs droits sexuel et de santé de la reproduction mais aussi assurant plus de contrôle sur ce qu’ils gagnent.

Mots clé: les Femmes; l’autonomisation; la contraception, santé de la reproduction; l’Ouganda

\textsuperscript{4}Correspondence: pskibira@musph.ac.ug, pskibira@gmail.com, Tel: +256757070644
Introduction
There has been a shift in population research from population control issues to increased emphasis on women’s rights and empowerment (Blanc and Tsui, 2005). Women’s empowerment has remained critical in attaining population and health goals. However, good health and well being continue to elude many women especially those in low income countries. The role of gender inequality as regards contraceptive use has become increasingly apparent. Throughout their life cycle, women in many countries have unequal access to basic health resources. The result of this inequity is an increased risk of unwanted and early pregnancies, unsafe abortions and complications related to pregnancy and childbirth. Poor health among women is mainly due to a number of sexual and reproductive health issues which include among others inequalities in power relations at the household level that affect women’s decision making on health issues (Ministry of Gender Labour and Social Development, 2007).

Using contraceptives remains far from ideal in sub Saharan Africa and Uganda particularly. While the proportion of married women using contraceptives in the world increased from 60% to 62%, in Sub-Saharan Africa and Uganda this proportion is still at 26% and 30% respectively (Population Reference Bureau, 2012, Population Reference Bureau, 2013). In Uganda, the level of unmet need for family planning; both for spacing and limiting childbirth is as high as 34%. Only 40% of the total demand is satisfied by the contraceptive methods (UBOS and ICF International, 2012b) and this needs improvement.

Empowerment may be key in rectifying this imbalance. Women’s empowerment process has proved to be a central factor in the achievement of many demographic and social desirable goals. Our study further contributes to the existing body of knowledge about women empowerment and use of contraceptives and tries to establish the actual dimensions of empowerment that need priority focus in the wake of less resources in Uganda. The purpose of this study is to test the relationship between empowerment and contraceptive use among married women. We developed four women empowerment indices that are aimed at looking at different dimensions of empowerment (social, economic and sexual rights).

Literature Review and Theoretical Framework
Elsewhere, studies have found that women who have more decision-making power in the household and financial autonomy demonstrate having greater access and control over resources, thereby increasing their ability to innovate (Casique, 2001, Rastogi and Nguyen, 2005, Saleem and Bobak, 2005). Previous studies have documented a positive relationship between women’s empowerment and contraceptive usage (Saleem and Bobak, 2005, Casique, 2001, Kishor, 1995, Dey and Bhavsar, 2002). The different dimensions in this relationship include economic, sexual and decision making power.

Other studies in sub Saharan Africa have demonstrated higher levels of contraceptive use among more economically and sexually empowered women. Among businesswomen in Kampala, a study established higher figures of contraceptive uptake than both the national average and the urban estimates at the time (Kwagala, 1996) and economic empowerment was associated with use of modern contraceptives (Kibira, 2009), while Crissman in Ghana found women’s increasing levels of sexual empowerment to be associated with increased use of contraceptives (Crissman et al., 2012).

Domestic violence attitudes and their linkage with contraceptive use have also been studied elsewhere. A study in 5 African countries established decision making and negative attitudes towards domestic violence to be associated with contraceptive use (Do and Kurimoto, 2012). In patriarchal societies, it was established that married men are usually entitled to unconditional sexual access from their wives and are in some contexts expected to use force if necessary (Puri et al., 2010), which disempowers women who most likely do not have a decision to use contraception as well. Similarly, another study in 15 countries established that women consistently reported troubling experiences with regard to sex within marriage including frequently being physically forced to have sex and/or engage in types of sexual activity that they found degrading and humiliating (Weiss and Gupta, 1998). Such women without reproductive health rights are more likely to experience problems such as fear of intimacy, lack of sexual pleasure (de Visser et al., 2007, de Visser et al., 2003, van Berlo and Ensink, 2000, Najman et al., 2005) and are ultimately less likely to use contraceptives. Sexually coerced women may feel powerless when it comes to insisting that their partners use a condom.
(Maharaj and Munthree, 2007) and thus their partners may be less likely to use condoms (Koenig et al., 2004).

**Data and Methods**

Data are extracted from the 2011 Uganda Demographic and Health Survey (UDHS). The UDHS data were accessed with permission from the DHS program. This was a cross-sectional nationally representative survey that used stratified two-stage cluster sampling design (UBOS and ICF International, 2012a) based on the sampling frame from the 2002 population and housing census (UBOS, 2002). Detailed description of sampling procedures is reported in the UDHS report (UBOS and ICF International, 2012a).

We included only women of reproductive age (15–49 years) who were in union and not pregnant at the time of the survey. These totalled to 4510 women. In this paper, women in union included those who were married or living together/cohabiting with their male partners. All the women in this category were asked questions regarding current use of contraceptives, who makes certain household decisions; who controls their earnings and those of their male partners; attitudes towards male perpetuated spousal violence in given circumstances and whether they have the capacity to say no to sex when they do not wish to have it with the partner.

The outcome variable was current use of contraceptives. This variable was re-coded to be binary with “1” for using contraceptives and “0” for not using contraceptives. We used four explanatory variables developed into indices. The reproductive health rights index included 2 questions regarding: 1) whether a respondent could ask her husband to use a condom if she wanted him to, and 2) whether a respondent could say no to the husband if she did not want to have sex. These were factual questions that tested ability of a woman in union to demand for her reproductive health rights. The attitudes towards domestic violence index included 6 variables. This included five attitude questions on whether a husband was justified in beating his wife if she; 1) goes out without telling him, 2) neglects the children, 3) argues with him, 4) refuses to have sex with him, or 5) burns the food. In this index, a woman was given a score of 0 if she responded “Yes” and 1 if she responded “No”. The negative attitudes toward domestic violence from the husband could denote some level of empowerment. The power over earnings was based on two vital questions namely: who decides how the earnings of the wife and those of the husband are used. A woman was given scores of 1 to 2 for independent and/or joint control with the husband; and 0 for no control at all. These questions were limited to only a sub sample of those married women that earned a cash income and/or those whose male partners had cash earnings for their work. The household decision making index was a combination of four variables that denoted the woman’s ability to influence selected household decisions. We included responses to three questions; who in the household usually makes decisions about the woman’s healthcare, her visits to family or relatives, and who usually decides about making household purchases. Scores of 1 and 2 were given to women who independently or jointly with the partner made household decisions; and 0 if the woman did not participate in the decision at all.

The four indices of women empowerment were each categorised into two levels of power; empowered and not empowered. In the analysis, we used the logistic regression to establish the association between the individual indices and contraceptive use controlling for key background characteristics. We applied important weights at all levels to adjust for complex surveys and non-response. Data is presented for both unadjusted and adjusted odds ratio at 95% confidence intervals.

**Results**

**Description of Respondents and their distribution by levels of empowerment**

Results in Table 1 indicate that most of the study respondents were aged between 25 to 34 years (40%), while more than eight in ten (83%) lived in the rural areas and 17% had no formal education. More than half (61.2%) of the women had been married for 10 or more years and one quarter were living in a polygamous union at the time of the survey, having at least one co-wife.
Table 1: Characteristics of respondents

| Background Characteristics | Percent | Number of women |
|----------------------------|---------|-----------------|
| Age of woman               |         |                 |
| 15-24                      | 24.5    | 1105            |
| 25-34                      | 40.1    | 1807            |
| 35-49                      | 35.5    | 1599            |
| Highest Education level    |         |                 |
| No education               | 16.6    | 748             |
| Primary                    | 60.6    | 2735            |
| Secondary                  | 22.8    | 1028            |
| Religion                   |         |                 |
| Catholic                   | 41.0    | 1850            |
| Anglican                   | 29.5    | 1329            |
| Muslim                     | 13.6    | 612             |
| Pentecostal                | 12.6    | 568             |
| Other                      | 3.4     | 152             |
| Region                     |         |                 |
| Kampala                    | 7.6     | 342             |
| Central                    | 21.1    | 969             |
| East                       | 26.3    | 1187            |
| North                      | 18.8    | 846             |
| West                       | 25.9    | 1166            |
| Total                      | 100     | 4510            |
| Years in Marriage          |         |                 |
| Less than 10               | 38.8    | 1751            |
| 10+                        | 61.2    | 2759            |
| Has a co-wife              |         |                 |
| No                         | 70.5    | 3180            |
| Yes                        | 25.9    | 1168            |
| Don’t Know                 | 3.6     | 161             |
| Place of Residence         |         |                 |
| Urban                      | 17.2    | 778             |
| Rural                      | 82.8    | 3732            |
| Total                      | 100     | 4510            |

Table 2 shows the empowerment levels of the study respondents on all the four indices. On the power over earning of both the woman and the partner, only 41% of women were empowered to control earnings either jointly with the partner or independently. This proportion was also observed.
on the attitudes towards domestic violence index where most women condoned domestic violence in a way and thus did not score adequately to be empowered on this index. Nine in ten women scored highly on the reproductive health rights index and this had the largest proportion of women empowered while power over household decision making had six in ten women empowered to either jointly or independently make decisions at home.

Table 2: Percentage Distribution of Married Women by Levels of Empowerment in each Index

| Empowerment Index                        | Percent | Number of women |
|------------------------------------------|---------|-----------------|
| **Power over Earnings**                  |         |                 |
| Not empowered                            | 58.6    | 1455            |
| Empowered                                | 41.4    | 1033            |
| Total                                    | 100     | 2489            |
| **Attitudes to domestic Violence**       |         |                 |
| Not empowered                            | 58.9    | 2608            |
| Empowered                                | 41.1    | 1818            |
| **Power over Reproductive Health rights**|         |                 |
| Not empowered                            | 8.8     | 388             |
| Empowered                                | 91.2    | 4039            |
| Total                                    | 100     | 4427            |
| **Power over Household Decision making**|         |                 |
| Not empowered                            | 37.6    | 1666            |
| Empowered                                | 62.4    | 2761            |
| Total                                    | 100     | 4427            |

**Use of contraceptives by background characteristics**

Table 3 shows the levels of contraceptive use by selected background characteristics of respondents. Overall, the contraceptive prevalence rate among women who were not pregnant at the time of the survey was 36%.

All selected women’s characteristics were not independent of contraceptive use except living in a polygamous union and religion. As expected, women living in urban areas including Kampala and central Uganda used contraceptives more than their counterparts in rural areas and other regions respectively while women with secondary or more education also had higher proportions using contraceptives. Use of contraceptives increased after age 25 with 41% of women aged 25-34 years and 37% of those aged 35 to 49 years using compared to only 28% among those aged 15 to 24 years. The results also indicate that women who had been married for 10 or more years had higher proportions using contraceptives (39%) compared to their counterparts.
Table 3: Use of Contraceptives by Selected Background Characteristics of Women

| Background Characteristic | Not using Contraception | Using Contraception | Total |
|---------------------------|-------------------------|---------------------|-------|
| Place of residence*       |                         |                     |       |
| Urban                     | 47.1                    | 52.9                | 100   |
| Rural                     | 67.2                    | 32.8                | 100   |
| Has a co wife             |                         |                     |       |
| No                        | 63.8                    | 36.2                | 100   |
| Yes                       | 64.4                    | 35.6                | 100   |
| Don’t Know                | 61.2                    | 38.9                | 100   |
| Religion                  |                         |                     |       |
| Catholic                  | 66.7                    | 33.3                | 100   |
| Anglican                  | 60.6                    | 39.4                | 100   |
| Muslim                    | 62.9                    | 37.1                | 100   |
| Pentecostal               | 64.8                    | 35.2                | 100   |
| Other                     | 59.1                    | 40.9                | 100   |
| Region*                   |                         |                     |       |
| Kampala                   | 44.0                    | 56.0                | 100   |
| Central                   | 58.9                    | 41.1                | 100   |
| Eastern                   | 65.2                    | 34.8                | 100   |
| Northern                  | 78.5                    | 21.5                | 100   |
| Western                   | 62.0                    | 38.0                | 100   |
| Age*                      |                         |                     |       |
| 15-24                     | 72.4                    | 27.7                | 100   |
| 25-34                     | 59.5                    | 40.5                | 100   |
| 35-49                     | 63.0                    | 37.1                | 100   |
| Years in Marriage*        |                         |                     |       |
| Less than 10              | 68.5                    | 31.5                | 100   |
| 10 or more                | 61.0                    | 39.1                | 100   |
| Highest Education level*  |                         |                     |       |
| No education              | 78.8                    | 21.2                | 100   |
| Primary level             | 65.9                    | 34.1                | 100   |
| Secondary or higher       | 47.2                    | 52.8                | 100   |
| Total                     | 63.9                    | 36.1                | 100   |

*Chi2 value p > 0.05

Association between women empowerment and contraceptive use

Table 4 shows the unadjusted odds ratios for the four women empowerment indices and contraceptive use. All empowerment indices had...
positive odds ratios although only the reproductive health rights index had significant association indicating that empowered women on this index have a higher likelihood of using contraceptives.

Table 4: Unadjusted Odds Ratios for Women Empowerment and Contraceptive Use

| Empowerment                      | Unadjusted. OR (95% CI) | Number of women |
|----------------------------------|-------------------------|-----------------|
| **Power over earnings**          |                         |                 |
| Not empowered                    | 1                       |                 |
| Empowered                        | 1.05 (0.87 - 1.26)      | 2503            |

| **Attitudes towards domestic violence** |                         |                 |
| Not empowered                        | 1                       |                 |
| Empowered                            | 1.10 (0.94 - 1.30)      | 4414            |

| **Household decision making**       |                         |                 |
| Not empowered                       | 1                       |                 |
| Empowered                            | 1.04 (0.88 - 1.23)      | 4414            |

| **Reproductive health and rights**  |                         |                 |
| Not empowered                       | 1                       |                 |
| Empowered                            | 2.30** (1.64 - 3.22)    | 4414            |

95% CI; ** p<.01

The women who were empowered to take reproductive health decisions and who knew their rights towards reproductive and sexual health had 2.13 times higher odds to use contraceptives compared to those who had no power over reproductive health and knew less of their rights (OR 2.13; 95%CI, 1.52-2.98).

Table 5 shows the adjusted odds ratios after controlling for background variables that were significant predictors for contraceptive use at bivariate level; region, age of a woman, education level, wealth status, residence and years in union. Even after controlling for these factors, the reproductive health and rights index remained significant in predicting use of contraceptives among married women. The odds of using contraceptives for women empowered on this index were 1.72 times higher than those of their counterparts (OR 1.72; 95%CI, 1.07 - 2.73).
### Table 5: Adjusted Odds Ratios for Women Empowerment and Contraceptive Use

| Empowerment Indices                  | AOR (95% CI)   |
|-------------------------------------|----------------|
| Reproductive health rights          |                |
| Not empowered                       | 1              |
| Empowered                           | 1.72* (1.07 - 2.73) |
| Control over earnings                |                |
| Not empowered                       | 1              |
| Empowered                           | 0.81 (0.82 - 1.27) |
| Attitudes towards domestic violence |                |
| Not empowered                       | 1              |
| Empowered                           | 0.61 (0.75 - 1.18) |
| Household decision making           |                |
| Not empowered                       | 1              |
| Empowered                           | 0.62 (0.83 - 1.33) |

**Background Characteristics**

- Education level**
- Years in Marriage**
- Age
- Wealth status**
- Residence
- Region

95% CI; * p<.05, ** p<.01 + Controlled for background characteristics

### Discussion

From our results, most of the women in the survey lived in rural areas, had low levels of education, were married for 10 or more years and scored low on two of the four women empowerment indices. The unadjusted associations between empowerment and contraceptive uptake were only significant for the reproductive health rights index. Our study established a very strong association between reproductive health rights and contraceptive uptake. Reproductive health rights entail the right to access contraceptive information and services (Center for Reproductive Rights, 2010). Right to contraceptives use is a component of reproductive health rights and cannot be ignored. Our study findings are in consonance with results of a study in Ghana where women’s increasing levels of sexual empowerment were found to be associated with increased use of contraceptives (Crissman et al., 2012). The sexual rights are directly linked to contraceptive uptake and this could explain this strong association. However, contrary to studies that established a significant association between attitudes towards domestic violence, household decision making and contraceptive use (Do and Kurimoto, 2012), these were not significant for our study. One possible explanation could be that the joint decision making that is dominated by the husband is hardly indicative of women’s empowerment. It is also possible that in a patriarchal society like Uganda, women are being denied their reproductive rights (Chigbu et al., 2010). Additionally, the UDHS does not ask who has the final say but rather who usually makes certain decisions. This explanation may also hold true for power over earnings.

### Conclusions
Women's empowerment is significant predictor of contraceptive use. Women with higher levels of empowerment were more likely to report contraceptive use than those with low levels.

There is a need for sustained sensitisation of men and women about benefits of the women empowerment particularly reproductive health rights. More emphasis should be placed on changing attitudes towards gender based spousal violence in the households given that many women still condone the vices. These reproductive health rights of women cannot be fully realised without elimination of domestic violence. Involving men could also help in changing attitudes on both sides other than just the women alone. There is need for cultural reorientation aimed at improving women's reproductive health rights which will ultimately increase contraceptive uptake.

**Author contributions**

SPSK conceived the idea, analysed the data and took a lead role in writing the manuscript, EN participated in analysis of data and writing, PN contributed to the writing, AS contributed to analysis, BK contributed to writing. All authors read and approved the final manuscript.

**References**

BLANC, A. K. & TSUI, A. O. 2005. The Dilemma of Past Success: Insiders' Views on the Future of the International Family Planning Movement. Studies in Family Planning, 36, 263-276.

CASIQUE, I. 2001. What difference does it make? women's autonomy and power and use of contraception in Mexico. XXIV IUSSP General Population Conference. Salvador, Bahia,

CENTER FOR REPRODUCTIVE RIGHTS 2010. The Rights to Contraceptive Information and Services for Women and Adolescents. New York: UNFPA.

CHIGBU, C. O., EKWEAZI, K. E., CHIGBU, C. C. & IWUJI, S. E. 2010. Sexual violations among married women in southeastern Nigeria. Int J Gynaecol Obstet, 110, 141-4.

CRISSMAN, H. P., ADANU, R. M. & HARLOW, S. D. 2012. Women's sexual empowerment and contraceptive use in Ghana. Stud Fam Plann, 43, 201-12.

DE VISSER, R. O., RISSEL, C. E., RICHTERS, J. & SMITH, A. M. 2007. The impact of sexual coercion on psychological, physical, and sexual well-being in a representative sample of Australian women. Arch Sex Behav, 36, 676-86.

DE VISSER, R. O., SMITH, A. M., RISSEL, C. E., RICHTERS, J. & GRULICH, A. E. 2003. Sex in Australia: experiences of sexual coercion among a representative sample of adults. Aust N Z J Public Health, 27, 198-203.

DEY, D. & BHAVSAR, S. 2002. Women's Empowerment and its Relevance to Fertility and Child Mortality: An Analysis Based on NFHS-2, Gujarat Data. 25th Annual conference of Indian Association for the Study of Population. IIPS, Mumbai.

DO, M. & KURIMOTO, N. 2012. Women's empowerment and choice of contraceptive methods in selected African countries. Int Perspect Sex Reprod Health, 38, 23-33.

KIBIRA, P. S. S. 2009. The effect of women empowerment on modern contraceptive use in Uganda. MSc, Makerer University.

KISHOR, S. 1995. Autonomy and Egyptian Women: Findings from the 1988 Egypt Demographic and Health Survey. Calverton, Maryland: Macro International Inc.

KOENIG, M. A., ZABLOTSKA, I., LUTALO, T., NALUGODA, F., WAGMAN, J. & GRAY, R. 2004. Coerced first intercourse and reproductive health among adolescent women in Rakai, Uganda. Int Fam Plan Perspect, 30, 156-63.

KWAGALA, B. 1996. Correlates of contraceptive use among business women in urban areas in Uganda. UAPS, Dakar.

MAHARAJ, P. & MUNTHREE, C. 2007. Coerced first sexual intercourse and selected reproductive health outcomes among young women in KwaZulu-Natal, South Africa. J Biosoc Sci, 39, 231-44.

MEASUREDHS. 2013. Measure DHS: Demographic and Health Surveys [Online]. MeasureDHS. Available: http://measuredhs.com/data/available-datasets.cfm [Accessed 1st January 2013].

MINISTRY OF GENDER LABOUR AND SOCIAL DEVELOPMENT 2007. The National Action Plan on Women 2007. Earnest Publishers, Kampala-Uganda

NAJMAN, J. M., DUNNE, M. P., PURDIE, D. M., BOYLE, F. M. & COXETER, P. D. 2005. Sexual abuse in childhood and sexual dysfunction in adulthood: an Australian population-based study. Arch Sex Behav, 34, 517-26.

POPULATION REFERENCE BUREAU 2012. 2012 World Population Data sheet. Washington DC, USA: PRB.

POPULATION REFERENCE BUREAU 2013. 2013 World Population Data sheet. Washington DC, USA: PRB.
PURi, M., SHAH, I. & TAMANG, J. 2010. Exploring the nature and reasons for sexual violence within marriage among young women in Nepal. J Interpers Violence, 25, 1873-92.

RAstogi, S. & NGuyEn, K. 2005. Women’s Status and Contraceptive Use in Egypt. Population Association of America 2005 Annual Meeting. Philadelphia Marriott.

SALEm, S. & BOBAK, M. 2005. Women’s autonomy, education and contraception use in Pakistan: A national study. Reproductive Health, 2.

UBOS 2002. The 2002 Uganda Population and Housing Census Main Report. Kampala, Uganda: Uganda Bureau of Statistics.

UBOS & ICF INtERNATIONAL 2012a. Uganda Demographic and Health Survey 2011. Kampala, Uganda: UBOS and Calverton, Maryland: ICF International Inc.

UBOS AND ICF INtERNATIONAL 2012b. Uganda Demographic and Health Survey 2011. Kampala, Uganda and Calverton, Maryland: Uganda Bureau of Statistics (UBOS) and ICF International Inc.

VAN BERLO, W. & ENSINK, B. 2000. Problems with sexuality after sexual assault. Annu Rev Sex Res, 11, 235-57.

WEISS, E. & GUPTA, G. R. 1998. Bridging the gap: Addressing gender and sexuality in HIV prevention. International Center for Research on Women; Washington D.C.