

**DETERMINANTS OF INTENTION TO USE CONTRACEPTIVES IN
POSTPARTUM PERIOD AMONG FIRST TIME MOTHERS IN
NAIROBI, KENYA.**

By

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ABSTRACT

The unmet need for postpartum family planning (PPFP) during the first year after delivery in Kenya is unacceptably high at 68 percent. This exposes the postpartum mothers to high risk of unwanted and unintended pregnancies. The risk is even greater among the first time mothers who do not know what to expect after their first delivery. This paper presents the analysis of determinants of intention to use contraceptives in postpartum period among first time mothers in Nairobi. A cross-sectional study of 204 first time mothers in Pumwani maternity hospital, Nairobi was conducted in 2010. Using binary logistic regression model, it was found that education and marital status were predictors of these women's intentions to uptake contraceptives after delivery. Family planning programmes should give high priority to the first time mothers in order to encourage them uptake contraceptives as early as possible during their postpartum period. Likewise, there is need to strengthen policies that promote girls education and stable marital union.

Introduction

Postpartum family planning (PPFP) is the initiation and use of contraceptives during the first year after delivery (McKaig and Dellar, 2006). The first year after delivery is a complex period, during which a woman has to care for her newborn child as well as cope with a series of emotional and physical changes and often extreme tiredness (Salway and Nurani, 1998). This postpartum period presents a rising risk of unwanted conception and often frustrated desire for contraceptive protection (Ross and Winfrey, 2001; Depineres, et al, 2005). The risk is even greater among the first time mothers who do not know what to expect after their first delivery and rely on the advice and explanations from their female relatives, neighbours and friends (Salway and Nurani, 1998). The new mothers are often victims of myths, superstitions and misconceptions surrounding use of modern contraceptive from the “informal consultants” (friends and relatives); mainly because they have inadequate knowledge and limited experience on postpartum contraception compared to the women of higher parity (Salway and Nurani; 1998). Indeed, contraception and sex are probably the last things on a new mothers list of priorities during the first days after delivery (Glasier, et al, 1996).

Ross and Winfrey (2001) established that by 7-9 months after delivery, most postpartum women are exposed to pregnancy, yet have not obtained contraceptives. Some of these women would have experienced a return of menses, are sexually active and are unprotected from conception, which increases exposure to the risk of unintended pregnancy and translates into unmet need for PFP. Yet a number of studies have revealed that most of the postpartum mothers are not aware of the factors associated with fertility return and do not think they are at risk of pregnancy during the first year after giving birth. Consequently, these mothers are reluctant to use family planning or are using unreliable methods associated with high failure rate such as withdrawal and condom (Salway and Nurani, 1998; Shaaban and Glasier, 2008; Rojnik et al, 1995).

Analysis of 27 Demographic and Health Surveys by Ross and Winfrey (2001) found that the unmet need for contraception during the first year in sub Saharan Africa was 74 percent, of which about three quarter is for spacing births. Only 18 percent of postpartum mothers were using a method and only 5 percent reported to have the intention of conceiving again. In Nigeria and India, the unmet need for PFP is alarmingly high at 62 and 73 percent respectively, and only one fifth of the postpartum mothers use family planning during the first year after birth (Borda and Winfrey, 2006b; Borda, 2008).

A study of Kenya Demographic and Health Survey of 2003 by Borda & Winfrey (2006a) identified 90 percent unmet need for PFP during 0-3 months after delivery, 80 percent between 7-8 months and by the end of the first year after delivery the level of unmet need is at 68 percent. The high unmet need for PFP prevails despite Kenya having recorded remarkable rise in contraceptive use over the years since 1980s, which currently stands at 46 percent (KNBS and ICF, 2010). Yet the Demographic and Health Surveys have over the years underestimated the contribution of the new mothers to the unmet need in the extended postpartum period.

The consequences of the high unmet need for postpartum family planning in sub-Saharan Africa include millions of unplanned pregnancies and short inter-pregnancy spacing; with poor maternal and infant health outcomes (Smith et al, 2009; Shaaban and Glasier, 2008; Depineres, 2005). The result is high maternal mortality ratio which stands at 488/100,000 women of reproductive age in Kenya (KNBS and ICF, 2010).

While extensive literature is available on unmet need for PFP and general postpartum, women's intention to use contraception after birth has not been fully taken into account. Yet

intention to use PPFPP may be a more valid indicator of demand for family planning than unmet need, and has currently received attention as an alternative or supplement to information on unmet need (Roy, et al, 2003). Consequently, contraceptive intentions appear to be better predictors of actual contraceptive use than the unmet need.

Although there are concerted efforts by the Kenyan government and the development partners especially JHPIEGO/ACCESS-FP to meet the contraceptive need of postpartum mothers through training of health workers and integration of family planning services to the maternal and child health services, the proportion of postpartum women using contraception is still low at only 24 percent. Secondly, even with the high unmet need for postpartum family planning factors determining the intention to use postpartum contraception among the first time mothers are not fully known and this calls for such investigation in Kenya.

The major concern of this paper therefore, is to investigate factors that influence the intention of the first time mothers to use postpartum family planning by examining demographic factors, perception of risk of repeat pregnancy, socioeconomic factors, contraceptive knowledge and prior contraceptive use. The paper will also examine the influence of prenatal counseling on the intention to use postpartum family planning.

Methodology

A cross-sectional study was conducted between October and November 2010 in a well established Pumwani maternity hospital in Nairobi, Kenya. The hospital was purposively sampled since it is the only public teaching and referral hospital in Kenya that exclusively specializes in maternal and newborn care. Therefore, all the first time mothers attending antenatal clinic in the public health centers' in Nairobi province are referred for delivery at Pumwani Maternity Hospital.

All 204 first time mothers aged 15-29 admitted in the postnatal wards of the hospital, following a normal delivery with both the mother and baby in stable condition, and are HIV negative, were interviewed using a structured questionnaire that had a combination of open and closed ended questions. The questions probed for demographic and socioeconomic characteristics of mothers, pregnancy risk perception, contraceptive knowledge and prior use, prenatal contraceptive counseling and intention to use PPFPP.

Data analysis was managed using STATA version 9. Descriptive statistics were computed and enhanced understanding of the characteristics of first time mothers and key study

variables. Chi-square tests and logistic regression model were used to assess the associations and relationships, respectively, between the predictor variables and the intention to use postpartum family planning.

Results

The average age of the respondents was 22 years, 73% of the mothers were married and living with their partners, 66.7% had attained at least secondary education, but only 10% were in professional employment with over half (53.5%) working as housewives or unemployed. The knowledge of family planning among the mothers was very high with 95.5% aware of at least one method and over half (53%) knowing at least 4 methods. Despite this high level knowledge, less than a fifth (17.7%) had ever used any method before while 82.4% have never used contraceptives before their first motherhood.

Almost all the women attended at least one antenatal care (98.5%) and only 24% received information on PFP during the antenatal visits. Over half (54.4%) of the women who responded to the question preferred the next birth to come after at least 2 year period. Eighty percent of those who did not perceive postpartum pregnancy risk gave a reason that they planned to use family planning to protect themselves from the risks. It is notable that slightly over a half of the first time mothers preferred to seek advice on PFP from the health workers followed by their spouses. Ninety one percent of all mothers planned to use postpartum family planning, with injectables preferred by two fifth (41%) of the women followed by pills as a distant second (11%), while almost a third (31%) of the respondents were not sure of the method to use. Close to eighty percent (79%) intended to commence use of family planning after at least 6 weeks following the delivery date.

At the bivariate analysis level, living arrangement and marital status were the only demographic and socioeconomic variables that were significantly associated with intention to adopt postpartum family planning. Other significant independent factors were contraceptive knowledge, wanted current pregnancy, preferred birth spacing of at least two years and advised by health workers.

The multivariate level analysis results in Table 1 showed that education and marital status were the only significant determinants of the intention to use PFP among the first time mothers ($p=0.022$ and 0.000 respectively).

Discussion

Socio-demographic characteristics

The majority of the first time mothers were aged 20-24 (60.3%), which corresponds with peak fertility age in Kenya (KNBS and ICF, 2010). The median age at first marriage of 20 years reported by KDHS 2008-09 is close to the average age at first childbearing of 21.7 years noted in the study. Almost three quarters of the respondents were married and living with their spouses, which is a primary indicator of regular exposure of first time mothers to the risk of repeat pregnancy in the postpartum period. There was association between marital status and living with spouse on the intention of first time mothers to use PFP, which agrees with the findings of a study done by Newmann, et al, 2005. The study also indicates that early marriage and childbearing are still persistent in Kenya just like in many other developing countries (Kamal, 2009). Almost two thirds (62%) of the first time mothers were not engaged in any income generating activity, and so had to depend on their spouses and relatives financially. The low levels of employment reflect the low socioeconomic status of the first time mothers involved in the study. Universal school attendance with almost two thirds (66.2%) having at least secondary education influenced the intention to adopt PFP. Other related studies found that postpartum women with higher education are more likely to use reliable contraceptives (Rojnik, 1995; Tehrani, et al 2001, Atuyambe et al 2008)

Selected reproductive health Variables

Almost all first time mothers (95.6%) knew at least one modern method of family planning, a pattern consistent with 95 percent reported in the KDHS 2008-09 (KNBS and ICF, 2010). The adequate knowledge on PFP empowers a postpartum mother to make informed choice on the method and initiation period as confirmed by studies done by King, (2007); Barber, (2007); Vernon, (2008); Mwangi et al, (2008); Hani et al, (2003). The level of exposure to contraceptives was very low with only 17.7 % reporting prior use and this indicates that first time mothers who have not used contraceptives in the past are likely to face challenges and obstacles than those who have previously used the methods (Ashford, 2003). The most popular methods used by the mothers in the study were injectables and pills, which was consistent with the findings of KDHS 2008-09. Yet, more than half of the mothers in the study preferred birth spacing of at least two years (54.5%), which is an indication of the need for family planning programs to target first time mothers.

Perception of pregnancy risk in the year following delivery was largely based on whether one used contraceptive to prevent pregnancy or not. Failure to use contraceptive (82%) was the main reason cited by the mothers who perceived the risk while plan to use contraceptive (80%) was the main reason given by the mothers who did not perceive the risk. The finding reflects the alertness of the first time mothers in regard to the need for postpartum contraception, which is a direct indicator of the demand for contraceptives in the post partum period. Notably, the first time mothers preferred to seek advice on PPFPP form the health workers followed by their spouses.

Studies have shown contradictory findings on use of antenatal attendance as an entry point for PPFPP with some supporting and others disputing (Barber, 2007; Day et al, 2008; smith et al, 2002). However, it is undisputed that antenatal visits provide golden opportunities for PPFPP discussion and education due to increased provider-patient interaction. The findings of the study indicate that despite the universal antenatal attendance, more than three quarters of the first time mothers were not given information on PPFPP and yet it is one of the areas included in the focused antenatal care strategy in Kenya. This shows that the opportunity is under-utilized and this could be as a result of patient and provider characteristics as noted by Barber, (2007); Ross and Winfrey, (2001), Depineres et al, (2005), Glasier et al, (1996).

Intention to use PPFPP

The study results show that a high proportion of first time mothers (91%) stated the intention to use PPFPP in the postpartum period. Intention to use PPFPP is a better measure of demand for contraceptives in the postpartum period than the unmet need. Roy et al, (2003) note that by expressing the intention to practice contraception, women are able to better visualize their future need and are more likely to translate it into actual use. The most preferred methods were injectables and pills which are short term methods despite the majority preferring birth spacing of at least two years. This is an observed pattern in Kenya, which calls for the need to promote long term methods such as Implants and Intrauterine devices among the first time mothers. The few that did not state intention to use mainly gave method-related reasons in addition to religious prohibitions, consulting spouse and not sexually active, findings consistent with those reported by KDHS 2008-09 (KNBS and ICF, 2010).

Determinants of intention to use PFP

First time mothers who were married are 13 times more likely to have the intention to use PFP than the first time mothers who are not married. Marriage exposes mothers to sexual intercourse and thereby increases the risk of conception. Similar findings were reported in a study done in El Salvador, where having and living with a partner significantly influenced the intention of young women to use PFP (Newmann et al, 2005). The majority of single women did not intend to use contraceptives, which suggests that young women might be having misconceptions of their pregnancy risk.

Educational attainment of first time mothers is a major factor influencing their intention to use postpartum contraception. The respondents who had secondary education at the time of the survey were 4.6 times more likely to have the intention to use PFP than the mothers with primary education. Spending more years in school delays marriage, family formation and exposes the woman to information on modern contraception. The findings concurs with studies done by Rojnik, (1995); Tehrani, et al (2001), Atuyambe, et al, (2008). On the Contrary, a study done by Newmann et al, (2005) observed that education level predicted contraceptive knowledge but not the use.

Conclusion and recommendations

The study showed that the main predictors of intentions to adopt postpartum family planning methods were education and marital status. There is great need to prioritize education of girls to empower them use postpartum family planning. Secondly, policies to encourage women to be married and spouses to support their young wives' intentions should be put in place in order to promote postpartum family planning.

Thirdly, there is need to improve the quality of knowledge on the recommended postpartum contraceptives to enable first time mothers make informed choices, which can be facilitated by strengthening client-provider interaction especially through maternal and child health services such as ANC, Postnatal care and child immunizations. Considering that almost a quarter of the respondents were adolescent some of whom are still in school, it is deemed important to focus on adolescent reproductive health with the aim of preventing unwanted pregnancies, single motherhood and school dropout.

Finally, there is great need for family planning programs and policies to focus on intention to use PFP as a measure of contraceptive demand in addition to unmet need.

Table 1: Determinants of the intention to use Postpartum family planning among first time mothers

Selected variables	Coefficients	Odds ratio	z	p>z
Age group 15-19 ** 20-29	-1.1464	0.3178	-1.44	0.149
Education level Primary ** Secondary	1.5161	4.5543	2.28	0.022
Religion Catholic** Protestants	-0.4892	0.6131	-0.79	0.430
Marital status Never married ** Married	2.5901	13.3314	3.53	0.000
Occupation Unemployed** Employed	0.1340	1.1434	0.21	0.834
Reference group Friend ** Spouse Health worker	0.3601 0.6014	1.4334 1.8246	0.41 0.88	0.678 0.376
Preferred birth spacing Two years and above ** Undecided	-0.8916	0.4100	-0.42	0.156
Postpartum pregnancy risk Risk perceived ** Risk not perceived	-0.0038	0.9962	-0.01	0.995
Prenatal contraceptive counseling Counseled ** Not counseled	0.0632	1.0652	0.08	0.934
Contraceptive knowledge Less than three methods** Three to four methods More than three methods	0.4895 -0.3320	1.6315 0.7175	0.66 -0.36	0.512 0.718
Contraceptive prior use Ever used ** Never used	-2.1560	0.1158	-1.78	0.076
Constant	2.9694		1.63	0.102

Overall p-value of the model: 0.0008

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