Sociodemographic Determinants of Postpartum Family Planning Uptake in West Pokot County, Kenya

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Abstract
Worldwide, according to the United Nation’s results of 2015 revision of world population prospects, total fertility rate has dropped to 2.5 children per woman. African region leads with high fertility rate, which stands at 4.7 children per woman (UN, 2015). In Kenya fertility rate stands at 3.9 children per woman (Kenya Demographic and Health Survey [KDHS], 2014). In West Pokot County, fertility stood at 7.2 children per woman between 2010 to 2014 (Pkaremba, 2016). This high fertility rate in West Pokot County has made the county be ranked among the highest with fertility rate (KDHS, 2014). Cross-sectional research design was used in this study and data was collected by use of interviewer administered questionnaires, which was administered to 408 research participants from both Pokot North and Pokot South sub-Counties. Information on sociodemographic features associated with uptake of postpartum family planning was collected and binary logistic regression model was used to assess the influence of socio demographic features on PPFP uptake. Age, marital status, education, employment status and number of living children were significantly associated with uptake of FP (All p<0.05). Sociodemographic features such as level of education, employment status, marital status and number of living children predicts a woman’s possibility of utilizing postpartum family planning.

Keywords: Postpartum family planning, sociodemographic factors, expectant mothers

I. Introduction
Sociodemographic determinants are features that define a subject based on their personal and social environment. In health care studies, sociodemographic characteristics provide useful background data for patients. These data inform healthcare strategies aimed at making health interventions more responsive to the needs of specific societies (Fox & Storms, 1981). The World Health Organization (WHO) (2013) defined postpartum family planning as “the prevention of unintended pregnancy and closely spaced pregnancies through the first 12 months following childbirth” (p. 8).

Postpartum family planning is regarded as part of the agenda of optimizing populations in relation to available resources based on the dynamics of different regions of the world. Worldwide, according to United Nation’s results of the 2015 revision of World population prospects, total fertility rate is now 2.5 children per woman. This global average masks wide differences regionally, such that Africa remains the region with highest fertility, and stands at 4.7 children per woman (UN, 2015).

Kenya’s fertility has been declining significantly since 1970s that was 8.2 children per woman, and currently stood at 3.9 per woman in 2014 (Pkaremba, 2016). In West Pokot County’s fertility seems to contrast the national rate, while the Kenya’s fertility is declining, that of West Pokot County has been rising up to 7.2 between 2010 and 2014, this resulted to the County’s being ranked one with the highest fertility in the year 2014 in Kenya (KDHS, 2014). PPFP is family planning that focuses on the prevention of unintended and closely spaced pregnancies throughout the first twelve months after childbirth. It is intended to help woman decide on the contraceptive they want to use later for a longer period of time (WHO, 2013).

Since total fertility in West Pokot County is quite high as at 7.2 children per woman, the study sought to find out the socio-demographic characteristics that influence the uptake of PPFP among expectant mothers in this community.

Statement of the Problem
Ideally, the uptake of postpartum family planning in areas like West Pokot County should be at par with the need to keep populations at levels that can be sustained by the economic and social amenities available. These services are necessary in such areas to help optimize human population against the available resources. However, uptake of postpartum family planning in the County is low (Kakai, 2021; Pkaremba, 2016). According to Kakai (2021), a small percentage of women who give birth in the area do not take up postpartum

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family planning. Various factors have been proposed to explain this situation. For instance, Kakai notes cultural beliefs about contraceptives, notion that women who birth more children earn the community’s respect, and the view that children, especially girls, are a sign of wealth as examples of factors that prevent the use of contraceptives in the area. However, studies on uptake of postpartum family planning have not provided a comprehensive analysis of the socio-demographic determinants of utilization of postpartum family planning in West Pokot County. Besides, none of these studies used the intervention approach. Therefore, this study investigated the sociodemographic determinants influencing uptake of postpartum family planning in West Pokot County, Kenya.

II. Literature Review

This section presents a review of literature on sociodemographic determinants influencing uptake of postpartum family planning. It is noted that across the global, studies have been undertaken to explore the usage of postpartum family planning and the role of demographic factors in such usage. In Indonesia, for instance, Wilopo et al. (2017) evaluated the state and determinants of uptake of family planning. The researchers observed that usage of contraceptives was popular in Indonesia. At least 74% of postpartum women said they had used family planning. It was further observed that mothers’ age, number of children, knowledge of family planning methods, household income and place of residence influenced the uptake of contraceptives. The above study was conducted in Indonesia but it provides useful data on the role of sociodemographic factors in the use of postpartum family planning methods.

In Nepal, Joshi et al. (2020) studied the use of family planning methods among postpartum mothers. They found that women used various contraceptives. Among the demographic determinants of uptake of family methods, these authors identified husband’s employment status, past use of family planning methods, and return of menses as key. The study recommended that interventions should seek to sensitize couples on the available family planning methods, return of fertility and overall importance of family planning. The reviewed study gave insight on some of the social and demographic factors at play in a woman’s choice to use family planning. However, since the study was undertaken in Nepal, its findings may not be generalized fully to West Pokot, Kenya, the site of the current study.

Many studies have been undertaken to explore the uptake of postpartum family planning in Africa. For instance, in Malawi, Bwazi, Maluwa, Chimwaza and Pindani (2014) explored the usage of postpartum family planning services within the first year of delivery. They found that utilization of postpartum family planning was shaped by clarity of family planning information availed to mothers, education level, duration taken prior to resuming sex, husband’s approval, counselling on fertility, length of lactation and mother’s age. These findings show that there is an association between uptake of postpartum family planning and mother’s demographics.

In Nigeria, Bolarinwa, Olagunju, Olaniyi and Babalola (2020) examined the socio-demographic determinants of family planning usage. They found that the leading determinant was the level of agreement between spouses on the need or otherwise of contraceptives. This factor was stronger among couples in the age range below 30 years. The researcher concluded that male partners played a significant role in women’s decisions to use or not to use contraceptives. Drawing insight from this study, the present work examined the role of the wife and husband’s demographics on the uptake of postpartum family planning.

In Burkina Faso, Tran et al. (2019) undertook a two-phase multi-intervention study to test the factors and effects at play in the usage of modern postpartum family planning. They found that provision of family planning packages increased the uptake of contraceptives. Therefore, they concluded that interventions that help women to overcome the sociodemographic barriers to birth control do work. The reviewed study helped the researcher to conceptualize an intervention strategy for provision of postpartum family planning services in West Pokot.

In Ethiopia, Demie et al. (2018) investigated the state of PFP use among mothers in public health facilities. They identified two key factors that determined the use of postpartum family planning. These were resumption of sex, especially within the first half year after delivery, and the return of menses after delivery. The researchers also observed that women who were more informed about family planning tended to use postpartum family planning than those who were less informed. The study by Demie and others highlight the importance of education on postpartum family planning. Therefore, the current study integrated education as an important sociodemographic in the use of modern family planning methods in West Pokot County.

In Egypt, Elweshahi, Gewaifel, Sadek and El-Sharkawy (2018) assessed the use of postpartum family planning in the city of Alexandria. The results revealed that uptake of family planning among postpartum women was high at 91%. Moreover, majority of the women used modern contraceptives while some used traditional methods of family planning. Among the sociodemographic determinants of uptake of postpartum family planning, the authors identified amenorrhea, breast-feeding, fear of side effects, adverse health reactions, and peer pressure. These factors played a major role in discouraging women from using contraceptives.
Tran et al. (2018) also undertook a study in the Democratic Republic of Congo and Burkina Faso to explore the factors influencing postpartum family planning use among women. The factors promoting the use of modern family planning methods included the debunking of the traditional notion that spacing children’s ages has negative effects on their health and that of the mother. Moreover, exposure to postpartum family planning content and training helped to increase uptake of modern birth control methods. Other factors included positive political will and support from religious leaders for specific family planning methods. The barriers included low male involvement in decisions about family planning, cost of certain contraceptives, misconceptions about modern family planning methods, and discouragement from religious teachings and beliefs about the use of certain methods.

Concerning interventions, Lori et al. (2018) aver that group antenatal care can persuade more mothers to utilize postpartum family planning. According to these authors, group ANC empowers women to overcome demographic factors that hinder uptake of PFP. These factors include religious affiliation, age, intention and education level.

In Kenya, Jalang’o, Thuita, Barasa and Njoroge (2017) examined the factors at play in the use of contraceptives. These factors include religious affiliation, age, intention and education level.

The researcher expects the intervention to raise the uptake of skilled birth care by 15% (P1= Prevalence in intervention group = 0.42
P2 = Prevalence in control group) = 0.27 the current SBC prevalence (KDHS 2014)
P = Pooled prevalence (P1+P2/2) = 0.42+0.27/2 = 0.345
Zβ= Power of the study=80% =0.84
Zα/2 = Statistical constant=1.96
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III. Materials And Methods

Study design
The study employed cross-sectional study design and data was collected with interviewer administered questionnaires to research participants in Pokot north and south sub-Counties of West Pokot County. This was done as a baseline-survey of a larger prospective quasi experimental study that is on-going in the study areas

Sampling procedure
Two sub-counties were purposively selected as the intervention and control sites (Pokot South and Pokot North sub-Counties, respectively). Community Health Volunteers in the two sub-counties and research assistants assisted to identify expectant mothers. They therefore identified all the research participants; expectant women (204 in the intervention and control site respectively).

Sample size
The sample size was calculated using equation for comparative epidemiologic studies (Jaykaran & Biswas, 2013)

\[ n = \frac{2(Z_{\alpha/2} + Z_\beta)^2 P(1-P)}{(P1 + P2)^2} \]

Where:

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Zα/2 = Statistical constant=1.96
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(30% attrition rate was arbitrarily chosen based on conventional practice for lack of local data on clinic attendance attrition rate) = 157+47 = 204 per group

n = expectant mothers per group (Total n = 204)

Total sample size = 408 participants

Data collection

Data regarding postpartum family planning (PPFP) was collected by use of interviewer assisted questionnaires administered to expectant mothers. The questions were concerning their sociodemographic features and PPFP. The questionnaires were distributed to all the 408 participants (expectant mothers), 204 from intervention and likewise control site.

Data analysis

Completed questionnaires from the base-line survey was coded and entry done in epi-data v.3.1. (EpiData Association 2000-2018). Baseline survey data on information about uptake of postpartum family planning services as a maternal and child health indicator was exported to SPSS V.20 for analysis. Descriptive statistics (frequencies, means and standard deviation) was used to summarize these data.

IV. Results And Discussion

The study investigated the social demographic determinants influencing utilization of modern family planning methods in West Pokot County, Kenya. To address this question, the respondents were first asked to state if they utilized modern family planning methods. Their responses were as shown in Figure 1.

Figure 1: Utilization of modern family planning

As shown above, more than three-quarters (77.7%) of the respondents reported that they had never utilized modern family planning methods. Meanwhile, a significant number (22.3%) said they had used modern family planning methods. Therefore, it was evident that majority of the respondents had not used modern family planning methods.

The study then proceeded to explore the influence of respondents’ demographic characteristics on their propensity to utilize modern family planning methods. The study thus collected data on the demographic characteristics of the respondents, including religious affiliation, marital status, level of education, husband’s level of education, employment status, number of living children, main source of food and household income. The findings were as summarized in Table 1.

| Table 1: Sociodemographic Factors Influencing Utilization of Modern Family Planning Methods |
|----------------------------------------|----------------|----------------|----------------|
| Demographic Features                   | Indicator      | Ever used modern FP | Chi-value/df | P-value     |
| Mean age (yrs)                         |                | No                | Yes           |              |             |
| Religion                               | Protestant     | 264(5.3)          | 2404(7.7)     | 3.5779      | <0.001      |
|                                        | Others         | 69(21.6)          | 22(23.9)      | 0.229       | 0.632       |
| Marital status                         | Married        | 270(84.4)         | 88(95.7)      | 8.907       | 0.012       |
|                                        | Single         | 31(9.7)           | 4(4.3)        | 0.122       | 0.728       |
|                                        | Divorced/Separated/ Widowed | 19(5.9) | 0(0) | 0.001       |             |
| Level of education                      | Primary        | 154(48.1)         | 60(65.2)      | 29.983      | <0.001      |

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Sociodemographic Determinants of Postpartum Family Planning Uptake In West Pokot.

Age, marital status, education, employment status and number of living children were significantly associated with uptake of FP (All p<0.05). On average, those who reported to have ever utilized family planning were young compared to those who had not (24 years Vs 26 years). Majority of those who were married, 88(95.7%), reported to have utilized family planning. More than half, 60(65.2%), of primary level of education reported to have used family planning compared to only 8(8.7%) with tertiary level of education. Majority of the protestant, 70(76.1%), reported to have used family planning compared to only 22(23.9%) of the others. More than half of the unemployed, 53(21.54%), reported to have used family planning compared to only 7(7.6%) of the employed. Majority, 88(96.7%), of those who reported home garden as main source of food utilized family planning compared to only 3(3.3%) of those who reported to buy from the market.

<p>| Table 2: Multiple Binary logistic regression: Factors associated with FP uptake |
|-----------------------------------------|---------|---------|---------|---------|---------|</p>
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>R</th>
<th>S.E.</th>
<th>P-value</th>
<th>OR</th>
<th>95.0% C.I. for OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.023</td>
<td>.030</td>
<td>.442</td>
<td>1.032</td>
<td>.965</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>1.100</td>
<td>.711</td>
<td>.122</td>
<td>3.005</td>
<td>.746</td>
</tr>
<tr>
<td>Self employed</td>
<td>-.149</td>
<td>.281</td>
<td>.597</td>
<td>.862</td>
<td>.497</td>
</tr>
<tr>
<td>Education level</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1.693</td>
<td>.352</td>
<td>.000</td>
<td>5.436</td>
<td>2.728</td>
</tr>
<tr>
<td>Secondary</td>
<td>1.952</td>
<td>.515</td>
<td>.000</td>
<td>7.040</td>
<td>2.565</td>
</tr>
<tr>
<td>Tertiary</td>
<td>3.694</td>
<td>.795</td>
<td>.000</td>
<td>40.190</td>
<td>8.462</td>
</tr>
<tr>
<td>Marital status (Married) living children</td>
<td>1.197</td>
<td>.583</td>
<td>.040</td>
<td>3.310</td>
<td>1.056</td>
</tr>
<tr>
<td>3 and below</td>
<td>-1.199</td>
<td>.481</td>
<td>.013</td>
<td>.302</td>
<td>.117</td>
</tr>
<tr>
<td>4-6</td>
<td>.018</td>
<td>.404</td>
<td>.965</td>
<td>1.018</td>
<td>.461</td>
</tr>
<tr>
<td>7-9</td>
<td>.382</td>
<td>.430</td>
<td>.374</td>
<td>1.465</td>
<td>.631</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.983</td>
<td>1.089</td>
<td>.000</td>
<td>.019</td>
<td></td>
</tr>
</tbody>
</table>

Controlling for employment status and age, education level, number of living children and marital status were significant predictors of uptake of modern family planning (all p<0.05). Those with tertiary level of education were 40 times more likely to use modern FP compared to those without any education (OR: 95% CI: 40.190; 8.462-190.885). The married were 3 times more likely to use modern FP compared to the single, separated, divorced and widowed (OR: 95%CI: 4.385; 1.435-13.393). Uptake of FP increased with increase in number of living children.

This study sought to find out whether the expectant women in West Pokot County, Kenya had previously used modern family planning and planning to use after delivery. The findings of the study showed that majority (77.7%) had never used modern family planning methods while a few had used them. These findings concurred with those of Kakai (2021) that the use of family planning in West Pokot is low but there are signs of improvement. The findings also reiterated those of Pkaremba (2016) who found that the fertility level in West Pokot is significantly high due to low use of contraceptives.

The study also sought information on the contribution of sociodemographic factors on women’s uptake of family planning methods in West Pokot. The findings revealed that employment status, age, level of education, number of living children and marital status were significant predictors of uptake of modern family planning (all p<0.05). For example, participants with higher level of education were 40 times more likely to use modern family planning within six weeks of delivery than those with no education. This was consistent with...
findings from studies in Indonesia (Wilopo et al., 2017), Nepal (Joshi et al., 2020), Malawi (Bwazi et al., 2014) and Kenya (Jalang’o et al., 2017). All these studies affirmed that women who are more educated tend to use contraceptives compared to their less educated counterparts. In these studies, women educated specifically on family planning methods were more disposed to use postpartum birth control than those who had never had any interventions.

There were other study findings with regard to level of education that were not consistent with those of this study, they included studies from Democratic Republic of Congo by (Kaniki, 2019) who found out that level of education was not significantly associated with uptake of modern family planning methods. Similarly, in Liberia Rourke (2015) found that as level of education increased, the number of those who chose to use family planning methods after delivery decreased. Another study whose findings were different from this study was that from Nigeria Lagos State (Oluwole et al., 2016) whose findings reported no statistical significant association between the use of contraception and educational level and status (p>0.05).

Similarly, majority of those who were married reported to have utilized family planning. This concurred with the findings by Jalang’o et al. (2017) that marital status influenced the use of contraceptives. Single mothers were less likely to take contraceptives in their first year of delivering than did married mothers. Additionally, women with employment, the married and with many children were more likely to use modern family planning after delivery. These findings were consistent with those from Southern Sudan (Obwoya et al., 2018) and Kenya (Lunani et al., 2018).

On average, those who reported to have ever utilized family planning were young compared to those who had not. This finding corroborated that of Wilopo et al. (2017) that mothers’ age, number of children, knowledge of family planning methods, household income and place of residence influenced the uptake of contraceptives. In the study by Jalang’o et al. (2017), age was also found to be a leading factor, so that younger women were more disposed to use contraceptives than did older women.

Majority of the members of protestant churches reported to have used family planning compared to the few who subscribed to other Christian denominations and religions. This concurred with the findings of Tran et al. (2018) in the Democratic Republic of Congo and Burkina Faso. They established that positive political will and support from religious leaders for specific family planning methods helped to promote uptake of contraceptives.

Lastly, more than half the unemployed reported to have used family planning compared to the few of the employed. In Nepal, Joshi et al. (2020) identified husband’s employment status as a key factor in the use of postpartum family planning. In Kenya, Jalang’o et al. (2017) study also delineated mother’s employment status as a factor that affects use of contraceptives.

V. Conclusion And Recommendations

From the above study findings, it is evident that sociodemographic characteristics like level of education, employment status, marital status and number of living children can predict a woman’s possibility of utilizing postpartum family planning. This is possible because for case of level of education, an educated woman is more likely to have more information on benefits and effectiveness of modern family planning methods as compared to the uneducated. Similarly, employed women are more independent and are able to make independent decisions concerning their lives.

The study recommends compulsory education for women or the girl child in the study area. This may help improve their understanding on health and how to improve it and that of their children by appropriate spacing of children, which can be achieved through family planning. Further, women should be empowered financially by helping and encouraging them form and join micro-finance groups within the community. This will enable them meet their financial needs and not necessarily dependent on the husband. Financial capabilities will enable them make independent decisions especially those that affect their health and that of their children.

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References


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