

Socio-Demographic Determinants of Place of Delivery among Women of Reproductive Age (15-49 Years) Seeking Child Welfare Services in Kandara Subcounty, Murang'a

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Abstract: *Maternal and child mortalities are among major health problems facing developing countries including Kenya. Most of these deaths can be avoided by utilization of maternity healthcare services by women seeking delivery care services from health professionals. The main objective of the study was to assess the socio-demographic determinants that influence the place of delivery among mothers seeking Child Welfare services in sampled health facilities in Kandara Sub County. The study adopted a facility-based cross-sectional survey design using an interview schedule and Key Informant Interview (KII) to collect quantitative and qualitative data respectively. The researcher pretested data tools in three health facilities that did not participate in the final study. On ethical issues, the researcher was cleared by the University Ethics Committee and by the administration of Murang'a County and of Kandara Sub County. The researcher ensured respondents privacy, confidentiality and anonymity throughout the entire research process. The study population comprised of mothers recently delivered within a 12 month prior to the study and seeking Child Welfare services at the selected health facilities in the Sub County. Simple random and purposeful sampling methods were used to identify the facilities which participated in the study. The desired sample size was 352 respondents which was calculated using Fishers et al 1998 formula. Respondents were identified using systematic random sampling method. Descriptive statistic was used to represent analyzed data. A Computer software, Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyze the quantitative data. Content analysis Qualitative data done and results triangulated with the quantitative data as per the study variables. The study found that social demographic determinants (p value of 0.034) had a significant positive influence on the choice of place of delivery.*

Keywords: Child welfare services, place of delivery, Mother, Maternal, Mortality, Morbidity, Safe Motherhood

1. Introduction

Globally half a million women die from pregnancy and childbirth related complications every year of which over 90% of these deaths occur in developing countries (Oguntunde et al., 2010).

In Africa and Asia, approximately 536,000 women die from complications related to pregnancy and childbirth, with 99% of these deaths taking place (WHO, 2008).

In Kenya, an estimated 7,700 women die each year as a result of pregnancy-related causes (Republic of Kenya, 2010). The fourth (4th) and fifth (5th) MDGs were geared to reducing the Child Mortality rate and Improving the Maternal Health respectively by the year 2015 (UN, 2007). A measure of the proportion of deliveries assisted by skilled attendants and maternal mortality ratio (MMR) are the indicators of progress towards achieving MDG numbers 4 and 5 (UN, 2007).

A Study by the Kenya National Bureau of Statistics (KNBS 2010) indicates that 43 percent of births in Kenya take place in health facilities, while 56 percent of births take place at home.

The study showed that the proportion of children born at home decreases as level of education and wealth quintile of the mother increase (KNBS, 2010). According to Kenya

Service Provider and Assessment Survey (KSPAS), for Kenya to reduce high maternal mortality and morbidity rates, societal and cultural determinants that affect women's health and their access to services should be adequately addressed (KSPAS, 2008).

According to Kenya Demographic and Health Survey (KDHS 2008/09), increasing the proportion of women that deliver in health facilities reduces the health risks to both the mother and the baby. These deaths could have been prevented with adequate medical care during and after delivery (MOPHS, 2008)

"The safe motherhood initiative" was launched in Nairobi in 1987 (Starrs, 2006) and its aim was to create awareness about the numbers of women dying each year from complications of pregnancy and childbirth, and also to challenge amelioration of the situation.

2. Problem Statement

According to KDHS 2014, Maternal Mortality Rate (MMR) of 362/100,000 has been reported this is a decrease from the 2009 survey which was at 448/100,000 live birth in Kenya.

More than 90% of women in Kenya already attend prenatal clinics in health facilities but only about 60% deliver at the hospital (KNBS 2010). This could partly be attributed to the place of delivery especially due to unskilled deliveries as

only 60 percent of births take place under skilled personnel (KDHS 2014).

According to the DHIS 2014, skilled deliveries in Murang'a County for 2014 financial year was 13820 (61.3%) out of expected 22,560 deliveries that year. In Kandara Sub-County there were 1315 (35%) skilled deliveries reported in 2014 financial year. This is far below the main aim of MDGs which is to increase the proportion of deliveries attended by skilled birth attendants to 90% worldwide by the year 2015 (UNFPA, 1999).

Stephenson *et al.* (2006) also found that Marital status, maternal age and religion to be important determinants of place of delivery in Kenya

In this regard, more studies ought to be carried out in order to find out how the socio-demographic determinants influence the choice of place of delivery among WCBA in the study area hence reducing child mortality and improve maternal health.

3. Justification of Study

To achieve MDGs number four and five, on reduction of child and maternal mortality, deliveries should take place under the supervision of skilled attendants. Despite the low number of skilled deliveries reported (35%) in the sub county, 99.9% of babies were taken to health facilities for child welfare services in the same period (DHIS, 2014).^{8 77}

The purpose of this study was to assess the socio-demographic determinants that influenced the place of delivery among women of child bearing age no other study has been done in the study area.

The information that the study generated will be used by stakeholders working with maternal and child health in the Sub County to make informed decisions and policies that will address the determinants influencing the choice of place of delivery among Women of Child Bearing Age.

4. Materials and Methods

A facility based cross sectional descriptive study design was used.

The study area was Kandara Sub County which is one of the seven Sub Counties in Murang'a County covering an area of 234 km² and is situated 45km north of Nairobi city. The area has a good road communication network with tarmac and Murom roads. The main economic activity is small crop farming and animal rearing. There are small scale businesses in the few shopping centers in the Sub County.

Health facilities are distributed as: 23 GOK facilities, 5 Faith Based Facilities and 4 private health facilities.

The target population in this study was Women of Child Bearing Age (18-49years) seeking child welfare services at Kandara Sub County health facilities. The monthly average workload of WCBA in the Sub County is 4,158.

The study population was Women of Child Bearing Age (18-49years) seeking child welfare services at Kandara Sub County health facilities.

Seventeen (16 facility in-charges and 1 Sub County Public Health Nurse) were interviewed using Key Informant Interview guide.

Mothers who had given birth within the last 1 year seeking Child Welfare services at the time of the study in selected health facilities in Kandara Sub County and of sound mind

Excluded from the study were Mothers whose age was below 18 years and beyond 49 Mothers of unsound mind, mothers who had delivered more than 12 months prior to the study and Mothers who had not lived in the area for the last one year (visitors)

Dependent variable -Choice of Place of delivery was the dependent variable

Independent variable-Socio -demographic characteristics

Table 1: Measurement of Variables

<i>Independent variables</i>		<i>Measurement</i>
Socio demographic	Age	Number of complete years lived by the respondent from the time she was born.
	Marital status	Attachment to a husband
	Education level	The highest schooling level achieved by the respondent
	Occupation	Main source of livelihood of both the woman
	Income	Mean monthly income of the mother in Kenya shillings.
	Religion	Belief, faith, conviction whether Christian or Muslim or any other denomination.
	Number of children	Number of babies ever born by the respondent whether alive or dead
	Danger signs	Mentioning the danger signs in relation to complications of pregnancy and process of delivery.
	Time	Moment spent in seeking maternity services in hours
Cost	Charges incurred in relation to maternity services in Kenya shillings.	
Dependent variable		
Place of delivery		The actual site where the mother gave birth to her baby.

Sample size determination

Sample size was calculated using the Fishers *et al.*, 1998 formula (cited by Mugenda & Mugenda, 2003). The desired sample size was 352 respondents.

Reliability Analysis findings indicated that social-demographic characteristics had a coefficient of 0.747 value of Cronbach's Alpha above the suggested value of 0.5 thus the study was reliable (Nunnally and Bernstein, 1994; Nunnally, 1974).

5. Results

Respondents' Marital Status

Table 1: Respondents' Marital Status

Marital status	Frequency	Percent %
Married	229	79.9
Single	41	14.6
Separated/divorced	17	5.6
Total	287	100.0

Majority 229 (79.9% (95% confidence interval = 75.2% - 84.6%)) of the respondents were married while 41 (14.6% (95% confidence interval = 10.5% - 18.7%)) and 17 (5.6% (95% confidence interval = 2.9% - 8.3%)) were single and separated/divorced respectively. This sample therefore had a statistically significant higher proportion of married women compared to those who were either divorced or single (Table 1).

Table 2: Main Source of Income

Source of Income	Frequency	Percent %
Rely on husband/partner	112	39.3
Business /self employed	77	26.9
Temporary /casual work	54	18.9
Employed /salaried	21	7.4
Rely on parents	20	7.4
Total	287	100.0

Over a third 112 (39.3% (95% confidence interval = 33.6% - 45.0%)) of the respondents relied on their husbands/partner for financial support while slightly over a quarter 77 (26.9% (95% confidence interval = 21.8% - 32%)) had businesses/self-employed. A small proportion 21 (7.4% (95% confidence interval = 4.5% - 10.3%)) was employed /salaried with an equal proportion 20 (7.4% (95% confidence interval = 4.5% - 10.3%)) relying on their parents for financial support. The KII revealed that socio demographic characteristics have little influence on the choice of place of delivery among expectant mothers in the Sub County.

Respondents' Level of Education

About a half 140 (48.9%) (95% confidence interval = 43.0% - 54.8%) of the respondents had attained primary level education while more than a third 105 (36.8%) (95% confidence interval = 31.3% - 45.9%) had secondary level education. Five percent 15 (5.3% (95% confidence interval = 2.8% - 7.8%)) of the respondent had no formal education. Only 3 (1%) of the respondents had attained university level education. The findings are as presented in Table 6.

Table 3: Respondents' Level of Education

Education level	Frequency	Percent %
No formal education	15	5.3
Primary level	140	48.9
Secondary level	105	36.8
College level	24	8.7
University level	3	.3
Total	287	100.0

6. Discussions

The research findings revealed that (48.9%) of the respondents in this study had attained primary level of education. Women who had attained more education level preferred delivering in hospitals than at home. Seventy nine (79.9%) of women who were married delivered in hospitals this could be attributed to an assured support from their husbands. (39.3 %) of the women under study relied on their husband for financial support. This was a major hindrance to deliver in hospitals for women who relied on their husbands for funds.

This findings complements the findings of Gabrysch *et al.* (2011), who argues that individual determinants including maternal age, parity, education and marital status, household determinants including family size, household wealth, and community determinants including available health facilities, distance to health facilities, socioeconomic status, community health infrastructure, region and rural/urban residence were noted as determinants of place of delivery these determinants were found to interact in diverse ways in each context to determine place of delivery in Rural Zambia.

7. Conclusion

The study sought to establish how socio demographic determinants influence the place of delivery among mothers Sub-County.

The study was conducted at Kandara Sub-County health facilities in Muranga County. The study adopted a facility based crossed sectional descriptive study with intention to assess the determinants that influenced the choice of place of delivery among mothers. A sample of 323 respondents was selected using random purposive sampling approach. This research relied on primary data which was collected using a semi-structured questionnaire and key inter-view informant guides which contained open ended and close ended questions. Cronbach Alpha Coefficients were obtained to establish the reliability of data. The coefficients were above the required 0.7 hence noedmal.

The objective of this study was to establish the determinants of choice of place of birth among women of child bearing age seeking child welfare services in Kandara Sub-County, Muranga County. The study findings indicate that there is a significant positive effect on choice of place of birth and the determinants under study namely: Socio-demographic characteristics

8. Recommendations

This study is a justification that the determinants under study have a significant positive effect on choice of place of birth for women of child bearing age seeking child welfare services from Kandara Sub-County, Murang'a County. With due regard to the ever increasing desire to have high skilled deliveries in Kenya, Women of child bearing age should be sensitized on the essence of attending anti-natal clinics and to deliver in hospitals This will go a long way in enlightening women them on the risks of delivering at home.

Since Women who had attained education level and married woman preferred delivering in health facility than at home. Focus should therefore be on women with lower level of education and the single mothers. Those who relied on their husbands for financial support were more likely to deliver at home. This emphasizes on the 1st delay in seeking health care and the need to address it to achieve better SBAdelivery.

Recommendations for Further Research studies

This study is a milestone for future research in this area, particularly in the maternal health sector. First, this study focused on determinants of place of birth in Kandara Sub-County, Muranga County and therefore, generalizations cannot adequately be extended to other Counties. Based on this fact among others, it is therefore, recommended that a broad based study covering several Counties in Kenya be done to find out the extent to which social determinants influence the choice of place of birth among WRA.

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