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Level of Knowledge on Risks Associated with Home Deliveries among Women of Reproductive Age after Formal Antenatal Care Visits in Narok South Sub- County

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Abstract

Purpose: The main objective of this study was to investigate the level of knowledge on risks associated with home deliveries among women of reproductive age after formal antenatal care visits in Narok Sub County.

Methodology: The study adapted a descriptive, cross sectional study design which focused on all women of reproductive age who delivered at home after antenatal hospital care visits in the last 24 months. The research was completed in Narok South Sub County, Narok County in Kenya. The target populace included all women with children below two years of age who gave birth at home yet attended antenatal care visits in a health facility in Narok North Sub-County. The study population included all women of reproductive age which were in the age bracket of 15 and 49 years from Narok south sub-county in Narok County. The study adapted two sampling techniques (purposive sampling and simple random sampling) first, purposive sampling was used to obtain women who have had delivered in the last 24 months and also key informants like TBAs and community elders. A sample of 30% of the targeted population was selected; A semi structured questionnaire was utilized to gather data. The study utilized primary data only. The primary data was collected through semi structured questionnaires by visiting households with women of reproductive age who gave birth in the last 24 months in a non- hospital set up. Data was analyzed using excel and statistical package for social sciences SPSS version 22.0.

Findings: The study found that during antenatal care visits women are taught on how to plan for births and have back-up plans, many do not have any backup plans for life-threatening occurrences when giving birth. The study concluded that, young women as compared to older women are more involved in non-hospital delivery due to unplanned births. Also, those women who had attended antenatal care visits were more knowledgeable about the risk factors of delivering at home. In addition, regardless of the government effort to provide free maternal services in Kenya, stable source of income, formal education with the right knowledge about reproductive health and geographical access, are the determinants of place of delivery among women in rural parts of Narok County.

Unique Contribution to Theory, Practice and Policy: County Education officers in liaison with social development officers should work to promote adult formal education to improve literacy levels, which will go a long way in influencing reproductive health decisions.

Keywords: *Level of Knowledge, Reproductive Age, Home Delivery, Antenatal Care*

INTRODUCTION

Maternal fine fettle is the stability of women during prenatal period, labor, childbirth, and the afterbirth period. When a woman gives birth, her life is at stake and worse when a woman delivers at home, creating a major concern for public health. Giving birth at home accelerates maternal mortality and many other complications, which greatly affects the health of a woman and that of the newborn baby (UNICEF, 2016).

Maternal mortality rate remains high at five hundred per every one hundred thousand live births across Sub-Saharan Africa. The maternal mortality is high in many countries to a point that in every minute a woman dies due to pregnancy related complications (UNICEF, 2016). Globally, nearly 500,000 women die annually from pregnancy- and childbirth-related complications. Developing countries account for 99% of the global maternal deaths with sub-Saharan African region alone accounting for 62% (Gitonga, 2017). Kenya's maternal mortality ratio is high at 362 maternal deaths per 100 000 live births.

Despite its obvious health-related problems, including maternal morbidity and mortality, many women still do not seek professional health care services when giving birth. In Kenya, the proportion of home deliveries seems to increase despite interventions by the government, international development partners, and non- governmental organizations to discourage home births (Atupamoi, 2017). Skilled assistance during childbirth is core to bringing down maternal mortality; however, the number of deliveries in hospital settings where professionalism can reliably be provided has remained below 50% since the early 90s (KDHS, 2014). While the global target to reduce home-based delivery mortality is 75% globally, there has been a decline of 43% in Africa and only 18% in Kenya (Oriento, 2014).

In the Africa Progress Panel Policy Brief (2010), a high proportion of women in developing countries still give birth at home unattended by skilled health care workers and more so in a patriarchal community like the Maasai where decision making does not involve women. Some of the major factors associated with giving birth at home have been identified as maternal age (many teenage and young mothers tend to give birth at home), parity (This is the number of children a woman has), level of education, and marital status. Community factors that contribute to home delivery include socio-economic status and community health infrastructures which are very significant in reduction of non-facility-based deliveries. Some of the major health complications associated with home deliveries includes sepsis, uterine rupture, obstructed labor, excessive hemorrhage, and retention of products of conception. Major causes of maternal mortality mostly occurring due to home births are obstructed labor, unsafe abortion, hemorrhage, anemia, and sepsis (Shipmate, 2013).

The worldwide safe parenthood initiative was propelled in 1987 in Nairobi with an objective to diminish maternal mortality by 75% in line with vision 2030. Numerous interventions were set up such as training of TBAs providing emergency maternity services in the lowest level of health providing facilities, equity, education for women, family planning services availability in the lowest level health facilities, post-natal care, post abortal care, STI/HIV control, primary health care and communication for behavior change (Mutiso, Gureshi, Kinuthia, 2013). But 10 years later utilization of skilled birth specialists and emergency obstetrics care were seen as the most basic

critical interventions to decrease maternal death were not yet there and no significant decrease in maternal mortality rate especially in rural areas was noted.

Assessing knowledge of women on pregnancy and delivery is very important as this information will be used to fill in the gaps of knowledge to women on reproductive health issues. Information is power and once women are aware of the risks of home delivery most likely they will embrace health facility based delivery which will go far in decreasing maternal deaths and morbidity due to complications of pregnancy and labor. It's a typical customary belief that labor and childbirth is a natural procedure which doesn't require any medical and restorative care and ought to be performed at home by a relative who is outstanding and a confided in figure for the family who is easily available and accessible. This demeanor combined with destitution, absence of education and numbness in regards to complications of delivery is liable for most of the women inclining towards having a homebirth in Narok County (KDHS, 2014).

In Kenya majority of women who deliver at home do not have postnatal checkup within 2 days of delivery as recommended (KDHS, 2014). This exposes them to more complications which occur mostly within 48 hours post-delivery and are life threatening to a woman and this can be linked to lack of knowledge. The majority of births in Africa with persistently high maternal mortality rates are directly linked to the lack of skilled experts care providers at birth (WHO, 2017).

According to (Mutiso et al., 2013) he found out that 29.3% antenatal clinic mothers were never informed of labor since they began visiting antenatal care services in a public health facility, 14.7% were never informed of the significance of hospital delivery, 39.1% never informed about importance of postnatal care and contraceptives. This is a clear indication that most women could be delivering at home because of absence of information on dangers during pregnancy, delivery and post-birth.

Health education to mothers should be carried during prenatal care visits at least four times pre delivery. The education should cover topics like danger signs during pregnancy, importance of hospital delivery, possible complications of home delivery, preparation of labor and delivery, postnatal complications, family planning and care of a neonate. The risks encountered during pregnancy can be direct or indirect causes. Direct causes amount to 80% of the risks and are related to pregnancy and childbirth. Indirect causes result from previous existing diseases and medical conditions that developed during pregnancy and were exaggerated by physiological effects of pregnancy and they account for 20% (ICD, 2015).

Statement of the Problem

Maternal well-being isn't just required to provide humanitarian tranquility and financial productivity. In addition, it cuts down costs and excess baggage on relatives, communities, specialists in health and specifically reproductive wellbeing, and the national treasury. In Narok County alone, data collected from 30 health facilities showed a 67% increase in women seeking ANC services in health care facilities between the year 2013 and 2015 (from 6,187 in 2013 to 10,326 in 2015) (Narok County Hospital Department of health records management 2016). The number of deliveries performed by a professional health care provider in Narok County went up from 9,370 in 2013 to 14,486 in 2015 (a general increase in the number of deliveries performed by a health professionals from 20.1% in 2013 to 34.8% in 2015), these are according to the county health data framework. December 2018, 7,604 women went for ANC services, 2,277 only

delivered in a hospital set up and 5,327 delivered in a non-hospital setup. Therefore, the researcher sought to investigate the demographic characteristics of women from Narok Sub County who deliver in a non-hospital setup.

Theoretical Review

Social Cognitive Theory

Social intellectual hypothesis by Bandura proposes that human behavior is driven by inner forces and external influences. It further explains human behavior in three dimensions: particular components, surrounding influences, and behavior regularly interacting to produce an action. A basis of the social cognitive theory is that individuals learn not only through personal experiences but also from observing the actions of others and the outcome of these actions. In relation to home delivery, a woman who consciously decides to deliver at home could be controlled by personal factors such as experiences during previous births and environmental influences such as cultural-economic influence and infrastructure of that locality.

Research Gaps

Home delivery cases are high in Kenya, just like many developing countries. Home delivery contributes to adverse maternal outcomes. Socio-demographic and health system factors appear to determine hospital-based maternity services uptake. Studies on ANC uptake and hospital-based maternity services utilization have been done in various parts of Kenya. Previously defined determinants of ANC and hospital-based maternity use should be interpreted in relation to the context of these studies. While there are several studies documenting factors related to utilization of antenatal care and hospital-based maternity in Kenya, studies exploring utilization of hospital-based maternal services and ANC care in Narok County are scarce and fragmentary despite its role in promoting maternal and neonatal health.

METHODOLOGY

The study adapted a descriptive, cross sectional study design which focused on all women of reproductive age who delivered at home after antenatal hospital care visits in the last 24 months. The research was completed in Narok South Sub County, Narok County in Kenya. The study area was chosen for this research because Narok south sub county is the highest contributor to maternal morbidity and mortality associated with complications during delivery in Narok County. The target populace included all women with children below two years of age who gave birth at home yet attended antenatal care visits in a health facility in Narok North Sub-County. The study population included all women of reproductive age which were in the age bracket of 15 and 49 years from Narok south sub-county in Narok County. The study adapted two sampling techniques (purposive sampling and simple random sampling) first, purposive sampling was used to obtain women who have had delivered in the last 24 months and also key informants like TBAs and community elders. A sample of 30% of the targeted population was selected; this is coherent with the proposition by Mugenda and Mugenda (2009) that 30% of the population is deemed to be sufficient for statistical analysis in research. A semi structured questionnaire was utilized to gather data. The study utilized primary data only. The primary data was collected through semi structured questionnaires by visiting households with women of reproductive age who gave birth in the last 24 months in a non-

hospital set up. Data was analyzed using excel and statistical package for social sciences SPSS version 22.0.

RESULTS

Number of Children Delivered at Home

Among the respondents, the average number of children delivered at home was 2.70 (3 children). The minimum number was one child whereas the highest number was ten children. If given the opportunity, 77.4% of the women would not deliver at home.

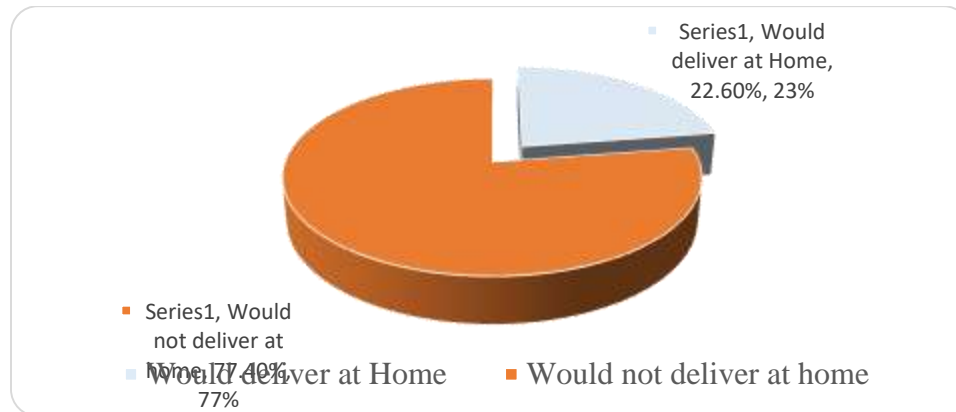


Figure 1: Women Who Would Deliver At Home Again

During their last pregnancy and labor time, the majority of the women (96.3%) had no emergency backup plan. Only 3.7% had backup plans. Those who stated that they would deliver at home again had no emergency backup plan, while women who had emergency backup plan would not deliver at home again (Fishers' exact test = 3.628, P = 0.043). This showed a significant association between having a backup plan and a place of delivery. The findings showed that 4.8% of those who would not deliver at home again had a backup plan.

Table 1: Association between Delivering At Home and Having an Emergency Backup Plan

Delivery at home	Had an emergency backup plan	No emergency backup plan	Total
Would deliver at home again	0 (0.0%)	73 (100%)	73 (100%)
Would not deliver at home again	12 (4.8%)	238 (95.2%)	250 (100%)
Fisher exact test		3.628	
P value		0.043	

Risk Factors During Giving Birth at Home

Respondents were requested to state the risk factors they are subjected to when they give birth at home. These include; excessive bleeding, fistula, abnormal pain at birth, retained placenta, and inversion of the uterus. The majority of the respondents (95.0%) were aware of the risk of placenta praevia and bleeding problems when they give birth at home. There was no significant difference

in the number of women aware of the danger signs to those not aware ($P > 0.05$), as depicted in Table 2.

Table 2: Awareness of Danger Signs Which Can Occur Giving Birth at Home

Danger signs	Awareness (n = 323)	
	Aware	Not aware
Excessive bleeding	291 (90.1%)	32 (9.9%)
Fistula	210 (65.0%)	113 (35.0%)
Abnormal pain	236 (73.1%)	87 (26.9%)
Retained placenta	227 (70.3%)	96 (29.7%)
Placenta praevia	307 (95.0%)	16 (5.0%)
Inversion of the uterus	278 (86.1%)	45 (13.9%)
χ^2 value	30.000	
P – value	0.224	

Antenatal Services Provided

During ANC visits, the respondents received services on IFAS (79.6%), vaccination (98.1%), information on HIV/AIDS (60.1%), and birth preparedness (60.1%). The patients reported that they visited their preferred clinics four times, and health workers answered their questions. The health service employees were available to provide their services, as stated by 79.9% of the respondents.

Table 3: Service Delivery at the Health Facilities

Service delivery	Respondent opinion on services offered at health facility (n = 232)	
	Yes	No
Quality service	257 (79.6%)	66 (20.4%)
Received vaccination	317 (98.1%)	6 (1.9%)
Received information on HIV/AIDS	194 (60.1%)	129 (39.9%)
Birth preparedness	194 (60.1%)	129 (39.9%)

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

During antenatal care visits women are taught on how to plan for births and have back-up plans, many do not have any backup plans for life-threatening occurrences when giving birth. From other findings, few would deliver at home again and would not have any backup plan, while the majority would not deliver at home again and have a backup plan. This does not contradict a study by (Phiri, Torrid, Kuale, Byskor, Michell, Echoka, Fylkesnes, 2014), which suggested that chances of having a second and third delivery at home are higher than the first one due to lack of preparedness during pregnancy.

(Kitui, Lewis & Davey (2013) also in their study he noted that women with a higher parity generally tend not to plan for hospital delivery during pregnancy. Other studies have established that mothers giving birth for the second time or more have frequently been less expected to utilize skilled delivery service than prim gravitas. This shows that multipart mothers derelict the

serviceability for their future gravidity and deliveries. This perhaps could be because of their preceding detrimental experience of health outcomes at the facility, cultural impact, or penurious cognizance of the drawbacks.

The result is congruous alongside those studies conducted in Ethiopia and the Democratic Republic of Congo, wherein it was reported that mothers do not utilize skilled birth care as the birth sequence rise. This reveals that emphasis is required to enlighten multipart mothers throughout prenatal care visits. (Simbuwa, 2012) In pastoralistic rural communities, the main reasons given as to why they would give birth again at home were. It is shame being naked in front of health workers and they have been circumcised. The husband and other relatives will not allow her and cultural beliefs and practices about births will be respected at home. Women who deliver at home are perceived to be courageous, and those who deliver in health facilities are weak. They value TBAs that they also know how to conduct deliveries, easily available, cheap and they observe cultural practices, and lastly is the association of illness and health facilities. In the last month of pregnancy, the cervix softens and ripens, contractions of the uterus become noticeable, and the baby settles into the pelvis. The contractions become stronger and increase in intensity.

As the pain of contractions increases, and the cervix stretches and opens, and the baby moves lower, rotates and eventually moving down the birth canal the pain of labor is what women consider a natural process which occurs without any medical assistance hence an important way in which nature actually helps women find their own ways of facilitating birth. In a very real sense, the pain of each contraction becomes a guide for the laboring woman. The positions and activities she choose in response to what she feels actually help labor progress by increasing the strength and efficiency of the contractions and encouraging the baby to settle in and move down the birth canal. Giving birth at home does not mean that interventions will not be needed or complications will not occur. (Amu, 2016) For those who were not willing to deliver at home again, the main reason was that they had terrible experiences during delivery at home they cannot repeat again. (Moyer & Mustafa, 2016).

During ANC visits in a health facility women should certainly be able to plan together with the midwives on place of delivery putting into consideration things like the distance from the woman's home to a health facility, who will be there to support the woman during labor and child birth and when to visit a health facility (Oni, 2012). Many women of Narok south sub-county are conversant with the risk factors of delivering at home. Bleeding, fistula and perineal tears are what many women knew and the most typical experiences they have had when deliveries happen outside a health facility. Giving birth at home without the assistance of a professional health care provider poses a much higher risk of obstetric emergencies and even loss of a woman's life and that of the baby.

Proficiency about difficulties when giving birth has been picked out as a prognosticator of health facility delivery in the event problems arise. In most studies participants who were well informed about the drawbacks during delivery were four times more likely to go through health facility delivery than women who do not have the appropriate information. Knowledge about impediments escalates with increasing maternal age but is substantially less so in mothers more than 35 years. Knowledge deficit on the effects of giving birth at home and its following consequences contributed to mothers, predominantly those who are multiparas, to deliver at home. Unmindful of

health complications and societal problems related with giving birth at home impacted on giving birth at home in primigravida women. (Kruk, 2010)

Conclusion

The study concluded that, young women as compared to older women are more involved in non-hospital delivery due to unplanned births. Also, those women who had attended antenatal care visits were more knowledgeable about the risk factors of delivering at home. Another conclusion made by the study was, regardless of the government effort to provide free maternal services in Kenya, stable source of income, formal education with the right knowledge about reproductive health and geographical access, are the determinants of place of delivery among women in rural parts of Narok County. This takes the relevant stakeholders, including the National government inter ministries, and Ministry of Health and sanitation, needs to be aware to these population tally in their decisions concerning reproductive health care in rural Kenya. Priorities to include citing health facilities and public education on the need for health facility delivery. Distinct attention should be given to the poor, multiparous women and those with no or low levels of education.

Recommendations

County Education officers in liaison with social development officers should work to promote adult formal education to improve literacy levels, which will go a long way in influencing reproductive health decisions. County health management team, together with the reproductive health section to network with other relevant stakeholders to increase sensitization on utilization of hospital-based deliveries. Health education by all relevant stakeholders on the advantages of hospital delivery. County government department of health to create a complementary community-based approach of maternal health education through home visits that aim to decrease home-based deliveries and generate demand for facility-based deliveries.

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