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CHALLENGES AND OPPORTUNITIES FOR OPTIMIZING MIDWIFERY PRACTICE IN RURAL KENYA: A STUDY OF SIAYA COUNTY, KENYA

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Abstract

Introduction: Midwifery practice has been instrumental in reducing maternal mortality in Kenya, especially in the rural setting. There are still many challenges that persist, which affect the efficiency and continuation of midwifery care in such areas. Expanding the practice of midwifery and its contribution to maternal health care is essential for women in rural communities where limited access to healthcare remains a significant challenge. The objective of the study was to establish the challenges and opportunities for Optimizing Midwifery Practice in Rural Kenya.

Methods: This was a study of Siaya County through a cross-sectional survey that involved 48 midwives and 373 mothers using structured questionnaires, in-depth interviews, and Focus Group Discussions with the CHPs. The study involved both qualitative and quantitative data collection

Findings: The findings suggested that midwifery care in Siaya County is midwife-led, where Community Health Promoters (CHPs) encourage health facility delivery.

Conclusion and Recommendation: Appropriate disbursement of funds is fundamental requirements for maintaining the achievements in maternal and neonatal health indicators.

It is recommended that strengthening midwifery practice in the rural areas of Kenya require investment in human resources, improved working conditions for midwives, and cultural sensitization to male involvement in maternal health care.

Keywords: *Midwifery practice, Community health promoters, Skilled birth attendance,*

INTRODUCTION

Maternal and neonatal health remains a critical public health priority in Kenya, particularly in rural areas where healthcare access and quality are significantly constrained. As stated by WHO (2019), the maternal mortality ratio in Kenya was 342 deaths per 100,000 births as of the year 2018, and neonatal mortality was 20 deaths per 1000 live births in the same year. Such statistics emphasize the need to develop policies that improve maternal and child health quality since such services may be lacking in rural areas. Midwifery is a cornerstone of maternal healthcare due to its

importance in reducing maternal and neonatal mortality through skilled birth attendance, ante-natal care, and postnatal care (Adegoke & Van Den Broek, 2009). This is in line with Sustainable Development Goal 3 (SDG 3), which focuses on health which aims to ensure healthy lives and promote well-being for all at all ages, with a specific target of reducing maternal mortality to less than 70 per 100,000 live births by 2030 (WHO, 2019).

The role of midwifery practice in achieving SDG 3 is particularly critical in resource-constrained settings, where the midwife-led care model has shown potential to address significant healthcare gaps. According to Henderson et. al. (2007), this model relies on skilled midwives for maternal and neonatal care delivery and sometimes involves community health workers. However, the midwifery model has challenges within Kenyan health care and Sub-Saharan Africa, especially in the rural regions. A study done in Siaya County in 2020, there were challenges identified that included limited staffing, low male participation in maternal care, and slow release of healthcare finances. These systematic and structural barriers not only work against humane and safe midwifery practice but also contribute to perpetuating maternal and neonatal health inequity in rural areas.

The objectives of the study were twofold. First, it sought to assess the modality and efficiency of the midwife-led care model in Siaya County. Second, it aimed at determining potential challenges to the model's sustainability, including human resource constraints, cultural practices on maternal health, and financial constraints within the healthcare systems. In achieving these objectives, the study aimed to provide policy recommendations that might enhance midwifery education and practice within rural Kenyan settings and other comparable developing nations.

The significance of the study was evident in providing insights into healthcare policies and practices. Midwifery has been highlighted as the most efficient measure of addressing maternal health challenges in low- and middle-income countries. Hence, knowing the problems and possibilities of applying the midwifery model is a road map for expanding similar interventions in other

rural areas of Kenya (Kornelsen, 2007). In addition, the research implications could be applied to international debates about enhancing midwifery in low-income countries, which are relevant to the global health goals of universal healthcare and maternal health equality. Furthermore, the findings of this study have practical implications for incorporating community health structures into the mainstream healthcare systems. In Kenya, for instance, CHPs have acted as intermediaries and provided a link between communities with poor access to qualified healthcare services.

The results of this study are valuable for a better understanding of how these structures could be utilized to improve midwifery care. Moreover, this work contributes to a better understanding of the cultural and systemic factors that hinder male engagement in maternal health using the data obtained from the qualitative interviews and contributes to developing culturally appropriate interventions for promoting family-centred approaches to maternal and neonatal healthcare.

METHODS

The study was conducted in Siaya County in 2014 and employed a cross-sectional study design to capture the factors affecting midwifery practice. The study involved a multi-stage sampling method that first, purposively selected four out of the six sub-counties in Siaya County, based on the ones most exhibiting the characteristics of interest to the study. From the sampled sub-Counties, the health facilities were sampled using systematic random sampling. This was followed by purposively selecting the required 373 women who had given birth in the previous year and who had resided within the sampled health facility catchment area for a minimum one year. The 48 midwives in the antenatal and postnatal departments were all selected as well as the CHPs. attached to the facilities. They were selected based on their experience and current engagement in providing maternal and child health care services.

Data collection from the mothers was done within the community while the health care providers were interviewed at the health facilities. Self-administered questionnaires were issued to all skilled birth attendants

involved in the provision of midwifery services at the health centres, while the sampled women were also interviewed using structured questionnaires. The households were identified by the community health promoters. To enhance research validity, the study used quantitative and qualitative data collection techniques to adopt the triangulation method. Semi-structured questionnaires were used to obtain quantitative information from the midwives and the mothers. Key informant interviews were held with the leaders of the sampled health facilities while focus group discussions with the CHPs were used to collect qualitative data. Focus group discussions were also conducted with community mothers to gain insights into cultural beliefs, attitudes, norms, and practices regarding childbirth, maternal morbidity, and health-seeking within the community.

The data was analyzed using SPSS version 24 while qualitative data was transcribed and analysis done using thematic method. Chi-square test was used to test associations as was necessary and statistical significance was considered if $p < 0.05$. Fisher's exact test was used to determine if there was any statistically significant difference in the midwifery-led model implementation between the sub-counties. Associations were reported in terms of unadjusted odds ratios (OR) with 95% confidence interval (CI). Statistical significance was determined if $p < 0.05$. The qualitative data was obtained from the KIIs and from the FGDs, and was transcribed and analyzed using the thematic method. It was grouped into different categories/themes consistent with research objectives and deduction and generalization made using patterns and trends of the responses. The results were presented using tables, graphs and pie charts as appropriate while the qualitative results were presented using extracts of the themes. Data collected from both sets was used to gain deeper insight into midwifery practice.

RESULTS

Identified Challenges in the Midwifery Model

Standard features of the midwifery care model, as adopted in Siaya County, include being midwife-led and community-based. Central to maternal health services are skilled birth attendants, i.e midwives, who

offer maternity care. These services are provided at the primary health care facilities with Community Health promoters' engagement as the link between the community and the health facility. To the families, CHPs offer home visits, health education on the importance of using health facilities in childbirth, and encouragement of skilled birth attendance, significantly decreasing maternal and neonatal mortality. Table 1 below shows the level of midwife-led midwifery practice:

Table 1: Proportion of mothers who had skilled attendance and their satisfaction with the services (n=373)

ANC	**Mothers**	**Proportion (%)**
By a midwife	356	95
TBA	9	2
None	8	2
Recent delivery		
In facility	307	82
Not in facility	66	18
Satisfaction with Midwives' services		
Not satisfied	61	16
Satisfied	296	79

Table 2 :Identified Challenges in the Midwifery Model

Theme	**Description**
Staffing challenges	Shortage of midwives, high turnover rates, and staff burnout due to overwhelming workloads.
Male involvement barriers	Deep-rooted cultural norms marginalize men in maternal health matters, reducing holistic family care.
Funding delays	Irregular and delayed release of operational funds disrupts service provision and lowers provider morale.
Infrastructure deficits	Inadequate physical infrastructure, such as a lack of delivery beds, diagnostic tools, and sterile environments.
Training gaps	Limited access to continuing education leads to outdated practices among midwives and CHPs.

Some of the challenges associated with the midwifery model include the following: Shortage in the number of midwives was a concern raised consistently, with accounts of midwives working different shifts and institutions being overwhelmed. This affects the quality of care provided, puts immense pressure on the staff, and increases the risk of patient harm. The study also revealed that male participation in maternal care is still limited. Additionally, cultural taboos revealed itself as a challenge as men are restricted from fully engaging in childbirth responsibilities as it is assigned traditionally as 'female duties,' This denies men the role of being involved in decision-making and supporting pregnant women.

Other systemic issues that were identified included delays in the disbursement of funds. These financial constraints compromise the capacity to procure necessary commodities for local implementation and adequately compensate CHPs, which erodes motivation and program sustainability. Infrastructural challenges such as poorly maintained

wards, inadequate maternity beds, no ultrasound, and inadequate space also affect substandard service delivery. Lack of privacy and crowded delivery points for women were also mentioned as factors that discouraged facility-based deliveries.

The study also revealed that there were critical gaps in training. Across the settings, some midwives and CHPs expressed that they rarely engaged in continuing professional development activities. Healthcare workers who seldom attend such workshops or do not have access to the most current clinical guidelines may have difficulty staying abreast of changes in the best practices regarding mothers.

Opportunities for Improvement

However, participants concluded that there are several potential areas of development for midwifery practice in Siaya County. The primary health care structures were enhanced. Incorporating CHPs into a healthcare system can improve the overall return on investment for enrolling and training CHPs. This can help ensure that skilled care is provided to those living in rural areas by being encouraged and being referred by the CHPs. It also suggests culturally tailored male involvement initiatives, including focus group discussions, antenatal classes for couples, and religious leaders' participation in addressing inequalities and enhancing family-centred maternity care.

Lastly, improvements in funding and infrastructure that translate to timely disbursement of healthcare budgets and relevant investments in equipment and facilities enhance the quality and availability of maternal health services. This would enhance the demand for healthcare services.

DISCUSSION

Impact of Staffing Shortages on Maternal Care Delivery

The lack of midwives is still a significant challenge, directly impacting the quality of maternal health care. As highlighted by Mutisya et al. (2023), Siaya county recorded a severe shortage of qualified midwives and a high turnover rate, which complicates the staffing issue and leads to fatigue levels that would affect the quality of care offered. Due to the current financial constraints, this is

made worse by a high attrition rate and limited recruitment. Evidence suggests that the proportion of midwives-to-patient has a direct relationship with maternal and newborn outcomes, and increased midwifery staffing is linked to decreased mortality rates and fewer complications. In Siaya County, midwives attend to many clients who need adequate assistance, time, and resources to manage labour and delivery effectively, thus raising the risk of adverse outcomes due to delays of intervention or mistakes.

Aside from the adverse effects of hope and dynamics of quality care, shortages are also detrimental to the morale and well-being of midwives. Staff turnover is another issue aggravated by burnout, job dissatisfaction, and stress. For this reason, it is crucial to implement targeted workforce development measures that address these concerns. This entails changing recruitment strategies to capture the right candidates for maternal health, offering bonuses for rural stations and instituting new ways of handling stress. Besides, well-defined clinical preceptorship and career mobility should enhance doctors' staying power and commitment to serving rural healthcare needs.

Cultural Determinants of Male Involvement in Maternal Health

Patriarchal cultural beliefs and conventional gender roles shape how males involve themselves in maternal and reproductive health issues in Siaya County. It is common for pregnancy and childbirth to be regarded as women's domain, and men's involvement is unheard of or even frowned upon in some cultures. This cultural barrier excludes women in decision-making processes and reduces social support, which, according to the study, is fundamental during pregnancy and childbirth. Ditekemena et al. (2012) claim that male involvement increases antenatal clinic attendance, improves compliance with medical advice, and maternal and neonatal health.

This research underscores the need for culture-sensitive, participatory interventions to counter these norms. Appropriate strategies could include couple-focused antenatal education, provision of male-friendly facilities, and

involvement of community leaders and religious groups. Informing men about its effectiveness ensures they own the process and helps them embrace change as partners in managing reproductive health.

Systemic Constraints in Healthcare Financing

Another system-level obstacle revealed in the study was the delayed disbursement of healthcare funds received from the central government. As documented across Kenya's public health system (Mutisya et al., 2023), this challenge interrupts service delivery by freezing the process of acquiring crucial supplies, financial resources for personnel remunerations, and other operational necessities for midwives and CHPs. These financial constraints also dampen morale and hinder long-term planning and development at the facility level.

To this end, the need for organizational development of sound financial management procedures cannot be overemphasized. Strategies and measures such as automated tracking mechanisms, timely disbursement of funds, and enhanced accountability in the use of funds are some of the strategies. Another area that requires attention from policymakers is increasing the percentage of the county's budget on maternal care and implementing results-based funding to improve efficiency and effectiveness.

Comparative Regional Insights and Opportunities for Innovation

It is imperative to note that challenges inherent in midwifery service delivery are universal, not a preserve of Siaya County only. Some challenges observed in other counties, such as Turkana and Kisumu, also include low staffing, poor infrastructure, and delayed funding (Kawakatsu et al., 2014). However, counties like Kilifi and Kakamega offer valuable lessons in innovation. For instance, in Kilifi County, maternal health is significantly enhanced through mobile clinics that attend to women in remote areas and provide them with skilled attendance whenever they give birth. Kakamega County has also incorporated TBAs into the formal healthcare system through formal training and the creation of functional referral chains.

This study argues that Siaya County could also benefit from applying the same approach. This study is essential in understanding how to increase community trust and referrals to skilled birth attendants by linking TBAs with maternal health knowledge to trained providers. Such hybrid models help to retain culturally respected personalities but guarantee adherence to professional standards. The study observed that the skilled birth attendance increased using the current midwifery model where the CHPs refer women to the primary health facilities for delivery.

Support by the Government in Ensuring Early Provision of Resources

The findings underscore the need for strong political will to overcome financial and systemic constraints. Any interruptions should not be allowed to occur as they affect the allocation of resources and delivery of maternal health care services. Commitments to maternal and neonatal health within Siaya County's national and county resource allocations could help mitigate the protracted funding lag. These models have been effectively implemented in other nations, such as Rwanda, to enhance maternal and neonatal health (Basinga et al., 2011).

Partnerships with NGOs

Collaborations with NGO organizations offer a promising approach toward developing capacity in midwifery. NGOs can support governments by providing funds, training, and other logistical assistance. They may help fill critical gaps in healthcare provision in places where access to government health services is lacking. Ideally, NGO-led interventions such as those carried out by organizations like the African Medical and Research Foundation Program have enormous potential to enhance the healthcare delivery systems for the rural populace in Kenya (MOH, 2018). For instance, AMREF midwifery training reflective practice initiatives have improved the skills and confidence of health workers and, hence, maternal health (MOH, 2018). Expanding such programs could arguably enhance the effectiveness of the midwifery model.

CONCLUSION AND RECOMMENDATIONS

Improving the practice of midwives in rural Kenya and Siaya County is a complex process involving the cooperation of different stakeholders. The research concludes that while the midwife-led model with support from CHPs is a key component to addressing the challenges of poor maternal health, the implementation of the model faces structural, financial and socio-cultural constraints. However, several recommendations can help enhance maternal health, including the following:

Human Resource Strengthening

The chronic shortage of midwives requires a strategic staffing plan considering where midwives are most needed in rural settings. Offering competitive rural service pay, clearer promotion tracks and support for professional development will enhance staff stability and prevent turnover. It also requires investing in periodic in-service training for midwives and CHPs to ensure that they have adequately implemented the new guidelines in maternal health.

Infrastructure and Equipment Investment

Some of the needs of the facilities include the provision of basic commodities like delivery beds, ultrasound machines, and sterilizers for maternity wards. Investment in clean water, power, and sanitation should not be overlooked either. Mobile clinics may offer a short-term approach to improving service delivery to populations with poor access to fixed structures.

Male Involvement Strategies

Outdated cultural beliefs that restrict men from contributing to maternal care should be changed through community outreach. Dialogue with local leaders, religious institutions, and health educators can assist in altering beliefs that may be deeply entrenched at the community level. Interventions like males attending antenatal clinics, as well as awareness creation specifically targeting fathers, can increase the level of paternal involvement in maternal health issues.

Funding Mechanisms and Accountability

Disbursement of healthcare funds is a continuous process whose effectiveness

determines the consistent delivery of healthcare services. At the county level, there is a need to have clear and measurable funding methods.

Future Research and Innovation

Future research should consider assessing the long-term effects of midwife competencies on maternal and newborn health. Opportunities for expanding care to underserved populations may be explored through adopting and experimenting with other digital health solutions, including telemedicine and mobile health.

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