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The Role of Organized Public Forums in Improving Uptake of Skilled Birth Attendants among Women of Reproductive Age in Kilifi County, Kenya

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Abstract

The skilled and competent attendant is vital in curbing maternal and infant mortality. Promoting the utilization of maternal health services supervised by skilled health professionals greatly aids in bridging the gap in accessing maternal health services such as immunization and postnatal care services. This lack of skilled attendance is one of the major factors responsible for the rising maternal and infant mortality. Thus, there's still needed to encourage these women to seek out the services of skilled health professionals during childbirth. This study is aimed at investigating the use of an organized public forums approach in influencing the uptake of skilled birth attendants (SBAs) among women of reproductive age in the Kanamai Area, Kilifi County. The study was conducted at Kanamai Area, Kilifi County. A cross-sectional survey was carried out using semi-structured questionnaires as tools of data collection. Simple random sampling was used to recruit the study participants. All analyses were done using R for Windows (version 4.0.3). Both descriptive and inferential analyses were done. Descriptive statistics were used to generate frequency and percentages, while chi-square was used to draw inferences. Association was considered significant if $P < 0.05$. Some of the notable significant factors gathered through our public forum engagement influencing support for delivery assisted by skilled birth attendants (SBAs) were education level, occupation, and parity. There's a need for the concerned agencies to embrace the use of public forums and other relevant approaches so as to sought out and promote the rate of health services utilization.

Keywords*: SBAs, Childbirth, Utilization, Health Facilities, Public Forum.*

Introduction

Utilization of skilled and competent birth attendance is a key strategy in the reduction of maternal and newborn morbidity and mortality [1, 2]. Skilled birth attendants (SBA) have been shown to play a key role in ending preventable maternal deaths [3-5]. In 2020, skilled health professionals assisted 83% of births globally; however, coverage continues to be uneven around the world, with substantial discrepancies between different regions [6]. Universal or nearly universal coverage to a skilled health professional has been achieved in regions like Eastern Asia, Western Asia, Central Asia, Northern America, and Europe, while in sub-Saharan Africa, the coverage is still low, with only 64% of births attended to by skilled health personnel such as a medical doctor, nurse or midwife [6]. Promoting the utilization of maternal health services supervised by skilled health professionals helps to bridge the gap of accessing maternal health services such as immunization and postnatal care services [7].

Monitoring deliveries in health facilities is essential to ensuring that women receive quality care and deliver in an environment that is

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prepared for an emergency [6]. Giving birth in a health facility can increase survival chances for the mother and baby given access to appropriate equipment and supplies available on-site or through immediate referral to a higher-level facility. However, it remains essential to also ensure that the delivery is carried out by skilled health personnel capable of anticipating or detecting signs and symptoms of complications [6]; [1]. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality maternal services before pregnancy, during pregnancy, and after pregnancy [8]. High-quality antenatal and antenatal care is critical to identify and safely managing complications. The skilled and competent attendant is vital in this continuum of care, as a healthcare system that is appropriately prepared, supplied, staffed, and supported by emergency referral transport [9].

Kenya just like several other Africa countries, still experiences an alarming maternal health rate, with a maternal mortality ratio of 488 per 100,000 live births, and its proportion of skilled birth attendance has remained below 50% for over a decade (45% in 1998, 42% in 2003, and 44% in 2008/9, [10]. The country has set up various interventions to enable her to fulfil her Millennium Development Goals (MDG 5).

For instance, on 1st June 2013 the Kenya government rolled out free maternity services program. The program was meant to enable pregnant women to access free maternity services in all public health facilities. Moreover, the country has incorporated maternal health as part of its social pillar in Kenya Vision 2030. It is deliberated that, for Kenya to achieve the vision of a middle-income economy by 2030, all efforts should be made to reduce maternal mortality. Skilled birth attendance (SBA) is one of the key strategies that were adopted. It has been identified by the Kenyan government that the utilization of skilled personnel during pregnancy and birth as one of the high-impact interventions to reduce maternal deaths [11].

Although a lot of important progress has been made over the year, a lot still needs to be done so as to increase the usage of specialized personnel during delivery. Therefore, this study investigated the role of organized public forums in improving the uptake of skilled birth attendants (SBAs) among women of reproductive age.

Methods

Study Design and Setting

The study was cross-sectional and was conducted in Kanamai Area, Kilifi County. Kilifi County borders Kwale County to the Southwest, Taita Taveta County to the West, Tana River County to the North, Mombasa County to the South, and the Indian Ocean to the East. Kilifi County covers an area of 12,539.7 km2 [12]. The county has a population of approximately 1,453,787 million people comprising of 704,089 males, 749,673 females and 25 intersexes [12].

Study Population and Enrolment Approach

The study targeted all 570 women of reproductive age (15-49 years) with children less than 1 year in the Kanamai sub-location, Kilifi District. Semi-structured questionnaires were the instruments for data collection. The questionnaires were administered in the English language; however, the interviewers were able to translate the questions into Swahili and the local language when necessary.

Size of the Study and Sampling

The sample size for the study was determined using [13] tables. According to the table, to obtain the required sample size at N=570, the representative is n=232. Simple random sampling using a sample frame constructed by the community health workers within their area of jurisdiction was used to recruit the study participants.

Statistical Analysis

All analyses were done using R for Windows (version 4.0.3). Both descriptive and inferential analyses were done. Descriptive analysis was reported using tables and figures. For inferential analysis, binary logistic regression was used to examine the relationship between the independent variables and the outcome variable. Association with p-value < 0.05 was considered significant. All results of the binary logistic analyses were presented as odds ratios (ORs), with 95% confidence intervals (CIs).

Ethical Approval

Permits were obtained from the University's research Board, and the County Health Officer in Kilifi County. Further, informed consent was obtained from all the participants before administering the interviews.

Results

The study was able to collect data from 229 respondents out of the 232 women of reproductive age that had been sampled in the Kanamai sub-location. This gave a high return rate of 98.7%, which was much higher than the 70.00% return rate recommended by [14] for survey research. Hence the data collected from the respondents could be relied on to provide sufficient information about the women of the Kanamai sub-location.

Univariate Analysis of Sample Characteristics

Regarding the background information of participants, the study established that more than half of the study sample were aged 30-39 years while only 9.17%, 18.75%, and 13.1% were aged below 20 years, 20-29 years and above 39 years respectively. Most of the women (62. 88%) had a primary level of education, with only 2.18% reporting to have attained tertiary education. A vast majority of the women (82.97%) were married to most of them (58.08%) also reporting to be employed (Table 1).

Table 1. Background Information of Participants

Variable	Frequency (n)	Percentage (%)
Age (n=229)		
<20	21	9.17
20-29	43	18.78
30-39	135	58.95
39>	30	13.1
Education level (n=229)		
No formal education	43	18.78
Primary	144	62.88
Secondary	37	16.16
Tertiary	5	2.18
Occupation (n=229)		
Unemployed	96	41.92
Employed	133	58.08
Marital status (n=229)		
Single	11	4.8
Married	190	82.97
Divorced	25	10.92
Widowed	3	1.31
Parity (n=229)		

0-2	59	25.76
3-4	121	52.84
5≥	49	21.4

As shown in Table 2, slightly more than half (51.97%) of the participants rated the standard of the public forum they participated on to support for delivery assisted by skilled birth attendants (SBAs) to be low. Only 20.96% and 27.07% rated the standard of this forum as high and moderate, respectively.

Table 2. Ratings of Public Forum Conducted

Public Forum Rating	Frequency (n)	Percentage (%)
High	48	20.96
Moderate	62	27.07
Low	119	51.97

Factors Gathered through Public Forum Influencing Support for Delivery Assisted by Skilled Birth Attendants (SBAs)

This study established that the majority of the women (69%) were of the opinion that the delivery should be conducted in the presence of skilled birth attendants (SBAs). Slightly more than a quarter (31%) were of the contrary opinion (Figure 1).

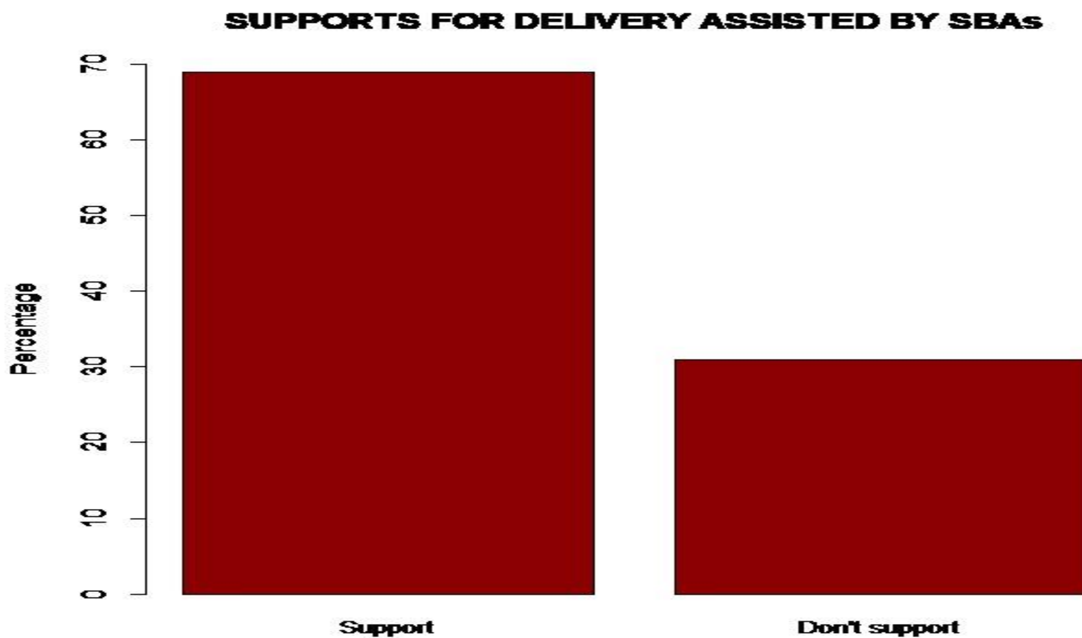

Figure 1. Support for the Utilization of Skilled Birth Attendants (SBAs)

As shown in Table 3, factors influencing support for delivery assisted by skilled birth attendants (SBAs) in this study were educational level ($p=0.0091$), occupation ($p<0.0001$), parity ($p=0.0156$) and the rating of public forum participation ($p<0.0001$). Participants who had no formal education, and those who had gone up to primary and secondary education levels, respectively, were 1.54 times (OR = 1.54, 95% CI: 0.23 - 10.33), 1.14 times (OR = 1.14, 95% CI: 0.19 - 7.07) and 7.56 times (OR = 7.56, 95% CI: 0.89 - 64.44) more likely to support delivery assisted by skilled birth attendants (SBAs) as compared to their colleagues who had tertiary education. Moreover, participants who were employed were 12.42 times (OR = 12.42, 95% CI: 6.25 - 24.70) more likely to support delivery assisted

by skilled birth attendants (SBAs) as compared to their colleagues who were unemployed. Similarly, women who had given birth to 3-4 children and, 5 and more children, respectively, were 2.56 times (OR = 2.56, 95% CI: 6.25 - 24.70) and 2.11 times (OR = 2.11, 95% CI: 0.94 - 4.71) more likely to support delivery assisted by skilled birth attendants (SBAs) as compared to those with 0-2 number of births. Women who rated the standard of public forum participation to be moderate were 1.18 times (OR = 1.18, 95% CI: 0.42 - 3.32) more likely to support delivery assisted by skilled birth attendants (SBAs) as compared to their counterparts who rated standard of their engagement with the public forum to be high. On the other hand, those who rated the public forum participation to be low had a reduced odd of 76% (OR = 0.24, 95% CI: 0.10 - 0.56) of supporting delivery assisted by skilled birth attendants (SBAs) compared to their counterparts who rated standard of their engagement with the public forum as high.

Table 3. Sociodemographic Factors Influencing Support for Delivery Assisted by Skilled Birth Attendants (SBAs)

Variable	**Support for delivery assisted by SBAs**		**OR (95% CI)**	**Overall p-value**
	Yes [n (%)]	**No [n (%)]**		
Age				
<20	14(8.86)	7(9.86)	1	0.5533
20-29	27(17.09)	16(22.54)	0.84(0.28 - 2.53)	
30-39	98(62.03)	37(52.11)	1.32(0.50 - 3.54)	
39>	19(12.03)	11(15.49)	0.86(0.27 - 2.79)	
Education level				
No formal education	30(70)	13(30)	1.54(0.23 - 10.33)	**0.0091***
Primary	91(63)	53(37)	1.14(0.19 - 7.07)	
Secondary	34(92)	3(8)	7.56(0.89 - 64.44)	
Tertiary	3(60)	2(40)	1	
Occupation				
Unemployed	39(41)	57(59)	1	**<0.0001***
Employed	119(89)	14(11)	12.42(6.25 - 24.70)	
Marital status				
Single	7(64)	4(36)	3.5(0.24 - 51.90)	0.5657
Married	133(70)	57(30)	4.67(0.41 - 52.50)	
Divorced	17(68)	8(32)	4.25(0.33 - 54.06)	
Widowed	1(33)	2(67)	1	
Parity				
0-2	32(54)	27(46)	1	**0.0156***
3-4	91(75)	30(25)	2.56(1.33 - 4.94)	
5≥	35(71)	14(29)	2.11(0.94 - 4.71)	
Public Forum rating				
High	40(83)	8(17)	1	**<0.0001***
Moderate	53(85)	9(15)	1.18(0.42 - 3.32)	
Low	65(55)	54(45)	0.24(0.10 - 0.56)	

Discussion

The study assessed the role of using organized public forums in improving the uptake of skilled birth attendants (SBAs) among women of reproductive age. Delivery by skilled health personnel has been established to reduce the risk of maternal and perinatal diseases and death [15]. Our study established that 69% of those who participated in the various public forum engagement supported delivery assisted with skilled birth attendants (SBAs). This figure was slightly higher than the one reported by Ministry of Health of 61.8% [16]. Ever since the Free Maternity Policy (FMP) was established in Kenya in 2013, an increasing number of women have chosen to give birth in health facilities rather than at home with the assistance of traditional birth attendants (TBAs).

Considering the findings of this study, factors gathered through our public forum engagements that were significantly associated with delivery supported with skilled birth attendants (SBAs) were education level, occupation, and parity. Education has been shown to influence the uptake of maternal services. This study concurs with other previous studies which pointed out the significant role that education plays in influencing maternal services uptake. [17] reported that maternal education contributes significantly to the increased utilization of health facility delivery services. [18-20] reported that women's education level or literacy levels are strongly associated with use of reproductive health and maternal health services [18]. further reported that educated women tend to give birth to few children and deliver at a health facility compared to women with little or no education.

Socio-economic status has also been highlighted in earlier studies as a predictor for the of delivery place [21]. observed that women in the richer bracket are more likely than their counterparts in the poorer bracket to deliver in a health facility. Similar sentiments were echoed by [22] who found out that economic status was an important significant determinant in the utilization of safe delivery. They affirmed that adolescents from richer and richest wealth quantiles were likelier to use safe delivery than those from the poorest wealth quantiles. Consistent with other previous studies [23]; [24] on the role of socio-economic on the utilization of maternal services at health facilities, our study observed that women who were in employment were more likely to support delivery by SBAs as compared to their counterparts who were not employed. Nothing could be closer to the truth as [25] puts it that women who are working and earning money may be able to save and decide to spend their savings on a facility delivery under skilled care.

Parity, the number of children born, was also found to be strongly associated with delivery assisted with skilled birth attendants (SBAs). Our finding shows that those who had participated in our public forum engagements and had 3-4 children were more likely to support delivery assisted with skilled birth attendants (SBAs).

Our clear explanation would be that due to their successful experience of having conceived in the presence of SBAs, these women would wish their colleagues to also go through similar experiences. In contrary opinion, [22] reported a negative association between parity and delivery care. They reported that the probability of delivery under skilled care was less likely among women who had birth 2-3 and birth interval >24 months than among women who had experienced their first childbirth.

Conclusion

It can be concluded that the various public forum engagements were very effective in shedding light on the likely factors that boast health facility-based delivery. Therefore, there's a need for the concerned agencies to embrace the use of public forums and other relevant approaches to sought out and promote

the rate of health services utilization. Moreover, addressing the inequalities that affect health outcomes, particularly sexual and reproductive health, rights, and gender, is fundamental to ensuring all women have access to respectful and high-quality maternity care.

Authors' Contributions

JSM was the lead researcher in this study. OWY were the student supervisor, greatly assisting with the reviewing of the entire work.

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Conflict Of Interest and Funding

The authors declare no competing interest. The authors declare no funding support for this research.

Disclaimers

Each author stated that the views expressed in the submitted article are his own and not an official position of the institution or funder.

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