



## Does institutional maternity services contribute to the fear of childbirth? A focus group interview study

David Onchonga<sup>a,b,\*</sup>, Margaret Keraka<sup>b</sup>, Vahideh MoghaddamHosseini<sup>c</sup>, Ákos Várnagy<sup>a</sup>

<sup>a</sup> Doctoral School of Health Sciences, Faculty of Health Sciences, University of Pécs, Hungary

<sup>b</sup> School of Public Health, Kenyatta University, Kenya

<sup>c</sup> Department of Midwifery, Faculty of Nursing and Midwifery, Sabzevar University of Medical Sciences, Sabzevar, Iran

### ARTICLE INFO

#### Keywords:

Prenatal  
Fear of childbirth  
Institutional maternity services  
Focus group interviews  
Kenya

### ABSTRACT

**Background:** The quality of institutional maternity services offered significantly determine the health outcomes of pregnant women and their infants.

**Objectives:** The study aimed at understanding perceptions and experiences of new mothers diagnosed with the fear of childbirth in Kenya; regarding the institutional maternity services offered and if they contribute to the fear of childbirth (FOC).

**Methods:** This was a qualitative descriptive study. A total of 29 women who had given birth recently in a maternity institution, and had been screened with the fear of childbirth at 32 weeks' gestation period participated in focus group interviews. The Framework for Assessing the Quality of Care of institutional maternity services (FAQC) developed by the University of Southampton was adopted in this study. Thematic analyses were used.

**Results:** It was reported that institutional maternity services contributed directly and indirectly to FOC. The direct contribution included the performance of unintended caesarian sections, severe and prolonged labour pains and negative attitude of healthcare providers. The indirect contribution was in form of challenges in the provision of care and the experience of care in the maternity institutions. In the provision of care; human and physical resources, inadequate referral systems, and inadequate management of emergencies were reported. In the experience of care; lack of cognition, respect, dignity, equity and inadequacies in emotional support were reported.

**Conclusion:** The study identified systemic challenges related to both the provision and the experience of care. Therefore, there is need to astutely analyze all critical steps identified in the FAQC, as this will greatly improve the uptake of institutional maternity services.

### Introduction

Childbirth outcomes considerably influence the lives of pregnant women and the process may have an enduring grip both at an individual and family level [1]. According to recent studies, the estimated level of severe fear of childbirth is between 6 and 10% globally, which cuts across primigravida and multigravida [2–5]. Additionally, as documented, the fear of childbirth thwarts about 7.6 to 18% of pregnancies globally [6,7]. Often, childbirth experiences among women impact their future decisions on subsequent pregnancies [8] and as a result, their choices would both positively and negatively impact their peers' decisions, mentees, and other potential mothers close to them [9,10].

The fear of childbirth has been linked to increased apprehension and grief during pregnancy [11]. This, coupled with maternal stress, is

associated mainly with risks of preterm delivery [12] and such neonates have higher possibilities of dying within 28 days of birth, which would cause enduring pain to the mother and her family [13,14]. Maternal anxiety is acknowledged as a predictor of poor obstetric outcomes [15,16]. They include convoluted labour, prolonged labour [17], instrumental delivery [18], and emergency caesarian section [3,16].

From statistics, approximately 300,000 maternal mortalities occur every year globally [19,20], with virtually 85% of the cases being reported in South Asia and Sub-Saharan Africa. In the recent past, international and local organizations have endeavored to increase maternity institutional births. However, about 30 million expectant women globally still give birth in the absence of trained birth attendants [21]. Studies however suggest that adequate skilled birth attendance could reduce the risks of stillbirths emerging from intrapartum related

\* Corresponding author at: Doctoral School of Health Sciences, Faculty of Health Sciences, University of Pécs, Hungary.

E-mail address: [onchonga.david@etk.pte.hu](mailto:onchonga.david@etk.pte.hu) (D. Onchonga).

<https://doi.org/10.1016/j.srhc.2021.100669>

Received 3 August 2021; Received in revised form 5 September 2021; Accepted 16 September 2021

Available online 21 September 2021

1877-5756/© 2021 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

complications by approximately 20% [22–24].

Skilled birth attendants attend about 67% of pregnant women in rural areas compared to almost 90% in urban settings. This trajectory cuts across wealth quintiles, and in many countries, particularly those classified as middle and high income, where most deliveries take place in hospitals [21]. Home delivery preferences are caused by domestic conflicts, high poverty indices, inequalities amongst communities, socio-cultural dynamics, and political instability in most developing countries [25].

Most population-based studies have failed to quantify the preference for maternity deliveries despite providing vital information on the subject [26]. The current health models recommend that users of health services should be allowed to express their opinions on the positive and negative aspects of their experience [27].

Determinants of maternal satisfaction explores three main dimensions of care namely: structural elements, process determinants and outcome-related determinants. Structural elements focus on a good physical environment, cleanliness, availability of adequate human resources for health, medical supplies and other essential non-pharmaceutical supplies. Process determinants on the other hand include the behaviour of the healthcare workers towards the clients, cognitive care, competencies of healthcare workers and emotional support. Finally, the outcome related determinants would be looking at the general health of the mother and the newborn, access to maternal health services and the cost of maternal services [28].

A framework that enables the measurement of the determinants of maternal satisfaction within institutional delivery developed by the University of Southampton [29] looks at the provision of care and the experience of care of the health services. This framework was designed to work in two possible ways. First, as a tool by which to help structure a situation analysis review of the quality of care as provided at a health facility as experienced and perceived by its clients; actual and potential; and secondly as a tool by which to improve the quality of care through the ongoing critical examination of activities compared with agreed standards. In this study, this framework was adopted in the development of the focus group interview guide to extract information that would give insights on the perceptions and experiences of new mothers diagnosed with fear of childbirth; regarding the institutional maternity services and if they contribute to the fear of childbirth.

In the reviewed literature, most of the studies on FOC have focused mainly on the prevalence, the contributing factors, and also the effects of FOC among pregnant women. To the best of our knowledge, we wouldn't find any substantial qualitative studies aimed at understanding the perceptions and experiences of new mothers diagnosed with the fear of childbirth; regarding the institutional maternity services and if they contribute to the fear of childbirth and therefore this knowledge gap provided a basis for the current study. Of interest was the provision of care at the institutional maternities in Kenya, where the study was being undertaken. Enquires were made about the status of human and physical resources, the sufficiency of the referral system, maternity information system, use of appropriate technologies, application of the internationally recognized best practices and management of emergencies. In regards to the experience of care, the study enquired about human and physical resources, cognition, respect, dignity and equity, and emotional support of pregnant women. All this was aimed at understanding the perceptions and experiences of new mothers diagnosed with the fear of childbirth in Kenya; regarding the institutional maternity services and if they contribute to fear of childbirth.

## Methods

### Study design

The study was part of a larger single blind randomized controlled trial study undertaken in Kenya in 2020 on the impact of integrated prenatal education on the fear of childbirth among women of

reproductive age. The current study employed a qualitative study design and aimed at understanding the perceptions and experiences of new mothers diagnosed with the fear of childbirth in Kenya; regarding the institutional maternity services and if they contribute to the fear of childbirth. A detailed description of the methods in the longitudinal cohort study is presented elsewhere [11,30].

### Study participants

The study enrolled a section of women who were part of the main study mentioned above. The study was carried out in one of the county referral hospital in Kenya and purposive sampling was deemed the most ideal sampling methodology as the focus was on the pregnant women who had exhibited high FOC. During their 32nd gestation week, participants were screened for FOC [31] and individuals who had a score of above 66, which is considered high FOC as per Wijma Delivery Experience Questionnaire (W-DEQ) version A scale, [32] were asked if they would be willing to participate in a focus group interview after successful delivery. Approximately 46 women aged between 18 and 45 years accepted to take part and their details such as their mobile phone numbers, the expected date of delivery, physical address, and address of their spouse/guardians were recorded and kept by the first author (DO). The study included women who had a normal delivery, had live births and were willing to participate in the study after giving birth. Women who had experienced complications during childbirth, those who were unable to speak either in English or Kiswahili, and individuals who delivered at home were excluded from the study.

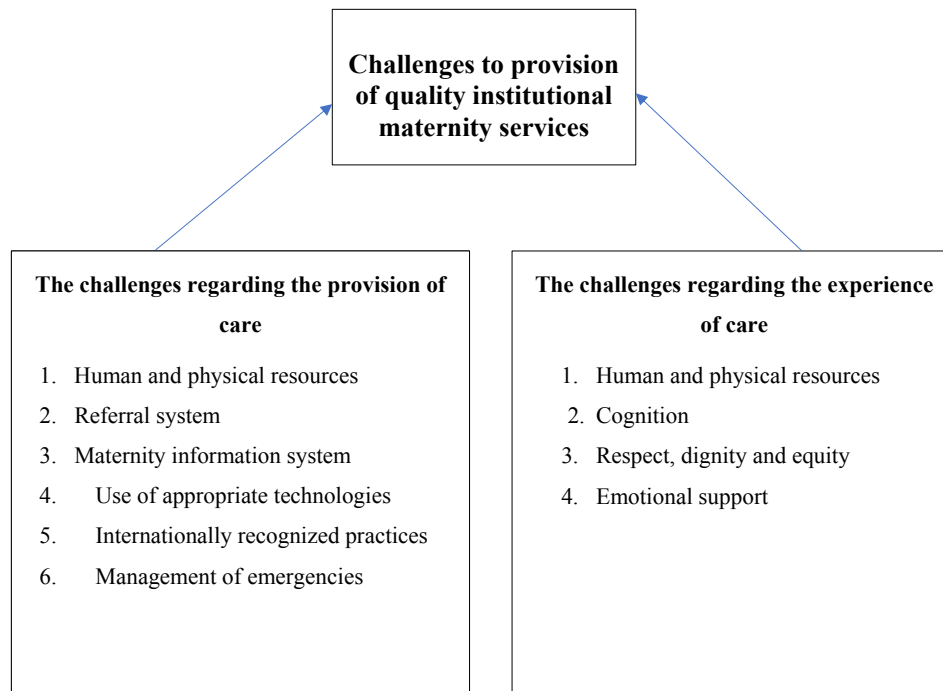
### Procedure

The 46 pregnant women who had expressed interest to participate in the study were contacted one month after childbirth and were asked about their childbirth experience, congratulated for successful childbirth (for those who had a successful childbirth) and reminded of their participation in the focus group interview. In all, 17 new mothers declined to take part for various reasons such as birth complications (2 women), caesarian section (1 woman), home delivery (4 women) moved to other cities (5 women), and unwilling to participate (5 women). The remaining 29 new mothers who had successful childbirth experience participated in focus group interviews that were conducted between January and February 2020.

### Focus group interviews

The study was undertaken through focus group interviews as this method has been widely used for collecting data on perceptions, attitudes and experiences of study participants [33]. The authors desired a broad description and deeper understanding of the fear of childbirth concerning institutional deliveries, and therefore focus group interviews were preferable to individual interviews. It is appreciated that focus group interviews use group interactions to produce data and study participants influence each other in their joint discussion.

The focus group interview guide used in the current study was adopted from the Framework for Assessing the Quality of Care (FAQC) of institutional maternity services developed by the University of Southampton [29]. In this framework, quality of care would be achieved through the provision of care and, the experience of care (as indicated in Fig. 1). In this regard, the items included in the focus group interview guide comprised of challenges experienced by study participants regarding the provision of care at the institutions where they gave birth and challenges in the experience of care at the maternity institutions. The discussions started with an open-ended question: "please tell us about your experience in your last institutional birth". The participants were distributed between the four group interviews, with three groups having seven participants each and the fourth group with eight participants. The interview guide was pre-tested before being used and



**Fig. 1.** Adopted from the Framework for the Analysis of Quality of Care (FAQC) in healthcare institutions. Devoeped by the University of Southampton.

amendments were made as deemed appropriate. The focus group interview lasted 1.5 to 2.5 hours and was audio recorded. Two researchers were in each focus group interview, with one leading the interview while the other took notes.

#### Thematic analysis

In this study, a qualitative descriptive approach was deemed appropriate [34]. The focus group data were transcribed and analyzed using thematic analyses [35]. The transcripts were carefully appraised by two reviewers to gain a full sense of their meaning. The initial concepts that arose were discussed by the researchers and coding was done to identify patterns of statements or words relevant to the study aim. This was followed by examining all codes and comparing them to clarify relationships. Various codes were later sorted into sub-themes. At this stage, there were consultations with all the researchers and there was consensus on the sub-themes generated. Finally, two themes were formulated to describe the perceptions and experiences of new mothers diagnosed with the fear of childbirth; regarding the institutional maternity services and if they contributed to the fear of childbirth. Quotations that best illustrated the main themes were selected for inclusion as part of the results. An independent academic colleague read the transcripts and identified the themes which were similar to those identified by the researcher. This was aimed at providing a validity check for the data analysis procedure.

#### Ethical considerations

Study protocols were submitted, reviewed, and approved by Jaromogi Oginga Odinga Ethical Review Committee (IERC/JOOTRH/209/20). The aim, scope and significance of the study were explained to all study participants. Also, the right of study participants to confidentiality and voluntarily withdraw from the study at any stage was assured. Written consent was sought from the study participants for the focus group interview and audio recording. The interviews were conducted in a private room at the post-natal clinics in the maternity wing. The information collected was arranged according to the University of Southampton's quality of care framework illustrated in Fig. 1. The final

results were presented in terms of challenges in the provision of care in the maternity institutions and the experience of care in the same institutions.

#### Results

A total of 29 new mothers aged between 18 and 34 years old participated in the study. In terms of the age of the participants, 10 mothers were between 25 and 29 years old and 11 participants had a college education. A total of 20 participants were married. The majority of the participants (14 women) had one child and 10 were from rural areas (Table 1).

#### Perceptions and experience regarding the quality of institutional maternity services

All the focus group interviews revealed that indeed there were challenges regarding the quality of institutional maternity services and two themes with eight sub-themes were identified (Table 2).

#### Theme 1: Challenges regarding the provision of care at maternity institutions.

Although the quality of care framework identifies six elements related to the provision of care at the maternity institutions namely: human and physical resources; the referral system; the appropriate use of available technologies; internationally recognized best practices; and management of emergencies, the responses from the focus group interviews elicited four elements (therein referred as sub-themes); namely: (i) challenges with human and physical resources, (ii) challenges relating with referral systems, (iii) challenges with internationally recognized best practices, and (iv) challenges with the management of emergencies. The four sub-themes are expounded below.

##### i. Challenges with human and physical resources

Participants elucidated that they experienced challenges related to patient flow at the maternity wings, inadequate staffing at the maternity wing, unclear signage of labour, delivery and postpartum sections of the maternity wing, and inadequate infrastructure of the maternity

**Table 1**  
Demographic characteristics of the respondents.

Code	Age	Education	Residency	Marital status	Employment	No of children
RP1	18	Primary	Rural	Single	Formal	1
RP2	23	Secondary	Peri-urban	Married	Formal	1
RP3	25	College	Rural	Married	Formal	1
RP4	30	College	Peri-urban	Single	self-employed	2
RP5	19	Secondary	Urban	Married	self-employed	1
RP6	31	Primary	Rural	Married	self-employed	2
RP7	26	Secondary	Urban	Married	self-employed	1
RP8	20	college	Peri-urban	Single	Formal	1
RP9	27	College	Rural	Married	self-employed	1
RP10	32	Primary	Urban	Single	self-employed	3
RP11	30	College	Peri-urban	Married	self-employed	4
RP12	21	Secondary	Rural	Married	Formal	1
RP13	28	Primary	Urban	Married	Housewife	2
RP14	33	Secondary	Peri-urban	Married	Housewife	3
RP15	31	Primary	Urban	Married	Formal	3
RP16	22	Primary	Rural	Single	self-employed	1
RP17	34	Secondary	Urban	Married	self-employed	1
RP18	29	College	Rural	Married	self-employed	1
RP19	25	Primary	Peri-urban	Married	Formal	1
RP20	23	College	Rural	Single	Formal	1
RP21	30	Primary	Urban	Married	Housewife	3
RP22	26	Secondary	Peri-urban	Married	Self-employed	1
RP23	31	College	Urban	Married	Formal	2
RP24	24	Secondary	Peri-urban	Single	Housewife	2
RP25	27	Secondary	Rural	Married	Formal	2
RP26	32	College	Urban	Single	Housewife	3
RP27	28	College	Peri-urban	Married	Housewife	2
RP28	24	College	Rural	Married	self-employed	2
RP29	29	Primary	Peri-urban	Single	self-employed	2

**Table 2**  
Themes and sub-themes generated from focus group interviews.

Category	subcategory
1. Challenges related to the provision of care	i. Inadequacies related to human and physical resources
	ii. Inadequate referral systems
	iii. Challenges with internationally recognized best practices
	iv. Challenges in the management of emergencies.
2. Challenges related to the experience of care	i. Lack of enough human resources for health and inadequate investment in physical resources
	ii. Lack of cognition
	iii. Lack of respect, dignity and equity
	iv. Inadequate emotional support

institutions. They described their frustration with how the flow of patients was being handled. They implored that due to unclear patient flow, much time was lost in finding their way within the maternity institutions. This was commonly reported by women who were giving birth for the first time.

*“I did not clearly understand the patient flow...this was my first pregnancy”.* [RP22]

*“During antenatal visits, the nurses should guide us on the flow of patients”.* [RP12]

*“The nurses were very few compared to the number of women delivering”* [RP7].

Participants reported that the maternity institutions did not have clear signage. Also, they noted that the direction to labour wards, delivery rooms and postpartum sections of the maternity wing was not well labelled and this made it difficult for those who were visiting those sections for the first time.

*“There was no clear signage, I got lost at first but the maternity staff assisted me”* [RP2]

### ii. Challenges with referral system

From the focus group interviews, it was noted that there were challenges with the time taken to be admitted, timely examination and referral of women presenting with birth complications. Four participants experienced a very slow admission procedure, which led to a delayed referral to a more advanced institution.

*“They are slow, I had complications, and my chances of surviving were low. Luckily I was able to arrive at the referral maternity institution because my cousin had a private car that we used”* [RP28].

Also, there were reports of challenges with reliable transport on a 24-hour basis. Participants mentioned that due to rough terrains particularly in rural settings, it was challenging to get means of transport more so at night. Although the maternity institution was reported to be having more than one ambulance, it was mentioned that they were unreliable.

*“Ambulances in the maternity institution are unreliable, they do not respond on time and sometimes they don’t receive our calls,”* [RP25].

*“I called and they said the ambulance had gone for another referral”* [RP11].

In regards to the availability of staff, essential drugs and equipment at the public health facilities to stabilize expectant women with complications before referral, the participants reported that the local public health facilities such as dispensaries and some of the health centres were not operating on a 24 hours basis due to staff shortage.

*“Our dispensary is closed at night and during weekends. There is only one health worker who cannot work during day and night”* [RP20].

### iii. Challenges with internationally recognized best practices

Allowing a pregnant woman to have social support of her own during labour and childbirth and assessment of women’s physical well-being throughout labour are among the globally recommended best practices. In this study participants reported that they were not allowed to be accompanied into labour and delivery wards by persons of their choice and in two focus group interviews, it was noted that some health care workers did not give attention to the assessment of pregnant women’s physical well-being when they visit the antenatal care clinics.

*“The maternity does not allow anyone to be accompanied by a relative or family member to labour wards and delivery rooms”* [RP15]

### iv. Challenges with the management of emergencies

Two participants mentioned that they were aware of three of their relatives who had birth complications and had lost their lives as a result

of late reporting to the maternity institution which led to delays in managing the emergency. Also, they mentioned that unsafe abortion was common but the local health facilities could not handle emergency abortions as they did not operate on a 24 hours basis.

*“There are women in our villages who have lost their lives due to unsafe abortions and other pregnancy complications because the maternity is far from rural areas” [RP13].*

#### Theme 2: Challenges regarding the experience of care at maternity institutions

Based on the quality of care framework used for drafting the focus group interview guide, our interest was on the challenges related to the study participant's experience of care at the maternity institutions, namely: (i) human and physical resources, (ii) cognition, (iii) respect, dignity and equity, and (iv) emotional support. Participants cited a litany of challenges and inadequacies related to these sub-themes as discussed below

##### v. Challenges related to human and physical resources

The in-depth interviews were aligned towards the physical infrastructure, overall maternity environment, contact time with qualified healthcare workers, cultural norms regarding the gender of midwives and the competence of healthcare workers to offer quality maternal services. Concerns were raised over the state of wards, more specifically the quality of beds and bedsheets, meals, toilets and bathrooms.

*“There is a need to improve the quality of maternity linen and beds” [RP19]*

*“I wish they can improve the quality of meals they offer to inpatients” [RP14].*

Regarding contact time with qualified healthcare workers, the majority of the participants noted that the maternity institution was understaffed and this made it difficult for the available healthcare workers to have quality contact time with the expectant women

*“Only one doctor and about three nurses in the labour ward. We were seven” [RP10].*

Cultural norms regarding the gender of midwives assisting women during delivery were mentioned in all four focus group interviews. All participants preferred to be assisted by female midwives and doctors but lamented that the maternity had mostly male healthcare workers.

*“The maternity had only male nurses and there were no options to choose from.” [RP17].*

*“In our culture, men are not supposed to touch women during childbirth, I was uncomfortable being assisted to give birth by a male doctor. [RP09]*

##### vi. Challenges related to cognition

In this study, participants noted that necessary information regarding their scheduled childbirth was not relayed effectively in a language they all understood. Equally, participants reported that they were not fully prepared for the childbirth process and they did not understand the existing options. Regarding postpartum care, the participants reported that they were not psychologically prepared for all possible outcomes of their pregnancy.

*“They only looked at my maternity card and told me to go to the labour ward” [RP8].*

*“Although I had questions, I wouldn't ask because I was worried” [RP23].*

##### vii. Challenges regarding respect, dignity and equity

In the current study, fear of hostile treatment from midwives and nursing staff was repeated by study participants in all four focus group interviews. Study participants who had a negative experience of hostile treatment by the maternity staff narrated their ordeals during their past pregnancies.

*“The healthcare workers aren't kind, compared to the traditional birth attendants” [RP18].*

*“Most midwives do not treat women with dignity” [RP24].*

In contrast to their often-negative impressions of facility-based midwives, participants largely submitted that the care provided by traditional birth attendants was of compassion, humility and absolute psychosocial support. They stated that traditional birth attendants encouraged them during labour and assisted them with tenderness and compassion.

*“Traditional birth attendants will speak with you with kindness” [RP25]*

*“My experience was inspiring; the traditional birth attendant was empathetic” [RP3]*

It was reported that the effects of not attending all the required antenatal care clinics during pregnancy created anxiety and fear among some study participants. Similarly, other participants explained how they had heard stories from women delivering in health facilities that caused fear and anxiety. In some cases, study participants confessed that these fears discouraged many of their peers from going for health facility deliveries

*“There are stories of women being slapped at the maternity during labour” [RP26].*

*“I was not able to attend all antenatal visits; the nurse was very harsh on me” [RP1].*

Participants also stated that the health facility did not have a designated office responsible for assessing the socio-economic and cultural needs of the expectant women. Also, most of the study participants felt that they did not receive appropriate respect from the healthcare providers.

Participants noted that cultural practices that do not interfere with the quality of care such as being assisted to give birth by a female healthcare worker were not adhered to.

Participants noted that not all expectant women were treated with the same standard of care. They said that those who were well known by the healthcare workers received better treatment than the ordinary women. Also, it was said that some women were physically examined in an environment that was not conducive, in some cases, there was no privacy and this was noted in the focus group interviews as a gross violation of the basic human rights of the expectant women.

*“We were not treated equally, some received better treatment than others” [RP27].*

*“Some women were given special favours. This is common” [RP9].*

##### viii. Challenges with emotional support

In the current study, participants were asked if: (i) they were able to freely choose the social support they were comfortable with, (ii) if they were treated with honesty, kindness and understanding, and (iii) if the health staff were cognizant of their supportive role in the provision of care during labour, delivery and the postpartum period.

None of the participants reported having a companion of their choice during labour and delivery. The maternity was said to have strict protocols that would not allow such practices.

Participants reported that most midwives did not offer any physical,

or emotional support during labour and childbirth, and this was largely a result of understaffing.

#### *Highlights on how institutional maternity services contributing to fear of childbirth*

Although the main themes that emerged from the focus group interviews largely focused on the challenges on the provision of care and also the experience of care at the maternity institutions, the study participants clearly demonstrated how institutional maternity services contributed to FOC as demonstrated below

##### 1. Unnecessary caesarean section procedures in some maternity facilities

Participants in the focus group interviews expressed their concerns that some maternity institutions have the tendency of performing C-section even when it is not really necessary. They noted that some healthcare professionals perform this procedure so as to make money especially in instances where maternity services are supposed to be given free of charge.

##### 2. Late arrival at the maternity institutions

Late arrival at the maternity institutions more so at night was mentioned in all the groups as a contributing factor to FOC. Some participants demonstrated that due to rough terrains and limited means of transport, arrival at the maternity institutions becomes challenging and therefore this contributes to FOC, leading to some of them preferring home deliveries or traditional birth attendants.

##### 3. Severe pain and injury at the maternity institutions

Participants mentioned that they have heard stories of their peers claiming that institutional maternity births are relatively painful and the baby may be injured especially if the institutions are understaffed and lacks basic infrastructure.

##### 4. Negative attitude from the healthcare providers

The attitude of healthcare providers was mentioned as one of the key impediments in seeking institutional maternity services. Poor and negative attitude of healthcare providers creates unnecessary fear and panic to the pregnant women especially the primiparous women. Study participants who had a negative experience from their previous pregnancies were noncommittal on the possibility of going for institutional child birth in their next pregnancy.

##### 5. Rumours and misconception about institutional maternity services

Rumours and misconception about institutional maternity services were reported to be emanating from social networks, women groups, mother-mentors, traditional birth attendants and peers. These were reported to be among the greatest contributors to FOC and low uptake of institutional maternity services. The rumours and misconception reported includes: fear of prolonged labour pains in the maternity facilities, stealing of newborn babies during birth, being assisted to give birth by a male healthcare provider and unnecessary deaths of newborn babies and their mothers in the maternity institutions.

##### 6. Fear of not being involved in the childbirth process

Participants noted that in some maternity institutions, pregnant women are not involved in the childbirth process. The healthcare providers do not seek their opinions and therefore this increases unnecessary anxiety and depression, leading to FOC as crucial decisions are made without their knowledge/ consent in some cases.

## Discussion

The current study sheds light on the important basics of institutional maternity services from the perspective of actual users. In this study, participants voiced their concerns regarding the quality of maternity healthcare service offered and its contribution to the fear of childbirth. Undeniably, all the 29 study participants admitted experiencing challenges during labour and childbirth. These findings are consistent with the findings from Namibia which reported that expectant women had similar concerns regarding the quality of institutional maternity services [36].

#### *Challenges with the provision of care*

Regarding the findings on the challenges in the provision of care, the study highlighted four sub-themes. Human resources for health comprise the quantity and quality of health and non-health personnel employed for providing and supporting the delivery of healthcare in maternity institutions. It also includes staff arrangement, management styles, and internationally accepted staffing norms [37]. In the current study, there were concerns regarding understaffing, unclear signage, the ambiguous structure of the maternity wing and poor management of patient flow in the maternity institutions. Similar challenges with human resources for health have been reported from studies conducted in other developing countries [38–40].

In regards to physical resources, there were inadequacies with physical infrastructures, such as depilated state of the maternity and wards, poor quality of maternity beds and beddings, poor quality of meals and general unhygienic environment. There are similar studies that have shown infrastructural challenges that hamper better maternal health services [41,42].

The current study highlighted a myriad of challenges emanating from erratic and unreliable referral systems from the lower-level health facilities. There were also reports of inadequate ambulances, poor co-ordination of the existing ambulatory services and unreliable communication system. These findings are in tandem with a similar study carried out in Ghana which was looking at the views of women, healthcare providers, public and quasi-private sectors regarding maternal care shortcomings [43].

Regarding the internationally recognized best practices, the current study noted that currently there exist numerous procedures in maternal healthcare that have, through cautiously designed randomized controlled trials, been shown to be of value to the mothers and their infants. It was however reported that expectant women were not allowed to have social support of their own during labour and childbirth. The effects of social support during labour and childbirth has been reported to have a considerable impact on new mothers, and this may persist into the postpartum periods [44]. Also, it was noted that essential equipment and drugs were not available in lower-level facilities, and this finding agrees with similar studies that have identified substandard emergency obstetric care which contributes to maternal deaths [45].

#### *The experience of care*

Whereas the quality of the provision of care is essential in guaranteeing effective maternal healthcare, expectant women's experience of care is equally significant. If their overall experience is such that it dissuades them from returning for subsequent institutional maternity births, or leads to speculations to the same effect in the wider community, then the definite quality of healthcare provided is questionable.

The proportion of male to female healthcare workers was also a concern as the majority of the participants wished to be attended by female healthcare workers but the majority were male. The findings of this study agree with similar studies [28].

Cognition entails seamless communication between a patient and healthcare provider regarding both diagnosis and the determination of



preferences for treatment. The relationship between these two parties should be depicted through empathy, privacy, discretion, informed choice, trustworthiness, discernment and compassion. In the current study, less than half of the study participants were explained by the healthcare workers in their local dialect. The majority of them noted that the healthcare workers did not explain to them the diagnosis and procedures they underwent. Also, regarding postpartum care, the information was not conveyed to them, and this contributed to anxiety and depression, leading to a preference for caesarean delivery. This result agrees with a similar study on the cognitive factors related to childbirth and their effects on women's delivery preference, that was taken in Tehran [46].

Respect, dignity and equity are fundamental principles and basic human rights that all expectant women should enjoy irrespective of the prevailing circumstances. Participants noted that the healthcare workers did not observe privacy during physical examinations, late labour and delivery, and according to them, this was a violation of their rights. Similar studies have indicated that most women in public health facilities are not treated with dignity and respect as they ought to be [47–49].

According to study participants, cultural norms and practices that do not interfere with high-quality care such as preference for female healthcare workers to assist women during childbirth were denied. Our study is in agreement with a mixed-methods systematic review on the mistreatment of women during childbirth in health facilities globally [50].

Finally, the current study looked at the challenges with the emotional support of pregnant women during labour and childbirth. It was noted that women were not allowed to choose freely the social support they receive during labour and delivery. Also, there were reported instances where women were not treated with kindness, honesty and understanding. Although all healthcare workers working in maternity are supposed to undertake a supportive role in the provision of care during labour, childbirth and the postpartum period, the in-depth interview revealed that a high percentage of women were not satisfied with the interpersonal care accorded to them by the healthcare workers. There is a need for continued emotional support during labour and childbirth as has been demonstrated in similar studies [51,52].

### Strengths, limitations and future research

The study findings add to the existing literature on the perceptions and experiences of new mothers diagnosed with fear of childbirth; regarding the institutional maternity services and if they contribute to the fear of childbirth. The judgement of trustworthiness in the study should be based on transferability, credibility and dependability [53]. The author believes that a detailed description of the sample, meticulous data collection procedure, data coding, transcribing, and analysis exhibits the transparent nature of this study, which makes the findings significant, valuable and credible.

It is worth noting that research participants were open and articulate in their responses, and they were freely allowed to share their views and thoughts. On study limitations, it has been critiqued that in qualitative research, data collected generally lack randomization, and there is a possibility of bias when giving the interpretation. Finally, it should be noted that the focus group interview guide used was widely supported by a broad review of the existing literature.

### Conclusion and recommendation

The presence of institutional maternity health services doesn't warrant their usage. Healthcare management should critically analyze the intangible question of why the existing maternity institutions do not offer services that pregnant women will accept without reservations. This can be achieved through a critical analysis of several definite yet integrated components of a framework for the analysis of the quality of

care in maternity services which has been applied in this study. This framework will help in undertaking a brief yet comprehensive situation analysis of the quality of care as provided at the maternity institutions and experienced by service end-users. This has been recommended as it touches on ten (10) important facets of quality of care namely; human and physical resources, referral system, maternity information system, use of appropriate technologies, internationally recognized best practices and management of emergencies, human and physical resources (as experienced by healthcare users), cognition, respect, dignity and equity, and emotional support. If all these items are critically appraised, the quality of care in maternity institutions are likely to improve.

### Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### References

- [1] Areskog B, Kjessler B, Uddenberg N. Identification of women with significant fear of childbirth during late pregnancy. *Gynecol Obstet Invest* 1982;13:98–107. <https://doi.org/10.1159/000299490>.
- [2] Melender H-L. Experiences of fears associated with pregnancy and childbirth: a study of 329 pregnant women. *Birth* 2002;29:101–11.
- [3] Rouhe H, Salmela-Aro K, Toivanen R, Tokola M, Halmesmaki E, Saisto T. Obstetric outcome after intervention for severe fear of childbirth in nulliparous women - Randomised trial. *BJOG An Int J Obstet Gynaecol* 2013;120:75–84. <https://doi.org/10.1111/1471-0528.12011>.
- [4] Nieminen K, Andersson G, Wijma B, Ryding EL, Wijma K. Treatment of nulliparous women with severe fear of childbirth via the Internet: A feasibility study. *J Psychosom Obstet Gynecol* 2016;37:37–43. <https://doi.org/10.3109/0167482X.2016.1140143>.
- [5] Toohill J, Creedy DK, Gamble J, Fenwick J. A cross-sectional study to determine utility of childbirth fear screening in maternity practice – An Australian perspective. *Women and Birth* 2015;28:310–6. <https://doi.org/10.1016/j.wombi.2015.05.002>.
- [6] Laursen M, Hedegaard M, Johansen C. Fear of childbirth: predictors and temporal changes among nulliparous women in the Danish National Birth Cohort. *BJOG An Int J Obstet Gynaecol* 2008;115:354–60. <https://doi.org/10.1111/j.1471-0528.2007.01583.x>.
- [7] Nilsson C, Hessman E, Sjöblom H, Dencker A, Jangsten E, Mollberg M, et al. Definitions, measurements and prevalence of fear of childbirth: a systematic review. *BMC Pregnancy Childbirth* 2018;18:28. <https://doi.org/10.1186/s12884-018-1659-7>.
- [8] Onchonga D, Várnagy Á, Amer F, Viktoria P, Wainaina P. Translation and validation of the Swahili version of the Wijma Delivery Expectancy/Experience Questionnaire version A (W-DEQ-A). *Sex Reprod Healthc* 2021;29:100626. <https://doi.org/10.1016/j.srhc.2021.100626>.
- [9] Peeler S, Stedmon J, Chung MC, Skirton H. Women's experiences of living with postnatal PTSD. *Midwifery* 2018;56:70–8. <https://doi.org/10.1016/j.midw.2017.09.019>.
- [10] Osborne LM, Monk C. Perinatal depression—the fourth inflammatory morbidity of pregnancy?: Theory and literature review. *Psychoneuroendocrinology* 2013;38:1929–52. <https://doi.org/10.1016/j.psychneuen.2013.03.019>.
- [11] Onchonga D, MoghaddamHosseini V, Keraka M, Várnagy Á. Prevalence of fear of childbirth in a sample of gravida women in Kenya. *Sex Reprod Healthc* 2020;24:100510. <https://doi.org/10.1016/j.srhc.2020.100510>.
- [12] Moghaddam Hosseini V, Nazarzadeh M, Jahanfar S. Interventions for reducing fear of childbirth: A systematic review and meta-analysis of clinical trials. *Women and Birth* 2018;31:254–62. <https://doi.org/10.1016/j.wombi.2017.10.007>.
- [13] Saigal S, Doyle LW. An overview of mortality and sequelae of preterm birth from infancy to adulthood. *Lancet* 2008;371:261–9. [https://doi.org/10.1016/S0140-6736\(08\)60136-1](https://doi.org/10.1016/S0140-6736(08)60136-1).
- [14] Glynn LM, Schetter CD, Hobel CJ, Sandman CA. Pattern of perceived stress and anxiety in pregnancy predicts preterm birth. *Health Psychol* 2008;27:43–51. <https://doi.org/10.1037/0278-6133.27.1.43>.
- [15] Hall WA, Stoll K, Hutton EK, Brown H. A prospective study of effects of psychological factors and sleep on obstetric interventions, mode of birth, and neonatal outcomes among low-risk British Columbian women. *BMC Pregnancy Childbirth* 2012;12:78. <https://doi.org/10.1186/1471-2393-12-78>.

- [16] Saunders TA, Lobel M, Veloso C, Meyer BA. Prenatal maternal stress is associated with delivery analgesia and unplanned cesareans. *J Psychosom Obstet Gynecol* 2006;27:141–6. <https://doi.org/10.1080/01674820500420637>.
- [17] Adams SS, Eberhard-Gran M, Eskild A. Fear of childbirth and duration of labour: a study of 2206 women with intended vaginal delivery. *Br J Obstet Gynaecol* 2012; 119:1238–46. <https://doi.org/10.1111/j.1471-0528.2012.03433.x>.
- [18] Sydsjö G, Sydsjö A, Gunnervik C, Bladh M, Josefsson A. Obstetric outcome for women who received individualized treatment for fear of childbirth during pregnancy. *Acta Obstet Gynecol Scand* 2012;91:44–9. <https://doi.org/10.1111/j.1600-0412.2011.01242.x>.
- [19] Geller SE, Koch AR, Garland CE, MacDonald EJ, Storey F, Lawton B. A global view of severe maternal morbidity: Moving beyond maternal mortality. *Reprod Health* 2018;15:98. <https://doi.org/10.1186/s12978-018-0527-2>.
- [20] Stanton ME, Kwast BE, Shaver T, McCallon B, Koblinsky M. Beyond the safe motherhood initiative: Accelerated action urgently needed to end preventable maternal mortality. *GhsjournalOrg* 2018;6:408–12. <https://doi.org/10.9745/GHSP-D-18-00100>.
- [21] UNICEF. Despite accelerated recent progress, millions of births occur annually without any assistance from a skilled attendant at birth. *Unicef Data* 2018. <https://data.unicef.org/topic/maternal-health/delivery-care/> (accessed July 8, 2019).
- [22] UN G Assembly. sustainable Development goals. *IgbbNet* 2015.
- [23] Robert KW, Parris TM, Leiserowitz AA. What is Sustainable Development? Goals, Indicators, Values, and Practice. *Environ Sci Policy Sustain Dev* 2005;47:8–21. <https://doi.org/10.1080/00139157.2005.10524444>.
- [24] Le Blanc D. Towards Integration at Last? The Sustainable Development Goals as a Network of Targets. *Sustain Dev* 2015;23:176–87. <https://doi.org/10.1002/sd.1582>.
- [25] Stanton M, Kwast B, Shaver T. Beyond the safe motherhood initiative: Accelerated action urgently needed to end preventable maternal mortality. *GhsjournalOrg* 2018.
- [26] Onchonga D, Várnagy Á, Keraka M, Wainaina P. Midwife-led integrated pre-birth training and its impact on the fear of childbirth. A qualitative interview study. *Sex Reprod Healthc* 2020;25:100512. [10.1016/j.srhc.2020.100512](https://doi.org/10.1016/j.srhc.2020.100512).
- [27] Redshaw M. Women as consumers of maternity care: Measuring “satisfaction” or “dissatisfaction”? *Birth* 2008;35:73–6. <https://doi.org/10.1111/j.1523-536X.2007.00215.x>.
- [28] Srivastava A, Avan BI, Rajbangshi P, Bhattacharyya S. Determinants of women’s satisfaction with maternal health care: A review of literature from developing countries. *BMC Pregnancy Childbirth* 2015;15:1–12. <https://doi.org/10.1186/s12884-015-0525-0>.
- [29] Hulton LA, Matthews Z, Stones W. A framework for the evaluation of quality of care in maternity services. 2000.
- [30] Onchonga D. Prenatal fear of childbirth among pregnant women and their spouses in Kenya. *Sex Reprod Healthc* 2021;10:0593. <https://doi.org/10.1016/j.srhc.2020.100593>.
- [31] Onchonga D, Hammoud S, Kuriakose S, Muhammad EAK. Exploring fear of childbirth in Kenya through evaluation of the readability of Wijma Delivery Expectancy/Experience Questionnaire Version A (W-DEQ-A). *Sex Reprod Healthc* 2021;28:100605. <https://doi.org/10.1016/j.srhc.2021.100605>.
- [32] Wijma K, Wijma B, Zar M. Psychometric aspects of the W-DEQ: a new questionnaire for the measurement of fear of childbirth 1998;19:84–97. <https://doi.org/10.3109/01674829809048501>.
- [33] Krueger R, Casey M. *Focus Groups: a Practical Guide for Applied Research*. 3rd ed. Thousand Oaks, CA: Sage Publications, Inc.; 2000.
- [34] Sandelowski M. Whatever happened to qualitative description? *Res Nurs Health* 2000;23:334–40. [https://doi.org/10.1002/1098-240X\(200008\)23:4<334::AID-NUR9>3.0.CO;2-G](https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G).
- [35] Burnard P, Gill P, Stewart K, Treasure E, Chadwick B. Analysing and presenting qualitative data. *Br Dent J* 2008;204:429–32. <https://doi.org/10.1038/sj.bdj.2008.292>.
- [36] Diamond-Smith N, Sudhinaraset M, Montagu D. Clinical and perceived quality of care for maternal, neonatal and antenatal care in Kenya and Namibia: The service provision assessment. *Reprod Health* 2016;13. <https://doi.org/10.1186/s12978-016-0208-y>.
- [37] De Geyndt W. Managing the Quality of Health Care in Developing Countries. The World Bank 1995. <https://doi.org/10.1596/0-8213-3092-6>.
- [38] Salami B, Dada FO, Adalokun FE. Human Resources for Health Challenges in Nigeria and Nurse Migration. *Policy, Polit Nurs Pract* 2016;17:76–84. <https://doi.org/10.1177/1527154416656942>.
- [39] Mathauer I, Imhoff I. Health worker motivation in Africa: The role of non-financial incentives and human resource management tools. *Hum Resour. Health* 2006;4. <https://doi.org/10.1186/1478-4491-4-24>.
- [40] Pagano A, Tajima B, Guaydish J. Barriers and facilitators to tobacco cessation in a nationwide sample of addiction treatment programs. *J Subst Abuse Treat* 2016;67: 22–9. <https://doi.org/10.1016/j.jsat.2016.04.004>.
- [41] Essendi H, Johnson FA, Madise N, Matthews Z, Falkingham J, Bahaj AS, et al. Infrastructural challenges to better health in maternity facilities in rural Kenya: Community and healthworker perceptions. *Reprod Health* 2015;12. <https://doi.org/10.1186/s12978-015-0078-8>.
- [42] Bhattacharyya S, Issac A, Rajbangshi P, Srivastava A, Avan BI. “Neither we are satisfied nor they”-users and provider’s perspective: A qualitative study of maternity care in secondary level public health facilities, Uttar Pradesh, India. *BMC Health Serv Res* 2015;15. [10.1186/s12913-015-1077-8](https://doi.org/10.1186/s12913-015-1077-8).
- [43] Ayanore MA, Pavlova M, Biesma R, Groot W. Stakeholders’ views on maternity care shortcomings in rural Ghana: An ethnographic study among women, providers, public, and quasiprivate policy sector actors. *Int J Health Plann Manage* 2018;33:e105–18. <https://doi.org/10.1002/hpm.2411>.
- [44] Trotter C, Wolman W-L, Hofmeyr J, Nikodem C, Turton R. The Effect of Social Support during Labour on Postpartum Depression. *South African J Psychol* 1992; 22:134–9. <https://doi.org/10.1177/008124639202200304>.
- [45] Sorensen BL, Elsass P, Nielsen BB, Massawe S, Nyakina J, Rasch V. Substandard emergency obstetric care - a confidential enquiry into maternal deaths at a regional hospital in Tanzania. *Trop Med Int Heal* 2010;15:894–900. <https://doi.org/10.1111/j.1365-3156.2010.02554.x>.
- [46] ChoobMasjedi S, Hasani J, Khorsandi M, Ghobadzadeh M. Cognitive factors related to childbirth and their effect on women’s delivery preference: a comparison between a private and public hospital in Tehran. *East Mediterr Heal Journal* 2012; 18:1127–33. [http://applications.emro.who.int/emhj/v18/11/EMHJ\\_2012\\_18\\_11\\_1127\\_1133.pdf](http://applications.emro.who.int/emhj/v18/11/EMHJ_2012_18_11_1127_1133.pdf).
- [47] Bowser D, Project K. Exploring evidence for disrespect and abuse in facility-based childbirth. *GhdonlineOrg* 2010.
- [48] Warren CE, Njue R, Ndwiga C, Abuya T. Manifestations and drivers of mistreatment of women during childbirth in Kenya: Implications for measurement and developing interventions. *BMC Pregnancy Childbirth* 2017;17:1–14. <https://doi.org/10.1186/s12884-017-1288-6>.
- [49] Betron ML, McClair TL, Currie S, Banerjee J. Expanding the agenda for addressing mistreatment in maternity care: a mapping review and gender analysis. *Reprod Health* 2018;15:143. <https://doi.org/10.1186/s12978-018-0584-6>.
- [50] Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. *PLOS Med* 2015;12:e1001847. <https://doi.org/10.1371/journal.pmed.1001847>.
- [51] Alexander A, Mustafa A, Amekah E, Engmann C, Adanu R, et al. Social support during delivery in Rural Central Ghana: A mixed methods study of women’s preferences for and against inclusion of a lay companion in the delivery room. *J Biosoc Sci* 2014;46:669–85. <https://doi.org/10.1017/S0021932013000412>.
- [52] Kennell J, Klaus M, McGrath S, Robertson S, Hinkley C. Continuous Emotional Support During Labor in a US Hospital: A Randomized Controlled Trial. *JAMA J Am Med Assoc* 1991;265:2197–201. <https://doi.org/10.1001/jama.1991.03460170051032>.
- [53] Korstjens I, Series Moser A. Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *Eur J Gen Pract* 2018;24:120–4. <https://doi.org/10.1080/13814788.2017.1375092>.