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Quality of Intrapartum Care: Direct Observations in Selected Health Facilities in Zambia

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Abstract

Background: Approximately 303,000 women die annually while giving birth, worldwide, and more than 99% of the deaths occur in developing countries. In Zambia, a developing country situated in sub-Saharan Africa, most of the maternal mortalities occur during the intrapartum and immediate postpartum periods, arising from postpartum hemorrhage, sepsis, obstructed labor, and hypertensive disorders. **Aim:** The aim of this study was to assess the quality of intrapartum services provided in health facilities in the country. **Methodology:** Guided by a descriptive cross sectional design, data were collected from 264 women in labor using a World Health Organization validated observation checklist. Convenience sampling was used to recruit the women, while multistage sampling was used to select four health facilities. The Social Package for Social Sciences, version 23 was used to analyze the data. **Results:** One health facility met the World Health Organization 80% minimum standard in four out of the five categories used to measure quality in intrapartum care, while the other three met the minimum standard in one category each. **Conclusion:** Low numbers of midwives, inadequate supplies and equipment were major obstacles to following national and international agreed standards for providing optimal care during intrapartum period. **Recommendations:** There is need for local and national stakeholders in Zambia to urgently address the structural barriers that were observed, as well as invest in sufficient

numbers of adequately trained and motivated midwives.

Keywords

Intrapartum Care, Quality, Health Facility, Midwife, Women

1. Introduction

Globally, pregnancy and childbirth and their consequences are the leading causes of morbidity and mortality among women of the reproductive age. The World Health Organization (WHO) states that more than half a million women die every year due to complications related to pregnancy and child bearing [1]. In 2015, approximately 303,000 women died during pregnancy or while giving birth, worldwide, and more than 99% of the deaths occurred in developing countries [2]. Thus, in developing countries, pregnancy and childbirth are major life events with negative short and long term implications for women and their families. Instead of the nine months of pregnancy being an exciting time for many women and their families; in developing countries, the months are filled with feelings ranging from joy and hope, to worries and fears of what the outcome might be.

Performance against maternal morbidity and mortality indicators in developing countries have also not achieved much despite the introduction of interventions such as, increasing the numbers of facility-based births and access to emergency obstetric care (EMoC), post abortion care (PAC), and strengthening referral systems [3]. In addition, progress towards better intrapartum care and improvement in perinatal health outcomes is the slowest in developing countries [4] [5] [6]. Thus, maternal mortality has remained to be a public health challenge in developing countries, particularly in sub-Saharan Africa, where Zambia is situated. According to the WHO [2], this could probably be due to uneven delivery of interventions and maternity services not being accessible to populations who need them most; hence, quality gaps in terms of coverage estimates for service delivery contacts, such as skilled attendant at birth have been reported.

Most of the maternal deaths occur during childbirth or within the first 24 hours postpartum [7], and the major complications that account for 80% of all the maternal deaths are bleeding, infections, high blood pressure and unsafe abortions [2]. These conditions are associated with poor quality health care at birth and lack of access to skilled birth attendant at delivery [8]. Locally, the Zambia Statistics Agency (ZSA) states that the commonest causes of mortalities in the country are postpartum hemorrhage (PPH), sepsis, obstructed labour, pregnancy hypertensive disorders, and abortion related complications [9]. This is a tragedy because all these causes of mortalities are preventable. Hence, the provision of quality intrapartum care is cardinal in the prevention of maternal morbidity and mortality in Zambia and the sub-Saharan region as a whole.

Quality of intrapartum care has mostly been assessed through retrospective

analysis of medical records such as partographs [10]. However, such records are often unreliable, incomplete, missing or inaccurate [10], and might therefore, not accurately reflect the care being provided. The golden standard for clinical quality assessment is direct observations that capture the real life experiences of the phenomenon being studied and behaviour of the attendants [11]. The objective of this study was to assess the quality of intrapartum care provided to women birthing in both urban and rural health facilities in Zambia.

2. Methods

This cross sectional study, which was conducted between June and September 2017, utilized a WHO validated direct observation checklist to collect the data required to assess quality of intrapartum care provided to women. Each category comprised a number of specific tasks that were assigned scores of; "Done correctly, 2"; "Incorrectly Done, 1", and "Not done, 0". The five WHO categories that were evaluated to measure quality were; 1) Observations and examinations carried out on admission; 2) History obtained from woman on admission; 3) Care provided during labour and delivery; 4) Immediate newborn care; and 5) Care during the third stage of labour. A facility is considered to be offering quality labour and delivery services, if it meets a minimum standard of 80% in the specific tasks in each category [12].

Multistage sampling was utilized to select the study sites for the study through the following: 1) Purposive sampling was used to select two out of the ten provinces in Zambia. Two provinces in the country are categorized as being urban and eight are categorized as rural [13]. Lusaka province was selected from the two provinces categorized as being urban, while Central province was selected out of the eight provinces categorized as rural. 2) Simple random sampling was then used to select Lusaka district from Lusaka province, and Mumbwa district from Central province. 3) Lastly. Purposive sampling was utilized to select the four health facilities where the study was conducted. From Lusaka province, Kanyama first level hospital was selected on the basis that it is the busiest, whereas Ng'ombe urban health centre is the least busy in Lusaka district [13]. From Central province, Nangoma mission and Mumbwa general hospitals were selected on the basis that they are the only health facilities that offer labor and delivery services in Mumbwa district [13]. A total of 264 (66 from each health facility) women participated in the study. Convenience sampling was used to select the respondents; thus, any woman who went to one of the study sites in labor and willing to participate in the study was recruited. The Statistical Package for Social Sciences (SPSS) version 23 was utilized to analyze the data. Ethics clearance was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC), Assurance number FWA0000038; IR00001131 of IORG0000774.

3. Results

The socio-demographic characteristics of the participants were similar to the

general population in Zambia. Slightly over half, 54.6% (144) of the participants were aged between 17 and 26 years. The youngest participant was 17 years, while the oldest was 43. Majority 75.8% (200) of the participants were married, and 43.9% (116) were first or second time mothers; the highest parity was 6. All the participants were Christians, 34.4% (91) had no formal education, and 70.5% (186) were housewives (Table 1).

Comparing the results from the four health facilities that were in the study, Nangoma mission hospital met the WHO minimum standards of 80% in four out of the five categories that were used to measure quality in intrapartum care, while the other three health facilities met the standard in one category each. On overall performance, Nangoma mission hospital was the highest in all the categories, with an average performance of 82%, followed by Ng'ombe urban health centre with 77.1%. Kanyama first level hospital was third with overall performance of 75.5%, and in the fourth place was Mumbwa general hospital with 74.7%. The category that scored the highest in all the measured parameters was "immediate newborn care" category. The combined average for all the four health facilities in this category was 91.5% (Table 2). Nangoma mission hospital was the highest with 97.2%, followed by Kanyama first level hospital with 95.2%. In third place was Mumbwa general hospital with 89.4%, and Ng'ombe urban health centre was lowest with 84.2% (Table 2).

The second highest category was "observations and examinations carried out on admission", with a combined facilities average of 81.9% (Table 3). Two of the health facilities; Ng'ombe urban health centre and Nangoma mission hospital met the WHO 80% minimum standard. Nangoma mission hospital had the highest score of 87.1%, while Mumbwa general hospital had the lowest score of 77.9%.

Table 1. Socio-demographic characteristics of respondents.

Characteristic		Proportion (n/%)
Age	17 - 26 years	144 (54.6)
	27 - 36 years	88 (33.3)
	37 - 46 years	32 (12.1)
Marital status	Married	200 (75.8)
	Single	44 (16.7)
	Divorced	20 (7.5)
Parity	1 - 2	116 (43.9)
	3 - 4	100 (37.9)
	5 - 6	48 (18.2)
Religion	Christian	264 (100)
Educational level	No formal education	91(34.4)
	Grade 1 - 4 (lower primary)	75 (28.4)
	Grade 5 - 7 (Upper primary)	62 (23.5)
	Grade 8 - 12 (Secondary)	30 (11.4)
	Tertiary (College/University)	6 (2.3)
Employment	Formal	18 (6.8)
	Informal	60 (22.7)
	Housewife	186 (70.5)

Table 2. Immediate newborn care.

Variable	Health Facility			
	Kanyama Number (%)	Ng'ombe Number (%)	Nangoma Number (%)	Mumbwa Number (%)
Wiping nose, mouth and nose	63 (95.5)	57 (86.4)	65 (98.4	63 (95.5)
Baby placed on mum's abdomen	63 (95.5	55 (83.3	66 (100)	56 (84.8)
Baby covered	61 (92.4)	59 (89.4)	59 (89.4)	66 (100)
Breastfeeding initiated	61 (92.4)	53 (80.3)	34 (51.5)	50 (75.8)
Mother told baby's weight	66 (100)	54 (81.8)	66 (100)	60 (90.9)
AVERAGE	**95.2%**	**84.2%**	**97.2%**	**89.4%**

Combined facilities average: 91.5%; Proportion meeting standard: 4/4.

Table 3. Observations and examinations carried out on admission.

Variable	Health Facility			
	Kanyama Number (%)	Ng'ombe Number (%)	Nangoma Number (%)	Mumbwa Number (%)
Blood pressure	56 (84.8)	64 (97)	63 (95.5)	50 (75.8)
Respiration	32 (48.5)	43 (65.2)	39 (59.1)	28 (42.4)
Pulse	32 (48.5)	41 (62.1)	45 (68.2)	47 (71.2)
Temperature	36 (54.5)	57 (86.4)	46 (69.7)	40 (60.6)
Fundal height	59 (89.4)	58 (71.2)	66 (100)	66 (100)
Foetal heart rate	58 (87.9)	62 (66.7)	66 (100)	66 (100)
Presentation	60 (90.9)	61 (92.4)	65 (98.5)	33 (50)
Descent	60 (90.9)	60 (90.9)	60 (90.9)	59 (89.4)
Contractions	61 (92.4)	50 (75.8)	59 (89.4)	59 (89.4)
Vaginal examination	63 (95.5)	61 (92.4)	66 (100)	66 (100)
AVERAGE	**78.3%**	**84.4%**	**87.1%**	**77.9%**

Combined facilities average: 81.9%; Proportion meeting standard: 2/4.

Ng'ombe urban health centre scored 84.4%, and Kanyama first level hospital got 78.3% (Table 3).

The third highest category was "care during the third stage of labour", with a facilities combined average of 79.2% (Table 4). Nangoma mission and Mumbwa general hospitals met the WHO 80% minimum standard. Nangoma mission hospital was highest with a score of 81.1%, followed by Mumbwa general hospital with 80.3%. Kanyama first level hospital scored 78.8%, and the lowest was Ng'ombe urban health centre with a score of 76.6% (Table 4).

The fourth highest category was "care provided during labour and delivery" with a facilities combined average of 76.6% (Table 5). In this category only Nangoma mission hospital met the WHO 80% minimum standard with an average score of 80.9%. Mumbwa general hospital was the lowest with an average score of 71.9%. Ng'ombe urban health centre scored 78.8%, while Kanyama first level hospital scored 73.6% (Table 5).

The category that scored the lowest was "history obtained from woman on admission" with a combined facilities average of 57.6% (Table 6). None of the

Table 4. Care during third stage of labour.

Variable	Health Facility			
	Kanyama Number (%)	Ng'ombe Number (%)	Nangoma Number (%)	Mumbwa Number (%)
Mother given oxytocin	61 (92.4)	57 (86.4)	66 (100)	66 (100)
Mother told of findings	43 (65.2)	44 (66.7	41 (62.1)	40 (60.6)
AVERAGE	**78.8%**	**76.6%**	**81.1%**	**80.3%**

Combine facilities average: 79.2%; Proportion meeting standard: 2/4.

Table 5. Care provided during labour and delivery.

Variable	Health Facility			
	Kanyama Number (%)	Ng'ombe Number (%)	Nangoma Number (%)	Mumbwa Number (%)
Abdominal assessment	54 (81.8)	58 (87.9)	66 (100)	66 (100)
Vaginal assessment	53 (80.3)	63 (95.5)	66 (100)	66 (100)
Emptying of the bladder	44 (66.7)	58 (87.9)	59 (89.4)	63 (95.5)
Ambulation	42 (63.6)	44 (66.7)	34 (51.5)	29 (43.9)
Nutritional support	42 (63.6)	47 (71.2)	41 (62.1)	16 (24.2)
Explanation of expectations	43 (65.2)	44 (66.7)	49 (74.2)	49 (74.2)
Informed of time of baby's birth	62 (93.9)	50 (75.8)	59 (89.4)	43 (65.2)
AVERAGE	**73.6%**	**78.8%**	**80.9%**	**71.9%**

Combined facilities average: 76.6%; Proportion meeting standard: 1/4.

Table 6. History obtained from woman on admission.

Variable	Health Facility			
	Kanyama Number (%)	Ng'ombe Number (%)	Nangoma Number (%)	Mumbwa Number (%)
Past medical history	26 (39.4)	29 (44.4)	27 (40.9)	22 (33.3)
Family history	22 (33.3)	20 (30.3)	26 (39.4)	38 (57.6)
Surgical history	23 (34.8)	22 (33.3)	24 (36.4)	38 (57.6)
Number of pregnancies	57 (86.4)	60 (90.9)	63 (95.5)	47 (71.2)
Number of abortions	29 (43.9)	44 (66.7)	48 (72.7)	31 (47)
Number of live children	42 (63.6)	49 (74.2)	52 (78.8)	50(75.6)
Number of normal deliveries	38 (57.6)	49 (74.2)	52 (78.8)	41 (62.1)
Number of caesarean sections	35 (53)	33 (50)	42 (63.6)	38 (57.6)
Number of children born alive	44 (66.7)	48 (72.7)	55 (83.3)	44 (66.7)
Number of stillbirths	21 (31.8)	35 (53)	37 (56.1)	34 (51.5)
Date/Outcome of last pregnancy	30 (45.5)	37 (56.1)	47 (71.2)	41 (62.1)
Onset of labour	60 (90.9)	61 (92.4)	58 (87.9)	47 (71.2)
Signs of labour	43 (65.2)	60 (90.9)	49 (74.2)	37 (56.1)
Any bleeding	40 (60.6)	48 (72.7)	43 (65.2)	34 (51.5)
Pain unassociated to contractions	29 (43.9)	32 (48.5)	35 (53)	25 (37.9)
Care from another caregiver	13 (19.7)	26 (39.4)	18 (27.3)	16 (24.2)
Drugs taken at home	27 (40.9)	33 (50)	36 (54.5)	25 (37.9)
AVERAGE	**51.6**	**61.2**	**63.5**	**54.2**

Combined facilities average: 57.6%; Proportion meeting standard: 0/4.

parameters in this category met the WHO minimum standard of 80%. Nangoma mission hospital was the highest with a parameters average of 63.5%, and

Kanyama first level hospital was the lowest with a score of 51.6%. Ng'ombe urban health centre scored 61.2%, while Mumbwa general hospital got 54.2%.

4. Discussion

Zambia has an early childbearing age, with a high illiteracy levels among females [9], thus it was not surprising to find that more than half, 144 (54.6%) of the participants were aged between 17 and 26 years old, and only 6 (2.3%) had tertiary education (**Table 1**). Improved labor and delivery maternity care have far reaching implication for women and their babies, and hence, quality intrapartum can improve maternal health and neonatal survival, and newborn care. In this regard, one of the strategic priorities for achieving Sustainable Development Goal (SDG) 3 target is to support countries to strengthen their health systems to fast-track progress towards achieving Universal Health Coverage (UHC) [12]. An integral part of these efforts is the provision of quality labor and delivery services. Although more women in Zambia are now giving birth in health facilities, suboptimal quality of care continues to impede attainment of the desired health outcomes [9]. The percentage of births occurring in health facilities increased steadily from 47% in 2007 to 80% in 2018 [9]. Ironically, the increase in births occurring in health facilities has not matched the rate at which maternal mortality ratio (MMR) is declining in the country. Between 2014 and 2019, MMR only declined from 358/100,000 live births [13] to 298 in 2018 [9]. Most of the deaths occurred during labor and delivery and the immediate postnatal [9].

It is widely acknowledged that midwives are central in the provision of quality maternity care to pregnant and birthing women during the preconception, antenatal, intrapartum and postpartum periods. However, for midwives to play this pivotal role of ensuring quality of care for mothers and newborns, they need to be supported with the tools and other resources needed to provide quality maternity care. The role of a midwife starts well before pregnancy and goes beyond birth, through offering of guidance and caring for women as they start to plan their families. Thus, the desire and responsibility of midwives should therefore, be to provide the highest quality care for a woman before, during and after pregnancy. Paradoxically, it is not always that pregnant, labor and birthing women experience high quality maternity care, as shown in the findings of this study. The results of this study are not too different from what is pertaining in other sub-Saharan countries. In 2015, the United Nations (UN) reported that only 40% of all pregnant women in developing countries, particularly in sub-Saharan Africa had the recommended antenatal, intrapartum and postpartum care [14].

Out of the 17 parameters that were observed as women were being admitted during labour category, only four history taking parameters met the WHO minimum standards. The history on number of pregnancies was obtained from 63 (95.5%) women during admission in labor at Nangoma mission hospital; 60 (90.9%) women at Ng'ombe urban health centre and 57 (86.7%) women at Kanyama first level hospital were also asked. The second history parameter that

was obtained was the number of children born alive. This history achieved the WHO minimum standard at Nangoma mission hospital only, where it was obtained from 55 (83.3%) women. Regarding onset of labor; 61 (92.4%) of women who got admitted at Ng'ombe urban health centre were asked, followed by 60 (90.9%) women at Kanyama first level hospital, and then 58 (87.9%) of women who got admitted at Nangoma mission hospital. The fourth parameter was signs of labor; 60 (90.9%) women at Ng'ombe urban health centre were asked on admission (**Table 6**).

The poor performance by midwives in this category is similar to the finding from a phenomenological study that explored women's childbirth experiences of birthing in Zambia, in which inadequate service provision was mentioned as one of the themes that characterized the women's childbirth experiences [15]. Management of a woman during labor and childbirth involves differentiation of normal physiological changes from pathological conditions. This information can be obtained from the woman through history taking. Hence, accurate and detailed history taking when admitting a woman in labor should form a cornerstone of maternity practice, as it helps the health care provider to arrive at a diagnosis of whether a woman is indeed in labor or not.

Progress towards achieving SDG number 3 has been slow in many developing countries because improvements in maternity care provision require overcoming among other hurdles, poor quality of care in maternity units [9]. Components of poor quality of care are mostly experienced by women during labor and childbirth. Poor or lack of history taking is one of the commonest causes of preventable adverse outcomes in institutional deliveries and remains a significant cause of complaints among women who have experienced childbirth in health institutions [16]. Since every woman comes for labor and childbirth with her own expectations, it is therefore, necessary that admitting midwives take time to listen and obtain all the necessary history from each woman in labor and share knowledge, ideas and her expectations, so that she is involved in decision making in her care, in order to promote satisfaction of the birthing process. Putting the woman at the centre of care promotes a positive feeling of the birth experience and leads to women being satisfied with the birth process [17].

Regarding the second category of observations and examinations carried out on admission; only four parameters of fundal height, fetal heart rate, descent and vaginal examinations, out of the ten parameters met the WHO minimum standards in all the four health institutions. The scores ranged between 58 (87.9%) at Kanyama first level hospital on the fetal heart rate parameter to 66 (100%) at Nangoma mission and Mumbwa general hospitals. In addition, both Nangoma mission and Mumbwa general hospitals scored 66 (100%) in vaginal examination (**Table 3**).

The findings on the care provided during labor and delivery category was almost similar to the history taking category. Out of the seven parameters that were being observed, midwives in the four health facilities met the WHO minimum standards in only two parameters; abdominal and vaginal assessments.

Although these two parameters were observed to be done by all the midwives caring for women during labour at Mumbwa general and Nangoma mission hospitals; they were not performed in accordance with the stipulated intervals. The commonest observation that was noted regarding the non-compliance to the stipulated intervals was that midwives conducted births alone due to shortage of staff; therefore, it was not possible for them to remove the sterile gloves and listen to the fetal heart, and then put on fresh ones during the process of caring for women. A study that was conducted in Uganda found fetal heart rate auscultation to be the parameter that was mostly monitored during labor and delivery [18]. Auscultation of the fetal heart is supposed to be done every 15 minutes; fundal height and descent should be done hourly; and vaginal examination, every 4 hours [19]. The parameters that did not meet the standards were ambulation, nutritional support and explanation of expectations. Emptying of the bladder did not meet the standards in Kanyama first level hospital, while informed of time of birth of baby did not meet standards in Ng'ombe urban health centre and Mumbwa general hospital (**Table 5**).

Inadequate number of midwives was observed to be a major obstacle for the health care providers to follow the national and internationally agreed standards for providing optimal care during labour and delivery. With the observance at Kanyama first level hospital of one midwife attending to more than three women in labor simultaneously, there was insufficient time for the midwives to palpate contractions in accordance to recommendations of 30 minutes for 10 minutes. All auscultations in the four health facilities were monitored using fetoscopes. However, not all midwives had functioning watches for counting the fetal heart rate, and most of the wall clocks were situated in positions that could not be seen by midwives in the process of auscultations. Thus, even though auscultations were observed to be done, the accuracy of the recordings was doubtful. All healthcare professionals attending labor and delivery need to be skilled at performing auscultation, interpreting its findings and taking appropriate action [20].

Immediate care of the newborn was the category that scored the highest among all the five categories that were observed. Four of the five parameters, namely: wiping of nose, mouth and eyes; placing baby on mother's abdomen immediately after birth; covering of the baby; and telling the mother of their baby's weight met the WHO 80% minimum standard of quality of care during labor and delivery. The only parameter that did not meet the WHO minimum standard in all the four health facilities was initiation of breastfeeding soon after birth. A total of 50 (75.8%) women who birthed at Mumbwa general hospital were not advised to initiate breastfeeding after birth (**Table 2**). The mothers were given information on breastfeeding as they were being discharged.

The good performance of this category is similar to the finding of a study conducted in Ethiopia regarding the development of a simplified, effective, labor monitoring-to-action tool for better outcomes in labor difficulty, in which most of the parameters under the immediate care of the newborn category were re-

portedly recorded appropriately [21]. Similar to the findings in the Ethiopian study, this study observed that compared to the other parameters that needed to be recorded at certain intervals during labor, midwives found it easy to record the parameters in this category because they were done after delivery.

Regarding care during the third stage of labor category, midwives in all the four health institutions met the WHO 80% minimum standard of practicing active management of labour by giving oxytocin after the birth of the baby. However, none of the midwives in the four health facilities met the standard of informing mothers of their findings (**Table 4**). They rather recorded the findings in the files without informing mothers.

The use of the partograph to monitor the progress of labor is one of the globally recognized tools for reducing maternal mortality, and when used appropriately, it can help health care providers to identify diversions from normal and hence, take appropriate actions timely, to avoid complications [21]. In this study, it was observed that the number of women being attended to daily was more in the antenatal clinic compared to those who were being attended to during labor and delivery. However, the nature of the work involved during the intrapartum period made working in the labor ward more involving. For example, Kanyama first level hospital had 701 deliveries in a period of three weeks with at the most, three to four midwives attending to 35 - 45 deliveries per day. Midwives appeared to be overwhelmed with work and most times rushed to assist one birthing woman after the other, and in the process partographs were filled in after deliveries had occurred. In addition to the suboptimal intrapartum care, this inevitably led to a workforce with moral distress, burnout, and compassion fatigue, hence, even less capable of giving respectful maternity care. This was not the case in Ng'ombe urban health centre, where the numbers of women being attended to during labor and delivery were fewer.

An overall observation was that in instances when there were high numbers of women in labor, infection prevention measures were not adhered to; midwives changed gloves without washing their hands; blood and liquor were mopped by cleaners without decontamination; women were made to birth on the floor supported only by plastics due to shortage of beds; unsterile cotton wool was used to clean the perineum in preparation for second stage; used gloves were not decontaminated before disposal; bucket lids were used as receivers for placentas due to inadequate receivers; blades were used for cutting umbilical cords due to inadequate cord scissors and delivery packs; suturing of perineal tears were done without local anesthetic; and women were not counseled on breastfeeding immediately after birth although that was the preferred feeding option for the majority.

Providing social support by allowing birth companionship throughout labor was a challenge, especially for women who were in early labor, and not considered to be eligible for routine intrapartum care yet. However, according to the findings of a study that was conducted in Zambia, women in general favor continuous birth companionship [15]. Evidence suggests that it is the most signifi-

cant intervention during birth associated with positive effects on perinatal outcomes and women's experience of childbirth [17]. The lack of continuous birth companionship, particularly from relatives of birthing women who were observed in this study, during the latent phase and the second stage of labor, meant that women were likely to have had significant distress and negative childbirth experiences.

5. Conclusion

The conclusion of this study is that the quality of intrapartum care provided to women birthing in health facilities in Zambia was in most cases below the 80% WHO minimum standard for a facility to be considered to be offering quality labour and delivery services. Generally, there was poor documentation of vital parameters of partographs; an indication of poor monitoring of women during labour and delivery, mainly due to shortage of midwives, knowledge and skills gap, and limited knowledge on the importance of the tool. It was not possible for midwives to provide intrapartum care that could be termed as quality and safe at all times, as well as follow local clinical guidelines due to structural barriers, inadequate medical and surgical supplies, and monitoring tools.

Recommendations

The recommendations of this study are that in order to ensure quality intrapartum services that take cognizance of the importance of safety and women's positive childbirth experiences, there is need for local and national stakeholders in Zambia to urgently address the structural barriers that were observed, as well as invest in sufficient numbers of adequately trained and motivated midwives. Motivation of midwives can be done through conduction of mentorship courses on quality intrapartum care provision and use of the partograph, as well as provision of equipment such as, delivery packs, digital blood pressure machines, thermometers, and dopplers, that could help midwives to provide quality care. Continuing professional development (CPD) sessions, supportive supervision visits, monitoring and auditing of partograph use, including recording and decision making could improve the documentation of parameters of partographs.

Limitation of the Study

Data for this study was collected from four health facilities; hence, generalization of findings should be done with caution because of contextual differences.

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their health facilities.

Conflicts of Interest

The authors declare no conflicts of interest with respect to the publication of this article.

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