



FACTORS INFLUENCING DELIVERY OF POSTNATAL CARE EDUCATION TO MOTHERS PRE-DISCHARGE IN HEALTH FACILITIES IN NAIROBI COUNTY, KENYA

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Abstract

Appropriate care during postnatal period is vital to preventing complications and deaths that occur during or immediately after child birth. This study sought to investigate factors influencing delivery of postnatal education provided by health workers to postpartum mothers prior to discharge in various health facilities in Nairobi County. A descriptive cross-sectional study design was used. A sample 422 mothers was systematically selected from 18 health facilities. Semi-structured questionnaires, in-depth interviews and key informant interviews were used for data collection. Factors found to affect delivery of postnatal care education included: lack of standard guidelines, language barrier, lack of individualised postnatal care, poor communication, inadequately trained or hostile attendants, workload versus staffing, health facility culture e.g. some faith based facilities do not encourage family planning, and duration of hospital stay among others.

Key words: factors, delivery, postnatal, care, mothers

1.0 Introduction

Maternal and neonatal morbidity and mortality continue to be recognized internationally as public health priorities (WHO, 2010). More than 15 years since the launch of Safe Motherhood Initiative (SMI), studies continue to indicate that maternal and neonatal mortality levels in Africa are still high. In Kenya maternal mortality ratio (MMR) has remained unacceptably high at 362 maternal deaths per 100,000 live births while infant mortality rate (IMR) is 39 deaths per 1000 live births, neonatal mortality rate (NMR) is at 22 deaths per 1000 live births and perinatal mortality 29 deaths per 1000 pregnancies (KDHS, 2014). Studies have also demonstrated that between 50 to 70% of life threatening newborn illnesses occur in the first week postpartum (SMDP, 2005).

Despite the fact that research has shown that around 45% of maternal deaths occur within the first 24 hours after childbirth, and over 65% of maternal deaths occur during the first week of the postpartum period (SMDP, 2005), early PNC is still diverse and the quality is questionable (Kahn, et al., 2002). According to Kenya Demographic Health Survey (KDHS, 2014) NMR was 22 per 1000 live births contributing to 67% of IMR which is 39 per 1000 live births whereby, 75% of these deaths occur during the first week postpartum (KNBS, 2010b). These deaths take place before child health services begin to provide care, usually at six weeks for the first immunization visit (Charlotte, et al., 2006). These findings show a high mortality for both mothers and infants in early postpartum period (first 7 days).

This study therefore, sought to establish barriers to delivery of optimal PNC education in Nairobi county health facilities. It was envisaged that the study would contribute to development of innovative strategies to enhance the provision of PNC education in the health care units.

2.0 Materials and Methods

A descriptive cross-sectional study was undertaken in health facilities with maternity units within Nairobi County. Health facilities (n=29) which recorded an average of a delivery per day as per records from Nairobi City Council were eligible for study. Of these, 18 were selected based on type of ownership (Public, FBO/NGO and Private) and workload as indicated in Table 2.1.

Table 2.1: Summary of Distribution of Health Facilities.

Facility level	Private	Public	NGO/FBO	Total
Level 3	6	2	2	10
Level 4	4	2	2	8
Level 6	7	5	6	19

*NGO- Non-Governmental Organisation, FBO- Faith Based Organisation

The primary study population entailed mothers delivering in maternity units within Nairobi County health facilities. Only mothers with full term neonate (dyad) were included to ensure uniformity of information whereas those whose babies had died or those who had premature babies and those who were not in a position to provide information due to poor health were excluded. A sample of 422 mothers based on Fishers, *et al.* (1991) formula was utilised in the study where the study participants were systematically sampled. Convenience sampling was used to select healthcare workers that were working in maternity units as nurse/midwives and not offering sensitive services (e.g. delivery) during the study. Semi-structured questionnaires were used to collect data from the mothers. Key informant guides were used to collect information from the maternity unit in-charges and in-charge of Division of Reproductive Health (DRH) on factors affecting PNC education delivery and the responses later transcribed. An observation checklist was used for checking components specified in the job aids in the health facilities.

Data analysis was done by use of statistical package for social sciences (SPSS) version 20.0. Approval to conduct the study was sought from the University of Nairobi/ Kenyatta National Hospital Ethical Review Committee as well as the Ministry of Public Health and Sanitation through the Department of Reproductive Health. Permission to carry out the study was obtained from the hospital administrators of each of the health facilities under study. An informed consent was sought from the participants whereby the mothers were free to use either *Kiswahili* or English consent forms according to their preference. Respect, care, anonymity and confidentiality were maintained throughout the data collection period. At the end of the study, data were stored according to the regulations of the School of Public Health University of Nairobi (SPHUN).

3.0 Results

3.1 Distribution of mothers across facility type and levels

The mothers were distributed in terms of the facility level (level 3, 4, 6) and facility type (private, public, NGO/FBO) as shown in the table below:

Table 3.1 Distribution of mothers across facility type and levels

Facility level	Private	Facility type Public	NGO/FBO	Total
Level 3	25(52.1)	15(6.2)	108(82.4)	148(35.1)
Level 4	23(47.9)	139(57.2)	23(17.6)	185(43.8)
Level 6	-	89(36.6)	-	89(21.1)
Total	48(11)	243(58)	131(31)	422(100)

3.2 Maternal characteristics

3.2.1 Number of previous births

As shown in Figure 3.1, over a third (40%) of the respondents had no previous births. Similarly, over a third (40%) of the respondents had one previous birth experience.

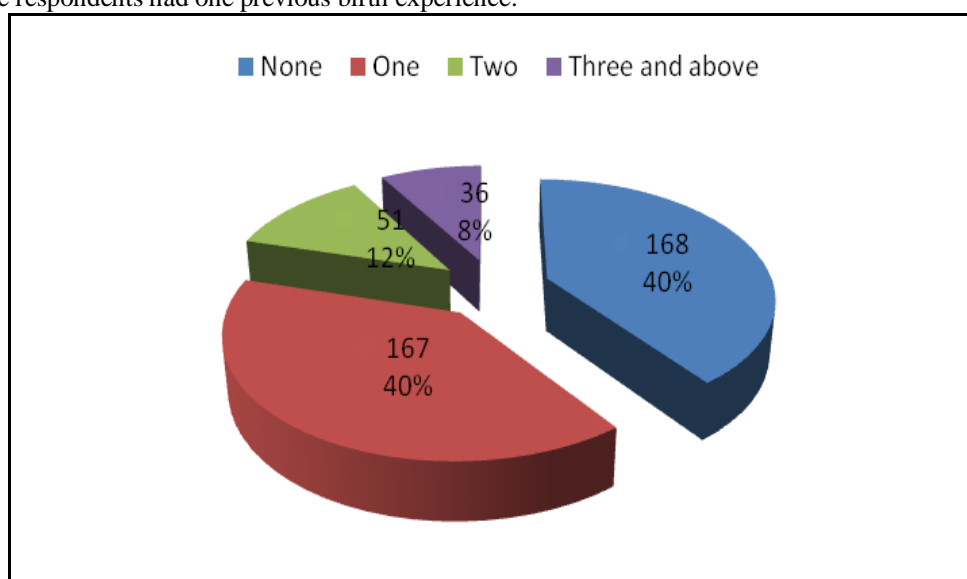


Figure3. 1: Number of Previous Births

3.2.2 Mode of delivery

Three quarters (76%) of mothers had delivered normally. All level three public facilities (100%) births were normal deliveries given the lack of operation theatre facilities. The highest proportion of cesarean section (CS) occurred in private level 4 and public level 6 facilities which tied at 48%. Table 3.2 summarises the results as follows:

Table 3.2: Mode of delivery

Facility level	Type	Normal No(%)	Caesarean section No(%)	Total No(%)
Level 3	Private	22(88)	3(12.2)	25(16.9)
	Public	15(100)	-	15(10.1)
	NGO/FBO	86(80)	22(20)	108(73)
	Overall	123(83)	25(17)	148(100)
Level 4	Private	12(83)	11(48)	23(12.4)
	Public	125(90)	14(10)	139(75.1)
	NGO/FBO	15(65)	8(35)	23(12.4)
	Overall	152(82.2)	33(17.8)	185(100)
Level 6	Public	46(52)	43(48)	89(100)
	Aggregate	321(76)	101(24)	422(100)

No- number, %- percent

3.2.3 Duration of hospital stay

Of the respondents, 7% were discharged within 12 hours of delivery, 26% within 24 hours, 27% within 48 hours, 30.6% between 3-5 days and 9.3% were released after staying more than 5 days. On the other hand, level 3 public facilities discharged 31% of their mothers within 12 hours of delivery followed closely by level 4 NGO/FBO at 30% and private level 3 at 26%.

Table3.2: Duration of hospital stay across facility levels and ownership

Level	Facility type	<12hrs No(%)	24hrs No(%)	48hrs No(%)	3-5 days No(%)	>5 days No(%)	Total No(%)
3	Private	7(26)	12(48)	3(13)	3(13)	0(0)	25(52.1)
	Public	4(31)	2(15)	7(38)	1(8)	1(8)	15(6.2)
	NGO/FBO	4(4)	13(12)	49(46)	40(37)	2(2)	108(82.4)
	Total	15(10)	27(18)	59(40)	44(30)	3(2)	148(35.18)
4	Private	0(0)	4(17)	5(22)	11(52)	3(9)	23(100)
	Public	8(6)	64(46)	39(28)	20(14)	8(6)	139(100)
	NGO/FBO	7(30)	4(17)	3(13)	9(39)	0(0)	23(100)
	Total	15(8)	72(39)	47(25)	40(22)	11(6)	185(100)
6	Public	0(0)	11(13)	9(10)	44(49)	25(28)	89(100)
	Aggregate	30(7)	110(26)	115(27)	28(30)	39(9)	422(100)

Hrs- hours, No- number, %- percent

Duration of hospital stay affects patient-health worker contact. Expected length of stay post-delivery depends on mode of delivery. Recommended time for uncomplicated normal delivery is 24-48 hours while for uncomplicated CS is 72-120 hours. This was however, not the case in some facilities where due to some constraints such as hospital beds availability, mothers were discharged within 12 hours postpartum. Concerns over shortened hospital stay of mothers were confirmed in oral interviews. Some health workers had this to say, "*Tunawaambia waende nyumbani kwa sababu hakuna nafasi ya kukaa. Na pia wao wanasema hawana watu wa kuangalia boma zao.*" (We tell them to go home because of lack of space. They also claim they have nobody to take care of their households), said a level three private nurse. "*We do not like keeping these mothers here due to congestion that makes it easy to spread infections. We at times release them in 6 hours which is extremely short,*" said a level 4 public maternity in-charge.

Some mothers expressed their hurry to leave health facilities with one mother in level 4 public facility saying, "*Mimi sina mtu wa kuachia watoto wangu kwa hivyo nilingojea uchungu uwe mwingi ndio nikaja nikazaa usiku wa kuamkia leo na sasa nataka waniachilie niende nikawatunze.*" (I do not have a child minder so I waited until labour pains were intense then came. I delivered last night and I want to be released to go take care of my children).

3.2.4 Duration of hospital stay and mode of delivery

Nearly all (90.5%) of those who delivered by CS were discharged after the 3rd day, whereas a third (33.7%) of those who delivered normally were discharged within 24 hours and slightly over a third (34.7%) within 48 hours as expected.

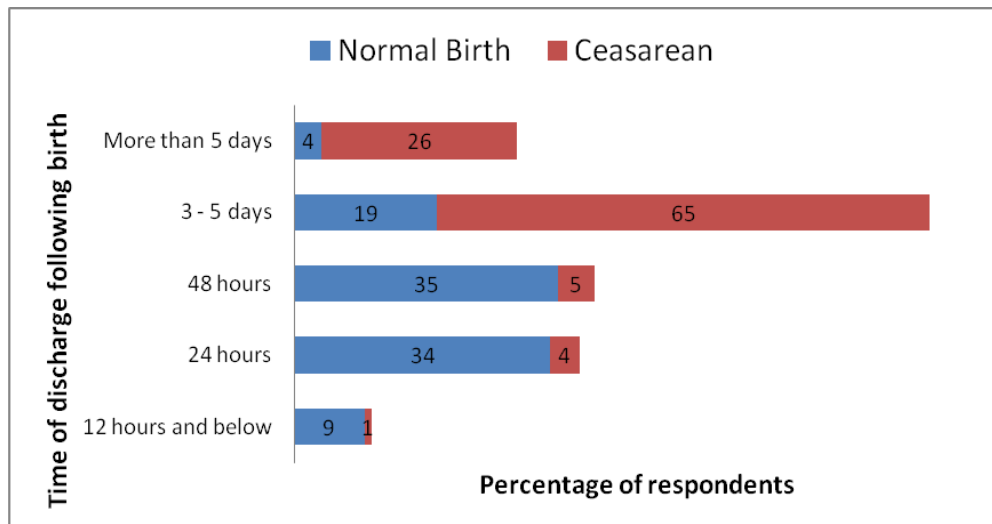


Figure 3.2: Duration of stay against mode of delivery

3.3 Factors Affecting PNC knowledge among postpartum mothers

Qualitative approach was employed to determine factors influencing PNC education. From the study findings, a large number of patients affected delivery of PNC education. For instance, some level six respondents said, *"Ingawaje tuko wengi, wauguzi huja kila asubuhi na kutuhutubia. Lakini kila mama hapati nafasi ya kuuliza swali."* (Even though we are many, the nurses give us health talks every morning but not every mother gets an opportunity to ask questions).

Other respondents expressed that specific socioeconomic factors such as poverty limit their ability to comply with the said PNC guidelines. The idea that some institutions do not provide family planning because of conscientious objections was also raised. Respondents from some of the FBO affiliated institutions said, *"I am not satisfied, I was not given any information on family planning because this is a church institution. They should give alternatives then we make our own choices."*

The lack of individualised PNC education was also identified as a possible problem. Indeed, some respondents felt that health facilities need to have rooms and facilities for demonstration. For instance, *"Improve patient privacy during treatment, where one can ask personal questions,"* said level 4 public respondent.

More contact time with the health workers, staff to improve their attitude towards patients to allow free flow of information was also noted. Some also felt that demonstrations should be adopted as a training method. *"Tunafaa kuwa na mahali pakufanyiwa maonyesho kwani maelezo hayatoshi kujua,"* said a level 6 respondent. There should be space for demonstration because information may not be sufficient for one to learn.

Another factor cited by mothers and healthcare workers was language barrier where they suggested to be given self-guides in the language they understand to carry home for reference. *"We should be given materials in simple language to refer to when we go home because at times we are too tired to listen after birth and also forget easily,"* said a level 3 private respondent.

The attitude of staff was also seen as a major issue. Respondents had this to say, *"Wauguzi wengine ni wakali, ukiwauliza swali wanakuangalia tu na kwenda ama wana kwambia unauliza swali la ujinga. They need to know we are paying for the services and improve their attitude,"* said a level 3 Public respondent. (Some health workers are so harsh such that when one asks a question they just look at you and leave or tell us to stop asking silly questions). In addition, some respondents felt that the information given is not consistent.

Data from the observation checklist showed that facilities did not have standard guidelines thus each used their own job aids and most of the health workers did not refer to them during health talk thus giving inconsistent information. Key information from Division of Reproductive health (DRH)- ministry of Health showed that though the national postnatal guidelines had been developed, the same was yet to be disseminated to facilities.

4.0 Discussion

This study demonstrated that a range of factors affect the delivery of PNC education to mothers. The major one was lack of standardized guidelines thus using different reference materials. The difference in the quality of care noted across facility level and ownership may be explained with reference to specific facility factors. Level 3 and level 4 facilities tend to be better at primary health care issues which include health promotion than level 6 facilities (Mwangi, et al., 2008). Further, level 6 facilities receive mostly high-risk mothers – they conduct most Caesarian-sections – and such mothers may have more demands hence special information needs. Moreover, the variation observed across facility level may be linked to the manner in which health facilities are classified in Kenya. For instance, better-equipped (or staffed) private hospitals are normally classified as level 4 facilities. They may not be comparable to their public counterparts where they manage large numbers of women with limited resources.

Other factors associated with negative rating of PNC education offered at the various facilities included the sensitivity of caregivers, the extent to which anxieties and concerns were taken seriously, how rushed caregivers seemed, the helpfulness of advice and support, mode of delivery, whether help and advice was individualised. Schmied (2009) reckons that there is potential for individualised care to impact outcomes for mothers but established routines and institutional priorities are difficult to change. The constraints especially in public health care system and midwifery practice need to be examined to better serve mothers' needs (Emmanuel & Greedy, 2001).

Length of postnatal hospital stay was also attributed to satisfaction with postnatal care given. Staying in hospital for one to two days was associated with more positive ratings of information given. However, longer stay of more than 3 days was associated with less positive rating. The results are consistent with studies conducted elsewhere (Kahn, et al., 2002, McKellar, et al., 2006) that showed that shorter hospital stay compromise on provision of PNC education as it impacts on contact time.

As Cargill (2007) puts it, the shortened hospital stay presents a need for community based postpartum care and this should be emphasised on, added, well used and appreciated. There is an unmet need for community based PNC in developing countries (Koblinsky, 2005) and this concurs with the findings in this study where the maternity in-charges interviewed expressed a concern for the vulnerable populations requiring support after discharge. Charlotte, et al. (2006) emphasised the need to establish how to operationalize, improve and sustain linkages between homes and hospitals (Charlotte, et al., 2006). This would especially benefit the 57.2% of the mothers discharged with inadequate knowledge.

5.0 Conclusion

Factors influencing the PNC education to mothers include, language barrier, lack of individualised PNC care, poor communication, facility culture, workload, unfriendly attendants, short hospital stay, inadequate staff and most importantly lack of standard national PNC guidelines.

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