



ORIGINAL ARTICLE

Home Delivery, Umbilical Cord Care Practices and Postnatal Care Utilization among Mothers in a Rural Community of Sokoto State

Kaoje AU¹, Okafoagu NC², Raji MO¹, Adamu YH¹, Nasir MA¹, Bello M¹, Ango UM¹

¹Department of Community Health, Usmanu Danfodiyo University, Sokoto Nigeria

²Department of Community Health, Nile University of Nigeria, Abuja, Nigeria

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ABSTRACT

Introduction: The postnatal period is critical to the health and survival of mothers and newborns as it provide opportunities for promoting healthy behaviour including appropriate cord care practices. The study aimed to assess home delivery, cord cares practices and utilization of postnatal care services by mothers.

Methods: A community-based descriptive cross-sectional study was conducted among 352 mothers of children less than one year in a rural community. A multistage sampling technique was used to select the respondents from the households. Close-ended pretested questionnaire were used to collect data through face-to-face interview and data analyzed using Statistical Package for Social Sciences version 23.0.

Results: Prevalence of home births was 70.7% and 48.2% of these deliveries were conducted by traditional birth attendants. More than three-quarters of mothers cleaned their baby's umbilical cord but only 40.7% used cotton wool with methylated spirit. The most prevalent cleaning technique was cleaning cord base and surrounding skin simultaneously. Only 18.5% of the respondents went to the hospital following home delivery. Among these, 45.7% of them visited hospital for postnatal care within the first 24 hours, 10.9% visited on second day and 21.7% before the end of the first week.

Conclusion: Home deliveries, inappropriate umbilical cord care practices and low utilization of postnatal care services are still prevalent practices in this community in spite of availability of a health facility. More health education programmes to promote appropriate newborn care practices are recommended.

Correspondence to:

Dr. Aminu Umar Kaoje
Department of Community Health
Usmanu Danfodiyo University, Sokoto Nigeria
Email: umar.aminu1@uduso.edu.ng
Telephone: (+234) 8037003110

INTRODUCTION

The place of delivery is a critical determinant of birth outcome and has the potential to influence the likelihood of receiving a postnatal checkup in the first two days.¹ Hence, increasing the proportion of hospital delivery is an important factor in reducing death from pregnancy-related complications

both to the mother and her baby.¹ Skilled health care providers are not only to take deliveries and manage complications when they occur, but are also to ensure prompt referral of the mother to the next level of care when the need to do so arises. According to the 2013 Nigerian Demographic and Health Survey,¹ 63% of births were delivered at home,

however, the Multiple Indicator Cluster Survey (MICS) report of 2017,² showed that 60.2% of deliveries occurred at home and as much as 87.7% of births in Sokoto during the same period occurred at home.

Infection prevention is a very important strategic intervention in ensuring desirable outcomes during the delivery and postnatal periods. Neonatal tetanus (usually caused by using contaminated instruments or applying contaminated substances to the umbilical stump after cutting) is a common life-threatening and preventable complication after delivery, especially in rural areas where health facilities may be inaccessible.¹ Most of the deliveries at home are conducted by traditional birth attendants (TBAs) and other untrained caregivers in rural areas of Nigeria.³ Delivery and newborn care provided at home by these traditional birth attendants (TBAs) and other caregivers, are most often conducted under septic conditions. Unclean delivery practices and cutting of the umbilical cord with unsterile instruments usually contribute to the contamination of the cord and increased risk of microbial infection especially tetanus.⁴ Findings from studies conducted in Nigeria and Cameroon revealed unsatisfactory levels of cord care practices among mothers and therefore have potentials to increase risk of infections and mortality in the neonatal period.^{5, 6}

Antenatal and postnatal services are cost effective interventions that reduce maternal and child morbidity and mortality. Postnatal period is considered a critical period for neonates and mothers, therefore, it is recommended that the mother and newborn have at least three checkups within seven days after delivery in order to identify, manage and prevent complications.⁷ The earlier the newborns are presented, the earlier the problems are detected and managed leading to better outcomes.

Several campaigns both in the electronic and print media encouraging antenatal clinic (ANC) attendance and hospital delivery have been put in place by the Sokoto State government and development partners working in the State. This is expected to have ripple effects by equipping the mothers with adequate knowledge of umbilical cord care and the need for postnatal care services utilization. The study aimed to determine prevalence and factors that promote home delivery, assess pattern of umbilical cord care practices as well as postnatal care utilization among mothers of infants in Sifawa community of Sokoto State, Nigeria.

METHODOLOGY

The study was conducted in a rural community of Sokoto State with an estimated population of pregnant women of 13,486. The community has only one Primary Health Care centre and a General hospital located about 3km away from it. The community is located in Wamakko Local Government Area of the State. The inhabitants are predominantly Hausas. Their major occupations are farming and animal husbandry. A community-based descriptive cross-sectional study was conducted between April and June 2017 among women who gave birth to live babies within the last 12 months. The sample size for the study was determined by using the formula:⁸ $n = z^2 pq/d^2$ where n = minimum sample size required, z = standard normal deviate at 95% confidence level = 1.96, p = estimated proportion of variable of interest in the another study, d = tolerable alpha error level or level of precision = 0.05, q = complementary probability of p ($q = 1 - p$). The required sample size of 352 was obtained after factoring attrition rate of 10% which could be due to non-response to some questions and loss of part or whole of filled questionnaires.

A multistage sampling technique was used to select the study respondents from the community.

Stage 1: One local government area (Wamakko LGA) out of 23 was selected using simple random sampling method by balloting. Stage 2: One political ward (Sifawa) out of 10 from the selected LGA was selected using simple random sampling method by balloting. Stage 3: One community (Sifawa) out of the five communities was selected using simple random sampling method.

The selected community was mapped and all households numbered to generate a sampling frame of 1,056 households. A sampling interval of 1 in 3 was obtained by dividing total number of households (1056) by sample size (352). Stage 4: Systematic sampling technique was used to select the household from the study community, using the calculated sampling interval. A simple random sampling technique by balloting (lucking dip approach) was used to select the first household between numbers one to three, then subsequently, every third household was selected. In any household where there was more than one eligible person, lucking dip approach was applied to select one respondent. And where there was nobody in the selected household or no eligible respondent, the next eligible households were selected. The process continued until the required number of respondents was obtained.

A structured questionnaire with closed and open-ended questions was used to obtain information about respondent's socio-demographic characteristics, obstetric history, place of delivery, pattern of umbilical cord care practices, availability and utilization of postnatal care services. Data was collected through face-to-face interview by trained research assistants who also speak the local

language (Hausa language) fluently. Questionnaire was pretested in Dingyadi community, which is 10 km away from study community, though both are within the same LGA. Data obtained from the field were entered into computer and analyzed using Statistical Package for Social Science (SPSS) IBM Incorporation, version 23.0. Mean and standard deviation of continuous data, frequency and percentage on numerical data were performed and results presented in simple tables. Ethical approval was obtained from the Sokoto State Research Ethics Committee. Permission was sought and granted by the LGA authority. Permission for community entry was obtained from the District Head.

RESULTS

A total of 358 respondents were interviewed but only 352 questionnaires were found suitable for analysis, giving a response rate of 98.3%. The respondents' ages ranged between 18 to 48 years, with mean age of 26.7 ± 6.0 years. Majority of the respondents 193 (54.8%) were Hausa followed by Fulani 62 (17.6%). Twenty one (6.1%) were currently not married and almost all the respondents 347 (98.6%) were Muslims. Almost equal proportion had either only informal or formal education while only 15.3% of those with formal education had tertiary education. While 157 (45.0%) had no occupation, the remaining engage in occupations ranging from civil servant 21 (6.0%), to farming (animal husbandry) 12 (3.4%). Majority 282 (80.1%) reported that their spouses had formal education; among which 163 (58.0%) had tertiary education. A total of 510 births were reported, out of which 336 (65.9%) were alive, 80 (15.7%) stillbirths and 55 (10.8%) were early neonatal deaths while late neonatal deaths recorded were 39 (7.6%). (Table 1)

Table 1: Socio-demographic characteristics of the respondents

| Variables | Frequency (n=352) | Percent |
|--|----------------------|---------|
| Age group (years) | | |
| ≤ 24 | 90 | 25.6 |
| 25 - 34 | 211 | 59.9 |
| 35 - 44 | 51 | 14.5 |
| Tribe | | |
| Hausa | 193 | 54.8 |
| Fulani | 62 | 17.6 |
| Yoruba | 36 | 10.2 |
| Igbo | 24 | 6.8 |
| Others | 37 | 10.5 |
| Marital Status | | |
| Married | 331 | 94 |
| Not married | 21 | 6.1 |
| Religion | | |
| Islam | 347 | 98.6 |
| Christianity | 5 | 1.4 |
| Educational status | | |
| Formal | 177 | 50.3 |
| Informal Only | 175 | 49.7 |
| Highest level of education (n=177) | | |
| Primary | 69 | 39.0 |
| Secondary | 81 | 45.8 |
| Tertiary | 27 | 15.2 |
| Occupation | | |
| Nil | 157 | 44.6 |
| Business/Petty Trading | 139 | 39.5 |
| Artisans (hair plating, tailoring, knitting, etc.) | 23 | 6.5 |
| Civil Servant | 21 | 6.0 |
| Farming | 12 | 3.4 |
| Spouses' educational status | | |
| Formal | 282 | 80.1 |
| Informal Only (Qur'anic) | 70 | 19.9 |
| Spouses' highest level of education (n=282) | | |
| Primary | 22 | 7.8 |
| Secondary | 97 | 34.4 |
| Tertiary | 163 | 57.8 |
| Spouses' occupation | | |
| Civil Servant | 151 | 42.9 |
| Business/Petty Trading | 89 | 25.3 |
| Farming | 70 | 19.9 |
| Artisans | 42 | 11.9 |

Majority 249 of the respondents (70.7%) delivered their last child at home and 78 (31%) of these did not choose to deliver at home. Almost half of the home deliveries 120 (48.2%) were conducted by TBAs, followed by 55 (22.0%) that delivered without assistant while only 38 (15.3%) of the deliveries were attended by trained providers at home. More than two-thirds 171 (69.0%) of the respondents chose to deliver at home and the reasons for these included not wanting to be termed as lazy 81 (47%), hospital delivery is contrary to their culture 22 (12.9%), house is far from the facility 20 (11.7%), husband not approve of hospital delivery each 20 (11.7%) while 18 (10.5%) reported not having enough money to pay for hospital delivery services. (Table 2) Almost two-thirds of the respondents 233 (66.2%) believed home delivery is safe and 236 (67%) will deliver their next baby at home while 216 (61.4%) will advise their relatives or friends to deliver at home. Thirty-four (13.7%) of the respondents that delivered at home encountered some problems such as excessive bleeding by 18 (52.9%), prolonged labour greater than 24 hours by 9 (26.5%), 6 (17.6%) had retained placenta and convulsions by 5 (14.7%). Most of them 14 (41.2%) were taken to hospital, 7 (20.5%) reported that they were left at home to recover while 6 (17.6%) taken to TBAs. (Table 3)

Majority of respondents 280 (79.5%) clean their babies umbilical cord and of these 137 (49%) use hot water, 114 (40.7%) of them use cotton wool with methylated spirit while 29 (10.4%) reported use of handkerchief/clean rag soaked in tepid water. After the cleaning, 105 (37.5%) do not apply anything and 91 (32.5%) applied Chlorhexidine while 84 (30.0%) applied toothpaste. Most of the respondents 173 (61.8%) do the cord cleaning twice a day, 80 (28.5%) do after bathing the baby, 15 (5%) once a day and 12 (4.3%) do it whenever they change baby's diapers.

Table 2: Characteristics and prevalence of home delivery among respondents

| Variables | Frequency | Percent |
|---|-----------|---------|
| Place of delivery of your last child (n=352) | | |
| Home | 249 | 70.7 |
| Hospital | 103 | 29.3 |
| If home delivery, who conducted the delivery (n=249) | | |
| TBA | 120 | 48.2 |
| Yourself | 55 | 22.1 |
| Nurse/midwife/chew | 38 | 15.3 |
| Women from neighbourhood | 21 | 8.4 |
| Your mother | 10 | 4.0 |
| Others | 5 | 2.0 |
| For the deliveries by TBA (n=120) | | |
| TBA came to your house | 115 | 95.8 |
| Taken to TBA house | 5 | 4.2 |
| Did you choose to deliver at home? (n=249) | | |
| Yes | 171 | 69.0 |
| No | 78 | 31.0 |
| Main reason for choosing to deliver at home (n=171) | | |
| I don't want to be termed a lazy woman | 81 | 47.4 |
| Hospital delivery is contrary to my culture | 22 | 12.9 |
| My house is far from the health facility | 20 | 11.7 |
| My husband did not approve of my hospital delivery | 20 | 11.7 |
| Had no enough money to pay for hospital delivery services | 18 | 10.5 |
| My in-laws did not approve of my hospital delivery | 10 | 5.8 |

Cord cleaning techniques reported included cleaning cord base and surrounding skin at the same time by 150 (53.6%), first cleaning cord base before the surrounding skin 79 (28%), cleaning surrounding skin only 27 (9.6%) and cleaning only the cord stump 21 (7.5%). Two thirds of the respondents 201 (67.0%) reported cleaning their hands always before and after cord care, 90 (30.0%) sometimes clean the hands while 9 (3%) do not. Among those that clean their hands, 69.4% reported using soap and water, 24.7% water only while 5.2% clean hand on their wrapper or any available rag. (Table 4)

Forty-five (12.8%) of the respondents observed abnormal changes on the baby's cord during the period of care. Some of the observed changes were reddish and swollen umbilical stump by 10 (19.2%), discharging of fluid 8 (15.4%), and smelling cord stump by 4 (7.7%).

The observed symptoms were high body temperature by 18 (40.0%), inconsolable cry 11 (24.4%), difficulty in breathing 10 (22.2%) and body twitching with associated inability to suck breast 6(13.3%).

In response to observed symptoms, 18 (40.0%) consulted TBAs, 17 (37.8%) took their babies to the health facility while 10 (22.2%) invited health provider for home care. A total of 13 (30.8%) neonatal deaths were reported of which 9 (71.1%) were early neonatal while 4 (28.9%) late neonatal deaths.

Large proportion 11 (84.6%) of neonates that died had fever prior to death, and in addition 8 (76.9%) and 4 (61.5%) had discharging and smelling umbilical cord stump, respectively. Reddish and swollen umbilical cord stump was also noticed in 10 (30.8%) of the neonates. (Table 5)

Table 3: Respondents' attitude to and experience of home delivery

| Variable | Frequency | Percent |
|---|-----------|---------|
| Home delivery is safe (n=352) | | |
| Yes | 233 | 66.2 |
| No | 88 | 25.0 |
| I don't know | 31 | 8.8 |
| Where will you want to deliver your next pregnancy? (n=352) | | |
| Home | 236 | 67.0 |
| Hospital | 116 | 33.0 |
| If you have a pregnant relative/ friend, where will you advise her to deliver? (n=352) | | |
| Home | 216 | 61.4 |
| Hospital | 136 | 38.6 |
| Encountered problem following home delivery? (n=249) | | |
| Yes | 34 | 13.7 |
| No | 215 | 86.3 |
| Nature of the problem (n=34) | | |
| Excessive Bleeding | 18 | 52.9 |
| Prolonged labour (> 24 hours) | 9 | 26.5 |
| Retained placenta | 6 | 17.6 |
| Convulsion | 5 | 14.7 |
| When the problems occurred what was done? (n=34) | | |
| Taken to hospital | 14 | 41.2 |
| Left at home to recover | 7 | 20.5 |
| Taken to TBA house | 6 | 17.6 |
| Health worker was invited to the house | 5 | 14.7 |
| TBA was invited | 2 | 2.9 |

Majority 203 (81.5%) of the respondents were not taken to the hospital following home deliveries and all the respondents did not provide reasons for not going to hospital. However, those that went to hospital, 21 (45.7%) of them went within 24 hours after birth, 5 (11%) on second day, 10 (22%) before

Table 4: Pattern of umbilical Cord Care practices among mothers

| Variable | Frequency | Percent |
|--|-----------|---------|
| Cleaning of umbilical cord stump of baby? (n=352) | | |
| Yes | 280 | 79.5 |
| No | 72 | 20.5 |
| Materials used for the cleaning? (n=280) | | |
| Hot water | 137 | 48.9 |
| Cotton wool with methylated spirit | 114 | 40.7 |
| Others (handkerchief, clean rag) | 29 | 10.4 |
| What do you apply on the cord after cleaning? (n=280) | | |
| Nothing | 105 | 37.5 |
| Chlorhexidine | 91 | 32.5 |
| Toothpaste | 84 | 30.0 |
| How often do you do cord cleaning? (n=280) | | |
| Twice a day | 173 | 61.8 |
| After bathing the baby | 80 | 28.5 |
| Once a day | 15 | 5.4 |
| Whenever I change the baby's napkin/pampers | 12 | 4.3 |
| What cord cleaning technique do you use? (n=280) | | |
| Clean cord base and surrounding skin at the same time | 150 | 53.6 |
| Clean cord base before the surrounding skin | 79 | 28.2 |
| Clean surrounding skin only | 27 | 9.6 |
| Clean cord stump only | 21 | 7.5 |
| Clean only material use in tying stump | 3 | 1.1 |
| How often do you clean your hands before and after cord care? | | |
| Yes always | 201 | 67.0 |
| Yes sometimes | 90 | 30.0 |
| No, not at all | 9 | 3.0 |
| If yes, how did/do you wash your hands? | | |
| Wash with water and soap | 202 | 69.4 |
| Wash with water only | 72 | 24.7 |
| Clean hand on my wrapper | 15 | 5.2 |
| Clean with available rag | 2 | 0.7 |

the end of the first week while another 10 (22%) between 8 and 42 days from birth. Majority 89 (86.4%) of the respondents that delivered at health facility reported being checked by health workers and of these, 65 (73.0%) were checked within the first one hour after delivery. Some of the postnatal care received included assessment and checking for bleeding and temperature by 82 (92.2%), assess for danger signs 80 (90.0%), promote nutrition and insecticide treated bed nets use 71 (79.8%), provide counseling and range of family planning options 70 (78.7%), initiation of breastfeeding and check both breast for mastitis 68 (76.4%) and counsel on danger sign and home care by 68 (76.4%).

More than three quarters of mothers 75 (84.3%) reported that health worker measured and recorded the weight and checked temperatures of their babies. Other postnatal services received were encouraged for routine immunization by 79 (88.8%), information on hygiene, good skin, eye and cord care practices by 71 (79.8%), counseling on danger signs and home care 68 (76.4%), support for optimal feeding practice especially exclusive breast feeding by 61 (68.5%), while 60 (67.4%) were encouraged to register the birth. Large proportion 73 (82%) of respondents reported that both the mother and baby were checked on discharge. (Table 6)

DISCUSSION

The study revealed that majority of the mothers delivered at home with almost half being assisted by TBAs. This corroborates the reported high rate of home deliveries in Nigeria¹. This finding differs however from a study conducted in Jos, Plateau State which found that majority of the mothers delivered in the hospital.⁹ This observed difference might be due to varying educational status of the women in the two geopolitical areas of the country.

Table 5: Umbilical cord infection and outcome

| Variables | Frequency | Percent |
|---|-----------|---------|
| Abnormal changes on the cord during the period of care? (n=352) | | |
| Yes | 45 | 12.8 |
| No | 307 | 87.2 |
| Nature of observed changes? (n=45) | | |
| Umbilical cord smelling | 14 | 31.1 |
| Cord stump discharging smelling fluid | 16 | 35.6 |
| Umbilical stump area was reddish and swollen | 15 | 33.3 |
| Symptoms observed on the baby following abnormal changes? (n=45) | | |
| High temperature | 18 | 40.0 |
| Difficulty in breathing | 10 | 22.2 |
| Inconsolable cry | 11 | 24.4 |
| Body twitching and unable to feed/open mouth | 6 | 13.3 |
| Action taken in response to symptoms observed (n=45) | | |
| Cared for at home by a health care worker | 10 | 22.2 |
| Taken to TBA/TBA consulted | 18 | 40.0 |
| Taken to health facility | 17 | 37.8 |
| What happened to the baby following the observed changes (n=45) | | |
| Recovered | 32 | 71.1 |
| Died | 13 | 28.9 |
| If dead, when did it occur? (days) (n=8) | | |
| 0-6 | 9 | 69.2 |
| 7-28 | 4 | 30.8 |
| What were symptoms noticed among dead neonates (n=13) | | |
| Fever | 11 | 84.6 |
| Umbilical Stump Area was Reddish And Swollen | 10 | 76.9 |
| Umbilical cord discharging pus/fluid | 8 | 61.5 |
| Smelling umbilical cord stump | 4 | 30.8 |

Table 6: Categories of Postnatal care services provided for respondents at the health facility

| Variables | Frequency | Percent |
|--|------------------|----------------|
| Were you and or your baby taken to the hospital for health checkup for any problem after home delivery? (n=249) | | |
| Yes | 46 | 18.5 |
| No | 203 | 81.5 |
| If yes, how long after the delivery did you go to the hospital? (n=46) | | |
| Within 24 hours from birth | 21 | 45.7 |
| On the second day after birth | 5 | 10.9 |
| Before the end of the first week of life (6 – 7 days) | 10 | 21.7 |
| At the end of six weeks (8 – 42days) | 10 | 21.7 |
| When you delivered at hospital, did health worker check you and/or your baby? (n=103) | | |
| Yes | 89 | 86.4 |
| No | 14 | 13.6 |
| If yes, was it within the first one hour after delivery? (n=89) | | |
| Yes | 65 | 73.0 |
| No | 24 | 27.0 |
| Categories of postnatal care services provided (n=89) | | |
| Check for bleeding and temperature | 82 | 92.2 |
| Assess for danger signs | 80 | 90.0 |
| Promote nutrition and Insecticide Treated Bed Nets use | 71 | 79.8 |
| Provide counselling and range of family planning options | 70 | 78.7 |
| Counsel on danger sign and Home Care | 68 | 76.4 |
| Initiation of breastfeeding and check both Breast for mastitis | 68 | 76.4 |
| Postnatal care Services provided at the health facility for babies (n = 89) | | |
| Encourage/refer for routine immunization | 79 | 88.8 |
| Measure and record weight, check temperature | 75 | 84.3 |
| Promote hygiene, good skin, eye and cord care | 71 | 79.8 |
| Support optimal feeding practice especially exclusive breast feeding | 61 | 68.5 |
| Support optimal feeding practice especially exclusive breast feeding | 61 | 68.5 |
| Encourage and facilitate birth registration | 60 | 67.4 |

Some of the reasons given for delivering at home were finances, being contrary to culture and the mother not wanting to be termed lazy. Studies in Jos, Zaria and Lagos also identified same factors as reasons for home delivery.⁹⁻¹¹ Clean cord care is one of the essential newborn care practices recommended by the World Health Organization to reduce morbidity and mortality amongst the world's newborns.¹ Unlike in this study where less than half of the

mothers cleaned the umbilical cord with methylated spirit and cotton wool, a study in Bayelsa State, southern Nigeria showed that majority of the mothers used methylated spirit to clean the cord although as many as more than half also used other substances in addition to methylated spirit.¹² A study in southwestern Nigeria reported the use of methylated spirit alone in cleaning the cord.¹³ More recently in addition to use of methylated

spirit for cord care, the Nigerian government recommended the use of chlorhexidine solution for cord care.¹⁴

However, World Health Organization advocates for dry umbilical cord care and application of topical antiseptics in situations where hygienic conditions are poor or infection rates are high.¹⁵ After cleaning the cord with methylated spirit, a few of the mothers applied chlorhexidine and this is similar to a study in Bayelsa State where the mothers applied antibiotic ointment after cleaning with methylated spirit.¹² Research has shown a significant reduction in the rates of bacterial colonization of the umbilical cord after chlorhexidine application(s).¹⁷ However, in the absence of evidence for the efficacy of chlorhexidine or other topical antiseptics on omphalitis or systemic sepsis, the World Health Organization currently advocates dry cord care for infants born in developing countries.¹⁸ The study found that few babies had abnormal changes on the cord with more having the cord stump discharging smelling fluid indicating an infection. Studies in developing countries have shown a high rate (61.8%) of umbilical infection among neonates,¹⁹ while in developed countries, the rate has been found to be very low (0.7%).²⁰ These variations may be related to the environmental condition under which labour was conducted.

In Africa, most mothers and newborns do not visit the health institution following birth, indicating that postnatal care programmes are among the weakest of all reproductive and child health programmes.²⁰ In this study, only very few proportion attended postnatal services within 8-42 days of delivery. Although many did not advance reason for non-attendance, home delivery is regarded as sign of bravery on the part of the woman. Since the woman has successfully delivered the baby at home, it is further seen as waste of time

and scarce financial resource to want to go to hospital where everyone in the family already focusing on the preparation of traditional naming ceremony the following week. This is in tandem with studies in Zaria (29%),²¹ and Maiduguri (16.9%),²² compared to the nearly 90% uptake of postnatal services reported in Zambia.²³ Lack of postnatal care may result in impairments and disabilities or death as well as missed opportunities to promote healthy behaviors, affecting women, newborns, and children.²⁴

The public health implication is continued morbidity and mortality as this postpartum period is most critical to the health and survival of a mother and her newborn. There is need for multi-level interventional programmes that will promote hospital and most importantly utilization of postnatal care packages. Some of these may include conditional cash transfer to mothers, community-based postpartum care in the form of home visits, male partner involvement in ANC delivery, and social mobilization for demand creation for hospital delivery and postnatal care use coupled with improved supply chain side of service delivery, etc. The limitation of this study include the fact that the responses were self-reported and may not have reflected the true situation particularly of cord care practices and postnatal care utilization, which may be worse than what is documented. These are gaps and provide an opportunity for further study which may involve observation of cord cleaning procedures and techniques and also collection of secondary data on postnatal care services from the facility for data triangulation.

Conclusion

The study found that home delivery is still a prevalent practice in the community. Inappropriate umbilical cord cleaning practices were common findings and postnatal

care services utilization for both the mother and baby was very poor.

Disclosure

The authors hereby declare that there was no competing interest in the conduct and publication of this research work. There was no financial support from any individuals, groups or corporate organization.

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