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Perceptions among post-delivery mothers of skin-to-skin contact and newborn baby care in a periurban hospital in Uganda

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Abstract

Objective: to explore the perceptions among post-delivery mothers of skin-to-skin contact and newborn baby care.
Design: a qualitative design using focus-group discussions. Five focus groups were conducted with post-delivery mothers who had had normal deliveries. A latent content analysis was used to derive the themes from the focus-group discussions.
Settings and participants: 30 post-delivery mothers were purposively sampled from 249 mothers in the postnatal ward at St Francis Hospital, Nsambya, which is located in a periurban area in Kampala, Uganda.
Findings: two main themes emerged from the focus-group discussions: 'acceptability of health practices are influenced by knowledge and sensitisation' and 'pregnant women's choices are dependent on social, cultural and economic factors'. Mothers expressed varying opinions about the usefulness of skin-to-skin contact: some knew about its use to reduce the risk of hypothermia; others were ignorant, whereas some believed skin-to-skin contact was an intervention used to distract them from the pain in the post-delivery period. The vernix caseosa and the mixture of amniotic fluid with blood in the post-delivery period were perceived as dirty and infectious. The best informants for helping mothers understand the skin-to-skin intervention were the health-care providers. Social, cultural and economic factors, as well as the dominant role of the husband, were identified as important determinants for their choice and place of delivery.
Key conclusions and implications for practice: the gap between the knowledge and practice of skin-to-skin contact in hospital needs to be bridged. Health-care providers need to be encouraged to continuously advocate for, educate and implement regular skin-to-skin contact.
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Introduction

Neonatal hypothermia is associated with increased perinatal morbidity and mortality, especially in low-birth weight and preterm birth babies (Christensson et al., 1995; Bang et al., 2005). In several poor resource settings, a high prevalence of hypothermia ranging from 20–80% has been documented (Christensson et al., 1998; Kambarami and Chidede, 2003; Byaruhanga et al., 2005). Common contributing factors leading to hypothermia in these areas are inadequate knowledge, practice and attitudes about simple preventive techniques (Maimbolwa et al., 1997). Practices essential to prevent hypothermia include establishing a warm delivery room, immediate drying at birth, skin-to-skin contact, early breast feeding, delay in bathing the newborn baby, appropriate clothing, warm resuscitation, warm transportation and training and awareness (WHO, 1997).

Skin-to-skin contact is a natural, simple technique that is effective in preventing heat loss in a term or preterm baby (Christensson et al., 1992). Since 1983, this method has been shown to be effective for thermoregulatory control, particularly for the newborn baby. However, skin-to-skin contact remains underutilised in some poor-resource settings, partly as a result of cultural practices and negative perceptions from mothers, the community and at times health workers. Some cultural practices, such as cleaning babies after birth with oil, have been found to be a risk factor for hypothermia (Cheah and Boo, 2000). Other cultural practices that may influence the acceptability of the skin-to-skin contact technique may be related to beliefs regarding care of the umbilical cord and that the vernix caseosa is dirty (Maimbolwa et al., 2003).

A favourable response among caregivers in Zimbabwe to the Kangaroo Mother Care technique for low-birth weight babies was found by Kambarami et al. (2002). However, Choudhdary et al. (2000) in India found that medical and paramedical staff lacked basic knowledge about hypothermia and its prevention, with only 47.8% diagnosing hypothermia properly and 52.2% considering it an uncommon problem. The immediate post-delivery bathing of babies born to mothers who are HIV seropositive, or whose status is unknown, is one intervention that is recommended to reduce viral contamination and vertical transmission (MMWR, 1988). In view of the high prevalence of HIV infection among antenatal attendees in Uganda (HIV/AIDS Surveillance Report, 2003), the national guidelines from the prevention of maternal to child transmission programme in the country recommended a practice encouraging the immediate bathing of babies born to mothers known to be HIV positive, and those born to mothers whose HIV sero-status was not known and had not had voluntary counselling and testing. This practice of immediate bathing may have a detrimental effect, as it exposes babies to hypothermia. Also, the benefits from immediate bathing in decreasing viral contamination on the skin, which may lead to vertical transmission, are not proven.

Several health-care-related interventions based on scientific evidence have been found to be beneficial in the prevention of hypothermia. However, evidence does not always result in appropriate behavioural and policy change in health care (Gulmezoglu et al., 2005).

Although a previous hospital study had documented a high prevalence of hypothermia, the skin-to-skin contact technique was still not being practised regularly (Byaruhanga et al., 2005). The present study was undertaken to explore the perceptions among post-delivery mothers of skin-to-skin contact and newborn baby care as a way to understand factors that may influence the acceptability of this practice. This study was part of a randomised-controlled trial assessing the effect of bathing newborn babies on the prevalence of neonatal hypothermia in the same setting (Bergström et al., 2005).

Methods

The study setting

The study was carried out at St Francis Hospital, Nsambya, located in Kampala, Uganda. It is a district referral hospital located in the periurban area. The catchment population is about 250,000, with 6000 deliveries per year. Although antenatal and maternity services at public health units in Uganda are provided free of charge, St Francis Hospital, being a non-governmental, not-for-profit institution under Kampala Archdiocese, charges a modest user fee for these services. The study was conducted in November 2003.

Study design

A qualitative design using focus-group discussions was used to explore the perceptions among post-delivery mothers regarding the skin-to-skin contact technique and newborn baby care (Maynuard-Tucker, 2000).

Participants and sampling

Thirty post-delivery mothers were sampled from 249 women who had initially participated in a

randomised-controlled study assessing the effect of bathing newborn babies on the prevalence of neonatal hypothermia. Five focus-group discussions were conducted, and each focus group comprised six post-delivery mothers who had given birth between 24 and 48 hrs before the focus-group discussion. One focus group was selected every fifth day as a representation of the total number of participants recruited in the initial trial (Bergström et al., 2005).

Verbal consent was obtained from each of the participants. All the mothers involved had had normal vaginal deliveries with live babies in the hospital. The mean age of the 30 mothers was 25 years; nine were primipara, 18 multipara and three grand multipara. Twenty-seven had been seen at the antenatal clinic. The mothers' ethnic background varied: 24 were Baganda, three Banyankole, one a Munyarwanda, one a Mugisu, and one a Congolese. All were able to understand the local language Luganda, which was the main dialect used during the focus-group discussions.

Information on skin-to-skin technique

After birth, the baby was cleaned, weighed and placed directly on the mother's chest between the breasts, with skin-to-skin contact, and then covered with a cloth, blanket or a shawl. Four different temperature measurements were taken: immediately after weighing, 60 mins after birth, before bathing and 10 mins after bathing, and 30 mins later.

Data collection

Each focus group was held in a secluded area in the postnatal ward. Each consisted of mothers, a moderator (a social scientist), an obstetrician/gynaecologist and a midwife. The moderator guided the group discussion. Note-taking, tape recording and observation of participants' non-verbal communication was undertakn by the two co-researchers. Communication with the mothers was in the local language.

Each focus-group discussion took between 60 and 90 mins. A standardised interview guide covering specific areas (mother's knowledge, attitudes, practices and beliefs regarding the skin-to-skin technique, antenatal care practices, birth preparedness and HIV vertical transmission) was used to guide the discussion. Questions were raised and mothers were encouraged to express their opinions about the issues with the moderator to ensure that all women participated.

The tapes were transcribed in the local language in which the five focus-group discussions were conducted. They were then translated into English and then independently back-translated into the local vernacular language to ensure that the translation was accurate.

Data analysis

The transcripts and notes from each focus group were then analysed using latent content analysis (Graneheim and Lundman, 2004). The text was carefully read to identify the meaning units. Key words and phrases were underlined, and condensed meaning units labelled. Coding was then done. The codes were compared, grouped together into tentative emerging categories, and later re-compared and analysed while emerging themes were attained. The coding and analysis was done independently by the social scientist (JT) and the obstetrician/gynaecologist (RNB). Later, this process was conducted by JT and RNB together. The co-authors, AB and PO, then reviewed the data and contributed further to the analysis. In the analysis, categories and themes that reflected the core meaning of the interview text were identified. When no new information in the data set could be retrieved, and no new themes occurred, a point of saturation was deemed to have been reached.

Ethical research approval was obtained from the Institutional Research Review Board of St Francis Hospital Nsambya and Karolinska Institute.

Findings

Two themes emerged from the analysis of the sub-themes, categories, codes and condensed meaning units, and original text from the focus-group discussions: 'acceptability of health practices influenced by knowledge and sensitisation' and 'pregnant women's choices dependent on social, cultural and economic factors' (Fig. 1).

The women's perceptions of skin-to-skin contact were influenced by the information they received during pregnancy from various sources, including from relatives, the media and health providers. Their perceptions were also affected by the quality of care given during pregnancy and birth.

Theme 1: acceptability of health practices influenced by knowledge and sensitisation sources of information

Lack of knowledge, false beliefs and the fear factor
The focus-group discussions revealed varying views about the skin-to-skin contact technique. Some of the participants knew about its use in providing

Themes

Pregnant women's choices dependent on social, cultural and economic factors	Acceptability of health practices is influenced by knowledge and sensitisation

Sub-themes

Decision-making process	Gender imbalances	Barriers to health services	Respect for one's choice/dominant role of health-care provider	Access to quality health care	Source of information

Categories

Influence of husband	Social network	Lack of economic resources	Access to medical services	Medical fees at cost	Respect and customer care		Traditional birth attendant	Dislike practice	Dominant role of health-care provider	Fear factor	Other information sources	Concerns and care during pregnancy	Knowledgeable on health issues	Lack of knowledge and false beliefs

Fig. 1 Examples of themes, sub-themes and categories from the latest content analysis.

warmth to the child, whereas others did not know why it was being done and others thought it was a new method used to distract the mothers from the pain experienced during episiotomy or perineal tear repairs:

> To me I know it was just a trick to make us not disturb them when they are stitching. I imagined it was that. But when I made the comment the nurses told me that was my thinking but I believe they know no mother can throw away the baby despite the pain. So they made us have them on the chest such that when they are stitching, we don't disturb them. (Focus group 1, participant 1)

> The truth is that I really did not understand but the nurse said that putting the baby on the chest enabled it to get warm. (Focus group 4, participant 23)

Mothers were fearful of, and expressed concerns regarding, the spread of HIV infection to the child in case one was HIV seropositive. The skin-to-skin contact technique was thought to be a problem in such a scenario, as blood and fluid contact with the raw area of the umbilicus was possible. The relatives of the mother, especially her own mother and the mother-in-law, helped to care for the baby and assisted so that the mother could start breast feeding. Most of the participants had already started breast feeding, and some of the mothers wondered why breast feeding was discouraged in a mother who was HIV positive:

> Some babies get it from their mothers at birth especially in the process of cutting the cord. That is where most babies get infected and sometimes get infected by their mothers through breast feeding. (Focus group 5, participant 25)

> HIV infection can be prevented by stopping the mother from touching the baby, mostly the umbilical cord. That is why I got concerned when that thing was made to touch me. The baby can easily get HIV and that was what was happening. However, I had gone for the test and knew my status and it did not worry me. (Focus group1, participant 2)

Information about skin-to-skin contact and other problems relating to the pregnancy were obtained primarily from the health-care providers and from the mother's own mother, sisters, mother-in-law, friends and, at times, from the media through radio.

Access to quality health care

Concern, dislikes and knowledge about health issues. The skin-to-skin contact technique was considered to give mothers immediate access to their babies, enabled them to feel close to their babies and helped them initiate breast feeding quickly. It was also said to be very natural. In many cultures, it is common to calm and soothe the baby on the chest when the baby is crying or sick.

The following excerpts from the discussion highlight some of the mothers' attitudes and experiences with skin-to-skin contact:

> I think it teaches us to start loving our babies from the very beginning—from the day they are born because, like for my case, I told you already the pain had made me hate the baby. I even told the nurses in the labour ward I do not think I will have love for this child. However, to my surprise after telling them, they still place the baby on my chest and somehow the affection came naturally so I think it is good despite the umbilical cord. (Focus group 1, participant 4)

> This is better because when they put the baby on the chest, there is a way you feel happy immediately after delivery. But if the baby is far, you feel like a visitor in the hospital who has come to check on her friend. (Focus group 2, participant 8)

Some of the mothers expressed that the babies needed to be thoroughly dried or bathed in order to remove the mixture of maternal fluid, blood and vernix on the baby skins before the babies were placed on the chest. These fluids were viewed as dirty and as a possible source of infection. The newborn baby is regarded as fragile. With a delicate umbilicus, there was concern that the umbilicus could be damaged if in direct contact with the mother's body.

Some of the mothers disliked the method and preferred the older method when babies were separated, bathed, clothed and brought to the mother later or cared for by a relative in the immediate post-delivery period. The health-care provider advised on the the care of the umbilicus (i.e. that it was to be left exposed, cleaned, and that placing any local herbs or medication on it was to be avoided).

Respect for one's choice/dominant role of health-care provider

Customer care, dominance of health-care provider and rights of patients. Although mothers expressed appreciation for the professional competence and assistance of the health-care providers, the dominant role the providers played was sometimes seen as a hindrance to suggestions from mothers or relatives regarding care during labour Furthermore, in cases where the mothers had differences of opinion with the midwife regarding labour or the practice of skin-to-skin contact, these mothers felt that the health-care providers displayed a lack of respect for their need for privacy. The exhaustion that occurs after delivery necessitated mothers' rest, and some found it hard to concentrate while the baby was on the chest.

Theme 2: pregnant women's choices are dependent on social, cultural and economic factors

The second theme suggested other contributory factors act as determinants influencing most of mother's choices during pregnancy and the choice of delivery.

The decision-making process, barriers to health services and gender imbalances.

The influence of the husband, social networks, lack of finances and medical fees at health institutions and care during pregnancy.

Most of the mothers had attended antenatal care more than once, and knew of its importance especially in regard to health-care providers being able to detect a pregnancy complication, provide health education and prepare mothers for birth. The choice of place for delivery depended mainly on the husband, as he was responsible for the pregnancy, finances and made final decisions in the family, a repeated quotation in the focus-group discussions.

The social family network of the mother-in-law, the mother's mother, aunts, grand mother, proximity to the place of one's residence, and previous experience in a health unit were also key factors influencing the choices made:

> On my first delivery I went to a hospital but they made me suffer because I did not know about giving birth. Whenever I called the nurse when I got pain they said that I was unnecessarily shouting yet I felt that the child was about to come out but they were not caring. They just look at you even when the baby is about to come out. But when I came here I was alone and the nurses kept checking on me regularly. That made me very happy. (Focus group 2, participant 6)

Pregnancy was not perceived as a risk by some of the women. Delivery at home or with a traditional birth attendant was preferred by some women, particularly if they had been informed that the pregnancy was proceeding well during their previous visit(s) at the antenatal clinic. Obtaining an antenatal clinic card was regarded as an important safeguard in case a serious problem arose during labour and one needed to go to the health facility. Lack of money for transportation and for payment of the hospital fees was a major deterrent to accessing treatment while in labour. The husband was typically the source of money, and funds could not always be easily retrieved, which contributed to delays at home. Overall, the socio-economic and cultural network, and the dominant role of the

husband, seemed to be key factors in the decisions of most mothers during pregnancy and in the immediate post-delivery period.

Discussion

A qualitative research methodology was used in this study to gain a better understanding of the perceptions among post-delivery mothers of skin-to-skin contact newborn baby care. The skin-to-skin contact technique is a simple, appropriate and cost-effective method for thermoregulatory control.

Nonetheless, the usefulness of skin-to-skin contact care as a way of decreasing the risk to hypothermia was not appreciated by several of the participants in the focus groups. This finding could be partially explained by the lack of knowledge the mothers had about skin-to-skin contact, a finding that was complemented by the randomised-controlled study assessing the effect of bathing on the prevalence of neonatal hypothermia, in which only 27.7% of the mothers questioned said that they had received information about it in the antenatal clinics (Bergström et al., 2005). Although the women recruited for this study were sampled from those who had participated in a parallel study, most had not previously experienced the practise of skin-to-skin contact. Hence, it is likely that their perceptions still reflect those of the population delivering at the unit.

The misconception of viewing the vernix caseosa as dirty and infectious is a finding also reported in other studies. This misconception can affect a mother's acceptance of using skin-to-skin contact, and also can lead to the practice of bathing babies immediately after birth (Maimbolwa et al., 2003; Fariyal et al., 2005). The survival of the newborn baby is important and dependent on how the baby is handled in the early period of life. Early access to the baby, bonding and early commencement of breast feeding were positive findings associated with skin-to-skin contact care, and ones that requires re-enforcement. The umbilicus was often described as an area that had to be handled carefully. It was perceived as a potential source from which vertical transmission was possible in the presence of HIV infection. In the focus-group discussions, no negative practices were identified that encouraged mothers to place local herbs or medication on the umbilicus, a practice that is commonly associated with neonatal infection. No difference has been found in umbilical cord infection rate when a dry cord care method is compared with the use of a topical antiseptic (Capurro, 2005).

Our findings are in sharp contrast to those of other resource-poor countries, where acceptability of the Kangaroo Mother Care technique approach by the community, health workers and mothers was demonstrated (Bergman and Jurisoo, 1994; Kambarami et al., 2002; Cattaneo et al., 1998). As health-care providers are seen as the best source of medical information during pregnancy, targeting these providers to promote skin-to-skin contact education and behavioural change may influence mothers' level of acceptance of skin-to-skin care.

The type of care given to mothers during the existing pregnancy, and any previous pregnancies, affected the choices mothers made regarding the place they selected for antenatal and delivery care. Moreover, in cases where previous care had been perceived to be of low quality, those experiences acted as a barrier to seeking out care for later pregnancies. Previous studies in Uganda also document the dominant role of the male partner and of the social network of the relatives with regard to this decision (Konde Lule et al., 1993; Amooti-Kaguna and Nuwaha, 2000). The concept that one could resort to birthing with a traditional birth attendant or at home, if one perceived her pregnancy was advancing normally in the antepartum period, also determined place of delivery. Even with an antenatal care programme, the ability to discern those at high risk from those at low risk is weak; only 10–30% designated 'high risk' actually experience the adverse outcome and 30% of those labelled 'low risk' develop a complication during delivery (Carroli et al., 2001).

This study was carried out in hospital, and efforts were made to hold the focus groups in a secluded place in the wards. However, two of the researchers were male, and two were themselves health-care providers in the hospital. These characteristics could have affected the mothers' responses, especially when discussing negative practices they perceived in the hospital.

The preconceptions of the researchers may have affected the analysis and interpretation of the results. Two previous studies in the same unit addressing the prevalence of hypothermia and the effect of bathing of babies showed the usefulness of skin-to-skin contact as a method in decreasing hypothermia as well as demonstrating the negative effects of early neonatal bathing of babies (Bergström et al., 2005; Byaruhanga et al., 2005). Despite this, the implementation of skin-to-skin contact is still slow.

This study helps to provide insight into the barriers that can influence the knowledge, attitudes and practices of a simple health intervention such as skin-to-skin contact care (Malterud, 2001).

Conclusion

The gap between the knowledge and practice of this simple and appropriate intervention among post-delivery women and health-care providers needs to be bridged. Health-care providers should continuously advocate, educate and implement this practice regularly.

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