

Neonatal deaths and umbilical cord care practices in Luweero district, Uganda

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Neonatal deaths account for a significant proportion of infant mortality. In Uganda, approximately 60% of births occur outside of health facilities or hospitals, ie, in homes with only traditional birth attendants and family present. Causes of these neonatal deaths are rarely known or documented. Lack of data prevents the design and implementation of evidence-guided interventions to help reduce these rural neonatal deaths. We hypothesized that certain traditional birth practices may contribute to neonatal deaths.

OBJECTIVES

To determine the causes of neonatal deaths in rural Uganda, and to explore whether some traditional birth rituals contribute to neonatal risks.

METHODS

Using a cross-sectional study design, the probable causes of neonatal deaths were determined using a WHO verbal autopsy tool modified for neonatal death (<28 days of age) in rural Luweero district, Bamunanika subcounty, approximately 90 km from Kampala, the capital of Uganda. Between April 1 and June 30, 2013, up to four visits were made to 10 randomly selected villages to interview 101 mothers of infants who had died soon after birth, as identified by their village health team. Seven health professionals independently reviewed the collected verbal autopsy reports.

To determine whether traditional birth practices contributed to neonatal deaths, four focus group discussions were held, each consisting of eight to 10 participants. Local village health teams referred mothers whose infants had died in the first month of life in the preceding year for two groups, and the fathers or grandfathers for two other groups. If the mother had died during

childbirth, the infant's caregiver before death (eg, grandmother, aunt) was invited. Open-ended prompts were used to stimulate discussion. Each 60 min to 90 min discussion was recorded and transcribed in the local language, and analyzed according to the thematic areas of the study. The protocols received local and national ethics board approval in Uganda. The project was funded by a MicroResearch grant with additional support from Save the Children, Uganda.

RESULTS

Of 101 cases referred, 72 were neonatal deaths, with 30% occurring in the first week of life. The independent review of the collected verbal autopsies attributed the probable cause of death to sepsis due to an infected cord in 42%, birth asphyxia in 12%, fever and convulsions in 9%, congenital abnormality in 8%, prematurity in 4% and other causes in 33%. Analysis of focus group discussions identified withholding of early breast milk and the use of cord care-related practices, such as applying herbs and powder of papyrus reeds, soot from the cooking pot and spitting on the cord shortly after birth, as potentially harmful birth rituals.

CONCLUSION

The most common cause of neonatal death in rural Ugandan villages appeared to be sepsis, followed by birth asphyxia. Common traditional cord-care practices may have contributed to neonatal sepsis deaths. A village-centred intervention program supporting WHO good cord-care practices in home births could decrease neonatal mortality in rural Uganda. Such programs would need to be developed and implemented with the trust and support of mothers, village health teams, local traditional birth attendants and the community.

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