

Manuscript Content: *American Journal of Obstetrics and Gynecology: A first step to improving maternal mortality in a low-literacy setting; the successful use of singing to improve knowledge regarding antenatal care*

Background

Preventable maternal mortality is related to delays in recognizing the problem, transport to a facility, and receiving appropriate care on arrival. Reducing maternal mortality in low-literacy settings is particularly challenging. In the rural villages of Nepal, the maternal mortality rate is among the highest in the world; the reasons include illiteracy and lack of knowledge of the needs of pregnant women. Culturally, singing and dancing are part of Nepalese daily life and present an opportunity to transmit knowledge of antenatal care and care at birth with a view to reducing the first 2 delays.

Objective

We hypothesized that health messages regarding the importance of antenatal care and skilled birth assistance would be effectively transmitted by songs in the limited literacy environment of rural Nepal.

Study Design

We randomly grouped 4 rural village development committees comprising 36 villages into 2 (intervention and control) clusters. In the intervention group, local groups were invited to write song lyrics incorporating key health messages regarding antenatal care to accompany popular melodies. The groups presented their songs and dances in a festival organized and judged by the community. The winning songs were performed by the local people in a song and dance procession through the villages, houses, and fields. A wall chart with the key health messages was also provided to each household. Knowledge of household decision makers (senior men and women) was assessed before and after the intervention and at 12 months using a structured questionnaire in all households that also assessed behaviour change.

Results

Structured interviews were conducted at baseline, immediately postintervention in the control and intervention areas (intervention $n = 735$ interviews, control $n = 775$), and at 12 months in the intervention area only ($n = 867$). Knowledge scores were recorded as the number of correct items out of 36 questions at baseline and postintervention, and of 21 questions at follow-up. Postintervention, test score doubled in the intervention group from a mean of 11.60/36–22.33/36 ($P < .001$), with no practically significant change in the control population (17.48/36–18.26/36). Improvement was greatest among the most illiterate members of the community (6.8/36–19.8/36, $P < .001$). At 12 months follow-up, a majority of the participants (63.9%) indicated that they provided information learned from the songs to their neighbours and friends, and 41.3% reported still singing the songs from the intervention.

Conclusion

The use of songs bypassed the limitations of literacy in communicating health messages that are key to improving maternal care in this low-literacy rural setting within a developing country. The improvements were maintained without further intervention for 12 months. With appropriate sociocultural adaptation to local contexts, this low-cost method of community education may be applicable to improving maternal health knowledge and behaviour change in other low-resource and limited literacy settings that may lead to reductions in maternal mortality.