

Knowledge and utilization of partograph amongst community health workers

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Abstract

Background: Maternal mortality is a worldwide problem and is unacceptably high in developing countries; hence the fifth item on the Millennium Development Goals (MDG) is to reduce maternal deaths by 75% by the year 2015.

Methods: Pretested self-administered questionnaires were administered to first year students undergoing the Community Health Officers training programme at the Jos University Teaching Hospital.

Results: Only 29 (45.3%) of the respondents had ever heard about the partograph and of these 22 (34.4%) knew it was used for monitoring progress of labour. None of the respondents had been taught about the partograph in their course of schooling. Only thirteen respondents (20.3%) said they knew how to use a partograph, fourteen (21.9%) respondents had ever used a partograph while only ten (15.6%) used partograph in their place of present employment. When asked to demonstrate

partograph usage, only two of the students could correctly use a partograph. These two said they had learnt to use the partograph from workshops and step down trainings at their places of work. The challenges to its use included non-availability and the non-cooperation of other health staff.

Conclusion: The theoretical and practical knowledge of these health workers about the partograph and its use is poor. The use of the partograph should be incorporated into the curriculum of all health workers providing services to women in labour at the primary health care level.

Keywords: Community health workers, Maternal mortality, Partograph, Utilization

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Introduction

Maternal mortality is a worldwide problem and is unacceptably high in developing countries; hence the fifth item on the Millennium Development Goals (MDG) is to reduce maternal deaths by 75% by the year 2015.^{1,2} Nigeria is one of the two countries that contribute a third of the maternal deaths in the world and specifically 14% to the world's maternal deaths.³ The leading causes of maternal deaths are postpartum haemorrhage, pre-eclampsia/eclampsia, obstructed labour, puerperal sepsis and abortion.^{4,6} However, maternal deaths have been described as the tip of the iceberg with maternal morbidity as the base. For every woman who dies of pregnancy-related causes, 20 to 30 others experience acute or chronic morbidity, often with permanent sequelae that undermine their normal functioning.⁷

Several efforts have been made globally to reduce maternal mortality and morbidity. Specifically, to reduce the problems from obstructed labour, the use of skilled attendants in labour, the use of the partograph and accessible caesarean section have been advocated.⁶ The partograph is a graphical representation of the events of labour and is useful in predicting the need for interventions during labour at the various levels of care. Its use has been shown to reduce the complications of prolonged labour.^{6,8} Despite these documented advantages, its use among health care workers, especially at the primary health care level has been reported to be low.^{9,12}

Any effort to reduce maternal deaths in Nigeria must address the problem of obstructed labour and the use of the partograph to reduce these problems. A large proportion of the Nigerian populace including pregnant women live in rural areas and therefore seek medical help from primary health care centres which are mainly manned by community health workers and community health extension workers.¹³ This cross-sectional study documents knowledge and utilization of the partograph among community health extension

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workers attending a Community Health Officers Training programme in a teaching hospital in Nigeria.

Materials and Methods

This study utilized both the quantitative and qualitative methods of data collection. The study was conducted using pretested self-administered questionnaires distributed to two sets of first year students undergoing the Community Health Officers (CHO) training programme at the Jos University Teaching Hospital in May and October, 2014. These students were all Community Health Extension Workers. There were 64 students.

The questionnaire consisted of both open- and close-ended questions assessing age, sex, duration and place of practice. It also included their knowledge and utilization of the partograph and possible challenges militating against its effective use. The 64 subjects participated in two group discussions conducted in their respective classrooms. The participants were asked if they knew how to use a partograph, and those who indicated they knew how to; were asked to demonstrate its use with hypothetical case scenarios. They were also asked the hindrances they had to the use of the partograph. Field notes were taken by the researchers and these were transcribed.

Ethical consideration

The Human Research and Ethics Committee of the Jos University Teaching Hospital approved the study. Informed consent was obtained from the subjects. All personal identifiers were removed from the data and confidentiality maintained.

Data Analysis

Data analysis was performed using EPI info 2005 version 3.3.2 statistical software (CDC, Atlanta, GA). Continuous variables were presented as means and standard deviation while discrete variables were presented as proportions. Open ended questions and group discussions were transcribed and analyzed thematically.

Results

Demographics of respondents

There were 64 CHO students; 40 (62.5%) were female as shown in Table 1. They were drawn from nine states of northern Nigeria where majority were employed in government facilities.

Table 1. Characteristics and knowledge of the partograph among community health officer trainees at the Jos University Teaching Hospital

Variable	value
Female, n (%)	40 (52.5%)
Mean age	39±7 years
Mean number of years spent as health workers	14±6 years
Place of employment	
Government facility	50(78.1%)
Faith based facility	7(10.9%)
Private facility	7(10.9%)
Provide antenatal care, n (%)	53(82.8%)
Provide delivery services, n (%)	49(76.6%)
Ever heard of partograph, n (%)	29(45.3%)
Knew the use of the partograph, n (%)	22 (34.4%)
Knew how to use the partograph, n (%)	13(20.3%)
Ever used the partograph, n (%)	14(21.9)
Use partograph in their present place of employment, n (%)	10 (15.6)

Knowledge and usage of partograph

Only 29 (45.3%) of the respondents had ever heard about the partograph and of these 22(34.4%) knew it was used for monitoring progress of labour. Only thirteen respondents (20.3%) said they knew how to use a partograph, fourteen (21.9%) respondents had ever used a partograph while only ten(15.6%) used partograph in their place of present employment. When asked to demonstrate partograph usage, only two of the students could correctly use a partograph. These two said they had learnt to use the partograph from workshops and step down trainings at their places of work.

Challenges in partograph usage

The challenges experienced by those who claimed to know how to use the partograph were its non-availability and the non-cooperation of other health staff. None of the respondents had been taught about the partograph and how to use it during their formal Community Health Extension training.

Discussion

The proper usage of the partograph has been shown to drastically reduce prolonged obstructed labour and its complications which include maternal deaths. We set forth to investigate the knowledge and usage of the partograph to monitor labour by CHEWs undergoing

training to become CHOs. Our study revealed that i) less than half of the respondents had ever heard of the partograph, ii) about a quarter of them had ever used a partograph and iii) only two of them knew how to properly use a partograph.

The finding of our study is in keeping with other studies which showed poor knowledge and usage of the partograph amongst health workers including CHEWs.⁹⁻¹² Oladapo et al¹¹ working in western Nigeria, reported 54.5% knowledge of the partograph amongst health workers in peripheral clinics made up mostly of CHEWs and CHOs. In that study, only 9.8% of respondents routinely used the partograph. In a similar study, Opiah et al¹² reported that the knowledge of the partograph amongst midwives in southern Nigeria was 84.% but 21.8% had never used it before. Ogunfowakan et al⁹ in a separate report from Ife, western Nigeria, showed that 27.3% of wid wives at all levels of health care services had never used a partograph. CHEWs evaluated in that study did not know how to use the partograph similar to our study Fawole et al¹⁰ in study similar to ours, reported poor knowledge and utilization of the partograph, especially among health workers in primary and secondary health facilities. However, they found knowledge of the partograph to be high among those who had received training. From these studies the reasons given by health workers for none or poor utilization of the partograph included non-availability of the partograph in health facilities and staffing problems.⁹⁻¹² This is similar to the reasons for poor/none partograph utilization proffered by respondents in this study. Also, previous studies from over a decade ago showed poor knowledge and use of partograph by health workers and several years later there does not seem to be any change¹⁴. However, a study done in Ife by Orji et al¹⁵ revealed that training of health workers in peripheral health units including community health extension workers on the use of the partograph resulted in reduction in prolonged and obstructed labour with a concomitant reduction in maternal and perinatal mortality and morbidity.

Our study revealed that though about 45% of the respondents had heard about the partograph and 20.3% reported they could use the partograph, only two of them could correctly demonstrate the use of the partograph. The average number of years the respondents had practiced as health workers was 14 years. This implies that for over a decade the patients in labour have received substandard care in the centres where the respondents practice which includes nine states; a quarter of the states of the federation.

Therefore the risk of obstructed labour and its resultant contribution to maternal mortality and morbidity continues to abide in our communities making it difficult to attain MDG 5. Deliberate steps need to be taken to change this trend so that use of the partograph, which is a proven simple cheap method to reduce maternal mortality and morbidity, is implemented.

The limitations of this study include the fact that it was cross sectional in design which makes the likelihood of recall bias high. Additionally, the relatively small number of respondents limits generalizability. However, this study provides a background for further studies to explore issues concerning use of the partograph amongst health workers.

In conclusion, the theoretical and practical knowledge of the CHEWs studied about the partograph and its use is poor. Efforts need to be made to get this cadre of health staff to properly understand and use the partograph since they attend to a large proportion of women in labour at the primary health care level. Methods to achieve this would include revisiting their training curriculum to include this aspect of maternal care and to also train and supervise already practicing staff on the appropriate use of the partograph.

Conflict of Interest

None declared in this work.

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