Are nurses in obstetric wards in selected areas in Bangladesh competent skilled birth attendants?

Background:

The Government of Bangladesh is committed to Millennium Development Goals (MDGs) with the target for Goal-5 to increase skilled attendance at birth to 50% by 2015. Various strategies, such as upgrading Comprehensive Emergency Obstetric Care facilities at sub-district level, introducing Community Skilled Birth Attendants (CSBAs), are in operation to reach the target. Nurses/midwives/paramedics/FWVs located at public and private health facilities accounted for 8% of the total 26%

Knowledge test

skilled delivery in Bangladesh between 2007-2009 (BMMS 2010). However, little is known about their knowledge and skills to provide maternal and neonatal health care services.

Objective:

To explore and compare the level of knowledge, skills, and confidence of nurses in the provision of maternal and neonatal health (MNH) care services as envisioned in WHO/FIGO/ICM's definition of a SBA.

Methods:

The WHO Integrated Management of Pregnancy and Childbirth (IMPAC) guidelines served as our competency standard. Evaluation included a written knowledge test, two (verbal) case studies (PPH and manual removal of placenta) and four evidence-based skills where nurses demonstrated procedures on dummy models.

The knowledge questionnaire was adapted from the SBA assessment tools used in the MotherCare project in Indonesia. A total of 50 multiple choice questions asked knowledge about the implementation of antenatal care, labor and delivery following aseptic techniques, family planning and post natal counseling, newborn care and resuscitation, use of partograph and management of obstetric complications e.g. haemorrhage, pre-eclampsia, eclampsia, puerperal sepsis and prolonged labour. A WHO standard partograph plotted with prolonged labor was attached to assess their interpretation of the findings.

Skill test

Skills were tested using checklists for (1) antenatal care, (2) normal labor, childbirth and immediate newborn care, (3) postnatal care (4) newborn resuscitation. Two case studies providing vignettes for (a) PPH and (b) manual removal of the placenta tested the nurses' skills in management of these complications.

The study was conducted during January –June 2008 in Khulna and Sylhet districts, located in the best and worst performing divisions respectively in maternal and neonatal health statistics.

Nurses from the obstetric wards of District Upazila, and Medical College Hospitals in both Khulna and Sylhet participated in the study, including 109 nurses from Khulna and 45 nurses from Sylhet.

Results:

The percent mean scores for knowledge test were 53% and 52% for Sylhet and Khulna nurses and for skills test

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Figure 1: Knowledge of nurses in Sylhet and Khulna group on specific vital maternal and neonatal component
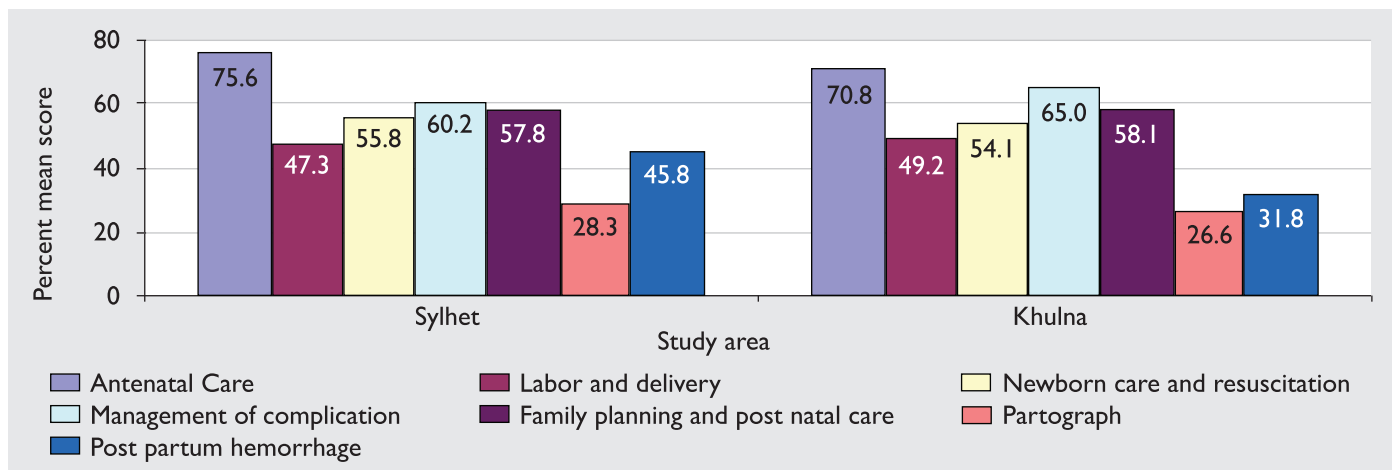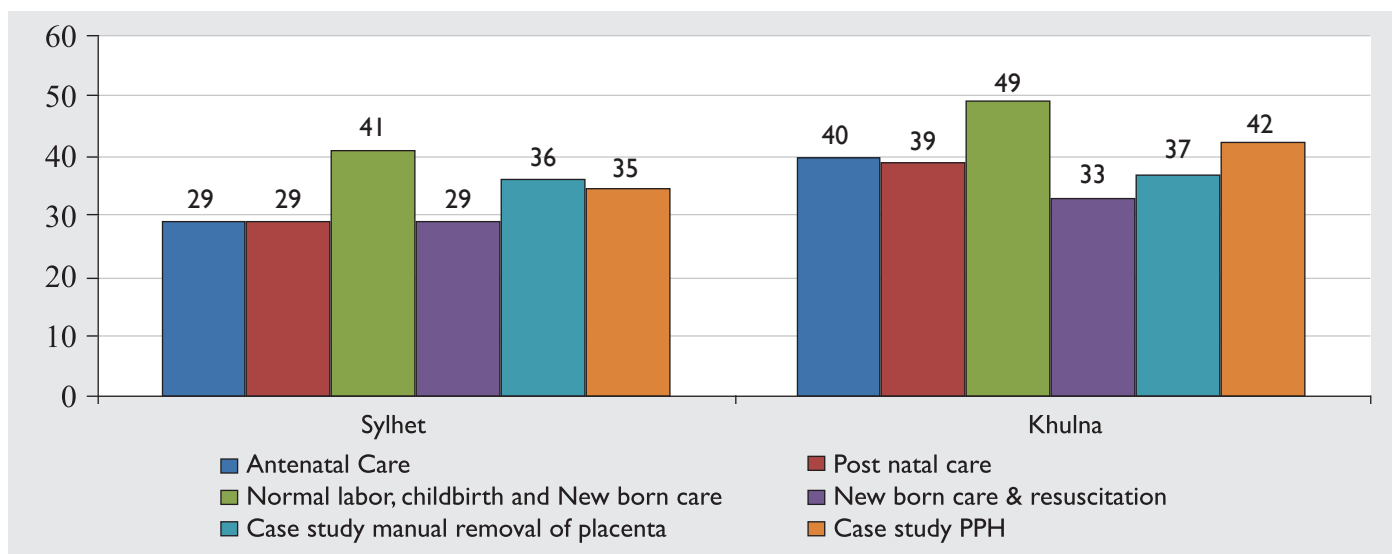

Figure 2: Percent mean skills test scores for nurses in Sylhet and Khulna

were 33% and 40% respectively (Figure 1).

Nurses in both districts showed a similar pattern in their knowledge. ANC knowledge scored highest (Sylhet 75% and Khulna 70%), while the percent mean scores for management of normal labour and delivery, newborn care and resuscitation, management of complications and family planning and postnatal care, averaged 50%. The nurses in both Khulna and Sylhet lacked knowledge on the partograph. Nurses in Khulna also had poor knowledge of PPH (post partum hemorrhage) case management (32%).

Nurses in both Khulna and Sylhet demonstrated inadequate skills in managing deliveries and newborn care. On the skills test using models, nurses in both districts were unable to perform all steps of PPH management and were unable to perform manual removal of the placenta (Figure 2).

Conclusion/Recommendation:

- Nurses in Bangladesh are allowed to perform normal deliveries yet the knowledge and skills of nurses from both study areas are below the standards envisioned in the WHO/FIGO/ICM definition of a skilled birth attendant.

- Evidence based skills and knowledge is deficient for managing normal intra-partum and newborn care and for managing life threatening complications, specifically PPH and retained placenta.

- Refresher training is urgently required to improve competency in normal and life saving techniques to contribute to further reduction of MMR

- National level consensus is needed to decide the minimum level of knowledge and skills to qualify as a Skilled Birth Attendant in Bangladesh.