Improving quality of obstetric and neonatal care through midwife mentoring and simulation training in Bihar, India: Mentor knowledge assessments

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BACKGROUND

- Globally, 300,000 maternal deaths and 2.9 million neonatal deaths occur each year
- Bihar has an Infant Mortality Ratio of 44, Maternal Mortality Ratio of 261, and there is a shortage of 15,224 healthcare workers
- PRONTO International and UCSF implemented an emergency obstetric and neonatal care (EmONC) simulation-based nurse midwife mentoring curriculum to improve quality of care

METHODS

- 115 nurse midwives at 320 primary health clinics and 56 district hospitals in Bihar received PRONTO training in January and September 2015
- Pre- and post-training assessments were completed to evaluate knowledge of EmONC, teamwork and communication, and simulation facilitation
- All participating midwives completed assessments
- Results were compared and analyzed by paired t-test

AIMS

- To determine if PRONTO International training improves overall knowledge in EmONC
- To determine if PRONTO International training improves topic-specific knowledge of EmONC and teamwork and communication

RESULTS

- Overall knowledge scores improved 26.5%* in January and 15.8%* in September
- Scores improved 38%*¹ and 12%*² for obstetric hemorrhage; 31%*³ and 17%² for pre-eclampsia/eclampsia; and 15%*¹ and 14%*² for neonatal resuscitation
- Scores improved 30%*¹ and 25%*² for teamwork and communication, and 18%*¹ and 11%*² for simulation facilitation

* p<0.001, ¹January 2015, ²September 2015

CONCLUSIONS

- The results of the pre- and post-training assessments from both January and September 2015 demonstrated significant overall improvement in knowledge across all modules
- If data to be collected are consistent with current results, the PRONTO integrated mentoring curriculum may represent a sustainable and scalable approach to improving EmONC among midwife mentors that could be replicated in other low-resource settings

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