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Training of post-natal care attendants for post-natal care, nutrition and breastfeeding: rapid policy brief

Plain Language Summary

The District Medical Officer (DMO) in Malappuram, Kerala proposes to train Post-Natal Care (PNC) attendants, who are engaged by the families of pregnant females for 40 days post-delivery. With support from an action group of obstetricians in the district, training modules will be designed particularly in relation to PNC nutrition and breastfeeding. To support these efforts, it is necessary to identify effective training strategies that can guide the content and design of training modules designed for these attendants.

We found no evidence available on use of the PNC attendants for post-natal care and nutrition. Hence, for the purpose of the review we synthesised evidence on Traditional Birth Attendants (TBAs) as the knowledge intended for them would be of high relevance to PNC attendants. We carried out a rapid evidence synthesis of the content and format of training. We found that TBAs training led to significant reductions in the perinatal death rate, neonatal death, stillbirths, increased early initiation of breastfeeding, exclusive breastfeeding and avoidance of prelacteal feeding. Trained TBAs were much more likely than untrained TBAs to advise mothers on diet and immediate feeding colostrum. Trained TBAs who were additionally supervised by lady health workers or trained nurses or community midwives reported a slightly improved results as compare to unsupervised TBAs. Training of 2-8 days focused on basic content accompanied by supportive supervision and follow up trainings is associated with better outcomes.

What is a rapid policy brief?

A rapid policy brief is based on a rapid review which brings together global research evidence in a specific decision-making context.

Why this rapid policy brief was prepared?

This was prepared on request from the District Medical Officer (DMO), Malappuram, Kerala

Suggested citation

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Background

In Kerala, a state with high levels of literacy and institutional delivery, there is a trend of engaging Post-Natal Care (PNC) attendants in the post-delivery period. These attendants are hired by families of expectant mothers from agencies to provide support for PNC and nutrition. The District Medical Officer (DMO), Malappuram, Kerala with support from an action group of obstetricians in the district, has identified the need to train post-natal attendants in appropriate practices and avoid harmful behaviours. They intend to design and develop training modules to, build capacity of PNC attendants particularly in relation to postnatal nutrition and breastfeeding. To support these efforts, it is necessary to identify effective training strategies that can guide the design of training modules designed for these attendants.

There is no direct evidence on the use of PNC attendants on PNC, nutrition and breastfeeding. However, the team with concurrence of the DMO felt that evidence related to TBAs may be relevant for their training, which was the focus of this rapid review.

Summary of the evidence

We found a Cochrane systematic review on TBA training published in 2012 (1) which included six randomised controlled trials (4-9), all conducted in Low- and Middle-Income Countries (LMICs). We supplemented this with a search for newer studies (i.e. since 2012) on the training formats/modalities and effectiveness of TBA training on post-natal outcomes. We retrieved 435 records out of which five studies were considered for full text review. On full text review only two randomised trials (2,3) were considered eligible. The two identified cluster randomized trials were conducted in Bangladesh (2) and Pakistan (3). Thus, overall eight studies inform this policy brief.
Three studies (2,3,4) evaluated the effectiveness of TBA training, in comparison to no training. Of these, one study (4) reported reduction in perinatal death rate[1] by 30% (Adjusted odds ratio (OR) 0.70), stillbirth rate[2] by 31% (Adjusted odds ratio (OR) 0.69) and neonatal death rate[3] by 29% (Adjusted odds ratio (OR) 0.71). Two studies (2,3)

World Health Organization source defines

[1]Perinatal death as "number of stillbirths and deaths in the first week of life per 1,000 total births, the perinatal period commences at 28 completed weeks (196 days) of gestation, and ends seven completed days after birth per 1000 total births"

[2]Still birth rate as a baby born with no signs of life at or after 28 weeks' gestation per 1000 live births.

[3]Neonatal death as "death of a live-born baby within the first 28 days of life per 1000 live births".

reported that trained TBAs are more likely to advise on immediate colostrum feeding and diet to mothers (92.6% and 82.1% respectively) as compared to untrained TBAs. Training TBAs significantly improved early initiation of breastfeeding, exclusive breast-feeding, and increased avoidance of prelacteal feeding by 60% ,76% and 88% respectively.

Three large cluster-randomised trials (5,6,7) compared basic training (safe, clean delivery and immediate newborn care) to basic and additional training (bag-valve-mask resuscitation, immediate suckling before placental delivery) of TBAs. There was no significant difference in the perinatal death rate (adjusted OR 0.79) and late neonatal death[4] rate (adjusted risk ratio (RR) 0.47) between the basic and additionally trained TBAs. However, the neonatal death rate was 45% lower in additionally trained TBAs in comparison to basic trained TBAs (one study (9), 22.8% versus 40.2%).
A study (2) where trained TBAs received additional supervision reported slightly improved results as compare to unsupervised TBAs: 68% vs 60% for early initiation of breastfeeding and 83% vs 76% for exclusive breastfeeding (level of significance P ≤0.05).

Overall, evidence suggests that the studies where training was conducted by trained instructors on more basic content, accompanied by supportive supervision, timely followed up to observe TBAs knowledge and skills and evaluated post training reported better outcomes. However, the training modalities were similar across the studies and there is not enough evidence available to suggest which one worked better. Details of the training duration, content and modality of included studies is summarised in Table 1 below.

Table 1: Format, content and modalities of the intervention

Duration of training	***Content of training***	***Training modality***	***Supportive supervision***
Training duration of the training ranged from two days to eight days	Basic training on conducting clean and safe delivery practices, referral for obstetric emergencies, danger sign recognition, mouth to mouth resuscitation. Orientation on how to carry out patient education on early and exclusive breast feeding, kangaroo care, introducing types of complimentary weaning foods, disadvantages of bottle feeding;	Methods of training involved: interpersonal communication, using audio/visual aids, demonstration, small group sessions, skills practice using models, participatory methods, role plays, brain storming, field visits.	Supervision by: Community midwives, Lady Health Worker support, Trained nurses, Field supervisor Follow up to training: between 2-4 weeks

[4] *Late neonatal death rate is defined as "occurring after the seventh day but before the 28th day of life (7-27days) per 1000 live births"*

	thermoregulation, routine neonatal care, record keeping, and usage of disposable delivery kit Additional training topics were bag-valve-mask resuscitation, immediate suckling before placental delivery, and sepsis management

Policy options

Policy makers might consider engaging PNC attendants to improve post-natal care nutrition and breastfeeding even as direct evidence is lacking on their impact or training needs. Based on evidence from trained TBAs, training might be of 2-8 days in duration may be suitable, depending on domains being covered (No direct evidence was found related to maternal nutrition). Evidence suggests that training programs which focus on limited basic content accompanied by supportive supervision (by lady health workers or trained nurses or community midwives) and follow-up training may lead to better outcomes. An overall training plan should be developed which would include components related to “Training of the trainers” and evaluation.

Recommendations for future research

There is no direct evidence for use of post-natal attendants who are relevant in the Indian context, particularly in relation to maternal nutrition outcomes. There is a need for embedded research within the context of programs training post-natal attendants to understand its utility.

References

1. Sibley_LM, Sipe_TA, Barry_D. Traditional birth attendant training for improving health behaviours and pregnancy outcomes. Cochrane Database of Systematic Reviews 2012, Issue 8. Art. No.: CD005460.
   DOI: 10.1002/14651858.CD005460.pub3.
2. Talukder S, Farhana D, Vitta B, Greiner T. In a rural area of Bangladesh, traditional birth attendant training improved early infant feeding practices: a pragmatic cluster randomized trial. Maternal & child nutrition, 2017, 13(1)
3. Miller P.C, Rashida G. Tasneem Z, Haque M . The effect of traditional birth attendant training on maternal and neonatal care. International Journal of Gynecology and Obstetrics 117 (2012) 148–152

4. Jokhio AH, Winter HR, Cheng KK. An intervention involving traditional birth attendants and perinatal and maternal mortality in Pakistan. New England Journal of Medicine 2005;352(20):2091-8. [0103]
5. Bullough CHW, Msuku RS, Karonde L. Early suckling and postpartum haemorrhage: controlled trial in deliveries by traditional birth attendants. Lancet 1989;2:522-5. [0089]
6. Azad K, Barnett S, Banerjee B, Shaha S, Khan K, Rego AR, et al. Effect of scaling up women's groups on birth outcomes in three rural districts in Bangladesh: a cluster-randomised controlled trial. Lancet 2010;375(9721):1193-202.
7. Carlo WA, Goudar SS, Jehan I, Chomba E, Tshefu A, Garces A, et al. First Breath Study Group. Newborn-care training and perinatal mortality in developing countries. New England Journal of Medicine 2010;362:614-23.
8. Hossain Z, Ripon FH, Chowdury JH. Promotion of breastfeeding: an operations research on traditional birth attendants (TBAs) and village doctors. Unpublished report, Adabor, Shamoly, Phaka, Bangladesh: Development Support ServicesMay 2000:1-47. [200]
9. Gill C, Mazala G, Guerina N, Kasimba J, Knapp A, Mulenga C, et al. Reducing neonatal mortality in rural Zambia with traditional birth attendants, a cluster randomized trial: the Lufwanyama neonatal survival project (LUNESP). Pediatric Academic Societies' 2010 Annual Meeting; 2010 May 1-4; Vancouver, Canada. 2010.

Competing interests

The authors do not have any relevant competing interests.

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