

# Medicalisation of childbirth in the occupied Palestinian territory: an operational study

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**Background** Almost all births in the occupied Palestinian territory happen in hospitals, and births without complications are assisted by midwives. The application of evidence-based treatment and care during normal childbirth is inadequate. We report changes in practices during normal childbirth through the implementation of interventions aimed at reducing the frequency of intravenous fluid administration, bladder catheterisation, analgesia, artificial rupture of membranes, oxytocin use for augmentation, vaginal examinations, and episiotomy, and increasing mobility, oral intake of fluids, and initiation of immediate breastfeeding.

**Methods** We undertook operational research in three phases (baseline [6 months], intervention [18 months], and postintervention [12 months]) in one governmental hospital in the West Bank between 2005 and 2010. We assessed 2345 women—134 in the baseline phase, 1860 in the intervention phase, and 351 in the postintervention phase. During the baseline phase, 2 weeks in 2006, we interviewed all women (mean age 26·1 years [5–8]) after they gave birth but before their discharge from the hospital. In 2007–08, we implemented the interventions, including on-the-job training, auditing, feedback, and meetings with staff. We used a checklist to document the details of care for all pregnant women with singleton pregnancies (n=2146), who went into labour and delivered between 0700 h and 1600 h (when all physicians and consultants are on duty), 2–3 days per week. We excluded 286 women from the analysis because of pre-existing complications, breech, gestational age less than 37 weeks, birth before arrival, and labour during the 3 months of strike in the public health sector. In the postintervention phase (2010), 9 months after the completion of the intervention, we used the same checklist for a sample of 383 women to assess the sustainability of the changes. The changes in practices were tested with  $\chi^2$  and Fisher's exact tests. We analysed data with IBM SPSS Statistics (version 18.0). We obtained permission from the Palestinian Ministry of Health to interview women in the hospital. All women provided verbal informed consent before they were interviewed.

**Findings** Improvements from baseline to the postintervention phase were significant ( $p < 0.05$ ) and sustained for seven of ten practices: oxytocin use to augment normal labour (43 [32·1%] of 134 women vs 62 [17·7%] of 351 women; improvement 14·4%), artificial rupture of membranes (98 [73·1%] vs 182 [51·9%]; 21·2%), intravenous fluids (103 [76·9%] vs 97 [27·6%]; 49·3%), oral intake of fluids during labour (five [3·7%] vs 39 [11·1%]; 7·4%), mobility during labour (41 [30·6%] vs 120 [34·2%]; 3·6%), four to seven (65 [48·5%] vs 130 [37·0%]; 11·5%) and eight to 22 vaginal examinations (20 [14·9%] vs 23 [6·6%]; 8·3%), episiotomy for first pregnancy (24 [80·0%] of 30 vs 34 [39·1%] of 87; 40·9%) or second and subsequent pregnancies (six [5·8%] of 104 vs nine [3·4%] of 264; 2·4%), and immediate breastfeeding (77 [57·5%] of 134 vs 328 [93·4%] of 351; 35·9%). The improvements in the mobility and oral intake of fluids during labour were not sustained 9 months after the completion of the intervention phase. The use of analgesia during labour did not change (five [3·7%] vs 13 [3·7%] women).

**Interpretation** A limitation of our analysis was the small sample size in the baseline phase. Some changes in the practices during normal childbirth were sustainable during the 9 months after the completion of the intervention. On-the-job training, auditing, and feedback were non-threatening, and a provider-friendly approach enabled integration of evidence into practice with the available resources. In a low-resource setting, supportive supervision, on-the-job training, and regular clinical audit are essential low-cost methods to increase adherence by midwives to the best available evidence and enhance their professional capacities to keep birth normal.

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## Contributors

SH conceptualised, designed, and piloted the research methods; gathered the data for the assessment; designed, supervised, and participated in the implementation of the interventions; supervised data gathering, entry, and analysis; and wrote the first draft of the Abstract. EB and AH contributed to the conceptualisation, design, analysis, and interpretation of the analysis. JS contributed to the conceptualisation, analysis, and interpretation of the findings. All authors have approved the final version of the Abstract for publication.

## Conflicts of interest

We declare that we have no conflicts of interest.

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