

Training midwives to determine fetal presentation using a handheld portable ultrasound device—need of the hour?



TO THE EDITOR: Correct assessment of fetal presentation at term is paramount to the effective delivery of well-informed and patient-centered safe intrapartum care. Undiagnosed noncephalic presentations in labor can be an overwhelming clinical scenario and, in the absence of skilled birth attendants, can be associated with adverse perinatal outcomes. Abdominal palpation is the most common modality used to assess fetal presentation at term; however, it is known to have poor sensitivity with additional limitations associated with patient characteristics, such as raised body mass index, fibroids, polyhydramnios, and multiple pregnancy.¹

Although the United Kingdom National Institute for Health and Care Excellence does not yet recommend universal late pregnancy ultrasound screening because of resource implications and uncertainty about its benefits and cost-effectiveness, the United Kingdom National Screening Committee in March 2021 acknowledged that ultrasound for fetal presentation seems promising.² The Health Technology Assessment review by the National Institute for Health and Care Research has suggested that this gap can be readily closed by point-of-care ultrasound (POCUS) using a handheld portable device.³ POCUS represents a relatively inexpensive alternative that care providers, such as midwives, could use to assess fetal presentation with minimal training. We recently published a multicenter observational study demonstrating that a policy of either facility-based ultrasound by sonographers or POCUS used by midwives was effective in reducing the incidence of undiagnosed breech presentations in labor and an improvement in short-term neonatal outcomes.⁴ In addition, the use of POCUS in obstetrical care has been reported from countries, including Kenya, Uganda, and Guatemala, with resource-limited settings.⁵

POCUS has the potential to deliver a plethora of benefits to both healthcare professionals and pregnant people while assessing fetal presentation at the point of care. It is compact and user-friendly, enhances accessibility to care, enables continuity, and avoids uncertainty. Accurate identification of malpresentations with early escalation in advance of labor reduces formal ultrasound referral and, therefore, decreases waiting times compared with facility-based ultrasound.

We conducted a cross-sectional questionnaire survey among the midwives in 2 large teaching hospitals in the United Kingdom—Liverpool Women’s Hospital, Liverpool, and St. George’s University Hospitals National Health Service Foundation Trust, London, in April 2023, to assess acceptability of training for presentation scan using POCUS. We received 174 responses to our survey. Most respondents (152/174 [87.4%]) unequivocally agreed that training midwives for a

presentation scan is a good idea, whereas 10 of 174 respondents (5.7%) expressed that, although acquiring this new skill will add to a midwife’s role, it should be used only in conjunction with clinical assessment in those women where presentation cannot be ascertained confidently on clinical palpation. Only 9 of 174 respondents (5.1%) disagreed with the proposal, and the common theme was a concern for undermining midwifery skills and increased workload. More than half of the respondents felt that they could easily acquire this skill and would feel confident if they were able to correctly identify presentations in 20 pregnant women, demonstrated in a log-book. Overall, 147 of 174 respondents (84.5%) felt that this training would improve their skill set in determining fetal presentation. The [Figure](#) presents some of the commonly occurring themes identified in this survey.

Our survey indicates that most midwives are keen to acquire this skill. An undiagnosed breech in labor proves that the clinicians’ skills (both midwives and doctors) are imperfect. This should be viewed as “enhancing” skills rather than “replacing” or “undermining” skills. However, the onus is on policymakers, operational and clinical leads to support our colleagues by providing a time-protected incentivized structured training program, appropriate equipment, regular audits, and continual training to ensure retention of skills, and formulation of clinical pathways to ensure safe and responsible use of this novel device. These training programs are warranted, considering our evolving workforce and the fact that midwives are often the first, and sometimes the only, healthcare provider to pregnant women. ■

FIGURE
Recurring themes and perceptions identified in the survey

Reduction in referral to facility-based ultrasound	Likely to increase responsibilities of the midwives
Valuable tool in maternity triage and community clinics	Training designated senior midwives should be the first step
Beneficial for women with high body mass index, grand multipara and before induction of labour	Protected time needed to achieve competencies
Will save time and prevent delay in care	Will there be provision for adequate equipment in our maternity units?

Prasad. Training midwives to use handheld portable ultrasound device. *Am J Obstet Gynecol Glob Rep* 2024.

CREDIT AUTHORSHIP CONTRIBUTION STATEMENT: **Smriti Prasad:** Data curation, Investigation, Writing – original draft. **Borna Poljak:** Data curation, Investigation, Writing – review & editing. **Yana Richens:** Resources, Writing – review & editing. **Asma Khalil:** Conceptualization, Supervision, Writing – original draft, Writing – review & editing.

ACKNOWLEDGMENTS

The authors would like to thank their midwifery colleagues who participated in this survey and provided their valuable opinions.

Smriti Prasad, MRCOG
Fetal Medicine Unit
Department of Obstetrics and Gynaecology
St. George's University Hospital
London, United Kingdom

Borna Poljak, MRCOG
Fetal Medicine Unit
Liverpool Women's Hospital
University of Liverpool
Liverpool, United Kingdom

Yana Richens, PhD
Liverpool Women's Hospital
University of Liverpool
Liverpool, United Kingdom

Chelone Lee-Wo, MSc
Maternity Unit
St. George's University Hospital
London, United Kingdom

Asma Khalil, FRCOG
Fetal Medicine Unit
Department of Obstetrics and Gynaecology
St. George's University Hospital
London, United Kingdom

Fetal Medicine Unit
Liverpool Women's Hospital
University of Liverpool
Liverpool, United Kingdom
Vascular Biology Research Centre
Molecular and Clinical Sciences Research Institute
St. George's University of London
London, United Kingdom
asmakhalil79@googlemail.com

The authors report no conflict of interest.

Patient consent is not required because no personal information or detail is included in this study.

REFERENCES

1. Nassar N, Roberts CL, Cameron CA, Olive EC. Diagnostic accuracy of clinical examination for detection of non-cephalic presentation in late pregnancy: cross sectional analytic study. *BMJ* 2006;333:578–80.
2. UK NSC minutes March 2021. Gov. UK. 2021. Available at: <https://www.gov.uk/government/publications/uk-nsc-meeting-march-2021/uk-nsc-minutes-march-2021>. Accessed July 29, 2023.
3. HTA Funding Committee Public Minutes 13-14 September 2022. Accessed January 31, 2024. Available at: <https://www.nihr.ac.uk/documents/hta-funding-committee-public-minutes-13-14-september-2022/31909>. Accessed May 1, 2022.
4. Knights S, Prasad S, Kalafat E, et al. Impact of point-of-care ultrasound and routine third trimester ultrasound on undiagnosed breech presentation and perinatal outcomes: an observational multicentre cohort study. *PLoS Med* 2023;20:e1004192.
5. Abrokwa SK, Ruby LC, Heuvelings CC, Bélard S. Task shifting for point of care ultrasound in primary healthcare in low- and middle-income countries—a systematic review. *EClinicalmedicine* 2022;45:101333.

© 2024 Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>) <https://doi.org/10.1016/j.xagr.2024.100314>