Learning From Experience: Qualitative Analysis to Develop a Cognitive Task List for Vaginal Breech Deliveries

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Abstract

Objective: Achieving clinical competence in managing safe vaginal breech delivery (VBD) is challenging in contemporary obstetrics. Novel educational strategies are required, as exposure of obstetric trainees to VBD remains limited. The aim of this study was to identify the verbal and non-verbal skills required to manage VBD through filmed demonstration by experts.

Methods: Labour and delivery nursing staff at three large university-affiliated hospitals identified clinicians whom they considered skilled in VBD. Obstetricians consistently identified were invited to participate in the study. Participants were filmed performing a VBD on a birth simulator while discussing their assessment, technique, and providing clinical pearls based on their experience. Two study members reviewed all videos and documented verbal and non-verbal components of the assessment, grouped them into common themes, and produced an integrated summary. This was circulated to all participants and reviewed by senior obstetricians from outside Canada.

Results: Seventeen clinicians were identified; 12 (70%) consented to participation. Themes identified were meticulous assessment and pre-pregnancy counselling; roles of the multidisciplinary team; need for careful and appropriate communication with parents; specific techniques of the delivery; and postpartum care and documentation. A clinical task list was generated based on this analysis.

Conclusion: Derived from clinicians with extensive experience, we have developed a comprehensive task list outlining the important features involved in safe VBD. Common themes in the experts' teaching for safe VBD included rigorous antepartum selection and counselling, appreciation for when to convert to Caesarean section, and a "hands off" delivery technique.

Key Words: Vaginal breech delivery, resident training, obstetrics, experience

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Résumé

Objectif : De nos jours, dans le domaine de l'obstétrique, il est difficile d'acquérir les compétences cliniques nécessaires à la tenue d'un accouchement vaginal du siège (AVS) en toute sûreté. Des stratégies pédagogiques novatrices sont requises, puisque l'exposition des stagiaires en obstétrique à l'AVS demeure limitée. Cette étude avait pour objectif d'identifier, au moyen de démonstrations filmées par des spécialistes, les compétences verbales et non verbales nécessaires à la prise en charge de l'AVS.

Méthodes : Les membres du personnel infirmier de la salle de travail et d'accouchement de trois importants hôpitaux universitaires ont identifié les cliniciens qu'ils considéraient comme étant compétents en matière d'AVS. Les obstétriciens les plus souvent identifiés ont été conviés à participer à l'étude. Les participants ont été filmés alors qu'ils procédaient à un AVS sur un simulateur d'accouchement; à ces occasions, nous leur avons également demandé de nous entretenir de leur évaluation et de leur technique, ainsi que de nous fournir des conseils cliniques issus de leur expérience. Deux membres de l'étude ont passé en revue toutes les vidéos et ont documenté les composantes verbales et non verbales de l'évaluation, les ont groupées en thèmes communs et en ont rédigé une synthèse. Cette synthèse a été transmise à tous les participants et a été analysée par des obstétriciens expérimentés de l'étranger.

Résultats : Dix-sept cliniciens ont été identifiés; 12 (70 %) ont consenti à participer à l'étude. Parmi les thèmes identifiés, on trouvait les suivants : évaluation méticuleuse et counseling

prégrossesse; rôles de l'équipe multidisciplinaire; nécessité d'une communication attentive et adéquate avec les parents; techniques d'accouchement particulières; et documentation et soins postpartum. Une liste des tâches cliniques a été générée en fonction des résultats de cette analyse.

Conclusion : En nous inspirant de cliniciens vastement expérimentés, nous avons élaboré une liste exhaustive de tâches soulignant les caractéristiques importantes de la tenue d'un AVS en toute sûreté. Parmi les thèmes courants relevés par ces spécialistes à ce sujet, on trouvait la tenue antepartum d'une sélection et d'un counseling rigoureux, les connaissances requises pour savoir quand convertir l'intervention en césarienne et l'utilisation d'une technique d'accouchement « passive » (*hands off*).

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INTRODUCTION

The number of women undertaking planned vaginal breech delivery has fallen rapidly over the last decade, at least in part due to the results of the Term Breech Trial.[1,2] In many centres, breech deliveries are limited primarily to the delivery of a second twin or an unanticipated breech presentation in a multiparous woman in advanced labour.[2] As a result, there has been a reduction in clinicians' exposure to, training in, and confidence in performing a VBD. In Canada, although most practitioners report a willingness to offer VBD in defined circumstances, only 3% of breech presentations are actually delivered vaginally.[3] In the United Kingdom, one survey of 80 trainees revealed that the majority had performed more than 10 breech deliveries and were happy to offer it as a viable option in the future.[4] However, in a survey of Australian trainees the median number of vaginal breech deliveries for final year trainees was 12, with only half of these trainees feeling confident in performing VBD, and just 11% planning to offer VBD at term as a specialist.[5] Of concern, a survey of French trainees revealed that one third had never been taught to perform VBD, and suggested that their current training program was unlikely to result in trainees reaching a standard of competence.[6] It is difficult to assess what number and type of VBDs are required before a clinician would be deemed "confident" or "expert"; what is clear, however, is that trainees and junior clinicians are in need of novel training opportunities to learn how to perform a VBD safely.

Teaching VBDs in this clinical landscape is understandably challenging. However, the Society of Obstetricians and Gynaecologists of Canada's recent Clinical Practice Guideline "Vaginal Delivery of Breech Presentation" suggests that accommodations should be made for appropriate patients who request VBD.[7] The SOGC does recognize that recently qualified specialists may not have had sufficient experience in their training to manage VBD independently. There is, therefore, a justified demand on educators to accelerate training if we are to meet this standard in the future. Various teaching strategies require urgent review in order to evaluate how best to equip trainees with this "rare" skill. In the case of VBD, teaching one-on-one may not be the solution, because individual practitioners often omit important information and decision-making criteria when teaching a new task. However, the development of a "gold standard" task list may subsequently capture all the steps required, in order to fully educate trainees.[8] Furthermore, when teaching individually, the components of assessments and manoeuvres that are automatic to the experienced teacher may not be easily recognized, but if these are deconstructed this would be helpful in improving the skills of the trainee.[9] With this in mind, the aim of this study was to identify both the verbal and non-verbal components of VBD through interviews and video recordings of experts conducting VBD on models. We then wanted to develop an expert task list that could be used to educate trainees on VBD and enhance their clinical experiences.

ABBREVIATIONS

EFW	estimated fetal weight
MSV	Mauriceau-Smellie-Veit
VBD	vaginal breech delivery

METHODS

There were three phases to this study, involving decision making in the second stage of labour, forceps delivery, and Kielland's forceps rotation, which have been discussed in detail previously.[10] This study was undertaken at three teaching hospitals affiliated with the University of Toronto obstetrics and gynaecology residency program. St. Michael's Hospital, Sunnybrook Health Sciences Centre, and Mount Sinai Hospital have a combined annual delivery volume of approximately 15 000, providing care to a population of six million. The labour units have at least one staff obstetrician and one trainee in house at all times.

Expert clinicians were identified by senior nursing staff and invited to participate. Every clinician was filmed discussing their approach to selection of candidates for VBD. They were then filmed performing VBD on a model and were asked to elaborate on the details of their technique. Furthermore, they were asked to discuss their own top learning tips, clinical pearls, pitfalls, and troubleshooting techniques.

For this study, the following scenario was used: