



An exploration of student midwives' experiences of the Objective Structured Clinical Examination assessment process

Maebh Barry^{*}, Maria Noonan¹, Carmel Bradshaw², Sylvia Murphy-Tighe³

Department of Nursing & Midwifery Health Science Building, Northbank Campus, University of Limerick, Ireland

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SUMMARY

This paper reports on a qualitative descriptive study that explored student midwives' experiences of the Objective Structured Clinical Examination assessment process for obstetric emergencies within a university setting. The development of fundamental clinical skills is an important component in preparing students to meet the responsibilities of a midwife. There is an international concern that the transfer of midwifery education into universities may impact on the development of midwifery clinical skills. Objective Structured Clinical Examinations (OSCEs) have the potential to promote integration and consolidation of skills prior to clinical placement. Twenty six students ($n = 36$) from two midwifery programmes (BSc and Higher Diploma) participated in four focus groups and Burnard's (2006) framework was used for data analysis. Three main themes emerged following analysis: preparation for the OSCE assessment, the OSCE process and learning through simulating practice. Preparation for the OSCE's which included lectures, demonstrations, and practice of OSCE's facilitated by lecturers and by the students themselves, was considered central to the process. Learning via OSCEs was perceived to be more effective in comparison to other forms of assessment and prepared students for clinical practice. Positive aspects of the process and areas for improvement were identified. Using OSCE's increased the depth of learning for the students with the steps taken in preparation for the OSCE's proving to be a valuable learning tool. This study adds to the evidence on the use of OSCE's in midwifery education.

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Introduction and background

The four year BSc Midwifery Degree Programme commenced in 2006 followed by the 18 month Post Registration Midwifery Programme in 2007 in a number of Irish third level institutes. There is a suggestion from a nursing perspective that the transfer of nurse education into universities resulted in clinical skill deficits among newly qualified nurses (Bjork, 1999; Hilton, 1996) and a worry that the focus on practice skills might be lost with transfer of nurse education to universities (Neary, 1997). The development of fundamental clinical skills is an important component in preparing students to meet the responsibilities of a midwife and midwifery lecturers are challenged to ensure this facet is met. OSCEs traditionally consisted of stations to test skills (Harden, 1988) and have increasingly been adapted to suit the educational requirements of nursing and allied programmes (Nulty et al., 2011). OSCEs have the potential to promote integration and consolidation of skills prior to clinical placement and

are therefore used as part of the assessment strategy for student midwives on our programmes. Haigh (2007) argued that the university setting can provide a valuable alternative context in which to learn clinical skills however this raises issues in relation to operationalisation within such a setting. An account of the initial steps of developing a modified OSCE assessment strategy within a university setting was provided (Noonan et al., 2009). Assessment of obstetric complications requires both a skills breakdown, such as that needed for shoulder dystocia, as well as criterion referenced evaluation for the woman centred encounter (Major, 2005). The guidelines for assessment are based on the American Academy of Family Physicians (2006) guidelines for obstetric complications that are used in clinical practice. This qualitative study explores student midwives' experiences of using modified OSCEs as part of the assessment process for obstetrics emergencies.

Review of literature

Watson et al. (2002) provides a concise definition of an Objective Structured Clinical Examination (OSCE) where students are expected to demonstrate competency in a variety of simulated situations. OSCE's are seen as valid and reliable tools for assessment with explicit criteria to assess knowledge and skills (Forward and Hayward, 2005). The evidence base for the use of OSCE's is extensive in medicine while

^{*} Corresponding author. Tel.: +353 61 233653.

E-mail addresses: maebh.barry@ul.ie (M. Barry), Maria.Noonan@ul.ie (M. Noonan), Carmel.Bradshaw@ul.ie (C. Bradshaw), Sylvia.Murphy@ul.ie (S. Murphy-Tighe).

¹ Tel.: +353 61 233653.

² Tel.: +353 61 233654.

³ Tel.: +353 61 234356.

that related to nursing is more limited (Rushforth, 2007). Rushforth (2007) notes the diversity of different OSCE processes and the need to pilot and ensure rigour with each new assessment. She considers that nursing has adapted the original Harden model to such an extent that it has distanced itself from much of the original evidence base (Rushforth, 2007).

There is very little published evidence in relation to the use of OSCEs in midwifery. Rennie and Main (2006) conducted a pilot study to explore student midwives and midwifery educators' perceptions of the use of the childbirth simulator in midwifery teaching. The simulator was seen as very useful for teaching obstetric emergencies by the midwifery educators whereas the student views were divided. Jay (2007) conducted semi structured interviews with 10 student midwives. Findings suggest that student midwives perceive OSCE's as a valid means of assessment and increase confidence in performing clinical skills. However a number of students highlighted that dialogue with the 'woman' was difficult when she is represented for example by a mannequin.

Assessing the range of skills that midwives require for professional practice is of great importance but it is acknowledged that the assessment of any clinical skill is complex and presents challenges (Nicol and Freeth, 1998). Lewis (2007) identified a lack of clinical knowledge and skills amongst health professionals as one of the leading causes of potentially avoidable mortality in the UK. The use of OSCEs is acknowledged as effective assessment tool and is seen as the gold standard for evaluating clinical performance (Sloan et al., 1995). According to Murray et al. (2008) though there is limited empirical evidence to support its effectiveness on clinical practice, simulation is seen to have the potential to teach and promote safe practice in an increasingly litigious culture. OSCEs as a means of assessment can also provide the student with confidence when faced with challenges in practice (Alinier, 2003).

Many of the students in Pender and de Looy (2004) reported that OSCEs heightened awareness of key skills necessary for the competent practitioner and were a generally positive experience despite the anxiety surrounding the assessment. Whilst few studies have been done to elicit the views of students, all of the research would agree that stress is a factor associated with OSCE examination (Jay, 2007; Brosnan et al., 2006; Franklin, 2005). Byrne and Smyth (2008) believe that this stress is similar to that experienced in real life emergencies. Duffield and Spencer (2002) noted that the associated anxiety might act as a positive drive to perform. The use of OSCEs to assess obstetric emergencies therefore might help to prepare students for the reality of clinical practice.

There is very limited research from an international perspective and no published research on student midwives' experience of OSCE assessment from an Irish perspective. It is also important to ensure that robust assessment practices are advocated in the newly developed midwifery programmes in Ireland. This study seeks to address both of these issues.

Methodology

Aim

The aim of the study was to explore students' experiences of the OSCE assessment process for obstetric emergencies on the BSc Midwifery programme and 18 month Higher Diploma in Midwifery programme.

Research design

A qualitative descriptive approach was considered suitable to address the research question. This approach is appropriate when the aim of the research is to describe and interpret phenomena, thus enabling researchers to provide an accurate and comprehensive

account of events (Sandelowski, 2010). Green and Thorogood (2009) describe a focus group as a small group facilitated to discuss a particular issue by the researcher. Focus groups have a unique strength in that they facilitate participants to both query each other and explain themselves to each other (Morgan, 1996) and therefore were seen as appropriate means of gathering data from the student midwives.

Ethical considerations

Ethical approval was obtained from the relevant ethics committee within the University. Ferguson et al. (2006) highlighted particular ethical issues when involving students in faculty research e.g. students may feel coerced into participating. Students were provided with a comprehensive information sheet, and consent form, interviewers not directly involved with teaching the students carried out the focus groups once the assessment was completed. Morgan (1996) states that focus groups by the nature of their interaction require mutual self-disclosure. In the context of this study the researchers were mindful of students' individual OSCE experiences and were sensitive to this when guiding the discussion.

Sampling

Purposive sampling was used. All of the students undertaking OSCE assessment of obstetric emergencies were invited to participate ($n = 36$) in the study. Four focus groups were facilitated, two with BSc Midwifery students and two with the H Dip in Midwifery students ($n = 26$).

Data collection and analysis

The focus groups lasted 45 to 60 min. An interview guide based on topics identified in the literature review on the OSCE assessment process was used to stimulate the discussion within the focus groups, for instance the strengths and challenges of the process. The discussions were tape recorded and transcribed verbatim. All transcripts were anonymised to ensure confidentiality. Data was analysed using Burnard's (2006) framework consisting of a system of coding and categorisation. The initial analysis was undertaken by two of the researchers who reviewed the data independently of each other. Each transcript was read and written notes were made regarding descriptive codes and themes that emerged from the raw data. Consensus was reached by the two researchers.

Findings

Three themes were identified.

Preparation for OSCEs

The students found the preparation for the OSCE assessment very beneficial. Preparation included lecturer led theory and workshops, individual preparation and practising in the lab in groups. Some students also practised for the OSCE assessment on the labour ward placement as part of the multidisciplinary team "drills and skills" workshops.

"The more times we did it the clearer it became, you know the first couple of times you're going I'm never going to remember thatbut each time you do it gets a bit easier" S3(1)

The students noted that preparing with other colleagues helped them to learn and feedback from their colleagues was valued.

"If someone didn't know something, somebody else did.... to have a classmate go through it with you rather than someone in charge of youfeel freer to just ask anything" S2(1)

Students were comfortable with one another and had a sense of responsibility to each other.

"You wouldn't just leave it if you could see their hand in the wrong place because they might do that on the day... ..because you don't want them to make a mistake" S2 (3)

Overall students felt prepared for the OSCE assessment but did identify some issues with the OSCE process.

The OSCE process

Many of the students commented on the impact of the OSCE process on their performance.

The students were allocated 15 min for assessment with a student commenting that she didn't "Have time to settle her thoughts" and struggling to make the adaptation from one scenario to another.

"Still in the frame of mind of shoulder dystocia when I was going on to breech" S2 (2)

The time frame also prevented students from demonstrating all they knew with a student commenting that she

"Didn't have the opportunity to shine, show off all that I knew" S3 (1)

Some of the students felt that the use of the simulators could not replicate clinical practice in relation to assessment of communication and interpersonal skills. Communication with the woman in practice was perceived as "second nature" whereas in the OSCE "you are just talking to half a body...you forget about the woman".

"You kind of feel a bit silly... talking to a doll.....talking to a torso" S5 (4)

Some students commented on the challenge of demonstrating women centred care in the assessment specifically in relation to communication.

"We were told to do it in real time, put yourself into the emergency situation, include the woman, talk to the woman but at the same time you're describing your manoeuvres, I just find it a little bit confusing" S1 (3)

Students did feel that it was impossible to simulate an actual clinical emergency.

"I suppose the real life situation is going to be a lot different,you're going to have a woman distressed there in front of you". S5 (2)

Some of the difficulties associated with manoeuvres with mannequins and models were seen as positive and reflective of practice.

"Babies won't always go the way you want them to go" S3 (1)

Comments were made about the effect the assessors had on the process with some students noting

"Not knowing the assessors would help; mortified if the lecturer knows you got it wrong".

But equally it was felt that an assessor knowing the students was advantageous.

"They don't want to fail you either....kind of push you to remember" S5 (3)

However having two assessors was considered "fairer as one assessor could be biased".

The students were aware that feedback couldn't be given during the assessment but found this difficult when they were confronted with the "blank faces of the assessors" leading the student

"To doubt yourself...Have I said enough? Do I need to say more?" S4 (4)

The provision of early feedback after the assessment was very beneficial particularly if unsuccessful.

"Definitely good if you fail, marks aren't capped and you can repeat very quickly" S2 (1)

The timing of the OSCEs, in relation to assessment requirements for other modules was commented on.

"Everything seems to be on top of each other with exams and everything" S (6)

and students suggested that the OSCE occur earlier in the module.

Students also found the waiting time on the day of the OSCE difficult to cope with.

Students did however feel that going through the preparation and OSCE assessment resulted in learning.

Learning through simulating practice

The participants all agreed that the OSCE assessment helped them to learn more effectively and gave them confidence for practice.

"You're pressured into remembering everything but it's good so when the time comes when we actually have a shoulder dystocia... it's going to be in your head forever" S4 (4)

Students felt more prepared for clinical practice after completing the OSCE assessment.

"You really feel confident like actually maybe I could do this when I'm out on practice" S1 (2)

Performing the OSCE in real time provided a sense of urgency and so linked well to clinical practice.

"When it's done in real time you realise how quickly you have to do it to get the baby out"

One aspect that may have interfered with learning for some participants was the stress associated with the assessment:

"You do see the benefits but I don't think for somebody like me who's very nervous, that it showed me at my best" S2 (4)

with one student stating that stress resulted in

"Hands not doing what my head was saying", S3 (3)

Others felt that the stress of the assessment prepared them for the stress of an emergency in practice.

"Better to have nerves now....than in real life" S1 (1).

Discussion

The aim of pre-registration midwifery programmes is that students are, at the point of registration, competent and confident practitioners of midwifery (An Bord Altranais, 2005). One of the concerns raised internationally with the transfer of practice based professions to third level settings is that the focus on practice skills might be lost (Neary, 1997). Simulations of obstetric emergencies have the potential to develop skills that can be transferred into clinical practice (Norris, 2008) and the students in this study concur with this.

Birch et al. (2007) assessed the management of an obstetric emergency training programme and found that a combination of lecture and simulation-based training provided the best short-term improvement in team performance. Cioffi (2001) points out that simulation does not replace clinical experience, an issue also highlighted by students in this study. Students felt more confident and prepared for clinical practice after completing their OSCE assessment, a finding consistent with previous research on OSCE assessment (Jay, 2007; Rennie and Main, 2006; Brosnan et al., 2006).

Assessment of skill competence under examination conditions may vary according to Pender and de Looy (2004) but have a predictive value for performance in clinical practice. Some of the participants in this study identified that they would have acted differently in actual practice and that it is impossible to simulate a "real" emergency. Anderson and Stickley (2002) similarly noted that students felt that OSCEs did not give a true reflection of practical skills when conducted under the artificial conditions associated with assessment.

Race and Pickford (2007) suggest that assessment should promote deep learning. Participants in this study reported that a deeper more meaningful learning was achieved through preparation for and completing the OSCE assessment and this is endorsed by Rennie and Main (2006) and Jay (2007). Deep learning results when the student perceives the need to engage fully in the task in order to understand the underlying meaning of her/his actions (Franklin, 2005). OSCE assessment in obstetric emergencies focuses the students to learn theory and skills that they perceive are necessary, not just for

completing the exam but for safe practice. Haigh (2007) suggests that simulated practice in the university setting offers the potential for deliberation and deep learning.

High levels of stress and anxiety were associated with the assessment, a finding echoed in other research. (Jay, 2007; Brosnan et al., 2006; Franklin, 2005). Active participation in high fidelity simulations is thought to reproduce stress responses similar to those experienced in real life emergencies (Byrne and Smyth, 2008; Norris, 2008). Some of the participants acknowledged this and felt that it prepared them for the realities of practice. However others felt that the level of stress experienced interfered with their performance. Despite the stressful nature of the assessment participants identified OSCEs as a valuable learning experience. Brosnan et al. (2006) found that students experienced greatest stress as they await the assessment process and suggests that the 'corridor facilitator' had a key role to play in reducing students stress.

The development of interpersonal skills is an important facet of midwifery practice (An Bord Altranais, 2010). The traditional form of OSCE assessment isolated competencies and skills which was considered contrary to the idea of holistic evaluation (O' Neill and McCall, 1996). Some students had difficulty relating to the models used i.e. the mannequin and the torso, specifically in relation to demonstration of communication skills. The difficulty for students demonstrating a human dimension when relating to simulators has previously been highlighted by Jay (2007). According to Major (2005) communication cannot be evaluated as a separate situation and by the use of a simulated patient experience this supports the emphasis on holistic care.

Theory and workshops in relation to the obstetric emergencies were delivered within the module. Students were encouraged to practise the skills in groups. Participants identified the value of preparing with colleagues for the assessment with the process itself proving to be a valuable learning tool. This finding illustrates the importance of emphasis not only on the outcome but also on the process. Practising with peers enables confidence and skill acquisition in a non-threatening, safe environment without fear of making mistakes that compromise client safety. Jay (2007) suggests that preparation in groups appears to promote cooperative shared learning. Some of the participants had the opportunity to participate in obstetric emergency workshops in the clinical area. These workshops have an approach consistent with that used within the university as both are based on the American Academy of Family Physicians (2006) guidelines. This was valued by students because it was perceived as more realistic and more useful, a finding congruent with that of Norris (2008).

Some participants felt that the time allotted was unrealistic to complete the assessment. Similar results were found by Jay (2007) and Rennie and Main (2006) who discuss the possibility of this affecting the reliability of the OSCE assessment. The lecturers had completed trial runs of the OSCE assessment with students and had found the assessment achievable in the time frame.

Some participants commented on the effect assessors had on the assessment process, consistent with Brosnan et al.'s (2006) findings. Students also commented on the lack of feedback during the assessment, echoed by Jay's study in 2007. Alinier (2003) identifies that the role of the examiner is to observe and record the student's performance without providing assistance. Students therefore need to be precisely briefed about the role of assessors and the type of interaction to expect during the assessment.

Some of the participants found the waiting time before their assessment stressful and this was influenced by feedback from colleagues who had already completed the assessment, a finding congruent with Jay (2007). Inclusion of a "corridor facilitator" as described by Brosnan et al. (2006) may help to address this issue. Nulty et al. (2011) have proposed best practice guidelines for OSCEs in relation to nurse education and further research and application would help to enhance midwifery assessment practices.

Limitations

This study took place in one university which may limit application to other university settings and some of the areas identified by the participants relate to specific organisational issues. The findings are however consistent with previous studies.

Conclusion and recommendations

Overall the findings in this study are congruent with previous research on OSCEs in the nursing and midwifery literature and support the depth of learning associated with the use of OSCEs in midwifery education. Participants in the study commented on the value of working within a group to prepare for the OSCE assessment thus the process itself proving to be a valuable learning tool. Organisation of practice groups at the beginning of the semester would help to foster learning. It is also important that students are facilitated by lecturers through detailed demonstration before students practice on their own or within groups. Rennie and Main (2006) suggest that both lecturers and midwives could have a role in the OSCE assessment and that this would enhance the partnership between education and practice. In this study the clinical skills facilitator linked to one of the programmes took part in the assessment process.

To date there are no studies which indicate whether the knowledge and skills learned through simulated assessments are actually transferred from educational and training settings into competence and proficiency within clinical practice. Murray et al. (2008) argues that priority must be afforded to the robust evaluation of simulation in clinical practice. Incorporating OSCEs into the undergraduate midwifery assessment strategy provides students with an opportunity to respond to obstetric emergencies in a simulated situation and contributes to preparing students for practice. The depth of learning associated with OSCEs may also contribute to ensuring that these students are safe and competent practitioners at point of registration.

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