Midwives’ experiences of using a modified early obstetric warning score (MEOWS): a grounded theory study

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Abstract

Background. Computerised early warning systems have become commonplace in UK hospitals, but there is limited understanding of midwives’ experiences of using them.

Objective. To gain an understanding of midwives’ experiences of using a modified early obstetric warning score (MEOWS) and identify perceived barriers to using it, in order to consider how compliance may be improved.

Methods. A grounded theory study using semi-structured interviews with six midwives working on the labour ward of a large tertiary level teaching hospital in the Midlands.

Findings. Deficiencies in the management of change led to misunderstandings of the rationale for MEOWS affecting midwives’ motivation to adopt the change. The frequency of changes in practice, lack of training in how to use the tool and duplication of documentation were perceived as barriers to implementing the MEOWS. Midwives experienced the tool as a threat to autonomy, undermining clinical judgement. The findings also highlight midwives’ concerns about delegation of measuring observations to support staff. Delegation was thought to lead to task orientation, which opposed holistic midwifery care.

Conclusion. Proposed changes to maternity care need careful planning. Involvement of clinical midwives in the development of tools which affect practice is necessary. Effective communication and adequate training could increase practitioners’ understanding and perceived value of the tool, thereby increasing their motivation to implement it (Upton and Brooks, 2002).

Key words: Modified early obstetric warning scores, barriers, change management, autonomy, evidence-based midwifery

Background

Since recommendations made by the Department of Health (2005) and NICE (2007) critical care reports, the use of early warning scores (EWS) has become commonplace in UK hospitals (Jansen and Cuthbertson, 2010; McGaughey et al, 2007). The EWS is an observation chart where vital signs are recorded and allocated a score from zero to three, depending on the extent to which the measure deviates from the normal range (Goldhill, 2006). The aggregate score of all the parameters is calculated and action directed accordingly by the accompanying algorithm. Such systems are sometimes called ‘track and trigger’, as a high score should trigger action, such as increased frequency of observations or referral to a doctor (James et al, 2011; Gao et al, 2007). The underlying principle is that clinical deterioration is preceded by changes in physiological markers such as heart rate, respiratory rate, oxygen saturation, blood pressure and temperature (Cuthbertson, 2008). Consequently, monitoring vital signs over time may allow earlier detection of impending deterioration, facilitating timely treatment before a patient’s condition becomes critical (McGaughey et al, 2007). It is thought that the use of EWS systems may aid recognition of acute illness and interpretation of clinical findings, expedite escalation of clinical concerns, aid communication, and standardise the response to critical illness (McGlenann and Sherratt, 2013; McGinley and Pease, 2012; Kyriacou et al, 2011; Cuthbertson, 2008).

There is evidence to suggest that EWS have the potential to improve detection of critical illness and improve clinical outcomes when used in paramedic ambulances, prior to hospital admission (Fullerton et al, 2012). A systematic review by Alam et al (2014) found mixed results in terms of mortality rates, high dependency unit (HDU) or intensive care unit (ICU) admission and incidence of cardiopulmonary arrest; although they report an overall trend towards better outcomes with use of EWS. However, the authors advise against making generalised conclusions regarding the value of EWS, as the findings relate to specific populations of patients, for example, trauma and orthopaedic ward patients or haematology patients (Alam et al, 2014). Similarly, the number of different EWS tools that are found in western healthcare systems has hindered large-scale evaluation of the tool (McGaughey et al, 2007). A Cochrane collaborative systematic review identified 25 different locally-modified track and trigger EWS in use across England and Wales with variable diagnostic ability, sensitivity and predictive values (Gao et al, 2007).

Implementation of EWS in maternity care follows the recommendations from two triennial maternal mortality reports (Lewis, 2011; 2007) that highlighted the delay in recognising and acting upon clinical deterioration as a contributing factor to maternal death. However, it is suggested that a major driving force for the widespread implementation of EWS in the UK is the risk management standards set by the NHS Litigation Authority’s (NHSLA) Clinical Negligence Scheme for Trusts (CNST) (McGlennan and Sherratt, 2013), which offers significant financial incentives to NHS trusts for compliance with the standards, which includes the use of EWS (NHSLA, 2013). The 2007 CEMACH report included a modified early obstetric
warning score (MEOWS) tool, which it recommended could be used by maternity services (Lewis, 2007). In an evaluation of this chart, 30% of the 676 patients triggered a response, while only 13% demonstrated true morbidity (Singh et al, 2012). Crucially, the level of intervention required by this false-positive rate adds significantly to the workload of midwives and obstetricians using the tool. It may be due to dissatisfaction with the level of specificity of the CEMACH MEOWS that many trusts have developed their own tools. This has resulted in a multitude of different systems being used across the UK, with substantially different scoring parameters, the ability of which to improve outcomes for women are unknown (Isaacs et al, 2014; Swanton et al, 2009). It is perhaps due to the difficulty in defining and measuring obstetric deterioration that published literature regarding the use of EWS in maternity care settings has tended to focus on describing the implementation of EWS charts, rather than evaluating the ability of the parameters to detect patient deterioration or critical illness (McGlennan and Sherratt, 2013; Swanton et al, 2009). Despite this, the medical EWS has been modified and has become commonplace in all UK maternity units (Isaacs, 2014).

Gao et al (2007: 667) warns that ‘the potential benefits of using any track and trigger can only be realised if physiological parameters are accurately measured and recorded’. Disturbingly, published audit data show that just 6% of MEOWS charts were completed fully, and where deviations from the normal warranted escalation, there was a ‘worrying lack of documentation indicating whether a doctor was called and what action was taken’ (Allman et al, 2010: 15). Furthermore, even when abnormal observations are recorded, appropriate action is not consistently taken to escalate concern (Hillman, 2005). Of 576 deaths reported to the National Patient Safety Agency (NPSA), 11% resulted from failure to recognise or act upon signs of clinical deterioration. As Kyriacos et al (2011: 326) noted, simply recording vital signs is not sufficient but requires midwives to ‘record all vital signs frequently; recognise deterioration or critical illness’.

Method

A grounded theory (GT) approach was taken to explore the experiences of midwives within the context of the health service. The research broadly followed the Straussian model of GT, as being known to the participants inevitably resulted in an active relationship, which is distinctive of Straussian GT (Hunter et al, 2011). Where practicalities necessitated elements of the method to deviate from the traditional Straussian model, this was explicitly justified in the study protocol.

Design

The study comprised a single semi-structured interview per midwife. The interviews followed a loose schedule of questions, which evolved over the course of the six interviews to follow up emerging themes. Each interview was digitally recorded with the participant’s consent and transcribed soon afterwards. Each transcription was analysed prior to the next interview to guide decisions.

Table 1. Search terms and exclusion criteria

<table>
<thead>
<tr>
<th>Search term</th>
<th>Exclusions</th>
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<tbody>
<tr>
<td>Modified early obstetric warning score</td>
<td>Emergency care</td>
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<td>AND system</td>
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<tr>
<td>Early obstetric warning score/system</td>
<td>Paediatric</td>
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<td>Early warning score</td>
<td>Intensive care/high dependency care</td>
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<tr>
<td>AND obstetric</td>
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<tr>
<td>EWS OR MEOWS</td>
<td>Surgery</td>
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<tr>
<td>Track and trigger system</td>
<td>Medicine</td>
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<tr>
<td>Midwives OR maternity</td>
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Table 2. Secondary literature search: included studies

<table>
<thead>
<tr>
<th>Study</th>
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<tr>
<td>Mackintosh et al (2014)</td>
<td>Ethnographic study which audited MEOWS documentation, conducted observations, and 45 semi-structured interviews with midwives, obstetricians, anaesthetists, neonatologists and managers. This is a well-constructed study using mixed methods to triangulate findings and a cross-section of clinicians.</td>
</tr>
<tr>
<td>Isaacs et al (2014)</td>
<td>Survey of 205 lead obstetric anaesthetists regarding early warning systems currently used by maternity units in the UK. Although the study does not investigate midwives’ experiences, the study does discuss barriers to implementing MEOWS albeit from an anaesthetic perspective, therefore considered to be relevant.</td>
</tr>
<tr>
<td>Bick et al (2014)</td>
<td>Survey of heads of midwifery regarding implementation of MEOWS and barriers to midwives using them. Questionable choice of population to survey given the objective as the views of heads of midwifery may or may not reflect those of midwives who work with the tool in practice. Questionnaires provided closed questions with set responses. This could be said to limit or force set responses. However, correlation with findings of the present study.</td>
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Data collection

Interviews took place in a private room at the study site where all of the midwives worked. The interviews lasted between eight and 38 minutes, with the average being 17 minutes and concluded when the participants had said all that they wanted to. The researcher was known to the participants as a colleague who also worked clinically as a midwife at the study site. Participants were advised that the study was to be conducted as part of an academic programme and, as such, the researcher was independent from the NHS trust. Interviews were digitally recorded and then transcribed. Transcription of the interview preserved the value of the specific words that participants used, which Seidman (1998: 97) considered to be the manifestation of a deeper ‘consciousness’. This method ensured that the analysis was grounded in the data. Each transcript was analysed soon after the interview so that emerging questions or themes could be added to the interview, schedule for exploration with the next participant.

Data analysis

Line-by-line in-vivo coding was performed by hand whereby verbs, adjectives, nouns and phrases were cut from the text to form open codes and then assimilated with similar words or phrases to produce categories, as prescribed by Strauss and Corbin (1998). Larger sections of the texts were examined as a whole to ensure the context informed the interpretation, and aided axial coding. Three basic analytical questions were used, as recommended by Elliott and Jordan (2010: 30): ‘What is this a study of? What category does this incident indicate? And what property does this incident indicate?’ Constant comparison of the data was an iterative process of comparing new data with previous data; each interview was analysed before the next to identify and develop emerging theories and ensure that the theory was grounded in the data (Walker and Myrick, 2006; Strauss and Corbin, 1998). Data saturation was achieved when no new codes or categories emerged from the raw data – when similar information was repeated by participants at interview.

Transparency within data analysis requires reflexivity whereby the researcher is aware of their impact upon the interpretation of the data (McBrien, 2008). Complete objectivity was not possible given the researcher’s prior experience as a midwife; however, the participants were not aware of the researcher’s opinions on the MEOWS. Great care and reflexivity were employed by the researcher to avoid influencing the participants or biasing their responses. This is termed ‘theoretical sensitivity’ by Connelly (2013). It is required to balance the integral role of the researcher in the process, while being diligent not to influence the emergent theory. A journal was kept in which the researcher reflected upon emerging themes and her own influence regarding subsequent participant selection and modification of the interview schedule. This ensured credibility of the findings as themes were allowed to emerge from the data (Chiovitti and Piran, 2003). Additionally, the findings were discussed and informally member checked with the research participants and peers after completion of data analysis. These mechanisms confirmed ‘fit’ which is determined by how well the theory is recognisable to the participants’ experience (Strauss and Corbin, 1998).

Recruitment

The study was advertised at the study site to all labour ward midwives via the trust’s global email system and posters displayed within the clinical area. Those who expressed an interest in the study were given a participant information leaflet, and written consent gained at least 24 hours later, as per protocol. Six midwives were recruited to the study prior to data saturation being achieved.

Participant selection

The first participant was inevitably self-selected. Thereafter, theoretical sampling was implemented, whereby each interview was analysed prior to the next, to determine appropriate participant selection for forthcoming interviews and enable the exploration of emerging themes (Connelly, 2013). The first participant was a newly qualified, Band 5 midwife, who had no experience of any alternatives to a MEOWS on which to base comparisons or judgements. Consequently, subsequent recruitment focused on more senior midwives who had greater experience with and without the MEOWS. The final participant recruited was a Band 7 labour ward coordinator, who had a wealth of clinical experience and provided necessary insight from a leadership perspective.
upon the research process, for example, documenting when an avenue of discussion may have been pursued out of the researcher’s interest rather than because it was important to the participant. The use of a journal and memos not only augments reflexivity, but also forms documentary evidence of the process that was followed, thus increasing transparency (Koch, 2006).

**Ethics**

Ethical concerns in relation to informed consent, data protection and confidentiality were addressed in the research protocol. Favourable opinion was granted by the local research ethics committee, as was approval from the NHS research and development department. All data and records were held securely on a password-protected computer, in accordance with regulations at the coordinating centre, while the study was ongoing and then archived in accordance with sponsor regulations and the Data Protection Act (UK Parliament, 1998). Access to records was restricted to the chief and co-investigator.

**Findings**

In total, six midwives were interviewed prior to data saturation being reached. The midwives ranged from newly qualified, with less than six months’ experience, to senior midwives, with over 30-years’ experience. Half of the participants had trained at the study site, and worked there ever since. The other half had a broad range of experience, covering community midwifery, private practice, midwifery education, and other NHS trusts. Data analysis identified 348 open codes, which lead to the discovery of 12 axial codes. As the name ‘axial’ suggests, these concepts are interrelated. However, to address the objectives of this study, the findings are presented under three headings: midwives’ experience of the development of the MEOWS; barriers to implementing the MEOWS; and midwives’ experiences of using the MEOWS.

**Midwives’ experience of the development of the MEOWS**

At the study site, the MEOWS tool was devised by local stakeholders as a response to clinical incidents and recommendations by national bodies such as CEMACH (Lewis, 2011; 2007) and the Department of Health (2005), in order to reduce maternal mortality and morbidity. However, the midwives who participated in the study felt that the tool was devised by those in positions of authority, without their involvement:

“Management, education, and medics will sit in meetings and say ‘we’ve got to put this in place... We’ve decided... and that’s the way it will work...’” (Sophie).

“They’re devised by people who are not involved in the clinical... whatever change is being made is being made by people that are not here doing the everyday job” (Anna).

The rationale for introducing the MEOWS was not well disseminated. Half of those interviewed did not link the introduction of the MEOWS to any benefit to women. Rather, it was seen to be driven by audible CNST standards:

“I feel sometimes I work for an insurance company and I am a data collector and all the charts and stickers we use are for one person, to make their job easier, the auditor’s job easier” (Mary).

Although Anna also attributed the MEOWS to CNST, she could see value in it for risk-managing purposes:

“It protects us from any more errors because errors will happen, error is bound to happen when you’ve got human beings doing the chart... in the long term, it’s going to be good because that then prevents accidents happening and cases of litigation coming so eventually it will save money” (Anna).

Midwives were reluctant to readily adopt the MEOWS because they did not see any inherent value in it, moreover, it was imposed upon them and mandatory:

“I use it because they use it within the trust and we have no choice” (Isabel).

**Barriers to implementing the MEOWS**

Frequent changes at the study site had affected morale. In light of this, therefore, the introduction of any new practice compounded the problem, as the midwives were worn down by the workload and frequency of changes. Consequently, a pre-existing resistance to change inevitably presented a barrier to the implementation of the MEOWS:

“I think the biggest problem is that they keep changing things... because people get a bit deflated with constant changes”(Sophie).

“Oh it will only take you a minute’... None of it only takes a minute...” (Mary).

Training in how to use the tool was said to be inadequate:

“If somebody had shown you at the beginning... rather than it just suddenly appearing and nobody really knowing where it came from” (Sally).

Participants expressed a unanimous desire for someone to come to the labour ward and talk them through the MEOWS chart, explaining how it was to be used:

“I know it’s a chart and it does explain itself but... you’ve got constantly new stickers coming in and new things and CNST requirements... so if somebody had shown you at the beginning... I think it would have been quicker ” (Sally).

When observations were already recorded on the partogram and in the notes, the MEOWS was seen as a duplication of documentation. This was a concern for the midwives, who expressed that the increasing workload and volume of paperwork hindered their ability to care for women effectively:

“In labour ward, we are always recording in the notes and on the partogram and it’s just another place that you need to put your observations, I think we do it in enough other places. I don’t know how important it is” (Heather).

“...another paper-pushing exercise” (Isabel).

“...writing about it takes three times as long as doing it... we are so task-orientated... the woman’s at the bottom of the pile really” (Mary).

**Midwives’ experiences of using the MEOWS**

Implementation of the MEOWS places midwives in a precarious position. The tool allows delegation of measuring observations to unregistered support staff, such as maternity
care assistants (MCAs). However, while measuring and recording MEOWS can be delegated, the midwife retains overall accountability for the outcome (RCM, 2013). To the midwives, far from delegation of measuring the MEOWS being seen as easing their workload, they were reluctant to relinquish this responsibility. Firstly, measuring observations was seen as a vital part of the midwife's clinical examination. To delegate part of this was seen as reducing holistic midwifery care to task orientation:

"Traditionally as midwives we did all the observations, made a clinical decision whether someone was well or unwell. It’s been taken out of our hands, placed in the hands of unqualified care assistants who may not understand the implications of the MEOWS score or the woman’s vital signs" (Isabel).

Secondly, midwives in the study expressed concerns about MCAs undertaking this task, such as questioning their ability to perform the observations and report back the findings. Midwives reported not always being informed of raised MEOWS, and errors in calculating aggregate scores. By design, MEOWS charts negate the need for skilled interpretation of observations and clinical decision-making as appropriate actions follow a colour-coded algorithm (Kyriacos et al, 2011). However, appropriate escalation of raised scores requires recognition that the score is abnormal, and effective communication between the MCA and the midwife. The retained accountability for tasks undertaken by others was a source of concern for the midwives:

"My biggest concern is that because they’re filled in by the MCAs quite often it’s documented that the midwife has been informed of the result but we haven’t” (Isabel).

“We let care assistants do the observations on the presumption that should they find something abnormal, they came to tell the person in charge. I was that person in charge and nobody told me... several hours has passed by... and nobody treated her” (Sally).

The requirement to inform the doctors when a high score was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell. Clinical judgement was triggered was a source of conflict, if the midwife did not believe the woman to be unwell.

“I think it depends on experience doesn’t it, but a lot of people who have been nurses before will understand that and you can tell if a woman’s breathing is laboured and you just measure it a bit more accurately” (Anna).

“It highlights to you when things are abnormal... it’s useful how it’s all set out and it’s quite clear what you need to do and who you need to refer to” (Heather).

On the other hand, there was concern expressed that reliance upon the tool might lead to deskilling:

“Basically, I think people are going to lose experience and skill if the stickers are not there or a box isn’t there to tick. So sorry I don’t really think they’re fantastic” (Isabel).

Discussion

The 2007 CEMACH report (Lewis, 2007) recommended the use of a MEOWS tool due to delays in escalating clinical concerns regarding deteriorating patients, poor communication and inconsistent response to critical illness. However, evidence has shown that compliance with using MEOWS charts in maternity care settings is poor and escalation protocols are not adhered to (Allman et al, 2010). The focus of this GT study was midwives’ experiences of using the MEOWS, to gain an understanding of how the tool is used in practice and identify perceived barriers to using it.

The primary barrier to the MEOWS was the way in which it was devised and implemented. It is theorised that lack of involvement in the change process affected the midwives’ motivation to adopt the change. ‘If people cannot see the benefit to themselves, their working practices or to patient care, then they will continue to be resistant’ (Stoneshouse, 2012: 457). Furthermore, involvement in change may lead to a greater sense of being valued and able to instigate changes in relation to issues that are important to midwives ‘on the ground’, which may in turn improve job satisfaction (Upton and Brooks, 2002). Research by Mackintosh et al (2014), published since completion of the present study, highlighted tensions between managers who have driven the implementation of the MEOWS for the financial rewards of CNST, and clinical midwives who lacked faith in the tool.

Tensions also existed in the present study where midwives felt obliged to inform a doctor of raised MEOWS, even though they themselves deemed that there was nothing wrong. The findings are indicative of what Colvin et al (2013) described as turf-battles between midwives and obstetricians. Literature suggests that clinical judgement is shaped by perceptions of birth and risk (Pollard, 2011; Jefford et al, 2010; Lavender and Chappel, 2004). Midwives, who inherently view birth as a normal physiological event, may seek to explain and rationalise unexpected observations and, therefore, deem it unnecessary to refer for a raised MEOWS. While the midwife is the lead professional in low-risk maternity care (Chief nursing offices of England, Northern Ireland, Scotland and Wales, 2010), NMC Midwives rules and standards (NMC, 2012) state referral to an appropriately trained professional should be made where deviations from normal occur. It could be argued that the scope for autonomous practice has been removed altogether if all raised MEOWS must be referred to a doctor without leeway for the midwife to
interpret the observations in context. However, it should be recognised that, while autonomous midwifery practice is entirely appropriate for low-risk women, for those requiring complex care, autonomy without obstetric input is outside the midwife’s scope.

Similar tensions were noted by Mackintosh et al (2014: 29), arising as a result of the midwifery commitment to the promotion of normality, while the MEOWS was seen to ‘inappropriately medicalise childbirth’ and compromise the midwife’s autonomy. These factors led to what the authors term ‘discretionary’ use of the MEOWS, whereby midwives used professional judgement to decide when or when not to use it. In view of this finding, it is questionable whether the use of a MEOWS is necessary for all women, as it can be perceived as medicalisation of normal childbirth, or whether it should be used specifically for those women who are high risk and therefore under the jurisdiction of an obstetrician (Bick et al, 2014). As one midwife so neatly phrased it: “Women are individuals, it’s not one-size-fits-all, it doesn’t fit all... they need different types of care” (Sophie).

A national service evaluation of the implementation of a MEOWS tool by Bick et al (2014), also published since completion of this study, found that duplication of paperwork was among the most common barriers to implementing the tool, as was difficulties in obtaining medical review for raised MEOWS due to workload issues. The RCM State of maternity services report (RCM, 2013) makes apparent the complexity of challenges that UK maternity services continue to be faced with; these include the nationally rising birth rate, the increasing medical acuity of childbirth women, and rising obstetric intervention rates. ‘Care becomes reductive and fragmented’ (Hunter, 2010: 257). This shakes the very essence of what it means to be a midwife: being ‘with woman’ (Colvin et al, 2013). When they interviewed midwives about their changing role, Prowse and Prowse (2008) found decreased job satisfaction, as midwives increasingly took on technical and administrative tasks, while their key function of being ‘with woman’ was unwillingly delegated to support staff. This finding resonates with the midwives in the present study, who were reluctant to delegate observations to MCAs because it represented a task orientation which threatened holistic midwifery care.

**Limitations**

The small participant size could be seen as a limitation. However, the findings resonate with existing literature which infers credibility. The author cannot claim transferability to other settings, however, recently published research supports the findings (Bick et al, 2014; Isaacs et al, 2014; Mackintosh et al, 2014).

**Implications and recommendations**

A key finding of the study is that implementation of the MEOWS was poorly managed. It is recommended that local stakeholders should consider involving clinical staff in the development of tools that affect their practice, as this may improve compliance with them. Furthermore, effective communication and training at the introduction of tools such as the MEOWS could increase understanding and perceived value of the tool, thereby increasing motivation to implement it (Upton and Brooks, 2002). The study raises important issues in relation to midwives’ concerns over the delegation of observations to MCAs while retaining accountability for outcomes. Consultation with midwives and MCAs is recommended to mediate the most appropriate delegation of workload to maximise the employment of support staff without diminishing the unique role of the midwife in being ‘with woman’. Research is required to evaluate whether widespread implementation of the MEOWS for all women, rather than targeted use for those with risk factors, is superior for detecting early signs of maternal morbidity. The MEOWS is currently used for all women at the study site, regardless of the model of care. The appropriateness for low-risk women under midwife-led care warrants further consideration.

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