Safer Births Through Better Teamworking

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Introduction

Obstetrics in the UK exists in a unique paradigm. Maternity care in the UK has evolved to be delivered almost entirely by pregnancy specialists, with the role of the General Practitioner far diminished from their once piviotal role.[1] These specialist groups are midwives – specialists in normal pregnancy and birth – and obstetricians – specialists in the care of women who fall outside of this remit. Midwives are trained to be expert in normal births and refer women when care deviates from this. These two sets of professionals work alongside each other to deliver care that is amongst the safest in the world in terms of maternal and perinatal mortality. The boundary between these two roles is not always clearly defined – low risk women may choose consultant led care, and the midwife remains a key component of any "high risk" birth.

There are further professional groups which are involved in the care of a woman throughout the course of her pregnancy: Gynaecologists (who deal with early pregnancy emergencies), External Specialist Doctors (Cardiologists, Renal Physicians, Rheumatologists), Anaesthetists (often birth specialists in their own right), Theatre Professionals, Midwifery Care Assistants, Sonographers, Porters, Laboratory Technicians and others.

All of these professionals may be required to interface in elective or emergency care, in either clinic or labour ward based settings. All of these professionals are highly trained, expert individuals. They are trained in isolation of each other (i.e. at medical school, midwifery school) with separate professional identities, goals, values and cultures.

Recurrent reports have called for improvement in the way in which obstetric teams work together, and the recent report into the Morecambe Bay hospitals highlights that the potential for things to go disastrously wrong is ever present.[2] The cultural and organisational working practices that differ between these groups can make handover and teamworking a challenge.

This article will examine the nature of teams and handover in obstetrics and attempt to provide some suggested areas for improvement.

Teams in Obstetrics and Gynaecology

What is a team?

A unified definition of a functional team is neatly captured as "a group of people working together in an organization who are recognized as a team; who are committed to achieving team-level objectives upon which they agree; who have to work closely and interdependently in order to achieve those objectives; whose members are clear about their specified roles within the team and have the necessary autonomy to decide how to carry out team tasks; and who communicate regularly as a team in order to regulate team processes."[3]

Why is Team-Working in the NHS important?

Hospital measures to improve hand hygiene reduce hospital-acquired infections from 16.9% to 9.9%[4] in a modern hospital in Switzerland, and have rightly been the focus of much investment to replicate this improvement in the UK. According to one study "5% more staff working in well-structured teams was associated with a 3.6% lower mortality rate."[5] Yet we have been slow to invest in team-working training and improvement.

Can we recognise labour ward teams as functional teams?

Table 1: Characteristics of Effective Teams after West et al [9]

Team Characteristics	Reflections and Challenges
Good teams are clear about their task as a team.	Normal Birth or Safe Delivery? Avoidance of Intervention? Birth Experience or Birth Outcome? Prioritise Mother or Baby?
They are clear about what skills they need in the team to achieve this purpose and therefore make appropriate choices about who should be the team members.	Team members are pre-selected and assessed by agencies external to the team (obstetric trainees). Midwives are selected and assessed by units.
Teams should be clear about who the members of the team are.	Do doctors and midwives hand over at the same time? Are all members of the team present at handover?
Once teams go above 8 or 9 members, effective communication and coordination become more difficult.	A typical labour ward will have at least 4 midwives, 2 midwife care assistants, a junior doctor, a registrar, a consultant, an anaesthetist, a theatre team of at least 3 people, porters, student midwives.
Team members need to understand clearly their roles and the roles of other team members, so there is no ambiguity about who is responsible and accountable for what tasks.	Clear division between normal and abnormal birth settings.
Well-functioning teams in the NHS always have, as one of their objectives, significantly improving the effectiveness with which they work with other teams within (and sometimes outside) the trust.	Quality Improvement Culture poorly embedded in Obstetrics and Gynaecology. Mostly focussed on top-down, centralised interventions.
Teams with a positive supportive, humorous, appreciative atmosphere deliver better care.	Obstetric trainees consistently self-report as being amongst the most bullied and undermined.[6]
Teams have to meet regularly and have useful meetings that enable them to reflect on the quality of care they provide and how to improve it.	Regular CTG and risk management meetings exist in most units in the UK.

Real and Pseudo-Teams

Those who work regularly on the labour ward will recognise that even the best labour wards have a number of systems-level blocks to realising the goal of having a "real" team of doctors, midwives and others working together.

Pseudo-Teams (also known as co-acting groups) are defined as "a group of people working in an organization who call themselves or are called by others a team; who have differing accounts of team objectives; whose typical tasks require team members to work alone or in separate dyads towards disparate goals; whose team boundaries are highly permeable with individuals being uncertain over who is a team member, and who is not; and/or who, when they meet, may exchange information but without consequent shared efforts towards innovation." [7]

Using the table below you will be able to judge where your obstetric team falls on the spectrum of "real" to "pseudo" teams.

Lyubovinovka et al found that real teams, in comparison with pseudo-teams "witnessed fewer errors and incidents, experienced fewer work related injuries and illness, were less likely to be victims of violence and harassment, and were less likely to intend to leave their current employment." [8]

Table 2: From West et al [7]

"Real Team" and "Pseudo Team"

Typical tasks require team members to work in a closely coordinated and timely manner towards common goals and objectives	**Interdependence**	*Typical tasks require team members to work alone or in separate dyads towards disparate goals and objectives*
There are one or more clear shared team objectives that team members agree upon	**Shared Objectives**	*There are as many different accounts of team objectives as there are team members*
Team members systematically review team performance and adapt future objectives and processes accordingly	**Reflexivity**	*Team members occasionally meet together to exchange information, often through obligation or habit with no consequent innovation*
At any given moment, team members are clear about who is a member of the team and who is not	**Boundedness**	*Team boundaries are highly permeable, with team members being unclear about who is part of the team and who is not*

Strategies to Improve or Introduce Team Working on the Labour Ward

A systematic review in 2010 identified three main interventions to improve team-working[7] – Team working Training, Structured Communication and Organizational Interventions.

Teamwork training programmes: these involve a systematic process through which a team is trained to master and improve team competencies (e.g. crew resource management, TeamStepps, MOREOb, and to an extent skills training courses such as PROMPT, ALSO and MOET).

Teamwork training and simulation training has been shown in a systematic review from 2011 (Crofts et al) to have the effects outlined in Table 3, below.

The relationship between this kind of training and improvement in birth outcomes looks promising, but has not been conclusively associated at this point.

Table 3: Effects of teamwork training.

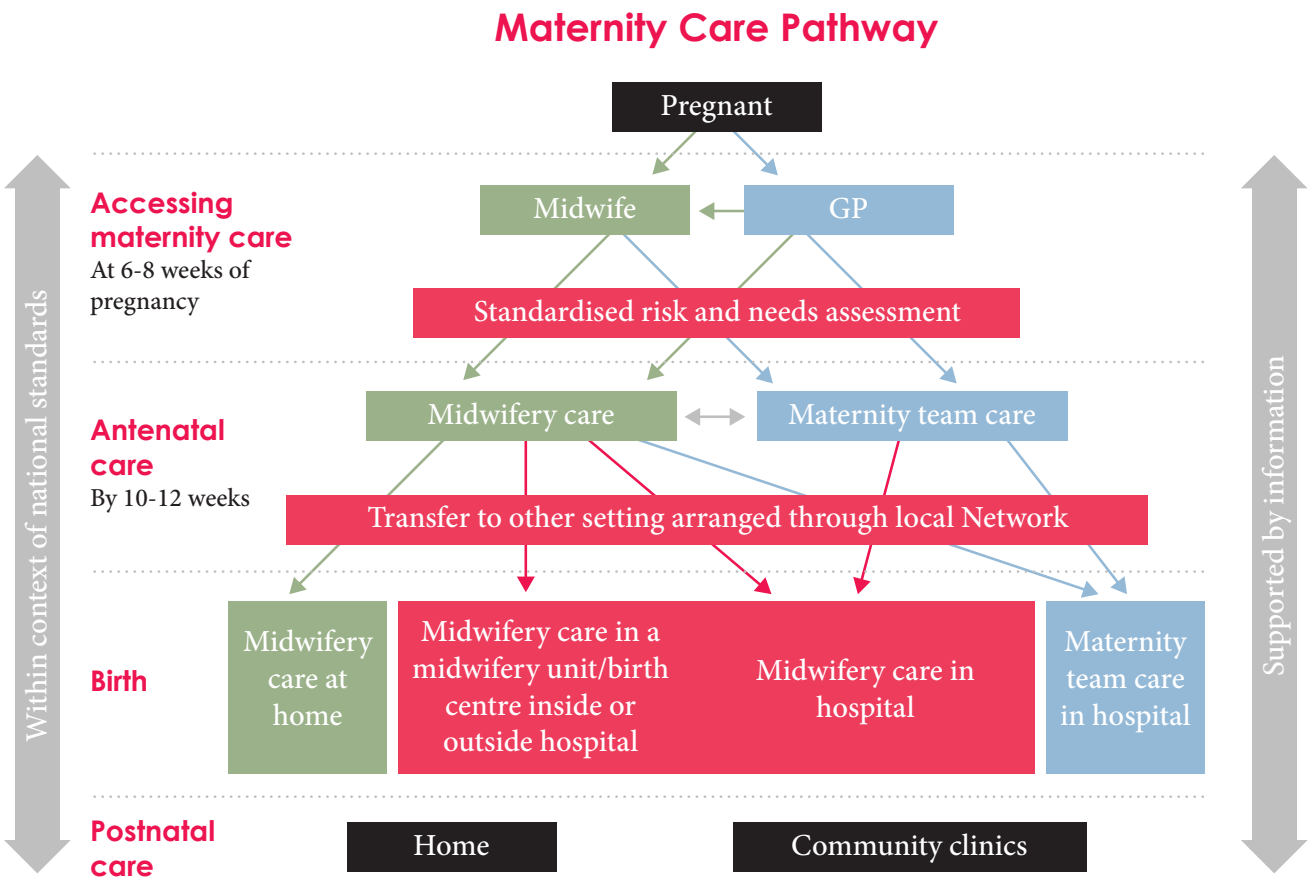
Condition	Effect
Eclampsia	More rapid administration of eclampsia drugs
Post Partum Haemorrhage	Improved management
Shoulder Dystocia	Mixed picture – depends on training
Maternal Cardiac Arrest	Increased post-mortem caesarean section rates
Vaginal Breech Delivery	Improvement in simulated delivery
Cord Prolapse	Reduction in diagnosis to delivery time
Instrumental Delivery	Improvement in correct forces applied and successful simulated delivery

Structured communication protocols: these are tools which seek to improve the reliability of transferring critical information (e.g. briefing and debriefing checklists, SBAR[8(*)] tools and closed-loop communication). These can all be enhanced by the use of ergonomic decision-aids such as stickers or electronic prompts.

Organizational interventions: these are interventions that seek to change work processes and structures so that they support more effective communication (Care Pathways and integrated protocols).

This example of a care pathway is a high-level example taken from Standards For Maternity Care.[11] Standardised risk and needs assessments, followed by agreed pathways for individual conditions can improve communiation in teams, but these need to be developed in detail at a local level.

Figure 1: From Standards for Maternity Care, RCOG 2008



(*) Situation, Background, Action, Recommendation

Culture and Leadership to effect better team working

Culture

Midwifery and Medical cultures are different. In her benchmark study Mavis Kirkham identified caring and commitment, irrespective of personal sacrifice as key aspects of midwifery culture.[12] Donald Berwick reminds us of "medicine's tenacious commitment to individual, professional autonomy."[13]

Without a just culture[14] teams will be more prone to blaming each other when things go wrong and less likely to learn from mistakes as these will go unreported. "Teamwork" culture emphasises collaboration between employees and is associated with increased patient satisfaction. "Bureaucratic" culture (formal policies and chain of command) is negatively associated with patient satisfaction.[15]

Leadership

'The culture of any organization is shaped by the worst behaviour the leader is willing to tolerate' Grunter and Whitaker

Culture change comes from the leadership. Medical, Midwifery and NHS Management are responsible for creating the structures and processes that allow "real" teams to develop. Leadership roles in maternity teams are not necessarily well-defined. Standards for maternity care[11] clearly suggest that there should be a labour ward lead consultant and clinical manager as well as a midwifery consultant for every 900 low risk deliveries. The labour ward lead is to work closely with the senior midwifery staff. The exact definition of these roles is essential for a clear management structure that is understood by all staff.

Groupthink

Clinical roles must be clearly defined to avoid confusion, and the ability to challenge across disciplines must exist. Teams which lack this "constructive challenge" may be more prone to groupthink – whereby innovation is suppressed and a culture of "no" can develop. Groupthink is characterised by "illusion of invulnerability, collective rationalization, stereotyping of outgroups, mindguards (members who function to suppress dissent in the group), and the unshakeable belief in the morality of the group" all of which are clear from attitudes in some staff groups from the Morecambe Bay investigation.[2] A consultant must feel that they can challenge the assignment of low risk status to a woman. A midwife must feel able to challenge the need for a particular intervention. These challenges, once made, must have a formatted way to resolution to avoid prolonged dispute.

Current Strategies for Handover in Obstetrics

Communication and handover of information is not only the acute transfer of information of inpatients, but the whole journey of the woman during her pregnancy.

Early Pregnancy and Gynaecology

Handover from any screening, diagnosis or treatment during early pregnancy relies on discharge letters being passed to the midwife or GP and then into the handheld notes. Vaginal swabs taken in early pregnancy can detect infections (Group B Streptococcus or Bacterial Vaginosis) which have implications for delivery. Once the threshold of "gynaecology" to "obstetrics" is crossed these results can be lost. This is one example of how arbitrary division of many doctor's roles

into either obstetrics or gynaecology can lead to handover difficulties. Unnecessary changes in lead professional can further compound these problems. Electronic reporting systems can reduce the risk of missed results. An acknowledgement and management of these risks at a local level may reduce these errors.[16]

Antenatal Care

Obstetrics is amongst the very few specialities where all women carry their own handheld notes; these begin at booking with the midwife around 10 weeks. A Cochrane review did not show any conclusive advantages of this approach, and raised concerns about increased intervention when notes are lost.[17] These notes form the principal means of communication between primary and secondary care, midwives and obstetricians. There is no standardised national format for these notes, however, The Perinatal Institute (a third party not-for-profit organisation) produces a standardised version. There are many and competing computerised versions of these notes, some of which can be accessed via remote devices for use in the community. Computerised notes also offer the advantage of eliminating any difficulties caused by lost handheld notes, however there are anecdotal concerns over implementation, staff training and IT infrastructure.

Interdisciplinary referrals

The speed at which routine specialist referral happens in hospital has been recognised as a source of risk. The CEMACE report in 2011 recommended that all specialist referrals in pregnancy are expedited as "urgent" to avoid any delay.[18] Use of secure nhs.net email can speed up this process, and telephone backup of the most urgent cases should be done by a senior doctor. The use of dedicated specialist clinics promotes mutual understanding between clinicians of different specialities.

Handover and Assessment Before Labour

Many units have a policy of structured assessment at the onset of labour to ensure that antenatal planning is correctly translated into a plan for labour and delivery that is safe and follows the wishes of the expectant mother. A tool or care bundle for labour may assist in standardising this process at a unit level.

Improving Emergency Handover

A number of approaches have been suggested to improve clinical handover. These are mostly focussed on improving transfer of information. Written handover tools facilitate better transfer of information – but the link to this improving outcomes for patients has not yet been made.[19] The RCOG recommend the SBAR communication tool[10] and the SHARING[20] handover structure for use at obstetric handover.

Maintaining Situational Awareness after Handover

Most units use a whiteboard with delivery room numbers and patient details clearly displayed. Ideally this should be in a place where other patients and relatives cannot see it. The major advantage of this model is it allows the senior members of the team to maintain a "helicopter view" of activity on the unit. This shared mental model of the labour ward allows maintenance of awareness of how the delivery suite has changed since the handover. Smart-whiteboards, automatically-updating displays and remote CTG monitoring can all augment this process and are commercially available.

Conclusion

The UK, whilst one of the safest places on earth to have a baby, has the potential to improve the way that very different staff groups work together to achieve this. This article has touched on a few of the potential areas that clinical directors, consultant midwives and labour ward leads could consider as potential risks in their systems. Handover and Teamwork would seem to be areas that are well suited to clinical quality improvement at both a local and national level. Such projects could produce the data we need to support the more widespread introduction of communication tools. Future research should focus on evaluating the clinical impact of team-training, multidisciplinary training (midwives and doctors together) as well as looking for new models of care to reduce the inherent risks in multiple handover steps.

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