Exploring Patient Safety Reporting Practices in Maternity Services at an Inner-City Tertiary Care Hospital: Preliminary Findings from a Mixed-Methods Analysis

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Background: Reducing maternal mortality remains a critical global health priority and a central target of the World Health Organization's Sustainable Development Goals[1]. In the UK, recent research has underscored the pressing need to strengthen risk management within maternity services[2-4]. Incident reporting is a vital component of patient safety, enabling the identification of risks, analysis of adverse events, and implementation of preventative strategies. Despite its importance, there is limited evidence on how maternity staff engage with reporting systems and the factors that influence reporting behaviours.

Objectives: This study aimed to explore differences in patient safety reporting practices within an inner-city tertiary care hospital's maternity service, identify gaps, and develop recommendations for improvement. Objectives included: (1) mapping safety activity; (2) conducting a Big Qualitative analysis of incident reports; and (3) exploring clinicians' experiences through interviews.

Methods: A mixed-methods approach was used. Quantitative mapping of patient safety activities provided local context. A Big Qualitative analysis of 400 InPhase incident reports over five months was conducted using artificial intelligence text analysis tools Caplena and Infranodus to identify dominant themes. Fourteen semi-structured interviews with clinicians delivering maternity care explored perceptions of reporting practices. A Patient and Public Involvement and Engagement (PPIE) group shaped the study, including providing feedback on the original systematic review, development of the interview guide, interpretation of findings, and plans for dissemination.

Results: Preliminary findings revealed variation in reporting activity and highlighted both cultural and structural barriers to effective reporting. While staff demonstrated strong engagement and a commitment to safety, challenges included lack of anonymity, time constraints, and uncertainty around reporting processes. Participants called for more accessible, streamlined systems, improved training, and consistent feedback. Suggested improvements included anonymous, mobile-friendly reporting tools and better emotional support and receiving feedback after reporting serious incidents.

Conclusion: The study identified both strengths and challenges in current reporting practices within an inner-city hospital's maternity services. While staff engagement is high, improvements are needed in system design, training, and support structures. Recommendations include simplifying reporting tools, enhancing anonymity, providing protected time for reporting, delivering feedback after reporting and fostering a culture of clarity, accessibility, and psychological safety to strengthen patient safety outcomes.ext

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Background

- Reducing maternal mortality remains a global health priority and a central aim of the World Health Organization's Sustainable Development agenda[1], with recent UK research highlighting the urgent need to strengthen risk management within maternity services[2-4].

- Despite the critical role of incident reporting in enhancing patient safety, there is limited understanding of how maternity staff interact with reporting systems and the factors influencing their engagement.

Aims

- To identify differences in maternity patient safety reporting practices in an inner city hospital, gaps in reporting and areas for improvement.
- To use the findings to develop recommendations for the improvement of reporting practices.

Research Methods

Clinician interviews

14 semi-structured online and in person interviews explored reporting practices

PPIE group feedback

PPIE group shaped study through regular feedback offered through video calls and via email

Patient safety activity mapping

Patient safety activity mapping provides quantitative local context July 2023-July 2024

Big Qual analysis of 400 incidents

AI thematic analysis (using Caplena) of 400 maternity incident reports from June-November 2024 identifies qualitative themes

Maternity clinician interviews

Midwives = 7 | Obstetricians = 2 | Anaesthetists = 4 | Nurse = 1

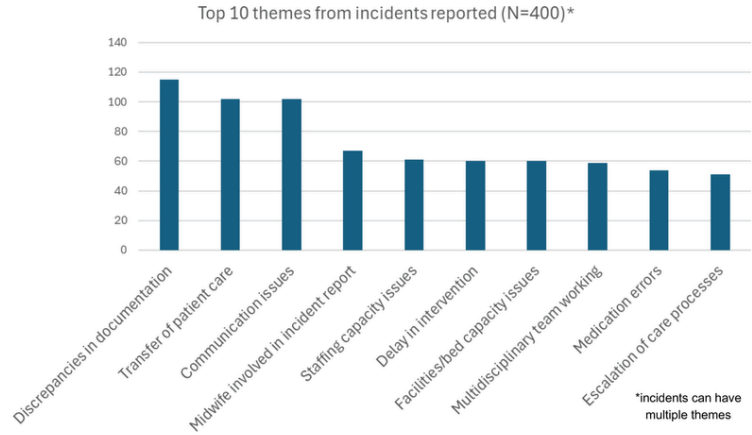
Results

Patient safety activities

Between July 2023-July 2024 the monthly average was:

- **9,462** face to face appointments
- **500** live births
- **2.08** neonatal deaths, **2.54** stillbirths, **100.92** maternity incidents of no/low harm and **4.38** maternity incidents of moderate/above harm.

Big qualitative analysis of incidents



Themes from interviews

Barriers/gaps:

- Complex reporting systems and confusion over processes
- Diverse methods of feedback provided on incident reports but inconsistently applied
- Insufficient training and low psychological safety leading to disengagement due to time pressures, fear of blame especially regarding staff behaviour incidents.

Improvements/recommendations:

- Simplify reporting tools including mobile-friendly and anonymous reporting
- Promote team-led learning and psychological safety through stronger staff relationships
- Strengthen feedback and system integration.

Conclusion

Complex systems hinder reporting. Engagement in reporting is high, but improvements are needed in system design, training and support

Simplify tools, enhance anonymity, provide protected time, deliver feedback, foster safety

Clear, accessible reporting improves patient safety outcomes

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