PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Transferring responsibility and accountability in maternity care: a qualitative study of clinicians defining their boundaries of practice in relation to clinical handover.
AUTHORS	Chin, Georgiana ; Warren, Narelle; Kornman, Louise; Cameron, Peter

VERSION 1 - REVIEW

REVIEWER	Nicola Mackintosh, Research Associate - Innovations Programme, NIHR King's Patient Safety and Service Quality Research Centre, King's College London, Rm. GL15, Strand Bridge House, 138-142 Strand, London WC2R 1HH UK Competing Interest Statement Ihave completed the Unified Competing Interest form (available on request) and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years, no other relationships or activities that could appear to have influenced the submitted work
REVIEW RETURNED	28-Feb-2012

THE STUDY	The topic of handover in maternity settings is an important one, particularly regarding transfer of care of women across boundaries. This paper presents an opportunity to explore issues of professional / team accountability and responsibility. However, it is severely limited by lack of detail in the description of some aspects of the study; the empirical analysis also needs substantial development. Research question Aims and objectives are not explicitly stated Study design A major weakness is lack of observational data and, to a lesser extent, its focus on a single site. The interviews were conducted by an obstetrician with her own staff. I have serious problems with the ethics of this, with the capacity for staff to opt out let alone the possibility for bias in the data generated. There is no recognition of this in a reflexive section of the paper. This is a major limitation of the paper, and not recognised as such Details about participants: There needs to be more detail about sampling, was this a convenience sample or purposive? How were participants recruited?

	The authors mention that some participants were approached, but it is not clear how others were recruited and whether there was an attempt to acquire a heterogeneous sample or whether the strategy aimed to achieve maximum variation. Further information is required about the participants including level of seniority and their place of work; how many midwives were recruited from the birth suite and how many from the ward? Are methods adequately described? There is very little detail regarding the context of the study. What is the policy environment regarding handover? In studies such as this, it is important to provide the regulatory context for responsibility. For example, in the UK, midwives carry responsibility for their practice in hospital, this is not the case in USA. Fear by obstetricians of litigation due to a midwife's practice that they have given admission rights to, tends to drive handover and transfer behaviour. The situation in Australia needs to be considered. The second issue is the public private provision context and how it affects professional liability. In UK the NHS would normally be sued. Sometimes clinicians are too. Again this needs to be made clear. The reader does not gain from the paper an understanding of the hospital site e.g. size, inner city, numbers of births etc. The paper also lacks description about Australian maternity care provision enabling international readers to understand who is actually involved in low and high risk deliveries, the role of the birth suite, and how it relates to other care provision e.g. home birth, public versus private health systems. Without this detail the rigour of this qualitative research is compromised. The focus of the study is described as 'transfers of care within the Birth Suite'; was this just from one ward to the suite or from theatre, community etc? The ethical approval number needs to be documented. Why was written consent not done? Who was in the focus groups and what were the numbers in each group? Are the abstract/summary/key messages/limitations accurate? This is a single site study - the limitations of this need to be acknowledged with regard to generalisability. The abstract needs to say the time period of data collection and numbers. It should also say whether the research was conducted in a public or private setting. The aims and objectives are not explicitly stated
RESULTS & CONCLUSIONS	The results section lacks clarity and therefore only provides a sketchy superficial answer to the research question Presentation of results There is no contextual information, which makes it hard to interpret the findings. The paper lacks clarity regarding the types of handover under consideration during these interviews. Issues of accountability and responsibility may well differ according to whether the handover occurs routinely at the end of shift, or is one carried out in an emergency after a call for help or consists of an ad hoc handover, occurring either serendipitously or as a form of 'checking up' on a woman's progress. Similarly, there needs to be a description of the types of routine handover that exist – a brief mention is made to the midwives group ward or birth suite handover followed by an individual handover. What about the obstetricians and anaesthetists? Do they have a uniprofessional or multiprofessional handover? Are these processes

	defined temporally and by workload? Is there variation at weekends and at night? The results are poorly presented and the sub-sections do not guide the reader through the data. The quotes are not used as effectively as they could be. They are presented within 3 boxes with descriptors that do not necessarily apply to the material contained within the quote. There is very little analysis of the quotes within the results section that builds toward a broader whole. No reference in the text is made to the second table. I found as a reader I was having to work hard to make sense of the data and to grasp the key emergent themes Interpretation and conclusions The paper lacks empirical analysis of contextual factors likely to influence transfer of accountability and responsibility at handover. It is also impossible to interpret the findings without knowing who does have legal responsibility. Factors such as power and hierarchy, transfer setting (e.g. ward / birth suite, within birth suite), acuity of the woman's condition, stage in woman's childbirth trajectory (antenatal, intrapartum etc) and profession / occupation need to be considered enabling further clarity regarding which specific aspects of handover are problematic and why. For instance, models of care provision and continuity of care are likely to influence transfer of responsibility and accountability; what are the implications of this for women? Some of the senior clinicians referred to the blurring of boundaries and lack of ownership which are important findings. However, is a doctor maintaining responsibility blurring boundaries? Further detail is needed to understand what consequence this had for patient care, and how the system managed (or didn't) these gaps. Similarly, participants describe feelings of responsibility during intra-partum care particularly when there were complications in labour. Were there any unintended consequences of being expected to stay on beyond the end of a shift? There are also issues around individual as well as team situation awareness and responsibility. Clarity of message The data within the results section needs to illustrate relationships to contextual factors. At present the discussion does not contribute to the body of literature on handover.

REVIEWER	Mayor, eric Université de Neuchâtel, Institut de Psychologie du Travail et des Organisations
REVIEW RETURNED	21-Feb-2012

THE STUDY	Whereas this paper discusses a central issue in the context of clinical handovers - the clinicians' and midwives perception of the transfer of accountability and responsibility at care transitions, very little is mentioned in relation to existing literature on this issue and the functions of handover in general (e.g., Kerr, 2002 ; Larry, 1999 ; Patterson & Wears, 2010). The authors relate to grounded theory but do not discuss themes spontaneously discussed by participants (the theme of accountability was prompted by the researchers). I would suggest to frame the introduction differently. The data collection methods are appropriate, but the coding of the data should be described in more details, and a measure of interrater reliability is necessary. The lack of quantification renders difficult for the readers

	to make their own judgment about the main claim of the paper, the 'lack of concensus' regarding the moment of the transfer of accountability and responsibility. Additionnally, it seems necessary to see how often the transfer of accountability and responsibility appears in the participants vebal production in comparison of other themes discussed, in order to assess its centrality in the discourse of participants. I would suggest that the authors revise their manuscript and keep seeking publication as this study is certainty interesting, but not reported with enough detail: overal the lack of necessary precisions in several respects (lack of theoretical motivation, unclear description of the coding scheme, no quantification of findings) renders difficult to assess the quality of this study.
RESULTS & CONCLUSIONS	The authors claim there is a lack of consensus regarding the moment of the transfer of accountability and responsibility. But, the degree of agreement is not clear because they do not quantify their results. The authors report on several occasions the opinion of only one participants and repetedly make mention of 'some' or 'few' participants sharing an opinon. If 80% of participants are in agreement and 20% are not, there is undoubtedly a shared understanding of the matter. From the reported results, it is difficult to tell whether there is a dominant opinion or not. Quantifying the degree of agreement (number/proportion of participants sharing each reported opinion) would solve this issue and allow the readers to make the readers to make their own judgment about the authors' claim. The authors do not discuss previous evidence on the discussed matter (the moment of the transfer of accountability and responsibility).

VERSION 1 – AUTHOR RESPONSE

1. We have included comments regarding the existing literature regarding other functions and roles of handover in the introduction in the revised version.

2. We have clarified the spontaneous participant connection with handover and the transfer of responsibility and accountability within the results section in this version.

3. One reviewer suggested reporting the quantification of responses. This was a qualitative, semi-structured interview approach that was applied rather than survey with closed responses. The robustness of reporting of the data was therefore through triangulation with other responses either within the focus group and/or other interviews. Where unique responses of clinical significance occurred, this was highlighted as so within the report.

4. Data collection methods have been described in more detail in this version.

5. One reviewer questioned the ethics of an obstetrician researcher interviewing other members of staff in her unit and the possibility of bias. As previously reported, this study was reviewed by two human ethics research committees (one hospital and one university) and ethics approval was awarded. The study numbers of these approvals have been included as requested.
There have been examples of clinicians performing observational studies with their near colleagues as participants and in some cases while engaged in work alongside their colleagues. The frankness of the comments received in this study reflects the participants' comfort with the interviewer and an ability of the participant to see the researcher as a clinician researcher rather than a clinical colleague at the time of data collection.
Discussion of this has been expanded within the reflexivity and limitations sections.

6. Further detail has been included about sampling and contextual environment (including workplace, legal and ethical factors pertaining to this topic).

7. Comments given regarding presentation and interpretation of results have been addressed by providing further contextual information to the earlier sections of this revised article and expansion of the discussion.

8. One reviewer commented that there was lack of clarity regarding blurring of boundaries of the transmission of clinical responsibility and accountability and asked for further detail to be discussed of its implications. We have reported in the results section of this paper participants (midwives and doctors) describing continuation of their personal feelings of responsibility and accountability past the shift handover. The potential outcomes of this are further expanded upon in the discussion.

VERSION 2 – REVIEW

REVIEWER	Dr. Eric Mayor, post-doctoral researcher University of Neuchâtel Switzerland
REVIEW RETURNED	04-Apr-2012

THE STUDY	A measure of interrater reliability is an absolute necessary in order to be sure of the reliability of the coding scheme. This said, the coded themes are absent from the paper (with the exception of transfer of accountability and responsibility). If the authors do not want to include these for their readers, as suggested in the previous review, it would make sense that they coded for presence/absence, of the themes under scrutiny, instead of coding also the other themes (this would be automatically converting the coding of themes that are not accountability and responsibility into Not present, and those which are accountability and responsibility in present). A second rater could then code a limited portion of the data. The authors could then report interrater reliability (which is necessary). I think the mention of grounded theory is misleading if the authors do not report results that originate from such a perspective, i. e the themes discussed spontaneously by the participants (which is exactly what the authors omit from the paper). The sentence "Themes were identified from transcriptions and its presence was searched for in other interviews." (p.5) contains a grammatical error.
RESULTS & CONCLUSIONS	The study doesn't answer to the RQ "perceptions of maternity clinical handover" p. 3 as it focuses on transfer of accountability and responsibility. I would suggest rephrasing the RQ. I think the literature on accountability and responsibility could be more discussed (e.g: Lally,1999, Patterson and Wears, 2010) are not appropriately discussed in relation to the transfer of accountability and responsibility. This is surprising given the fact that these themes are what the paper is about.

VERSION 2 – AUTHOR RESPONSE

i) Including a measurement of interrater reliability in this report.

RESPONSE: There is considerable debate among qualitative health researchers about the appropriateness of quantifying qualitative findings, such as performing interrater reliability analysis, and we did not originally perform this type of analysis. We have done this formally in response to the

reviewer's comments. We hope this is satisfactory; we were happy to note that we concurred on almost all codes.

ii) How grounded theory is addressed in this paper.

RESPONSE: The semi-structured interview and focus group enabled participants to spontaneously discuss perceptions of maternity handover. Further open and closed ended questions were then asked to further explore what was discussed by the participants and to further test other themes which had been raised in previous interviews and focus groups.

Responsibility and accountability were one of a number of themes that emerged from the data. This theme was the focus of this paper. It has been mentioned within the text how many times this theme was raised by the participants spontaneously. To test this theme, this was queried by the researcher in subsequent interviews if it was not raised spontaneously by latter participants. The response to this further questioning has been reported in this and the previous revision.

Grounded theory methodology was used both in the initial data collection and in transcription analysis. In the later it was in the form of constant comparison methodology where themes were identified from transcripts and its presence was searched for in other interviews.

iii) Clarification of the research question to be more specific to the focus of responsibility and accountability in relation to maternity handover

RESPONSE: Although we feel this objective is clearly stated in the main body of the manuscript we have expressed it more specifically in the objective within the abstract of the manuscript.

iv) Discussion of responsibility and accountability in this paper.

RESPONSE: As clinical handover has been defined and accepted internationally as being one of transfer of responsibility and accountability, this was an important starting point for the reporting of this paper. The finding of confusion between clinicians in this report about its relationship to clinical handover is therefore an important one.

There is already a lengthy discussion regarding responsibility and accountability in clinical handover the background section of this manuscript. This also includes reflection of the legal implications of gaps in clinical handover which has been included in response to a previous reviewer's comments. The most recent reviewer suggested a reference to Lally(1999) in discussion of transfer of responsibility and accountability. Lally's paper has been mentioned in previous versions of the manuscript as illustrating other functions of handover but it does not specifically describe or refer to the transfer of responsibility or accountability in relation to clinical handover within their observations. The Patterson and Wears (2010) reference has been included in response to the same reviewer's comments as well as further judicious, expansion of the discussion of responsibility and accountability in the background section given word limits.

VERSION 3 – REVIEW

REVIEWER	Eric Mayor, PhD University of Neuchatel Switzerland
REVIEW RETURNED	22-May-2012

THE STUDY	The authors have improved the manuscript by adding an estimation of the reliability of their coding typology. Inter-rater agreement should be reported with a statistic that takes random agreement into consideration in the statistic and corrects for it. I would suggest Cohen's kappa. I would be interested - and certainly the reader as well - in seeing how many of the coded themes were related to accountability and transfer of responsibility, compared to those which didn't.
RESULTS & CONCLUSIONS	Transfer of responsibility and accountability is the major point of the paper, but the literature on these aspects is not discussed at length.