PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Barriers and facilitators to learn and improve through morbidity and mortality conferences: a qualitative study
AUTHORS	de Vos, Marit S.; Hamming, Jaap; Marang-van de Mheen, Perla

VERSION 1 – REVIEW

REVIEWER	Tobias Wasser, MD Yale University School of Medicine New Haven, CT, USA
REVIEW RETURNED	31-Jul-2017

GENERAL COMMENTS	This is a wonderfully written and succinct manuscript describing a qualitative study of the barriers and facilitators to M&M conferences as a learning tool in QI and patient safety. The authors have done an impressive job clearly outlining their purpose and hypothesis and describing how their work fit within this rubric. Their outcomes are clear and the significance of their qualitative format explained clearly. Their is a dearth of such literature in the field and this will be an important addition to it. I have two minor recommendations for revision: 1) Under study limitations, the authors do not consider that a study of surgeons may not be fully representative of other medical specialties which practice M&M (e.g. medicine, psychiatry, neurology, etc.). It would be worthwhile to acknowledge that similar work might reach differing conclusions amongst different subspecialties. 2) The literature review does not include a handful of more recently published articles considering the educational significance of M&M in other sub-specialties outside of surgery. I would encourage the authors to review this literature and consider how their study/results compare to those from other fields interested in this same topic. Once these issues have been addressed, I think this would make an excellent contribution to the QI/PS/M&M literature.

REVIEWER	Patrice François
	Grenoble-Alpes university, France
	No Competing Interest
REVIEW RETURNED	02-Aug-2017

GENERAL COMMENTS	This paper reports a qualitative study, based on semi-structured interviews, to identify barriers and facilitators to make Morbidity and Mortality Conferences (M&M) more effective.
	This is an important topic in the field of care quality and safety management. Indeed, M&M is a widespread practice in the world and based on of a learning-by-error approach.
	The methodology meets the quality criteria of qualitative studies. However, some elements raise questions.
	The authors ask participants about the factors that influence the success of M&M, but they only define succinctly what a successful M&M is. A successful M&M is an M&M that results in learning and improvement. It would be necessary to go further in defining success, proposing efficiency criteria, and, at least, asking the participants' opinion on the perceived effectiveness of the M&M. Moreover, it is known that the practice of M&M is very heterogeneous. They vary in number and quality of attendees, in the number of cases examined per meeting, in the procedures for selecting cases (who? on what criteria? for what purpose?) and so on. Thus, the opinion of the participants relates this particular M&M, which poses two problems:
	- The external validity of the results is limited to the M&M which have the same mode of functioning.
	- The authors do not describe the characteristics of the studied M&M and therefore the results can't be interpreted according to this context.
	For example, to the question "What criteria should be used to select cases for M&M and why?" it would have been interesting to have more details on the answers of the participants and to be able to interpret these answers by knowing the current criteria of cases selection.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1
Reviewer Name: Tobias Wasser, MD
Institution and Country: Yale University School of Medicine, New Haven, CT, USA
Competing Interests: none declared

COMMENT: This is a wonderfully written and succinct manuscript describing a qualitative study of the barriers and facilitators to M&M conferences as a learning tool in QI and patient safety. The authors have done an impressive job clearly outlining their purpose and hypothesis and describing how their work fit within this rubric. Their outcomes are clear and the significance of their qualitative format explained clearly. Their is a dearth of such literature in the field and this will be an important addition to it.

RESPONSE: We thank the reviewer for the positive evaluation of our manuscript.

I have two minor recommendations for revision:
1) Under study limitations, the authors do not consider that a study of surgeons may not be fully representative of other medical specialties which practice M&M (e.g. medicine, psychiatry, neurology, etc.). It would be worthwhile to acknowledge that similar work might reach differing conclusions amongst different subspecialties.

RESPONSE: We agree with the reviewer that this limitation could be addressed more explicitly, along with a call for more qualitative research in other medical specialty settings. We added this to the discussion in the revised manuscript (Page 15, lines 21-25).

2) The literature review does not include a handful of more recently published articles considering the educational significance of M&M in other sub-specialties outside of surgery. I would encourage the authors to review this literature and consider how their study/results compare to those from other fields interested in this same topic.

Once these issues have been addressed, I think this would make an excellent contribution to the QI/PS/M&M literature.

RESPONSE: We thank the reviewer for this relevant suggestion. We reviewed additional recent articles from other fields, including emergency medicine, orthopaedics, paediatrics and psychiatry, and now discuss four of these studies in the discussion (Page 16, lines 1-3; Page 18, line 5-6).

Reviewer 2
Reviewer Name: Patrice François
Institution and Country: Grenoble-Alpes university, France
Competing Interests: none

COMMENT: This paper reports a qualitative study, based on semi-structured interviews, to identify barriers and facilitators to make Morbidity and Mortality Conferences (M&M) more effective. This is an important topic in the field of care quality and safety management. Indeed, M&M is a widespread practice in the world and based on of a learning-by-error approach. The methodology meets the quality criteria of qualitative studies.

RESPONSE: We thank the reviewer for these positive comments on the value and methodological quality of this study.

COMMENT: However, some elements raise questions. The authors ask participants about the factors that influence the success of M&M, but they only define succinctly what a successful M&M is. A successful M&M is an M&M that results in learning and improvement. It would be necessary to go further in defining success, proposing efficiency criteria, and, at least, asking the participants' opinion on the perceived effectiveness of the M&M.

RESPONSE: We thank the reviewer for pointing out the sections that remained unclear. We deliberately used this broad definition so as not to steer the interviews in a particular direction, which we now explain in the manuscript (Page 7, lines 9-10). In a prior study, we asked for the participants' opinion on the perceived effectiveness of the local M&M (reference 29), but in this qualitative study questions about experiences with the local M&M primarily served to provoke discussion of related facilitators and barriers. For example, we asked whether there was a blame-free environment at their M&M, and then asked for illustrative examples and influencing factors, in order to identify components of such a culture (Appendix 1,'culture'). We now added this to the methods (Page 7, lines 15-17).

COMMENT: Moreover, it is known that the practice of M&M is very heterogeneous. They vary in number and quality of attendees, in the number of cases examined per meeting, in the procedures for selecting cases (who? on what criteria? for what purpose?) and so on. Thus, the opinion of the participants relates this particular M&M, which poses two problems:
- The external validity of the results is limited to the M&M which have the same mode of functioning.

RESPONSE: While we agree with the reviewer that generalizability is a study limitation (Page 15, lines 16-17), barriers and facilitators may be similar regardless of M&M format. This is supported by a recent previous study (reference 29), in which we found that in institutions with different M&M practices, the same expectations and problems / challenges were reported by participants (Page 16, line 4-6). Moreover, interviewees did not only discuss experiences but also their expectations of M&M (i.e. what should be). As all interviewees had prior experience with M&Ms in other hospitals, their experiences also reflect other M&M formats. We now added this to the manuscript (Page 7, lines 10-12).

COMMENT: The authors do not describe the characteristics of the studied M&M and therefore the results can't be interpreted according to this context. For example, to the question "What criteria should be used to select cases for M&M and why?" it would have been interesting to have more details on the answers of the participants and to be able to interpret these answers by knowing the current criteria of cases selection.

RESPONSE: We thank the reviewer for this suggestion. We added a brief description of local characteristics to the methods (Page 6, lines 21-25). However, we believe that a brief description is sufficient for this study, as interviewees did not only draw from local experiences, but also from prior experiences and overall expectations. Moreover, the local M&M format is described in detail elsewhere, to which we refer (Page 6, line 22-23; Page 16, line 4-6). Answers of interviewees, such as their perspectives on case selection, are represented by factors in Table 1 (i.e. for case selection under 'type of case' and 'M&M format'), with illustrative quotes provided in Appendix 2. In addition, we translated these factors into more concise, actionable suggestions in Box 2.

VERSION 2 – REVIEW

REVIEWER	Tobias Wasser, MD Yale University School of Medicine United States
REVIEW RETURNED	07-Sep-2017

GENERAL COMMENTS	All of my prior recommendations have been addressed and I would now recommend this excellent manuscript for publication.

REVIEWER	Patrice François Université Grenoble Alpes France
REVIEW RETURNED	15-Sep-2017

GENERAL COMMENTS	The authors have made most of the suggested changes. The article is substantially improved. However, I regret that the authors did not describe the selection criteria for cases submitted to the RMM.