Reviewer’s report

Title: The Swiss cheese model of safety incidents: are there holes in the metaphor?

Version: 1 Date: 23 August 2005

Reviewer: Eric Thomas

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General

The premise of this paper is important and interesting to those closely associated with patient safety research and practice: to explore the understanding of Reason’s Swiss cheese model by professionals who work in health care quality improvement. As the author notes, the model is very influential so an exploration of how it is understood could be important.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Discussion: I’m confused about why the author refers to Figures C and D as the Swiss cheese model/metaphor, when they no longer visually depend upon Swiss cheese and they contain additional content. The author cites Reason’s book, Managing the Risks of Organizational Accidents, for Figure D (page 17 of the book). But also in that book, on page 12 (Figure 1.5) is a model that still uses the Swiss cheese image. The text in the book does not imply some evolution from one model to the next, as the author of this paper does. I can’t tell if I am confused by wording or substance here. The author should consider revising this section – I’m confused about the author’s labeling of all these figures/models as the Swiss cheese model when some of them do not use the image of Swiss cheese. I think Reason is trying to convey slightly different concepts with the two figures. If not, it would be helpful for the author to cite and quote Reason to support the author’s perspective.

2. On the bottom of page 8 the author says that the diversity of views documented in this study suggest that a consensual culture of patient safety has not yet emerged. I don’t think the data support that statement. The data suggest that there is not consensus about the Swiss cheese model. They do not tell us whether there is consensus about a broader culture of patient safety. I’m not saying there is any consensus about a broad safety culture. My point is simply that these data do not support the statement that there is no consensus.

3. I have a similar concern about the very last sentence of the manuscript that says consensual model for patient safety has yet to be developed. This is probably true, but it is not supported by this study. This study only addresses the Swiss cheese model. It would be more accurate to describe the confusion documented here as typical of the confusion that exists about other important patient safety issues, like terminology and taxonomies.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. Results, page 6: The author presents results as the number and percentage of correct answers. This is easy to understand, but Table 1 presents the same data in a different manner: it lists the items on the survey, notes if the item is or is not compatible with the model, and reports the number and percent of respondents who endorsed the item. It would be helpful to also include the number and percentage of correct answers, as reported in the text.

2. Analysis section, second paragraph, there appears to be a typo…should be “consisted of.” instead of “consisted in.”

3. On the top of page 6 there is a parenthetical phrase “(several answers allowed, I did not answer).” What does this mean?

4. I recommend defining the terms latent error and active error to make the paper more accessible to general readers.

Discretionary Revisions (which the author can choose to ignore)

1. Discussion, second paragraph, a sentence reads, “Few of the respondents recognized that the active error is a type of weakness in defences against patient harm within the health care system.” It would be useful to also point out that the holes in the swiss cheese can represent either latent or active errors.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.