Reviewer's report

Title: Adaptive coordination in surgical teams: an interview study

Version: 1 Date: 26 November 2014

Reviewer: Siri Wiig

Reviewer's report:

---

This is an interesting paper that adds to the body of knowledge on teamwork and coordination in a surgical context. The paper is well structured and provides new knowledge on coordination strategies and mechanisms. However, I suggest the paper should be revised to address the following comments:

- Major Compulsory Revisions

1) Background:
   a. The authors should develop research questions related to the aims.
   b. The authors should end the background section with a brief statement of what is being reported in the article, to be in accordance with author guidelines.
   c. The authors use two concepts – coordination mechanisms and adaptive coordination strategies. I recommend they clarify more precisely how these concepts are defined, the link between them and what is the difference between them. For example in line 71, p. 3 the concept adaptive coordination strategies is explained by adaptive coordination as a central mechanism for safe performance. This could be confusing for the reader and could be explained more clearly. Also in the results section there are some confusion i.e. in line 168-170 where the use of concepts perhaps needs to be clarified.

2) Methods:
   a. The methods section needs revision and should be extended with more details. What is now presented in “study design” should be included in a “data collection” sub section. It would be interesting for the reader to know more detail about study design and context. Is it for example a case study? Mainly the data relates to one hospital with some additional data collection from surgeons at other Swiss hospitals.
   b. The authors should make explicit how many interviews they conducted at other sites and how they were recruited.
   c. The analytical process is a bit unclear. It is stated that the coding system was established by using a combined deductive and inductive approach and that the coding system was discussed and revised several times within the research team. Then subsequently all the transcripts were coded. Was the first draft of the
coding system (ref line 112) established, then the total amount of transcripts uploaded to the MaxQDA and then analyzed, categories revised, and then subsequently all transcripts coded again? The authors should explain this process clearer. They should also exemplify coordination categories (line113) used in the literature references (20,21,29) and in those categories emerging from the data material (line 114).

d. The authors should elaborate on the process of inter-rater agreement and how it was carried out. They refer to “ten percent of the interview segments” in line 119 and this should be described how these segments were selected and if segments refer to entire interviews or parts of interviews.

e. The issue in 2d) relates to trustworthiness in the research process. I suggest the authors include a paragraph on how they established trustworthiness (e.g Lincoln & Guba. (1985) Naturalistic Inquiry. Sage. – but also other references are of course relevant if authors prefer) in the project, in addition to the inter-rater agreement.

3) Results:

a. I think there could be a reconsideration of headings in the results chapter. The authors refer to two main groups of themes: a) coordination mechanisms and adaptive coordination strategies, and b) situational and contextual drivers (which include “challenging moments and climate”). Only the topic related to a) is referred to by a heading (p.6, line 132). It is not possible for the reader to find a heading referring to b). The current heading use: “Challenging moments” should be more related to the overall topic of b).

b. I think the results section is a bit long. There is a nice use of quotations in the results section. The authors have good data. However, somewhere in the results section the authors should consider to summarize the results a bit more and remove some of the quotes. Perhaps a table for each of the topic a) and b) including quotes could be considered by the authors. I think in particular the manuscript text under the heading “Information management” should be revised in order to use more summarized text referring to the findings and use fewer quotes to exemplify without causing any problem.

c. If there was found any professional differences between nurses and surgeons (or not) this could be pinpointed.

4) Discussion:

a. In line 430-432 the authors refer to the two groups of findings a) and b). This should be corrected like argued for above in 3a.

b. In line 449-451 the authors should link “..when investigating coordination” to something – like surgical teams? Or is it in general?

c. In the discussion (line 463-469) there are two paragraphs. I think both paragraphs need a bit more to stand alone. For example the first paragraph ends by “In these situations, communication decreases and becomes more focused and concise”. That is interesting. I suggest a bit more discussion on the implications of these results.
d. In line 481-484 the authors refer to previous research on “slowing down”. It would be nice if there is a better link to your own results and if your results are equal, differ or provides new insight to this field.

e. The authors could discuss if they found professional differences (or not – ref 3.c above) in the responses in the sample including both nurses and surgeons.

f. I miss a paragraph in the discussion on general implications of the findings for managers (not within the surgical team) and their responsibility of providing an environment that promotes effective adaptive coordination in surgical teams. What are the implications of your findings for them?

5) Limitations:

a. Limitations are stated and are ok. But I think the authors should reflect on the lack of use of observation as a method in the first limitation (line 503). This is because the topic of adaptive coordination in teams is difficult to express for the team members, like the authors nicely explain. One could argue that due to the issue of tacit knowledge and difficulties for the informants to verbalize, the researchers should have applied method triangulation including both interviews and observations of the surgical teams in practice. Then the researchers could observe how the surgical team carried out their work, and then do the interviews to clarify and get richer data.

6) Conclusion:

a. I think the conclusion is too general and should be more focused on answering the aims of the paper. It should address the aims (line 84-87) and if research questions are included the conclusion should answer these. That would strengthen the article.

- Minor Essential Revisions

1) Background: In line 67-68 the authors argue that “the shift from routine practice to managing critical situations has so far been rather implicit in research on teamwork in surgical teams”. This statement should be supported with references.

2) In the entire document references in the end of sentences are placed outside the sentence like this: [4]

All references in the end of a sentence should be placed inside the sentence and then followed by the dot like this: [4].

3) I suggest the beginning of the results section on overall inter-rater reliability (line 124-126) is moved from the results to the methods section where the Table 2 is going to be inserted.

4) In the results section line 272 the authors say “Finally”, but it is not the last sub-theme – “Decision making” is and the “finally” should be deleted or moved to “Decision making”.

5) In the results section there is a tendency of repetition of results under the
heading “task management” (line 176) and “anticipated challenges” (line 390). I suggest the authors try to rewrite this to avoid repetition.

6) The authors use the abbreviation OR some places in the text. All readers understand it, but it should be written in full the first time it is mentioned.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.