Author's response to reviews

Title: The role of a simulator-based course in coronary angiography on performance in real life cath lab

Authors:

Ulf J Jensen (ulf.jensen@karolinska.se)
Jens Jensen (jens.jensen@lvn.se)
Göran Olivecrona (goran.olivecrona@med.lu.se)
Gunnar Ahlberg (gunnar.ahlberg@ki.se)
Bo Lagerquist (bo.lagerqvist@ucr.uu.se)
Per Tornvall (per.tornvall@karolinska.se)

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Author's response to reviews:

Dear Editor,

Thank you for the thorough review of our manuscript MS: 1468732599905286 entitled “The role of a simulator-based course in coronary angiography on performance in real life cath lab”

We felt very encouraged by your decision to give us the opportunity to a second revision of our manuscript according to the suggestions proposed by your reviewers and resubmit it. Since there is a paucity of studies in the field of validation of practical courses in invasive cardiology involving simulator training we hope that you after this revision will consider publishing our manuscript. We would hereby like to resubmit the revised manuscript. We feel that we have been able to respond to all the questions raised by the referees, please see the point-by-point response and we also think that the manuscript has improved a lot. We hope that the revised manuscript now can be considered for publication in BMC Medical Education

Sincerely Yours

Ulf Jensen, MD, PhD

Point-by-point response to Reviewer's report by Kristin Fraser

Major Compulsory Revisions:

1. Comments

Discussion: Overall this section is improved in delivering the important messages. However, I think it now can be shortened to focus on the specific findings and related discussion. General discussion about simulation studies was covered in the Introduction; therefore, Paragraph 2 and 3 and most of Para 4 (although keep reference to 23) are largely redundant
Response

General discussion about simulation studies has been shortened and focused instead on studies relevant to endovascular procedures and to transferability according to the content of our study.

2. Comments

Detrimental Effect of VR training. I think this should be named “potential detrimental effects of VR training” since this is not an RCT
Response
Suggested subheading has been changed in the revised manuscript

3. Comments

Para 1 In 7. “One hypothesis” should be replaced with “a second hypothesis” re confidence.
Response
Suggested revision has been made

4. Comments

Para 1 In 8 Mental imagery of a procedure is not very similar to simulation; importantly the strength of simulation is that it adds the procedural/motor portion that imagery cannot capture? I’m not sure how this point adds to your argument. Perhaps it just needs to be clarified.
Response
This point has been discussed and clarified in the revised manuscript as suggested

5. Comments

Para 1 In 15 “: your point about unnecessary handling of catheters and why this might be higher in sim-trained people is not clear to me either. The statement, “thereby missing VR and OR up” does not make sense either.
Response
This statement has been more elaborated in the revised manuscript and the statement about mixing up has been deleted.

6. Comments

Para 1 In 18 I think your next argument about how long the course should be goes back to your first hypothesis about proficiency based training and should be discussed there.
Response
This statement has been moved to the first discussion as suggested

Minor Essential Revisions:
Comments 8-17 have been revised as suggested.

Comment 18:
“Complications during CA is associated to proficiency and during training most often related to the access site with increased risk of bleeding when using the femoral approach”. Consider revision to:
Complications during CA is most often related to the access site with increased risk of bleeding when using the femoral approach.
Response
This statement was left unchanged since the authors claim that the message about increased complication rate from access site during training would have been lost.

Comment 19:
Trainees completing the course performed worse regarding fluoroscopy time compared to the controls which in turn demonstrated a typical learning curve, median 360 seconds vs. 289...
-Explain and reference what you mean by “typical learning curve”.
Also, re write this sentence so that it is clear that 289 secs belongs to the trainees rather than to the “typical curve”.
Response
“Learning curve” has been explained and associated to a reference. The sentence regarding fluoroscopy time has been rewritten as suggested.

Comment 20 has been revised as suggested

Comment 21:
“The controls performed better through all the first 80 CAs without a benefit in the early learning curve in the course group (Table 3).”
This is a repeat of the same data discussed at the beginning of the paragraph so I would remove this sentence and reference table 3, at the end of the first sentence.
Response
Suggested revision has been made in the revised manuscript

We have listen carefully to all your remarks and tried to meet all your suggestions for revision and hope that we now will have your approval for publication.

Best regards
The authors
Point-by-point response to Reviewer’s report by Lars Konge
The reviewer’s last report did not ask for any new revisions of our manuscript