Author’s response to reviews

Title: Situational Awareness within Objective Structured Clinical Examination (OSCE) Stations in Undergraduate Medical Training - A Literature Search

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Author’s response to reviews:

1. Title page

Please ensure each authors' email address is listed on the title page.

Title page

The email addresses of each author were added in the listing on the title page.

2. Declarations

Please ensure each declaration heading and statement is featured at the end of your manuscript. The full list of declarations is featured at the end of this email, under 'Editorial policies'. Where a declaration is not relevant for your study please state, "Not applicable".

Declarations

The following declarations were added to the main manuscript:
Ethics approval and consent to participate
"Not applicable"

Consent to publish
"Not applicable"

Availability of data and materials
The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests
Authors declare no competing interest

Funding
No funding was received to carry out the study

Authors' Contributions
TJB Kropmans contributed to the design of the study, analysis and interpretation of the data, drafting and revising the manuscript. KM Kennedy contributed to the interpretation of the data and revising the manuscript. S Durning, MP Schijven, J Ker, P O’Connor and E Doherty were involved in interpreting the data and revising the manuscript. All authors have given final approval of the version to be published.

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The authors wish to thank P O’Connor and E Doherty for their input as experts for human factors in healthcare.
3. PRISMA

We note that you refer to your study as both a 'review of the literature' and a 'systematic review'. You also respond to one of the reviewers' comments to say you would have submitted as a 'Review' type article if this had been made available. Please note that we do not accept unsolicited 'Review' articles, but that a formal systematic review is acceptable and would be considered under the 'Research article' article type. Thank you for providing the PRISMA checklist which is required for systematic reviews, we note some items are incomplete. Please clarify that your study does indeed fulfill the criteria to be considered a systematic review study, and where possible complete the checklist in full.

The PRISMA Checklist was amended and completed in the following sections:

2. Structured summary

The summary was amended and relevant information added to provide a structured summary including information regarding the synthesis of results, key findings and limitations of the study.

3. Rationale

The information was shortened to focus on the topic and relevant references to support the research interest were added.

4. Objectives

The statement for the objective was amended to provide a more specification of the research question.

5. Protocol and registration

The protocol of how the literature search was carried out was added to that section.

6. Eligibility criteria

Information was added including criteria such as year of publication and language.

8. Search

The description of the search was extended to provide more clarification of the search strategy.

9. Study Selection
Information was added to describe the criteria for selection of the papers included in the conclusive results.

10. Data collection process

The data collection process was amended to provide information of the selection of studies included in the final assessment.

11. Data items

Information added provide an overview of items which were extracted from each paper based on the identification of elements of medical/clinical practice which can be assigned to the individual levels of Situational Awareness and associated subdomains previously stated in the assessment tool for SA. Four key elements of clinical practice were categorised for each level of SA adapted from Endsley’s model for high-risk environments.

12. Risk of bias in individual studies

Information added indicate the potential risk of bias and how this was limited.

13. Summary measures

A brief description of summary measures was added to explain the two areas of outcomes measures of the review: Elements of Situational Awareness within OSCEs, OSCE as an assessment tool for Situational Awareness and OSCE as educational tool for Situational Awareness.

14. Synthesis of results

Results were synthesised for the two categories

- Elements of SA which can be assessed in OSCEs as part of clinical reasoning
- The OSCE as an educational tool for utilisation of elements of SA

15. Risk of bias across studies

Studies were found to be very ‘individual’ and unrelated to each other, thus there was no risk of ‘cross over bias between the studies listed.

16. Additional analysis

Addition of the manual review of the references listed in the selected papers eligible for the study.

17. Study selection
Information added to the study selection describe the selection process supported by the attached flow diagram.

18. Study characteristics

The table of the summary of the findings including the name of the author, research interest of the study, year of study, number of students, level of education, elements for situational awareness for Level 1, 2 and 3, provision of feedback, OSCE as assessment tool or educational tool for situational awareness was added.

20. Results of individual studies

A brief summary of each individual study included in the final evaluation as well as references were added.

21. Synthesis of results

A summary of how results were synthesised and categorised into the two key groups was added.

24. Summary of evidence

The numbers of studies that identified OSCE stations either as assessment tools for the students’ utilisation of elements of SA as part of their clinical reasoning or as teaching tools for within medical education were added.

25. Limitations

Limitations to the study were added.

26. Conclusions

Conclusions were amended to include a general interpretation of results and implications for future research.

Furthermore, a flow diagram of the selection process of papers was added.