Author's response to reviews

Title: Undergraduate medical student perceptions and use of Evidence Based Medicine: A qualitative study

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Dear Editor,

MS: 3347786553683644 – Undergraduate medical student perceptions and use of Evidence Based Medicine: A qualitative study

We thank you for your comments and further suggestions for our manuscript.

We have read through the comments and have amended the manuscript accordingly.

Please find enclosed below our point-by-point responses to the comments.

Please let me know if you need anything further. I look forward to your future correspondence.

Kind regards,

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ABSTRACT
Background
The following sentence has been modified to read, “Many medical schools teach the principles of Evidence Based Medicine (EBM) as a subject within their medical curriculum.”

Conclusions
The following sentence has been modified to read, “Future research is needed to identify how medical students incorporate EBM concepts into their clinical practice as they gain greater clinical exposure and competence.”

MANUSCRIPT
Introduction
The sentence, “Various modes of teaching EBM have also been reported including lectures, small group tutorials, journal clubs or self-directed learning via websites.[2]” has been removed from the 2nd paragraph, page 4.

The sentence, “However, changing behaviour, in so much as individuals implementing EBM principles in practice, is more likely to occur via integrated EBM courses.[3]” has been removed from the 2nd paragraph, page 4.

The sentence, “A study of junior doctors’ knowledge and beliefs in EBM identified that although few had ever received formal training in the principles of EBM, the majority believed that it was an essential skill relevant to their clinical practice.[9]” has been removed from the 1st paragraph, page 5.

The sentence, “In comparison, a Subsequently, the greatest motivation that these first year medical undergraduate students have is to pass the assessment hurdle.” Has been removed from the 1st paragraph, page 5.

The term ‘they’ has been changed to ‘students’ on page 5, paragraph 2.

The sentence, “Many medical schools are teaching EBM as a core requirement in their medical curriculum, [13] and adopting an evidence-based approach to medicine has widely been accepted within the medical community.” has been removed from paragraph 1, page 6.

The following sentence, “A lack of clinical maturity may distort the perception that first year medical students have on EBM as an abstract subject, with little clinical relevance; particularly when students are commonly focused on gaining knowledge and skills in other subjects (i.e. anatomy, physiology) that often constitute the core learning in medicine.” has been inserted in paragraph 1, page 5.

Methods
The following has been added to the paragraph under ‘Population and Setting’, page 6
“Each Clinical School acts as an academic, administrative and clinical intermediary between the University and each respective hospital.”

The following has been added to the paragraph under ‘Format’, page 8
“Each focus group was comprised of five to six students who were taught under the same Clinical School, but different teaching hospitals. This approach ensured that each Clinical School was represented by one focus group, with students in that focus group also representing views from the associated teaching hospitals (Figure 1).”
Results
Figure 1 has been constructed as requested to illustrate the structure between Clinical Schools and teaching hospitals.

The following has been added to paragraph, page 9, to clarify the number of Clinical Schools, teaching hospitals and students included.
“A total of 23 students, from an eligible population of 220 (10.5%), participated in focus group discussions (Figure 1). Four focus groups were performed, with each focus group representing one of the four Clinical Schools (Central, Eastern, Southern and Rural). Each focus group also had at least one participant from a teaching hospital from the associated Clinical School (i.e. the Southern focus group had 2 representatives each from MMC, Dandenong and Frankston hospitals). This sampling approach ensured that all teaching hospitals and Clinical Schools were represented by at least one participant at each focus group.”

Paragraph 2 has been amended to better describe the identification of themes from that data as requested.
“Analysis of the audio transcripts from the focus group discussions identified several emerging themes (Table 2). Of the identified themes, five were consistently present across all focus groups. These five themes were considered as the ‘major’ themes, with results presented below. Three themes were deemed to be ‘minor’ as they were not consistently identified across all focus groups. These minor themes are listed in Table 2.”

The student quote, on page 12, has been amended to correct grammar as follows; “I was doing my task today. It was comparing mastectomy to conservative surgery for breast cancer. I used ‘Up To Date’, which gave me all the latest information. It gave me all the studies that had been done, which was useful.”

Discussion
The following sentence on page 16, paragraph 1 has been modified as requested to now read;
“The principles and application of EBM is perceived by medical students to be important in both their current clinical training and perceived future work as clinicians.”

The following sentence on page 16, paragraph 2 has been modified as requested to now read;
“Contrary to first-year medical students who may lack clinical maturity, [10] participants in this study demonstrated that third-year medical students can appreciate the clinical relevance and the fundamental approach to EBM in linking evidence with the clinical experience and patient expectations.”

The 1st paragraph, page 17 has been modified as requested to now read;
“Students in this study identified that resistance from senior clinicians, who lack detailed knowledge and skill in EBM, may act as a barrier for implementing and evidence-based approach to teaching and practice. Senior clinicians may also be inclined to dismiss its use particularly when the EBM process often does not provide robust evidence to assist decision making. [17] In this scenario these clinicians should be better informed to acknowledge that EBM is designed on the principle that evidence is there to assist, rather than displace a clinician’s expertise and experience. [18]”

‘Limitations’ header has been added to page 18.

Conclusions
The conclusions section has been modified as requested.
Tables
Table 2 – the word ‘each’ has been deleted.

Figures
Figure 1 constructed to illustrate the Structure of the Clinical Schools and associated teaching hospitals