Reviewer's report

Title: Medical Students' perceptions of Educational Environment at an Iranian Medical Sciences University

Version: 1 Date: 26 May 2010

Reviewer: Susan Miles

Reviewer's report:

The authors have used the DREEM, translated into Farsi, to collect data about student perceptions of the educational environment in their medical school in Iran.

Their data is a useful addition to the growing literature of DREEM as used by medical schools in various countries, running different types of curricula. They include a good discussion of their findings within the context of other DREEM studies.

There are a number of revisions needed, but once sorted it is this reviewer’s recommendation that this paper be accepted for publication.

Major compulsory revisions

RESULTS + DISCUSSION

1) The authors need to be clear about why they selected the items they have included in the text of the Results section, as there is little difference between the means scores for the all individual items. The authors have not mentioned the commonly used interpretation cut-offs i.e. #2.0 (McAleer, S. and Roff, S. (2001). A practical guide to using the Dundee Ready Education Environment Measure (DREEM). In: J.M. Genn. Curriculum, environment, climate, quality and change in medical education: a unifying perspective. AMEE Education Guide No. 23. AMEE: Scotland), which is fair enough if that is their preference, but they do need to be clear about exactly why they have highlighted particular items over other items when the scores are all very similar. The same is the case for the items discussed in the Discussion.

DISCUSSION

2) The authors need to take care in their interpretation of item 3 “There is a good support system for students who get stressed”. This item does not indicate how stressed the students are, as suggested by the authors. A low rating would refer to a perceived lack of support available to those students who get stressed. The authors might also like to consider their interpretation within the context of their own rating of 2.5 for the item “The enjoyment outweighs the stress of studying medicine”. Although by many standards this is a pretty low score, it is one of the highest rated items reported here. As it currently reads, the interpretation of their finding for item 3 is incorrect.
3) The authors note in the Discussion that students in higher years rated the educational environment higher than students in the beginning years. This has not been mentioned at any point before now. It should be referred to in the Results, there should be some indication of how many of the 182 students who completed the DREEM were in each of the year groups etc. The following sentence “This result is in line with the results of Fidelma ...” need clarifying as it is unclear whether the authors current results are “in line” or “differ” from these other two papers.

Minor essential revisions
1) The exact purpose of the research is unclear and should be clarified. Is it just diagnostic, to highlight strengths and weakness, as suggested in the Background? Or is it to act as a baseline prior to planned curriculum change, as suggested in the Conclusion? (the Conclusion suggests that changes were already planned, and are not just now being done due to the findings of this study).

TITLE
2) Capital P for “Perceptions”

ABSTRACT
3) Capital S for “Sciences” in the last sentence.

Methods
4) “86.6%” not “%86.6”. Same in the Participants sub-section of the Methods section.
5) “DREEM” not “DERRM”.

BACKGROUND
6) What is meant by “its prospect” at the end of the first paragraph? This requires clarification.
7) Regarding the sentence “It is geared to pinpointing ...” the authors should note that the DREEM doesn’t do any of the things described in this sentence, it is a tool that can be used if you want to do these things, as such this sentence should be re-worded slightly to make this clear.
8) Are basic science and pathophysiology courses “a” course (singular) or “courses” (plural)? Same for the clinical sciences course - should this be “a clinical sciences course” or “clinical sciences courses”? Check this throughout as these courses are referred to in multiple sections of the paper.

METHODS
Participants
9) Why was the DREEM only distributed to 210 of the 350 students referred to in this section? It would be useful to know why these students were selected for inclusion.
Measures
10) Space missing between “… institutions [1]. DREEM contains …”
11) The authors refer to “experts” translating the DREEM. In what were these people expert?

RESULTS
12) What is the “intended sample” referred to in the description of the demographics? The 210 targeted students, the actual responding sample of 182, the full 350 available medical students?
13) The subscale scores at the top of Page 5 do not need to be both here and in Table 1. Remove from one place.

DISCUSSION
14) Space missing between “… much higher [14-15]. In a survey …”
15) The last sentence is unclear; what is meant by “in this regard” i.e. why are the authors suggesting further research in larger universities, is it just to check the lack of gender difference they found (referred to in the previous sentence) or do they have another goal in mind? Currently it is unclear what the authors mean.

CONCLUSION
16) The authors note that the scores demonstrate priorities for modification but it would be useful to know what they are going to do about it - do they have any recommendations? This is particularly key as it is suggested here that there are already planned changes forthcoming. Will the DREEM data feed into this at all (with respect to suggesting areas in need of attention), or simply act as a baseline? This is related to point 1 above in this section about the purpose of this study (diagnostic or baseline data), and how it fits in changes that may or may not have already been due to occur. These issues need clarifying so that both the authors’ original goal and resulting conclusions are completely obvious.

LIST OF ABBREVIATIONS USED
17) Either capital A for Abbreviations, or lower case u for used.

REFERENCES
18) The date for reference 1 is incorrect.
19) Capital K for the name of the school in reference 10.

TABLES
20) The * is not required after the P in Table 8. And there is a missing * after the P for the total DREEM score if the authors are using p<0.05, as they state previously.

Discretionary revisions

ABSTRACT
Background
1) The end of the first sentence is phrased awkwardly and should be re-written (... to make the modifications and improvements necessary in the quality of educational environment).

Methods
2) Suggest “So, 182 questionnaires in total” rather than “So, totally 182”. Same in the Participants sub-section of the Methods section.

Results
3) Suggest “... DREEM score were found to be ...”

BACKGROUND
4) “the Dundee Ready Education Environment Measure” rather than “The Dundee ...”
5) The authors use a relevant and up-to-date literature. But in some places in the Background is it not as appropriately used as it could be, and it appears as if the references could be used interchangeably. For example, the reference for the first sentence [1] is not particularly appropriate. Also, whilst reference [10] does briefly mention scores found by other authors, wouldn’t reference [9] be more appropriate for discussing institutional comparison? I would question whether references [6] and [7] do indicated that education environment “influences how, why and what students learn”. Likewise, in the Discussion, given the authors’ argument about traditional versus modern schools giving different DREEM scores one wonders why reference [9], which specifically looks at this issue, has not been used. It is recommended that the authors double check that the match between the reference numbers in the text and the number in the Reference list is correct.

METHODS
Measures
6) References not needed in this section (also to note, they seem to be a fairly random selection of the previously cited references).

Data analysis
7) “p<0.05” should be moved to the end of this section, to accompany the description of the statistical test that has been used.

RESULTS
8) This reviewer recommends that instead of having separate tables for each of the five subscales, all the DREEM items are included in a single table, they can still be grouped by subscale. This is more common practice in the published DREEM literature where mean scores for all 50 individual items are reported. As this paper currently has 8 tables, this would be particularly appropriate for clarity of reference between the discussion of the results and the tabulated data.

DISCUSSION
9) Page 6 - the authors refer to an Indian medical school [13], where “the DREEM subscale scores were found to be higher than those in the present study.” It would be useful if the authors could elaborate on that to note if this school was traditional or modern / student centred to extend their immediately previous discussion.

10) Suggest “females” instead of “girls” in the second to last sentence of the Discussion.

11) The authors have stated that the students on clinical courses rated the educational environment as higher compared to students on the basic sciences and pathophysiology courses - it would be useful to include some discussion about why they think this might be the case.

CONCLUSION

12) To note again, care when interpreting item 3 regarding support for stressed students, and how low scores don’t necessarily mean that students are stressed. Also, regarding a previous point about why the authors have chosen to highlight certain items over others - timetabling was rated as low as the other items mentioned in the conclusion but it has not been referred to, which again begs the question as to why certain items have been mentioned and others have not. When dealing with points 1 and 2 in the Major compulsory revisions section above the authors should also consider whether this impacts on this aspect of their conclusion.

TABLES

13) The authors have included the standard deviation for Tables 1, 7 and 8, but not for Tables 2 to 6. I’m not arguing that it is needed, but the authors should be consistent through the tables as to whether this is included with the mean.

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests