

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Students' and clinicians' perceptions of medical student mistreatment: a cross-sectional vignette survey
<b>AUTHORS</b>	Peckston, Dane; Urwin, Rachel; McMullan, Ryan; Westbrook, Johanna

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Ooi, Shirley National University Hospital
<b>REVIEW RETURNED</b>	04-Apr-2022

<b>GENERAL COMMENTS</b>	<p>This is an interesting study and addresses an important question. The main issues in this study are in the statistical analysis. The likert scale you have used in your analysis in Table 2 is an ordinal scale. Mean and standard deviation are not appropriate measures to be used in an ordinal scale. Median and interquartile range (IQR) should be used instead. So for your columns on faculty and student, you just need to report the median and IQR. No p-value is needed. To compare the difference in the median between the faculty and student responses, you can then use the Mann-U Whitney test. I think until the correct statistical analysis is done, the abstract, results and discussion section will not be valid in its current form.</p> <p>My other concern is the low response rate of only 49.1% among students which may not be reflective of the perception of the whole student body. Is there any attempt to ensure that no single participant can respond more than once in the survey? If this is not done, the validity of the results may be questionable as participants who have been mistreated may choose to respond multiple times.</p>
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<b>REVIEWER</b>	Bell, Amanda McMaster University, Niagara Regional Campus
<b>REVIEW RETURNED</b>	11-Apr-2022

<b>GENERAL COMMENTS</b>	<p>It would be helpful if you defined mistreatment at some point in your manuscript. The question that you posed to participants was to determine if the scenario demonstrated "unprofessional behaviour" yet this could be viewed on a spectrum where not all unprofessional behaviour necessarily constitutes mistreatment towards a trainee. It would be worth noting in your limitations that your findings are limited to the clinical setting. Participants earlier in their medical training may have had less exposure to the clinical setting and may not be as well-equipped to classify the vignettes if they had not yet been immersed in the clinical environment.</p>
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	<p>Consideration of a non-clinical learning/teaching vignette(s) could help broaden the transferability of your findings. It would be helpful in Table 1.1 and perhaps in your manuscript to specify the qualifications or teaching responsibilities of Consultants vs Medical Educators vs Researchers for context for readers who are not in Australia. I do have some concerns about the interpretation of V13 where a student is pushed by a senior physician to gain access to a patient in an emergency. There may be cases in which physical intervention in an emergency situation might be indicated. I would encourage you to expand on the concept of the hidden curriculum and how behaviours in the clinical environment that are accepted further perpetuate this hidden curriculum. At the top of page 17 lines 2 and 3 there is an incomplete sentence fragment beginning "Workshops for..." which requires a completed thought. You may also wish to specify further on page 17 what the different needs for learners and faculty would be in regard to further use of the vignettes as educational tools. In your conclusion you have capitalized the word Faculty but have not done this elsewhere in the manuscript and you may wish to remove the capitalization here.</p>
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## VERSION 1 – AUTHOR RESPONSE

- 1) Reviewer 1 - "This is an interesting study and addresses an important question. The main issues in this study are in the statistical analysis. The likert scale you have used in your analysis in Table 2 is an ordinal scale. Mean and standard deviation are not appropriate measures to be used in an ordinal scale. Median and interquartile range (IQR) should be used instead. So for your columns on faculty and student, you just need to report the median and IQR. No p-value is needed. To compare the difference in the median between the faculty and student responses, you can then use the Mann-U Whitney test. I think until the correct statistical analysis is done, the abstract, results and discussion section will not be valid in its current form."

Response - Thank you for this feedback. This comment has been addressed by removing the mean and STD and replacing with median and IQR. A Mann-Whitney test is used to compare perceptions between the two cohorts. This correction has been updated in the methods, results and discussion sections of the updated manuscript.

See Page 10 – Line 18

- 2) Reviewer 1 - "My other concern is the low response rate of only 49.1% among students which may not be reflective of the perception of the whole student body. Is there any attempt to ensure that no single participant can respond more than once in the survey? If this is not done, the validity of the results may be questionable as participants who have been mistreated may choose to respond multiple times."

Response - Thank you for this feedback. The authors have now included this as a limitation in the discussion section of the study. Our survey tool (Qualtrics software) provides information regarding the IP address of the survey participants. This is screened to ensure no single participant responds more than once to the survey. We have now included this information in the methods, so that future readers are aware that this has been considered in the methodology. Any further detail would compromise the anonymity of the survey participants and also the ethics.

See Page 7 – Line 59 & Page 17 – Line 40

3) Reviewer 2 - "It would be helpful if you defined mistreatment at some point in your manuscript. The question that you posed to participants was to determine if the scenario demonstrated "unprofessional behaviour" yet this could be viewed on a spectrum where not all unprofessional behaviour necessarily constitutes mistreatment towards a trainee."

Response - Thank you for this feedback. We have now better-defined mistreatment in the introduction of the paper. The unprofessional behaviours portrayed in the vignettes were developed using evidence-based themes of medical student mistreatment. The term unprofessional behaviour allowed more subtle forms of mistreatment to be explored in the vignette study.

See Page 6 – Line 33

4) Reviewer 2 – "It would be worth noting in your limitations that your findings are limited to the clinical setting. Participants earlier in their medical training may have had less exposure to the clinical setting and may not be as well-equipped to classify the vignettes if they had not yet been immersed in the clinical environment. Consideration of a non-clinical learning/teaching vignette(s) could help broaden the transferability of your findings."

Response – Thank you for this feedback. The authors agree that future studies could also include vignettes demonstrating teaching in the non-clinical setting to broaden the transferability of the findings. We have now included this in the limitations of the paper. We also agree that students not yet fully immersed in the clinical environment may not be well-equipped to classify behaviour in the vignettes. This is something that the study serves to highlight - Differing perspectives between staff and students before students become indoctrinated into the current culture of medical training.

See Page 18 – Line 6

5) Reviewer 2 – "It would be helpful in Table 1.1 and perhaps in your manuscript to specify the qualifications or teaching responsibilities of Consultants vs Medical Educators vs Researchers for context for readers who are not in Australia."

Response – Thank you for this feedback. This has been addressed in the manuscript, providing definitions for these qualifications.

See page 8 – Line 52

6) Reviewer 2 "I do have some concerns about the interpretation of V13 where a student is pushed by a senior physician to gain access to a patient in an emergency. There may be cases in which physical intervention in an emergency situation might be indicated."

Response – This point is appreciated, and we have expanded further in the paragraph – highlighting that although physicality may assist in emergencies, the same effect should be able to be achieved using verbal instruction. The author believes that the physicality described in the vignette is unnecessary and belittling.

See Page 15 – Line 52

7) Reviewer 2 – "I would encourage you to expand on the concept of the hidden curriculum and how behaviours in the clinical environment that are accepted further perpetuate this hidden curriculum."

Response – Thank you. This has been expanded on within the implications section of the

discussion.

See Page 16 – Line 19

8) Reviewer 2 – “At the top of page 17 lines 2 and 3 there is an incomplete sentence fragment beginning “Workshops for...” which requires a completed thought.”

Response – Thank you. This has been corrected.

See Page 16 – Line 38

9) Reviewer 2 – You may also wish to specify further on page 17 what the different needs for learners and faculty would be in regard to further use of the vignettes as educational tools.

Response – Thank you. This has been expanded on.

See Page 16 – Line 47

10) Reviewer 2 – “In your conclusion you have capitalized the word Faculty but have not done this elsewhere in the manuscript and you may wish to remove the capitalization here.”

Response – Thank you. This has been corrected.

See Page 18 – Line 47

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Ooi, Shirley National University Hospital
<b>REVIEW RETURNED</b>	19-Aug-2022
<b>GENERAL COMMENTS</b>	Thank you for attending to the reviewers' comments. I have no further comments.
<b>REVIEWER</b>	Bell, Amanda McMaster University, Niagara Regional Campus
<b>REVIEW RETURNED</b>	02-Aug-2022
<b>GENERAL COMMENTS</b>	You have addressed the suggestions given by reviewers thoroughly. The manuscript is much improved. This work will add to the literature in this field in a meaningful way.