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.

This paper was submitted to a another journal from BMJ but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

(This paper received three reviews from its previous journal but only two reviewers agreed to published their review.)

ARTICLE DETAILS

TITLE (PROVISIONAL)	Uncovering cynicism in medical training: A qualitative analysis of medical online discussion forums
AUTHORS	Peng, Jenny; Clarkin, Chantalle; Doja, Asif

VERSION 1 – REVIEW

REVIEWER	Heidi Lempp King's College London, UK
REVIEW RETURNED	19-Apr-2018

GENERAL COMMENTS	This is a very well written piece of paper that examined aspects of the hidden curriculum through a novel approach, e.g. discussion forums. Most aspects of qualitative research have been very well described a adhered to. It is laudable to include the content of the forums from two countries. Before stating my main impression I have some feedback for the authors to consider: Background Section: the authors criticised/commented that most studies re cynicism/hidden curriculum are from single institutions, I agree with this statement, however the many references they provided in my view is an indication that the evidence of cynicism within the context of the hidden curriculum is evident through these many studies in single institutions, although many seem to focus on the transition from non-clinical to clinical years. In other words the evidence is accumulating and this trend has not been the case 10 years ago. p.4/line 16: '......regarding issues in medicine...' pl provide examples of such issues, as it stands I think it is too vague for the reader. p.4/line 23: the authors state that discussion forums allow anonymous contributions to be honest, and open discussion. I am not convinced this is true, unless the authors have literature to back this claim. They can also be derogatory/abusive, unless these have been filtered out by moderators? p.4/line 32: pl add reference 26 after content analysis, you do further down in the method section, in my view it would be helpful to insert here already, as not all reader are familiar with the type of analysis. Data analysis: I would have liked to see more qual data (=accounts) in the paper, as these are very powerful, and you identified many looking though Table 1, to bring the paper more 'alive'.

	I thought it would be useful to add number of posts you have in Table 1 also in the text, as this would provide the reader with much more evidence (strength) what you have identified in the themes. This way your data is more convincing to the reader, I only 'found' the number of posts at the end of reading the manuscript. This method is similar to single counting, and contributes to the robustness and plausibility of your findings, in my view. This leads me to my specific comment about the content of the paper, linked to the interventions you suggested to mitigate against cynicism in medical education, e.g. role models, mentors. The findings in my view are not novel, these have been identified for many years by a number of social researcher, in other words I did not learn anything new in this paper that I did not already know, so I am not sure that a knowledge gap can be filled with your study. The method is novel, no doubt, but the findings and recommendations in my view are not, in my view. The essence of the paper highlights again how little the content of the hidden curriculum is tackled by medical institutions, despite the evidence that all is not well in medical education and that students continue to have a stressful time.

REVIEWER	Kyung Hee Chun Center for Innovative Education, TongMyung University, South Korea
REVIEW RETURNED	20-Apr-2018

GENERAL COMMENTS	1. There is mention of ethical approval in the manuscript. Considering the online discussion forums, to get agreement of participants and to check the finding results of this study by the participants need to clear the themes. Try to check and announce how many mentions and agreement of all anonymized quote and commenters' review of online forums. 2. Method of this study was clear and steps of analysis were well organized to define the themes of issues, but just 2 researchers were participated in generating a set of the preliminary codes. Even though at least for the triangulation of the analysis, more than 3 participants needed to get any conclusions. 3. There are well explanations of previous studies but weak discoveries or insights about a mechanism of cynicism, coping and hidden curriculum of this study. Such as what I can get them for being happy and empathetic doctors? How to teach them with cynical mentor or model? By and large, this study is very interesting and gives an impressive view on cynicism in medical training. The gap of good doctoring and real doctoring makes cynicism. The criteria of educational importance is met and clarity is mostly good.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Comment #1:
Background Section:
the authors criticised/commented that most studies re cynicism/hidden curriculum are from single

institutions, I agree with this statement, however the many references they provided in my view is an indication that the evidence of cynicism within the context of the hidden curriculum is evident through these many studies in single institutions, although many seem to focus on the transition from non-clinical to clinical years. In other words the evidence is accumulating and this trend has not been the case 10 years ago.

> ***Response to Comment #1:*** *Thank you for this suggestion. We have rewritten our Discussion (Paragraph 7) to state that studies over the last ten years at single institutions do show that cynicism progresses from non-clinical to clinical years. We then added that our study is robust by confirming this phenomenon across several academic institutions and various stages of training.*

Comment #2:
p.4/line 16: '......regarding issues in medicine...' pl provide examples of such issues, as it stands I think it is too vague for the reader.

> ***Response to Comment #2:***
>
> *We have included some examples in Introduction Paragraph 3.*

Comment #3:
p.4/line 23: the authors state that discussion forums allow anonymous contributions to be honest, and open discussion. I am not convinced this is true, unless the authors have literature to back this claim. They can also be derogatory/abusive, unless these have been filtered out by moderators?

> ***Response to Comment #3:*** *Thank you for this comment. We have removed this statement from Introduction Paragraph #3.*

Comment #4:
p.4/line 32: pl add reference 26 after content analysis, you do further down in the method section, in my view it would be helpful to insert here already, as not all reader are familiar with the type of analysis

> ***Response to Comment #4:*** *We have added this reference after "content analysis" as suggested in Methods Paragraph 2)*

Comment #5:
I would have liked to see more qual data (=accounts) in the paper, as these are very powerful, and you identified many looking though Table 1, to bring the paper more 'alive'.

> ***Response to Comment #5:*** *Our IRB has clarified that we can only use quotes for inclusion in this paper if we have contacted the posters and they have consented via email. Since our original submission, we have obtained consent for further quotes, and these are included in the revised manuscript.*

Comment #6:
I thought it would be useful to add number of posts you have in Table 1 also in the text, as this would provide the reader with much more evidence (strength) what you have identified in the themes. This way your data is more convincing to the reader, I only 'found' the number of posts at the end of reading the manuscript. This method is similar to single counting, and contributes to the robustness and plausibility of your findings, in my view.

Response to Comment #6: *Thank you for this comment. We have noted the total number of posts that were analyzed in Results Paragraph 1 and noted for readers to refer to Table 1 for specifics.*

Comment #7:
This leads me to my specific comment about the content of the paper, linked to the interventions you suggested to mitigate against cynicism in medical education, e.g. role models, mentors. The findings in my view are not novel, these have been identified for many years by a number of social researcher, in other words I did not learn anything new in this paper that I did not already know, so I am not sure that a knowledge gap can be filled with your study. The method is novel, no doubt, but the findings and recommendations in my view are not, in my view. The essence of the paper highlights again how little the content of the hidden curriculum is tackled by medical institutions, despite the evidence that all is not well in medical education and that students continue to have a stressful time.
'highlights again how little the content of the hidden curriculum is tackled by medical institutions'

> **Comment #7:** *We have specified that while this recommendation is not novel (as suggested by the reviewer), our study highlights how contents of the hidden curriculum still needs to be tackled by medical institutions (Discussion Paragraph 6). Our paper contributes by supporting that though many of these issues have been acknowledged, they persist in medical culture.*

Reviewer: 2
Reviewer Name: Kyung Hee Chun

Comment #8:
There is mention of ethical approval in the manuscript. Considering the online discussion forums, to get agreement of participants and to check the finding results of this study by the participants need to clear the themes. Try to check and announce how many mentions and agreement of all anonymized quote and commenters' review of online forums.

> **Response to Comment #8:** *As mentioned above, we have obtained agreement to use each quote for each theme from each participant by contacting individuals via the online discussion forums. We have specified this in "Ethical Considerations" of Methods. This has also been noted as a limitation of the study in the 'discussion' section on page 19, as only quotes with explicit permission from the posters have been included for publication. That said, all relevant discussion thread content was summarized and described.*

Comment #9:
Method of this study was clear and steps of analysis were well organized to define the themes of issues, but just 2 researchers were participated in generating a set of the preliminary codes. Even though at least for the triangulation of the analysis, more than 3 participants needed to get any conclusions.

> **Response to Comment #9:** *Thank you for your comment. In this paper, we do not claim to use investigator triangulation as a trustworthiness measure, but rather that we employed the following: multiple independent coders (JZP and CC), team consensus building involving the three team members: JZP, CC, AD, and the maintenance of a detailed audit trail of all coding and data-related decision making. That said, the methods section on page 6 has been updated to highlight that all three team members participated in the consensus building process during the three phases of analysis: preliminary coding, axial coding, and selective coding.*

Comment #10:

There are well explanations of previous studies but weak discoveries or insights about a mechanism of cynicism, coping and hidden curriculum of this study. Such as what I can get them for being happy and empathetic doctors? How to teach them with cynical mentor or model?

Response to Comment #10: Thank you for this insightful comment. Upon reviewing the model of cynicism as proposed by other authors (Testerman's Intergenerational Model and Professional Identity Model), we believe that results from this study show that there is a "double hit" situation where trainees become increasingly cynical during major transition points (from pre-clinical to clinical years and from medical school to residency), in Discussion Paragraph 4. As for the significance of addressing cynicism, we have included studies showing that addressing cynicism improves the quality of patient care. Therefore, expanding on why tackling cynicism within the hidden curriculum is important. This has been included in Discussion Paragraph 9.

VERSION 2 – REVIEW

REVIEWER	Heidi Lempp King's College London
REVIEW RETURNED	06-Jun-2018

GENERAL COMMENTS	The paper had definitely improved, and the authors have responded appropriate to the feedback. I have some minor suggestions: 1) p.11 Section 2A & p.14/line 11/12: lack of support as a major stressor, pl specify where the support needs to come from, this is import. To state that support is important in my view is not specific enough. 2) p.12/line 41/42: ' ....than criticising individuals who suffer'... pl specify what the individuals suffer from (mental health is in my view too broad). 3) account stated: 'Even at your early stage.... 'move 'it' in the right direction, who or what is meant by 'it', pl add in brackets., as not clear to me..... fixing the problem that.... what/which problem is meant here? 4) p.14/line 4'....'lack of respect'... by who pl add in brackets. 5) p.14/line23: '.....to open up their struggles...' who is 'their' and what 'struggles' , not clear to me, pl add in brackets. p.20: pl insert the date when Ethics approval was achieved. The manuscript has come so much more alive with the inserted accounts, however people express themselves commonly in pronounce, so explanations in brackets are in my view important for the readers to understand the context. The authors have definitely expanded the Discussion section, however I still think that the findings are not that new/novel/surprising from other (and my) studies, what is novel, which I have already stated is the way the authors collected the data. In my study published 2004 I had very similar findings and recommendations from the UK.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

1) p.11 Section 2A & p.14/line 11/12: lack of support as a major stressor, pl specify where the support needs to come from, this is import. To state that support is important in my view is not specific enough.

We have clarified in the manuscript that this inadequate support is from peers, colleagues and in particular, supervisors.

2) p.12/line 41/42: ' ....than criticising individuals who suffer'... pl specify what the individuals suffer from (mental health is in my view too broad).

We have removed the word "suffer" and this has been reworded to address the fact that trainees have have a reduced quality of life and difficulties in work life balance.

3) account stated: 'Even at your early stage.... 'move 'it' in the right direction, who or what is meant by 'it', pl add in brackets., as not clear to me..... fixing the problem that.... what/which problem is meant here?

We agree with the reviewer that this quote lacked clarity. As such, it has been removed from the manuscript.

4) p.14/line 4'....'lack of respect'... by who pl add in brackets.

We have clarified that this is a lack of respect from supervisors

5) p.14/line23: '.....to open up their struggles...' who is 'their' and what 'struggles' , not clear to me, pl add in brackets.

The "struggle" has been clarified by adding the following in brackets: "with balancing efficiency vs learning"

p.20: pl insert the date when Ethics approval was achieved.

This has been done.

6) The manuscript has come so much more alive with the inserted accounts, however people express themselves commonly in pronounce, so explanations in brackets are in my view important for the readers to understand the context.
The authors have definitely expanded the Discussion section, however I still think that the findings are not that new/novel/surprising from other (and my) studies, what is novel, which I have already stated is the way the authors collected the data. In my study published 2004 I had very similar findings and recommendations from the UK.

We have modified the Abstract, Strengths and Limitations, Discussion and Conclusion to emphasize the unique method of data collection in the study.