Author’s response to reviews

Title: Impact of a personal learning plan supported by an induction meeting on academic performance in undergraduate Obstetrics and Gynaecology: a cluster randomised controlled trial

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Author’s response to reviews: see over
In response to your letter of 22nd December, please find attached our revised paper ‘Impact of a personal learning plan supported by an induction meeting on academic performance in undergraduate Obstetrics and Gynaecology: a cluster randomised controlled trial’ for consideration for publication in BMC Medical Education. We are very grateful to the reviewers for the most helpful and thorough review. The paper has been revised extensively in response to this review and we have provided a detailed response to each of the items identified by the reviewers. In particular, the intervention has been clarified with the focus on development of a personal learning plan. How students plan their learning within clinical rotations is critical but poorly studied. This paper makes an important contribution to inform medical educators as to how they can help students optimise their learning experiences.

Thank-you once again for the most helpful peer review and we would be very grateful for your consideration of our revised paper.

Yours sincerely,

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Specific Responses to Reviewers:

Reviewer 1

This paper looks at the impact of one single individual induction meeting of about half an hour’s duration with every medical student at the beginning of the G&O term; the aim is to assess this intervention in relation to the students’ academic performance, attendance and learning experience. This is done in a comparative design with an adequate number of participants; half a class was given the intervention while the other half was not. Eventually, the outcomes of the two groups were compared. No difference was found regarding the academic performance, and a minor difference was found regarding clinical and tutorial-based attendance.

- Item 1: LENGTH: The paper is too long and wordy in relation to its’ content and findings; I would like to see close to 40% reduction in the length.

Response: Agree. We have reduced the paper by 21% from 3,800 words to 3,000 words. Further reductions were difficult as we needed to make significant amendments and clarifications to large sections of the paper (as requested by both reviewers).

- Item 2: TITLE: The title is not reflecting the topics which are given the most attention in the Results and Discussion.

Response: Agree. The title has been rewritten with the personal learning plan (PLP) as the main focus.

- Item 3: AIMS: The aims of the study are poorly stated.

Response: Agree. The entire ‘Background’ section has been rewritten and the hypothesis and aim restated.

- Item 4: OPERATIONALIZATION: The concept “learning experience” is supposed to show a significant difference, but I find it hard to detect what are the underpinnings for this claim. Apart from one question in the students’ response survey, I do not find how the concept of the students’ “learning experience” has been operationalized in ways that qualifies the conclusions drawn.

Response: Agree. We have rewritten the conclusion to reflect this, particularly stating that the improved experience was based on what students reported rather than other additional measures of the learning experience.

- Item 5: UNEXPLAINED CENTRAL CONCEPTS: Several times, the concept students’ “learning plans” are brought in, and also, the creation of specific learning objectives as well as the optimizing and broadening of the students’ learning strategies are mentioned. However, these concepts are not given any further meaning and they are not put into perspective in the paper.

TOO MANY CONCEPTS: Several other central concepts are poorly defined and outlined. Many labels are used without further explanation or clarification regarding how they may differ or overlap: Clinical attachment, educational supervision, regular supervision, mentoring, early educational direction, group induction (lectures) vs. the individual one-to-one education induction meeting. Limited uses both of designations or labels as well as a limitation of concepts are strongly advised.
Response: Agree. With this in mind, we have rewritten large sections of the paper to remove superfluous concepts and develop the central concept of the PLP. This study was part of a wider body of medical education research within our Department evaluating themes relating to student engagement. Many of these themes filtered into the original paper submitted. However, we fully agree with the reviewer that it was confusing and overcomplicated. We have made extensive revisions to the paper to clarify and develop the central concept.

Item 6: RESULTS & DISCUSSION: Based on the above, I have doubts about the validity of the reported findings.

Response: We have made additions to the ‘Results’ section and completely rewritten the ‘Discussion’ and ‘Conclusion’ section. We believe that the conclusions drawn in the revised paper are an accurate reflection of the results and not overstated. We have acknowledged the limitations of the study. Despite these limitations, however, we believe that the findings are valid and offer an important contribution to undergraduate medical education research that merits dissemination to the wider body of medical educators.

Reviewer 2

Item 7: This manuscript has been quite well written and has identified a clear argument for the intervention. I am concerned that the emphasis of the paper is on the intervention meeting and emphasis is placed on that element when in fact the main emphasis should be on the development of the learning plan. To argue that a one-to-one meeting has made such a dramatic change is somewhat problematic. In contrast the development of the learning plan may have been the driver (which I think it was), but less is reported on this element.

Response: Agree. The paper has been extensively revised with the intervention as the creation of a personal learning plan (PLP) supported by the individual ‘one-to-one’ induction meeting.

Item 8: The fact that the assessment results are not different between the two groups is not surprising. The learning plan potentially had different outcomes to the assessment program and this has not been captured.

Response: Agree. An explicit acknowledgement of the limitations of academic performance as an outcome measure has been clearly stated within the discussion section of the paper. In addition, other outcomes that capture the full impact of the PLP have now been clearly highlighted i.e. responses from the student survey. Despite its limitations, however, we believe that academic performance is a useful outcome for experimental research in medical education and is an important measure to evaluate the success of the PLP in this study.

Item 9: I do support the view that more than one meeting should have occurred during the clinical rotation to establish whether the learning plans were effective.

Response: Agree. The use of an interim or exit meeting later in the clinical rotation would have probably enhanced the use of the PLP. However, we decided against this for two reasons. Firstly, we wanted to provide a cost-effective intervention. The provision of the induction meeting alone required 37 hours of ‘face-to-face’ time. Providing a further meeting, although educationally appealing, would have involved a considerable additional investment of staff time without any evidence of benefit. Secondly, the focus of a further meeting would have been significantly different to the induction meeting and, in particular, would have involved feedback i.e. teaching. This...
would have been ethically unacceptable, as it would have unfairly disadvantaged the control group. For these reasons we believe that it was reasonable and educationally useful to have evaluated the benefit of a single meeting in the first instance rather than a series of meetings.

Item 10: A case study of fewer students may have assisted in a better understanding of how the learning plans were useful to the learners. This would be expected if the assessment was similar to previous years.

Response: Agree. In-depth interviews or focus groups for a smaller number of students perhaps would have provided a deeper understanding. However, an important element of this study was to offer the PLP to all students and therefore we opted for a student survey in order to capture a wide body of student opinion regarding the meeting. Nevertheless, we agree with the reviewer and will consider using a more in-depth approach as suggested for future evaluations of the PLP within our programme.

Major compulsory revisions
Item 11: The authors should provide more information on the learning plans, and the learning plan development, and how these were used by students as this would be a much stronger paper. This is much more important than the meeting time alone.

Response: Agree. Although we have reduced the size of the paper considerably (as requested by reviewer 1), we have added in detailed content analysis from the student survey on their experiences using the PLP and induction meeting in the ‘Results’ section and rewritten the entire ‘Background’ and ‘Discussion’ sections.

Item 12: Reconsideration of the title is necessary. If the manuscript is about learning plans, then this should be in the title.

Response: Agree. The title has been rewritten with the PLP as the main focus.

Item 13: Evidence of learning plans, and how students used these during the rotations is important and probably hasn't been demonstrated. This is more likely to show how the meeting/learning plans influenced the progress of the learners.

Response: Agree. We have added in data from the free text question in the student survey on the difficulties students encountered using the PLP. The intervention in this study was focused on supporting students in creating a PLP at the start of the clinical rotation and an evaluation of this process. We agree fully with the reviewer that an evaluation of the subsequent use by students of their PLPs is important but was not our main focus in this study.