Author’s response to reviews

Title: High Enthusiasm about Long Lasting Mentoring Relationships and Older Mentors

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Author’s response to reviews:

Dr. Liam Messin,
Editor
BMC Medical Education

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Dear Dr. Messin,

Please find enclosed our revised version of the manuscript previously entitled “Being Older and in a Lasting Mentoring Relationship Contributes to More Positive Perceptions of Informal Mentoring”, which was submitted for publication as an Article in BMC Medical Education.

Following key points and valuable comments and recommendations provided by the editor and reviewers, the manuscript has been revised and rewritten in all requested sections; starting from title up to reference sections.

The current version is entitled “High Enthusiasm about Long Lasting Mentoring Relationships and Older Mentors”.

We expect this revised manuscript will be of interest to Medical educationalists and researchers, and particularly to researchers working on senior-junior informal interpersonal communications such as mentoring, coaching and role modelling. Based on its rapid dissemination and earlier publications on this topic, BMC Medical Education represents the perfect platform for us to share these results with the international research community.

We shall look forward to hearing from you at your earliest convenience.

Yours sincerely, also on behalf of the co-authors,

Heba Mohtady, MD

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Table for Reviewers Comments
Reviewer 1
Parisa Aslani  Reviewer 2
Tony Skapetis Proposed Changes

Title

The title of the manuscript also only focuses on one aspect of the study. The study aims to look at other factors. Therefore, it is not clear why the focus of the title is only on one aspect, especially as the findings and discussion appear to be "equal" across the factors without any greater emphasis on age.

The study title could be changed to make it simpler/clearer to understand thereby attracting readership interest more easily.

We thank the reviewers for their suggestion to rewrite the title. Hence, we now made it clearer and more attractive.

The revised title is:
High Enthusiasm about Long Lasting Mentoring Relationships and Older Mentors.

Abstract

Conclusions currently has recommendations / future directions. Could the author add in what they have concluded based on their study findings.

The conclusion in the abstract needs to be re-written. In its current form, the conclusion appears disjointed and somewhat unrelated to what appears in the rest of the abstract.
We acknowledge the view of reviewers regarding the conclusion.

It has been revisited in light of this advice to make it more coherent and more relevant to the rest of the abstract. Therefore, it is now explicitly based on our study findings:

It can be concluded that the mutual expectations of mentors and protégés differed regarding the content and aim of the interpersonal characteristics of their mentoring relationship. Especially in informal mentoring, therefore, recommend mentors and protégés to more explicitly exchange their expectations of the mentoring relationship. Additionally, seniority and lasting relationships seem crucial for good informal mentoring. It would be beneficial to foster lasting informal mentoring relationships and give more guidance to younger mentors (pages 2 & 3).

Introduction

This is thorough, however, there is a great deal of information that is not pertinent to this study. There is a need to reduce and be more succinct, in the information presented on the factors and their impact in formal and informal mentoring, with a greater focus on the factors that the study is intending to evaluate. In reading the Introduction, the reader should be convinced that the existing literature, and therefore the identified gaps in the literature, all point to the need for this study and therefore the study aims. Currently, there is a lot of information about all factors and not enough and definitely not enough in-depth information pertinent to the factors being evaluated in this study.

-Social exchange theory - this section seems not to fit with the rest of the paper and is not developed elsewhere within the discussion nor the results applied to this theory. The authors could consider removing this section.

-Formal V’s informal mentoring - this section should underpin this research and needs to be expanded to explain how such concepts as structure, measurement, objective driven, time limited, mentor expertise/training, active selection and directivity are associated with formal mentoring while unstructured, indirect, passive and intuitive are informal mentoring related.

-Perceptions of informal mentoring, age as a variable, gender as a variable and duration of the relationship sections, should be considerably condensed and made more succinct.
We thank Reviewer 1 for this suggestion and, accordingly, the introduction has been revised and reduced from 1766 to 1075 words. In addition, it has been modified to have a greater focus on the factors that the study is intending to evaluate.

We thank Reviewer 2 with respect to the recommendation provided in this section regarding social exchange theory, formal V's informal mentoring and perceptions of informal mentoring. In light of these recommendations, the following changes were made:

- The section of social exchange theory has been reduced from one paragraph to only one sentence.
- The following part was added to page 4 and 5 to highlight formal V's informal mentoring:
  “In addition, restriction of time and resources for both students and teaching staff has hindered the implementation of formal mentoring programs, in particular in novel medical schools (17). Moreover, limitations of effective formal mentoring programs were based on gender roles, cultural background, lack of opportunities of formal mentoring, disorganization and insufficient funding for human resources development (18).”
- Sections addressing age, gender and duration of the relationship were condensed and made more concise (pages 6 and 7).

Aim The justification for the study aims needs to be strengthened.

More justifications were added to fulfil this requirement of Reviewer 1. The justification for study aims were strengthened as follows:

“What have been largely unexplored, however, are the factors that enhance initiation, perception and preservation of these informal relationships by physicians or faculty (19). Scant attention has been paid to the dynamics of informal mentoring, potential differences in perceptions between mentors and protégés and the influence of gender, age and the duration of the relationship on the mentoring experience. The present research will seek to address this latter deficiency”. (page 5)
Methods

There are some gaps in this section. Was there a sample size calculation? How did the authors know that the final sample size was adequate for the statistical analyses?

It is not clear whether a completely new survey was designed or whether items were taken from other surveys?

Was the validity and reliability of the IMRI tested and how? Why do some factors within the IMRI only have three items?

What is the impact of this on the validity of the scale / factor? How were completed IMRI's selected?

- Could the authors elaborate on the ethics approval across each of the countries involved and whether participation was voluntary and how many from each country.

- Could a more detailed explanation be included as to how the participants, would be clear of the difference between formal V's informal mentorship especially given the different county cultural, language and education contexts, beyond that which has already been mentioned in the procedure section of methods. This is a fundamental premise that this research is reliant on in terms of validity i.e. are the respondents responding about the correct type of mentoring?

Was the questionnaire tested or otherwise validated in the different country contexts as some of these countries teaching may be fundamentally only formally driven.

Under materials, how were the formal V's informal tools separated from the literature prior to inclusion into the survey tool, if this indeed matters? Of those offered the survey in each country, how many did not participate &/or did not want to be involved in the study?

We have now detailed our methods. Therefore, it has been clarified that the items originate from other surveys. We used and adapted items from existing instruments on formal mentoring (see page 9).

We also added additional information about the internal consistencies of the subscales. The Cronbach’s alpha analyses were used to test the a-priori grouping of items in subscales. For all but one subscale this resulted in reliable item groupings. This is now described in more detail on page 9.
Regarding the sample size, it has now been added that we followed the guideline that you need a minimum of $N > 50 + 8m$ (where $m$ is the number of IVs) participants per variable in your statistical model. Our sample size of 194 respondents is adequate to test statistical models with four independent variables (page 12).

As questioned by Reviewer 2, ethical clearance was obtained to administer the IMRI from Institutional Review Board (IRB) for Medical Research Ethics Faculty of Medicine- Zagazig University. Participants were volunteered and they were asked to sign an electronic consent form before completing the surveys (pages 8 & 10). We have added also the number of participants from each country (page 12). Regarding the explanation of mentorship types, the definition of informal mentoring was clearly explained in the questionnaire and is explained verbally during meetings or workshops where the questionnaire was distributed, as mentioned on page 10: “Participants were consequently asked if they had any past experience with informal mentoring, which was defined as follows: ‘Informal mentoring is based on natural personal matching and mutual interests between a junior and a senior person’”. Both versions of the questionnaire are now added in the Appendix.

The questionnaire contains items from internationally published instruments (as mentioned on page 8) and as such we consider them valid to be used in an international context. It was beyond the scope of this study to fully validate the questionnaire in our local context, but we agree that this is a relevant topic for further research. We added your suggestion as a limitation and idea for future research in our Discussion section (pages 16-17). Additionally, the number of participants from each country was added on page 12.

With respects to the response rate, survey invitations were sent out through several avenues, including being forwarded through academic staff to various departments. Consequently, the researchers are unable to ascertain the number of participants who may have initially received the invitation to fill out the survey.

Results

What was the response rate?

A table including the distribution of participants &/or results across the various countries would be useful & any differences found?
We acknowledge the concerns of both reviewers with respect to the response rate. As mentioned before, the survey was distributed in groups and online, so the total number of potential participants that initially received the questionnaire could not be estimated.

Investigating the differences in results between the countries is beyond the aim of this study. We now added the number of participants per country in the beginning of the Results section (page 12).

Discussion

The results are clear, but need better interpretation, and their implications discussed in the Discussion. - It would be useful to include an attached copy of the full questionnaire in both languages in the appendix.

With respect to copies of questionnaires suggested by Reviewer 2, these have now been added in the Appendix.

- How was the low reliability in terms of Cronbach addressed for the Q's within the domains of psychological support, acceptance & friendship? Were any of the deviant questions within these domains considered for removal prior to analysis?

- the limitations of this study should include the reliance on means with a rather large SD (almost 1 unit at times) which may not be ideal for non-numeric Lichert scales where intervals are unequal. Additionally the what appears to be minimalistic validation including testing of the survey instrument should be mentioned.

We agree that the subscale ‘psychosocial support’ had an insufficient alpha for mentors (.51). We considered removal of items, but were not able to improve the internal consistency. However, we did find a very promising good alpha for protégés (.90) on this subscale. More research would be needed to understand how mentors might have interpreted these items differently. We interpreted the results of this scale with more caution and, as can be seen from Table 3, there were limited significant results on this subscale, which were fully in line with results on other scales.

For the subscales ‘acceptance’ and ‘friendship’ the alpha was between .6 and .8 for mentors and > .9 for protégés, which is acceptable for new instruments, according to Loewenthal and Lewis (2015). Inspecting the results of these two subscales shows that again results are in line with the
results on the other, more reliable subscales. So, we conclude that this had only very limited effects on our results.

Your suggestions are now added under limitations in the Discussion section. Your idea on validation of the instrument has been added as a recommendation for future research (page 16).

Reference
There are too many references and although appreciative of the author's attempts to scope the literature, I would suggest that the bibliography be reduced to about 1/3 and include only most current literature from better journals rather than on line websites and limit the amount of self referencing.

We agree with this comment and reduced the reference list from 81 to 53 papers to include only the most current literature.

Editor
Thank you for your patience in awaiting peer review of your manuscript. Both reviewers have agreed on key points about the title, the coherence of the argument or rationale for the research, the need to be far more focused in your background section, gaps in reporting your methods, presentation of the results, and to better align the discussion and conclusion with what you actually did and found. When, for example, revising a major work such as a Masters thesis for publication as a paper, much significant work needs to be done to re-frame, cut down and report on only those key parts of the thesis that form a coherent story or study. Often the work required is underestimated. Both reviewers did agree that the manuscript addressed an important topic, and could be improved to be publishable. As the revisions will take some work, we offer you more than the usual time to revise and resubmit, should you wish to go ahead. You will need to take a step back, identify and include only those aspects of the manuscript that lead to your key findings, revise and rewrite the paper to make sure that all the parts fit together and lead to your conclusion. We wish you luck in your research efforts and look forward to receiving a suitably revised manuscript.
We thank the editor for such understanding, support and cooperation. In light of the editor’s and reviewers’ key points and recommendations regarding our manuscript, a comprehensive revision was conducted to adopt and apply all of them in the title, abstract, aim, introduction, methods, results, discussion and reference. Detailed explanation for our revision is written in the table above; including full description for each action taken from our side and for each change made to improve the quality, alignment and coherence of our manuscript.