Author's response to reviews

Title: Comparison of communication skills between medical students admitted after interviews or on academic merits/SAT - less underperforming among those admitted after interviews

Authors:

Marie Dahlin (marie.dahlin@ki.se)
Stina Söderberg (stina-soderberg@bredband.net)
Ulla Holm (ulla.holm@brevet.nu)
Ingrid Nilsson (ingrid.nilsson@stuvstavc.se)
Lars-Ove Farnebo (lars-ove.farnebo@ki.se)

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Author's response to reviews: see over
Dear Editor,

We thank the reviewers for their work and constructive comments. We have made the following changes to the manuscript in response to the reviewers’ feedback:

**Reviewer 1, Wolfgang Hampe:**

1. We have, under the heading *Admission groups* in the *Methods* section (p 7), included data on admission groups four years ahead of the study. Swedish students often leave the curricular track. The reasons may be diverse and foremost it is not due to failed courses, although that obviously occurs as well. Many students take maternity or paternity leave or take breaks to work, travel, or engage in other studies or research. Some have to take leave due to health issues. In addition, students may take the surgical course within exchange programs with other medical schools, and thus not present at these examinations. We have no data on reasons for delay.

Still, in order to clarify the status of students included in the study, we have added information on frequency of “delay” in students admitted earlier than 2004, *Results* section, first paragraph, p 10. We also present results from analyses of the effect of delay in first and second paragraphs under *Communication skills at OSCE*, p 10. Communications skills score did not differ between delayed or “in due time” students, nor did delay affect the effect of interview admission on being an underperformer. We have also added a line in the *Discussion* (p 12, 3rd paragraph) on this matter.

2. We have described the admission interviews in some more detail, p 4.

3. We performed analyses with cut points for underperformers at communication skills scores of 9 and 11, as suggested. The results held for cut point 9, where the effect was weaker for for interview admission, but still significant (OR 0.20, CI95 0.48-0.80, p=0.023), but where neither sex, nor age were significant. For a cut point of 11, the effect of interview admission was not significant (OR 0.65, CI95 0.34-1.22, p=0.175) while sex was still, (0.39, CI95 0.21-0.74, p=0.004). However, we do not think that a cut point of 11 is a meaningful deviation from “good enough” performance, considering that it denotes “satisfactory” behaviour in five out of six assessed domains. We have chosen not to add these analyses in the manuscript, knowing that this information is available for the interested reader, should the manuscript be accepted. We have elaborated slightly on the choice of cut point in the *Methods* section (*Data and analyses*, p 8), though.

4. The raters did not know the assessed students, and were blind to the admission status of the tested students while rating. Since two of the raters are involved with the interview admission process, precautions were taken to ensure that raters were not assigned videos of
students they had previously met. We have added a line on this matter in the Methods section, Evaluation of communication skills, p 8, 1st paragraph.
Reviewer 2, Claudia Kiessling

1. Please see bullet 2 in response to Reviewer 1. We have also elaborated the argument on why the interviews were expected to relate to communication skills, p 4, last paragraph.

2. As foreseen by you, we unfortunately do not have access to any other sources of data on communication skills for these students. We have commented shortly on this in the Discussion (p 12, last paragraph).

Specific comments:

We have cut the sentence referred to on page 3, line 14.

We have likewise cut the third paragraph under Interview admission at KI on page 5.

The interview research group is small, but the interviews employed for the admissions of this group have the same objectives as those of the major group, only they in addition evaluate research interest and aptitude. We see no reason in excluding them. These students follow the same curriculum as other students, except for taking additional research preparatory courses. We did, however, run a logistic regression on underperformers, excluding this group, where interview admission was still significant (OR\textsubscript{interview} 0.36, CI\textsubscript{95} 0.14-0.92, p= 0.033; OR\textsubscript{sex} 0.32, CI\textsubscript{95} 0.12-0.86, p=0.023; OR\textsubscript{age} 0.93, CI\textsubscript{95} 0.80-1.07, p=0.298). This is not included in the revised manuscript.

Page 7: last sentence: We have clarified this sequence by adding the following to the manuscript (now p 8, 1\textsuperscript{st} paragraph): “There were small differences in mean score/dimension between raters (IN 2.34, MD 2.23, UH 2.15, SS 2.18). In order to give the result of each rater the same weight, the scores were multiplied by a factor (IN 0.85, MD 0.9, UH 0.93, SS 0.92) to obtain the mean 2 for all raters.” This measure is more conservative than if we had not weighted the ratings. With unweighted scores, the total number of underperformers (by the same cut off, <10) were only ten. We run a logistic regression with the unweighted underperformers variable as dependent, where interview admission was still significant, albeit the effect lower (OR 0.20; CI\textsubscript{95} 0.05-0.80; p=0.023) but the gender effect was not significant (OR 2.67; CI\textsubscript{95} 0.69-10.30, p=0.154). However, we think that the weighted scores give a fairer description of the abilities of the students.

The misprint of “statistics” has been corrected.

We have added a short description of the written examination, which was actually only in part a MEQ, page 8.

We have elaborated the Discussion slightly and written a new, very short, Conclusions section.

In addition to those issues raised by the reviewers, minor reformulations have been made, not described in detail.

Yours,

Marie Dahlin, on behalf of all authors