To See Ourselves As Others See Us:
A study of self-assessment in year 1 medical students

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Introduction

- Self-assessment is the ability to accurately identify your own strengths and weaknesses in a specific situation by comparing your performance against an external standard.[1]
- Self-assessment is an essential skill required for life-long learning and an important component of medical curricula.[2]
- Inaccuracy in self-assessment is common amongst medical students.[3]
- The University of Aberdeen utilises the 1st year Student Selected Component (SSC) to introduce medical students to self- and peer-assessment.

Aim

- The aim of this study was to determine characteristics of first-year medical students who inaccurately self-assess, using a mixed methods approach.

Methods

- Data from 503 students who undertook the SSC between 2015-2018 was obtained.
- Students were categorised as 'over-estimators', 'under-estimators' or 'accurate-estimators' by comparing self- and peer-awarded marks.
- Age, gender, graduate status, rank at the end of year one and the presence of any 'Low-Level Concerns' (LLC's) were compared between estimator groups in quantitative analysis.
- LLCs: C6, formal advisory meeting, informal warning meeting , >3 unauthorised absences, repeating the year, >2 session with student support
- Self and peer written reflections were used for qualitative analysis.

Results

- 442 students (87.9%) were accurate estimators, 24 (4.8%) students were 'over-estimators' and 37 (7.4%) under-estimators.
- Only class rank ($p = 0.020$) and presence of 'low-level concerns'($p < 0.001$) were significantly associated with estimator ability (Figures 1 and 2).
- Age, gender and graduate status have minimal impact on self-assessment accuracy.
- Qualitative analysis is summarised Figure 3.

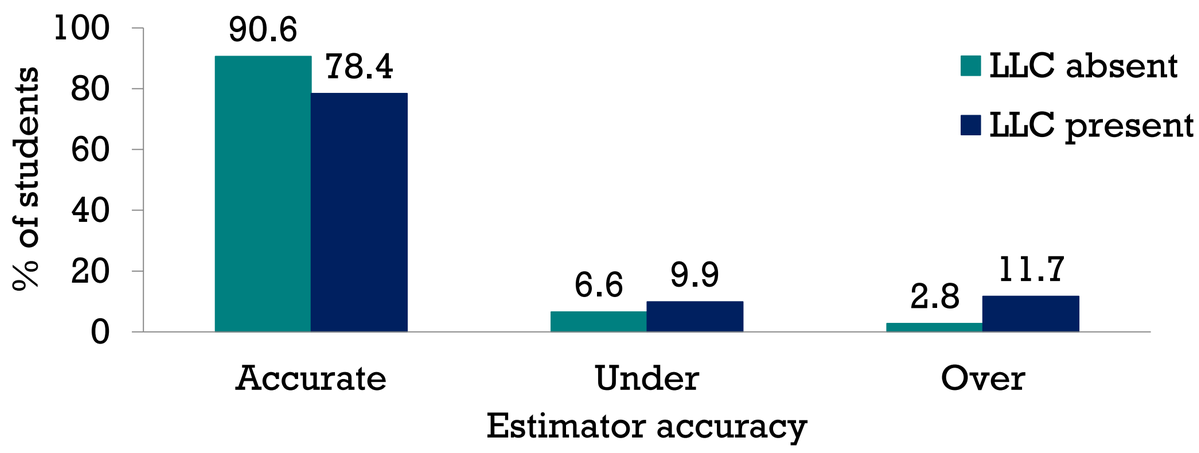

Figure 1:Low-level concerns and estimator accuracy

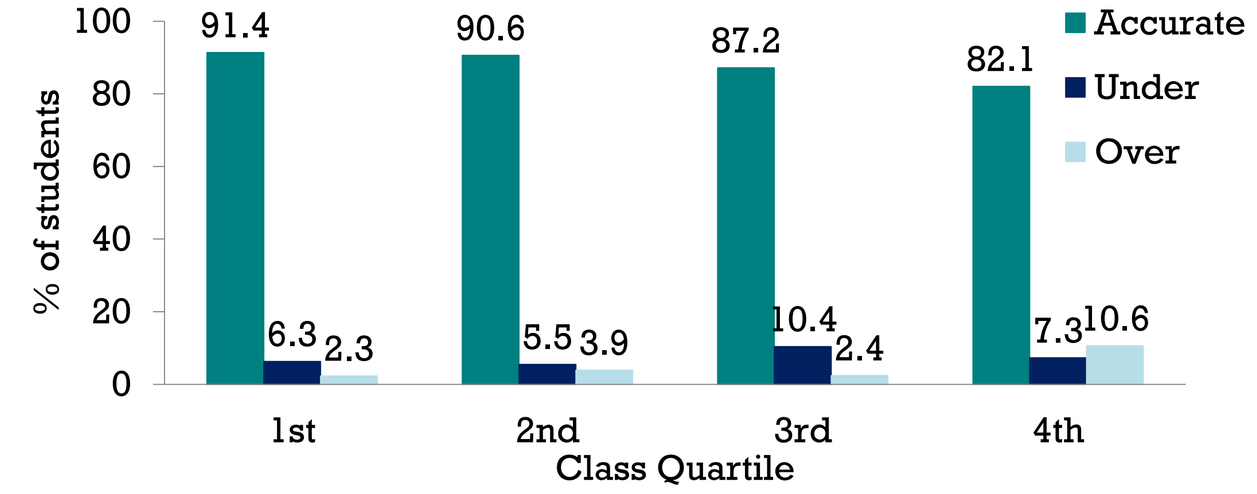

Figure 2: Rank and estimator accuracy

Over-estimators

1) Elevated Perception of Contribution
"Came up with idea. Referenced entire project. Proof read poster + spelling. Intro and science. Provided references for starting up. Attended every session." (2016-17, M)

2) Focus on Self
"Felt I made a good contribution however the presentation did not allow me to talk about the section of the topic that I was responsible for unfortunately." (2015-16, M)

3) Generalisation and Compromise
"I feel I did my part, and helped others achieve their best input as well, but I was a bit cheeky and slept in for a meeting." (2016-17, M)

Under-estimators

1) Identifying Gaps for Improvement
"I could manage my time more efficiently" (2015-16, F)

2) Team Focus
"I feel that I worked well in the team, not experiencing any tension with fellow members and was open to changes within my own section" (2015-16, F)

Figure 3: Qualitative Themes

Conclusion

1. The majority of first year medical students can accurately self-assess
2. Over-estimation is associated with lower class rank and presence of low-level concerns
3. Over-estimators have an elevated perception of their contribution to teamwork and lack insight into their strengths and weaknesses
4. Age, gender and graduate status have no significant impact on self-assessment accuracy

1. Sargeant J, Armson H, Chesluk B, et al. The processes and dimensions of informed self-assessment: a conceptual model. Academic Medicine 2010; 85: 1212-1220.
2. General Medical Council. Outcomes for Graduates, https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf (2018, accessed October 23 2018).
3. Papinczak T, Young L, Groves M, et al. An analysis of peer, self, and tutor assessment in problem-based learning tutorials. Med Teach 2007; 29: e122-32