



The Fear of Teaching among Medical Students

Wan-Yee Teo^{1-6*}, Joshua Wee Aik Liang², Jung-Yi Ong², Scott Compton⁴⁻⁵, Sandy Cook⁴⁻⁵

¹ Cancer & Stem Cell Biology Program, Duke-NUS Medical School Singapore; ² Humphrey Oei Institute of Cancer Research, National Cancer Center Singapore; ³ Division of Medicine, KK Women's & Children's Hospital Singapore; ⁴ Education Office, Duke-NUS Medical School Singapore; ⁵ Academic Medicine Education Institute, Duke-NUS Medical School Singapore; ⁶ Institute of Molecular and Cell Biology, A*STAR, Singapore

* Corresponding Author



Background

To teach is to learn twice, Joseph Joubert (1754-1824). Medicine is an apprenticeship modeled in preceptor/senior-to-junior format. Only 44% of 99 surveyed US medical schools offered formal peer/near-peer-teaching programs.¹ We are developing a medical-student-as-teacher program at Duke-NUS Medical School, Singapore.

Aims:

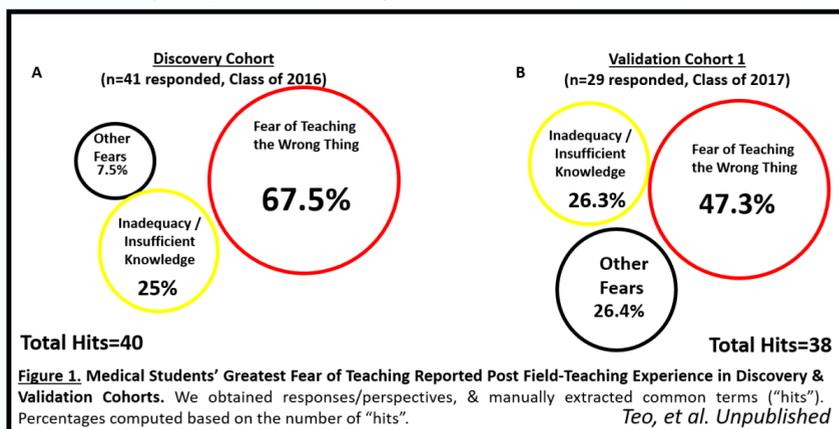
- To understand the fears of teaching among final year medical students (MS4's)
- To develop a targeted program addressing MS4's fears of teaching

Methods

We surveyed 119 MS4's from Duke-NUS Medical School (Class of 2016, 2017 and 2019). We obtained responses/perspectives, and manually extracted common terms ("hits"). In the Class of 2016, the MS4's (Student-Teachers) were sent on a field teaching encounter to teach a MS2 (Student-Learner), using the One-Minute-Preceptor Microskills². The Student-Teacher and Student-Learner were paired within the same fraternity college. In Class of 2017 and Class of 2019, the MS4's were allowed to select their Student-Learner (any medical student) and conduct an informal teaching session. Their responses and perspectives were collected and manually curated.

Results

In our Discovery Cohort (n=41 students, 2016), 67.5% hits were "Fear of Teaching the Wrong Thing". This was the recurring theme and the most common fear identified among 2 subsequent cohorts, accounting for 47.3% hits in Validation Cohort 1 (n=29 students, 2017), and 39.7% of hits in Validation Cohort 2 (n=49 students, 2019). "Lack of Knowledge" was the second most common fear in Discovery Cohort (25% hits), Validation Cohort 1 (26.3% hits), and Validation Cohort 2 (31.5% hits). In 2019, we obtained MS4s' suggestions on what can be done in their medical school training to improve their teaching skills, and their responses were: "Improve their Knowledge" (27.1%), "More Practice" (25.4%), and "Develop Their Teaching Skills" (20.3%).



Class of 2016, Post-field Teaching Encounter. We asked the Student-Learner (MS2) if he/she would like more teaching sessions by the Student-Teacher (MS4).

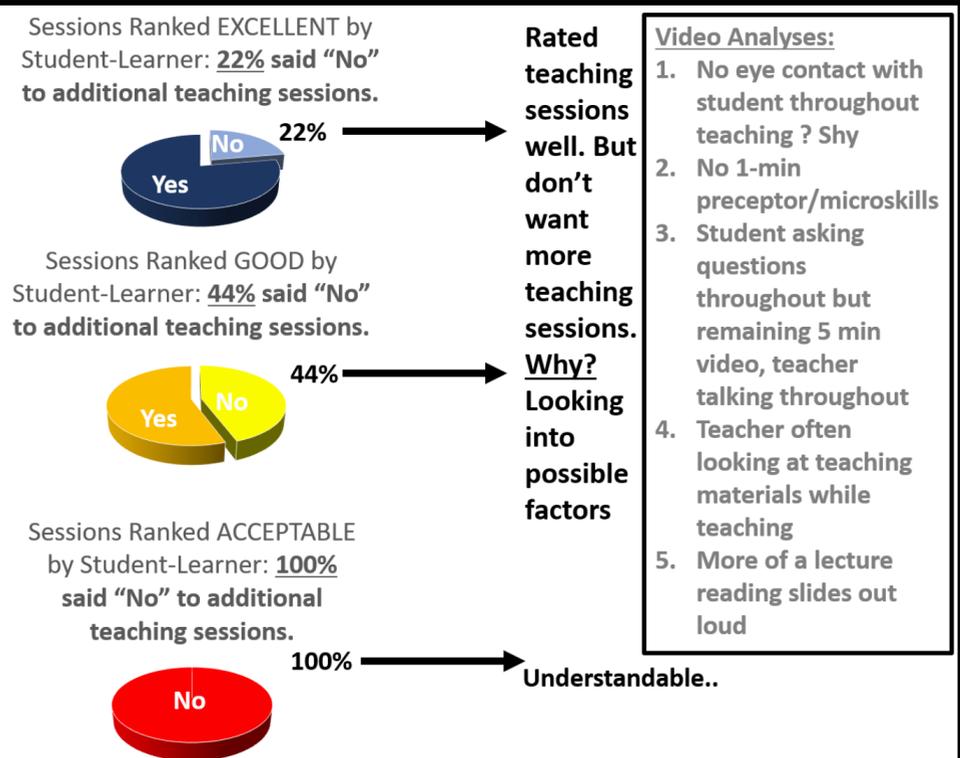


Figure 3. Discovery Cohort (Class of 2016): Medical Student-Teachers (MS4's) were sent out on a field teaching encounter to teach a Student-Learner (MS2) using One-Minute Preceptor Microskills. MS4's & MS2's were paired within the same fraternity college. For sessions ranked Excellent or Good by Student-Learners, 22% and 44% respectively, said "No" to additional teaching sessions. We did a preliminary video analyses of the teaching encounters to evaluate the problems. We met with the Student-Learners in their final year (Class of 2018), & their discussion weighed in on this aspect: they were not sure if the Student-Teacher was teaching them the right thing.

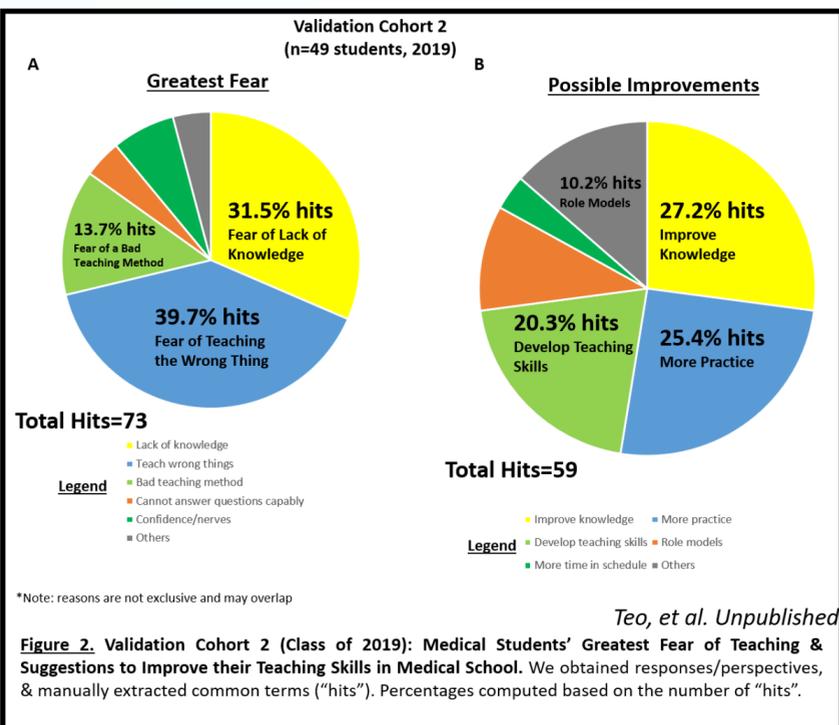


Figure 2. Validation Cohort 2 (Class of 2019): Medical Students' Greatest Fear of Teaching & Suggestions to Improve their Teaching Skills in Medical School. We obtained responses/perspectives, & manually extracted common terms ("hits"). Percentages computed based on the number of "hits".

Conclusions

Two most common fears of teaching among MS4's are "Teaching the Wrong Thing" and "Lack of Knowledge". A "Lack of Knowledge" may be a mindset issue – as final year postgraduate MS4's, they would have acquired a broad knowledge base, sufficient to impart to a junior. Ability to identify knowledge gap and impart useful concepts are important skills to acquire as pre-requisites to teaching. Developing a system of verification during their learning in medical school to capture any inaccuracies may help to overcome the fear of "Teaching the Wrong Thing". Future directions will be to look into methods addressing students' suggestions for our student-teacher program, and build up our MS4s' confidence and skills in teaching.

References:

- Soriano RP, Blatt B, Coplit L, et al. Teaching medical students how to teach: a national survey of students-as-teachers programs in U.S. medical schools. *Acad Med.* 2010;85(11):1725-31.
- "The Five Minute Teaching Session: Focusing the Teacher and the Learner" and "Teaching in the Ambulatory Setting" by Larrie Greenberg, MD. The George Washington University School of Medicine

Acknowledgements:

We would like to thank the students of Class 2016, 2017, 2018 and 2019 from Duke-NUS Medical School, Singapore who participated in the sessions, as well as Ke-Xiang Foo, Kia-Mun Woo, Sok-Hong Goh, Francis Law for organizing the logistics of the class sessions. We thank our funding source AMPEI Education Grant 2016 and Tan Yew Hock Faculty Development Grant Monies. Ethics approval was obtained from CIRB.

ORGANISER



SECRETARIAT

