AB038. Assessing a novel approach to teaching ophthalmoscopy to medical student

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Background: To determine if practice using an online fundus photograph program results in a long-term increase in proficiency with the direct ophthalmoscope in medical students.

Methods: This study was a prospective medical education trial. Students were enrolled to participate in an objective structured clinical examination (OSCE) using five patients with ocular findings. Students who matched a minimum of 6 discs 17 months prior to the study were assigned to the intervention group and were compared to students who did not participate in the exercise. Participants: 46 second-year medical students at Queen's University: 15 in the intervention group, 31 in the control group. Students were evaluated using the Queen's University Ophthalmoscopy OSCE Checklist (QUOOC). Students were asked to calculate the cup-to-disc ratio, comment on disc margins and if there was any macular pathology. Students participated in a summative OSCE as part of the curriculum in which all students attempted to match fundus photographs.

Results: Students in the intervention group performed significantly better on the QUOOC with a mean score of 78.3% (+/−4.2%) compared to the control who had a mean score of 69.4% [+/−4.2% (P=0.007)]. The intervention group was significantly more accurate at matching optic nerve photographs with 100% (15/15) of the students correctly identifying the correct optic nerve on first attempt compared to 53.3% (16/30) in the control group (P=0.0014).

Conclusions: The use of an online peer fundus photograph program leads to a long-term increase in examination technique, proficiency in ophthalmoscopy and accuracy at matching optic nerve photographs.

Keywords: Ophthalmoscopy; undergraduate medical education; competency-based education