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Title: A two-phase research discovery course in a medical education curriculum – the present practice of Georgia

Archil Undilashvili¹, Eka Ekaladze¹, Gordon Churchward², Nino Tevzadze³, Nona Janikashvili¹, Luka Abashishvili¹

¹Tbilisi State Medical University, Tbilisi, Georgia. ²Emory University School of Medicine, Atlanta, USA. ³Ken Walker International University, Tbilisi, Georgia

Background

The research discovery course of the USMD program teaches the foundations of medical research in the final years of medical school. Workshops and progress meetings cover key concepts of research governance and acquisition of practical skills, so that students are able to conceive research projects and are responsible for their implementation, data analyses, scientific communication and manuscript writing.

Summary of Work

The research discovery course has two phases – each phase has one semester span: 1) Individual development phase – each student conceives a research idea and prepares an individual project proposal and 2) Team development phase – students are grouped into research teams and implement the projects selected after the completion of individual phase. In the first phase, the proposals are selected by originality and feasibility. In the second phase, research teams (3-5 students) carry out selected projects (project example: “The use of systemic inflammatory markers from routine blood tests in predicting preeclampsia”), during which they give progress meetings for internal evaluations and communicate their findings at the “Discovery Poster” session as a midterm exam. Finally, research

teams submit their completed research manuscripts to the review board 2 weeks prior to an oral exam.

Summary of Results

During the past 2 years, 101 proposals have been reviewed within the individual development phase, while 20 posters/talks have been communicated and 29 research manuscripts have been produced from the team development phase. Most research papers are published in special issues of a reputable local scientific proceedings or are under submission/review in high ranked international journals.

Discussion and Conclusions

Students enthusiastically embrace the opportunity to carry out freshly conceived research projects, communicate their findings as posters or short talks and produce publishable articles. Proposal selection and project implementation processes create both competitive and networking backgrounds for students and mentors. Finding external experts and reviewers is challenging, however the search promotes further academic and research collaborations.

Take Home Messages

The individual development phase trains students for scientific excellence, while the team development phase gives them skills for networking excellence – both sets of competences are of cardinal importance for their future career.