

Medical learning applications used by undergraduate medical students in Cluj-Napoca: a cross-sectional survey

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Abstract

Introduction: This study explored the utility and attitude towards medical learning applications (MLA) among undergraduate students (general medicine) in Cluj-Napoca and the use of these apps in finding solutions to five case-based medical scenarios. *Materials and methods:* A cross-sectional design using an online survey was conducted between June 8th and July 19th, 2019. The English/Romanian students were personally invited to participate in the survey via social media platforms (Facebook/WhatsApp student groups). A three-section questionnaire was developed to anonymously collect demographic data, study habits and the answers to the five case-based medical scenarios. *Results:* Ninety-three students between the age of 19 and 50 (75% younger than 25 years, 54.5% males) participated. Most of the responding students (81.7%) were in the clinical years of study and studied up to 3 hours per day (67.7%). The use of at least one MLA was reported by 54.8%, while 18.3% of these use MLA ≥ 2 hours per day. The MLA were mainly used for studying throughout the semester (70.1%), 29.9% used MLA only for their exam preparation. The top-three MLA were ‘Amboss’ (34/88), ‘Medscape’ (10/88) and ‘Dr. Najeeb Lectures’ (7/88). In most of the cases the students paid for the MLA (62.7%). The maximum obtainable score (6 points) in the clinical cases was reached only by 3 students without significant differences either between the scores of those students who used or not used resources to find the case solutions (Mann-Whitney test $P=0.594$, median of correct answers = 3 for both groups), or in the scores of those who used or did not use MLA for learning ($P=0.788$, median of correct answers = 3 for both groups). *Conclusion:* More than half of the participating students used MLA but this is not reflected in the number of correctly answered clinical cases.

Keywords:

Medical Learning Application (MLA); Education; Medical; Undergraduate; Problem-Based Learning