

Electives as a Pedagogical Strategy for Fostering Medical Student Engagement and Exploration beyond the Standard Medical Curriculum

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Introduction

Revamping a medical curriculum at a pace parallel to the development of medicine is an unattainable goal. Academic institutions consistently encounter difficulties in determining the appropriate content to include or exclude during curriculum development, given the vast expansion of core medical knowledge and the emergence of new medical disciplines (Harden et al., 1984). Standard medical curricula typically consist of fixed courses, often leave little room for students to meticulously study subjects of particular interest (Harden et al., 1984).

The incorporation of electives within the medical curriculum addresses this issue as it facilitates self-directed learning, allowing students to customize learning experiences to meet their diverse needs and personal interests in the ever-evolving field of medicine (Ramalho et al., 2020). Elective components provide significant benefits, as they enable students to broaden their perspectives beyond the confines of the standard curriculum (Lumb & Murdoch-Eaton., 2014). This engagement allows them to participate in activities that can shape their future careers and identify persistent issues within healthcare systems, ultimately seeking innovative solutions (Harden et al., 1984).

The Faculty of Medicine, University of Colombo transitioned from a traditional discipline-based curriculum to a more integrated and student-centered approach in 1995.

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Teaching and learning activities were thus modified to incorporate methods that more actively engage students (Karunathilake et al., 2006).

As part of these reforms, the Faculty introduced a 4-week electives programme to the undergraduate medical curriculum, making it the first institution in South Asia to implement such an initiative. Over the past thirty years, this program has consistently provided students with a distinctive and enriching learning experience.

Structure of the Electives Programme

The Electives Committee of the Faculty is responsible for all aspects of the electives programme. This Committee comprises a panel of faculty-affiliated academics who are experts in various fields of medicine. Students commence the electives programme prior to the onset of the final year “Professorial” rotation during the 14th term of the curriculum. Students are first required to submit a proposal that includes the topic, a brief introduction, learning objectives, and planned activities for the four weeks. They have the autonomy to select a topic of their interest, which need not be directly related to health. They are encouraged to discuss potential topics with peers, senior students, and review previous electives to avoid redundancy.

Students are then responsible for selecting a supervisor with relevant expertise to guide them. They are expected to discuss the proposals and learning objectives with the supervisors, ensuring that these objectives are realistic, achievable and provide sufficient deep



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knowledge in the chosen area of study. Students must outline the activities to manage their time effectively and ensure the objectives are achieved by the end of the programme.

The Elective Committee reviews the submitted proposals to ensure programme objectives are met, and provides feedback. During the electives programme, students are expected to maintain a logbook documenting their activities. They are advised to meet the supervisor at least twice for feedback, fostering a good supervisory relationship. Upon the conclusion of the elective programme, participants are required to furnish a detailed report encompassing all undertaken activities and insights.

Current Situation

Evaluation of student electives can provide valuable insights for curriculum developers, enabling them to align and adapt core curricular content to reflect evolving trends and needs in medicine. This helps identify educational opportunities that correspond with the areas of knowledge and interest pursued by students (Atkins *et al.*, 1998)

The Sri Lankan health system is currently experiencing significant challenges due to the economic crisis that has led the country to be declared in default for the first time in history. To investigate the interests of medical students during this unprecedented period, we analyzed 288 elective reports submitted between 2022 and 2023 by 573 students of the intake batches of 2015, 2016, and 2017. These reports were

categorized to identify themes representing areas of interest, and the frequency of each theme and trends in their adoption were documented.

We identified eight themes of interest among students. Commonest area of focus is the Healthcare facilities and Service Delivery (n=104), emphasizing the roles of healthcare institutions and management, the involvement of multidisciplinary teams for effective patient management, and the accountability of individual healthcare professionals in patient care. Another key theme, specialized medical fields and procedures beyond the standard medical curriculum (n=45), included various disciplines and techniques such as surgical methods, dermatology, critical care and emergency medicine, ophthalmology, palliative care, reproductive health and fertility, and the management of common orthopedic issues.

Technological applications in healthcare also emerged as an area of interest, with 39 elective reports discussing novel diagnostic methods, medical imaging, and the use of artificial intelligence and information technology to improve health services. Furthermore, 37 reports were on areas outside conventional medicine, specifically traditional and alternative medicine. Other notable themes included public health and community-based interventions (n=25), psychosocial support and mental health (n=15), medical education and ethics (n=13), and pharmaceuticals and toxicology (n=10) (Figure 1).



Figure 1: Composition of Electives Reports submitted between 2022 and 2023

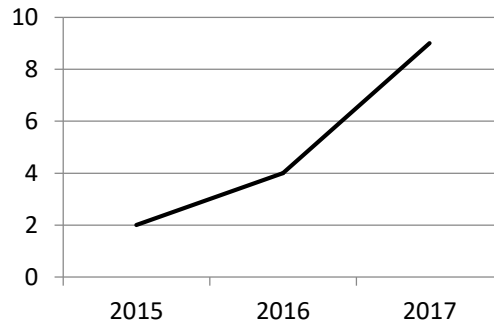


Figure 2: Number of Elective Reports related to Psychosocial Support and Mental Health submitted by each batch

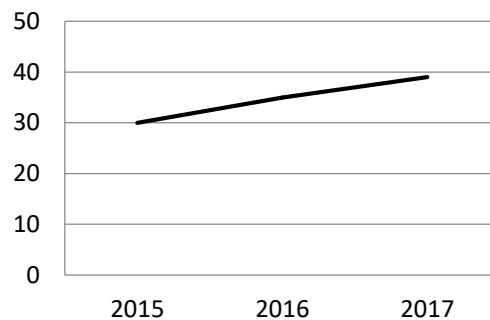


Figure 3: Number of Elective Reports related to Healthcare Facilities and Service Delivery submitted by each batch

The trend analysis reveals a consistent increase of interest in Psychosocial Support and Mental Health, as well as in Healthcare Facilities and Service Delivery. Specifically, Psychosocial Support and Mental Health exhibited a 100% increase from the batch of 2015 to the batch of 2016, followed by a further 125% increase from the batch of 2016 to the batch of 2017. Reports pertaining to Healthcare Facilities and Service Delivery showed a 16.67% increase from the batch of 2015 to the batch of 2016, and an 11.43% increase from the batch of 2016 to the batch of 2017.

Discussion

The growing interest in psychosocial support, mental health, and healthcare services in Sri Lanka may be driven by the contextual challenges posed by the COVID-19 pandemic and the ongoing economic crisis. The aftermath of the COVID 19 pandemic and the Sri Lankan economic crisis poses significant challenges to the delivery of health services and the

management of healthcare facilities, due to budget constraints and limited resources (Gamage *et al.*, 2022). Another issue arising in this context is the deterioration of mental health, due to challenges arising from the economic crisis (Matthias & Jayasinghe., 2022).

The review of these 288 elective reports highlights a wide range of student interests, illustrating the dynamic and evolving nature of healthcare in light of recent global and local challenges. Recognizing students' interests is essential for institutions to systematically explore avenues for offering further educational opportunities. Implementing an elective program effectively allows students to explore beyond the standard curriculum and become aware of local and global challenges. This approach is pivotal in cultivating graduates who exhibit proficiency in comprehensive decision-making and possess a progressive mindset, while also being aware of the environment they are entering as intern doctors.

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