

## DEVELOPING A RESEARCH AGENDA TO SUPPORT MEDICAL EDUCATION ACCREDITATION

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### SUMMARY

Accreditation systems are increasingly used worldwide to help ensure the quality of undergraduate (basic) medical education and other health professions training programmes. Despite global perception of the importance and validity of quality assurance activities, there is limited published research linking accreditation of medical education to improved educational outcomes and, in turn, improved patient care. The purpose of this study is to outline a potential research agenda to support medical education accreditation in a variety of contexts and locations. The proposed framework for developing and conducting studies utilizes a variety of inputs and both qualitative and quantitative methodology to provide evidence of the value of accreditation. The results of accreditation research should be disseminated to inform recommendations for best practices.

**Key words:** *medical education, accreditation, quality assurance*

### 1 INTRODUCTION

Over the past decades, the rapid increases in the number of institutions delivering health professions education programs and individuals who migrate for continuing educational and employment opportunities has necessitated the development of systems that effectively evaluate the quality of the instruction and training delivered.<sup>1,2</sup> To address this need for educational quality assurance in undergraduate (basic) medical education, many countries have implemented a formal system of accreditation to ensure that students have access to appropriate resources, are taught and assessed according to applicable standards, and to certify that graduates are ready to further their training or begin practice.<sup>3</sup> For the purposes of this study, accreditation is defined as a process by which a designated authority, either a governmental entity or an independent body accountable at a governmental level, reviews and evaluates an educational programme or institution on a cyclical basis.<sup>3</sup> Accreditation can be required by the government or professional body or, in some instances, voluntarily requested by the educational institution.

While accreditation systems around the world have similar goals, there are differences in the legislative mandate governing the systems, standards and processes employed, and robustness and transparency of decisions made. According to the Foundation for Advancement of International Medical Education and Research (FAIMER) Directory of Organizations that Recognize/Accredit medical schools (DORA),<sup>4</sup> of the 110 countries with accreditation agencies, 53 (48%) are government affiliated and 57 (52%) are independent entities. Systems that specifically accredit medical schools are used in 45 (41%) countries, while 65 (59%) review medical education as part of all higher education. The standards used by various agencies differ in terms of the criteria and vary on the focus of structure and process measures versus defined outcomes. Processes differ across systems, including the importance of a self-study, the membership and conduct of site visit teams, structure and content of accreditation reports, and variations in how and by whom accreditation decisions are made.<sup>4</sup>

Regardless of these differences in the structure of quality assurance systems, and the limited published research in this domain, there is general global consensus that accreditation of

educational programmes enhances learning experiences and is necessary for the education of high quality healthcare providers. A relatively small number of studies were found that sought to empirically demonstrate the impact of accreditation on institutional improvements<sup>5,6</sup> or an association between accreditation and increased student performance on examinations,<sup>7,8</sup> However, there are a lack of studies describing the association between accreditation and ultimate goals of improved patient care.

To support the validity of quality assurance procedures and to better substantiate the resources needed to develop, implement, and maintain accreditation systems, there is a global need for a body of scientifically sound studies that investigate the linkage between these quality assurance efforts and improved outcomes. Prohibitive legislation and practical issues make randomized control trials investigating the impact of accreditation on educational programmes and graduates unfeasible. Nevertheless, non-experimental studies conducted in various contexts and regions of the world have the potential to create a large body of evidence to support, or refute, existing quality improvement initiatives. The purpose of this study is to outline a potential research agenda to support, strengthen, or modify, medical education accreditation activities which could be implemented in a variety of contexts and locations.

## 2 METHODOLOGY

Based on a review of the literature of accreditation of undergraduate (basic) medical education programmes worldwide and associated outcomes, we developed a research agenda of essential investigations that should be conducted to provide evidence to strengthen accreditation activities.

Research on medical education accreditation can be categorized by the impact of accreditation at three broad levels, spanning the duration of a physician's education, training and ultimate practice career. The three levels of research focus on accreditation's impact on:

- *medical education programmes or institutions,*
- *students and physician graduates of these institutions, and*
- *the patient care provided by these physicians.*

For each of these three levels, various measurable outcomes can be identified. For the first level, *medical education programmes or institutions*, the World Federation for Medical Education (WFME) Global Standards for Quality Improvement<sup>9</sup> for basic and postgraduate medical education can be used as guidelines for developing research questions and related outcomes to investigate the impact of accreditation on various aspects of a physician's education and training. For the second level, *students and physician graduates of these institutions*, studies should include a variety of measurable outcomes, such as performance on examinations, graduation rates, and student/graduate satisfaction. For the third level, *the patient care provided by these physicians*, outcomes can include various measures of patient care, such as patient satisfaction, length of stay, readmission rates, and mortality.

While the impact of accreditation as a dichotomous variable may be studied, elements within an extant accreditation system should also be investigated based on the above three levels pertaining to a physician's education and career. For example, differences in effectiveness of accreditation systems based on various elements, such as models of governance and scope, the various standards employed, and diverse process elements require further investigation. The results from these process-related studies can inform best practices.

## 3 RESULTS

The following are a sample of potential research questions aimed at establishing an association between accreditation activities and outcomes, and establishing the value of various elements of an accreditation system. We recognize that some of these research questions, especially those that rely on patient outcomes, will be difficult to conduct due to many potential confounding variables. In addition to these proposed inquiries, we welcome additional research questions and ideas for collaborative investigations in this domain.

- 1) What changes have been made to a medical education programme (i.e., curriculum, student services, staff/faculty, research output, resources, etc.) as a direct result of an anticipated or completed accreditation review?
- 2) Is there an association between accreditation of a medical education programme and student performance on various undergraduate or licensure examinations?
- 3) Are there elements of an accreditation system (e.g., specific standards or procedures, etc.) that can be linked to higher quality/better outcomes?
- 4) While many countries/regions use a profession-specific accrediting agency to evaluate the quality of medical education, this model is not universal. In many countries in Europe, South America, Asia, etc., an accreditation agency assesses medical education programs as part of a larger review of all higher education at the institutional level. What are the similarities (or differences) across medical education specific versus institutional wide accreditation systems? Do these differences affect various outcomes?
- 5) Is there an association between accreditation of a physician's medical education programme and patient outcomes such as patient satisfaction, length of stay, readmission rates, and mortality rates?
- 6) Are there potential negative consequences of implementing accreditation systems? How can these be mitigated?

#### 4 CONCLUSIONS

There is limited published research linking accreditation of medical education to improved educational outcomes and in turn, enhanced patient care. While accreditation systems are generally viewed as driving quality, such systems are resource intensive and require ongoing stakeholder support. There is a global need gather evidence to support the validity of medical education accreditation activities by conducting investigations linking accreditation to improved outcomes in a variety of contexts and locations.

#### REFERENCES

- [1] Boulet, J. and van Zanten, M. Ensuring high-quality patient care: the role of accreditation, licensure, specialty certification and revalidation in medicine. *Medical Education*, 48(1):75-86, 2014.
- [2] Karle, H. International recognition of basic medical education programmes. *Medical Education*, 42:12-17, 2008.
- [3] van Zanten, M. Norcini, J. Boulet, J. and Simon, F. Overview of accreditation of undergraduate medical education programmes worldwide. *Medical Education*, 42:930-937, 2008.
- [4] Foundation for Advancement of International Medical Education and Research (FAIMER), *Directory of Organizations that Recognize/Accredit medical schools (DORA)*, 2018. Available at: <https://www.faimer.org/resources/dora/index.html>.
- [5] Alrebish, S.A. Jolley, B.C. and Molloy, E.K. Accreditation of medical schools in Saudi Arabia: A qualitative study. *Medical Teacher*, 39(sup1):S1-S7, 2017.
- [6] Blouin, D. Tekian A. Kamin, C. and Harris, I.B. The impact of accreditation on medical schools' processes. *Medical Education*, doi:10.1111/medu.13461, 2017.
- [7] van Zanten, M. and Boulet, J.R. The association between medical education accreditation and examination performance of internationally educated physicians seeking certification in the United States. *Quality in Higher Education*, 19(3):283-299, 2013.
- [8] van Zanten M., McKinley, D., Durante, I., & Pijano, C. V. Medical education accreditation in Mexico and the Philippines: Impact on student outcomes. *Medical Education*. 46, 568-592, 2012.
- [9] World Federation for Medical Education (WFME), *Global Standards for Quality Improvement*, 2015. Available at: <http://wfme.org/standards/>