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Country Paper

Undergraduate Medical Education in Bangladesh: Current Scenario and Future Challenges

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Abstract

Introduction: Undergraduate medical education in Bangladesh plays a crucial role in developing competent physicians. The Bachelor of Medicine and Bachelor of Surgery (MBBS) is the primary undergraduate medical degree. The medical education system in Bangladesh is structured around government and private medical colleges, with the former being more accessible due to lower tuition fees.

Objective: This country paper highlighted the current situation, future challenges and recommendations to ensure quality of undergraduate medical education in Bangladesh.

Current scenario and challenges: Though the landscape of undergraduate medical education in Bangladesh has evolved significantly over the past few decades, it still faces various challenges in terms of curriculum, infrastructure, quality control and disparities between government and private institutions. One of the key issues is the mismatch between theoretical knowledge and practical skills, which has been a long-standing criticism in medical education globally. This gap is often attributed to a curriculum that has not fully embraced modern pedagogical approaches.

Recommendations: To improve undergraduate medical education in Bangladesh, several key reforms are necessary. First, curriculum revision is crucial, focusing on competency-based education that emphasizes critical thinking, patient care and ethical practice. Second, faculty development programs should be expanded to include modern teaching strategies and continuous professional development. Third, both public and private medical colleges should invest in improving infrastructure and resources to support practical learning. Finally, stronger oversight by regulatory bodies is needed to ensure that medical colleges adhere to high educational standards.

Keywords: Undergraduate medical education, Current scenario, Future challenges, Bangladesh

Introduction

Undergraduate medical education in Bangladesh plays a crucial role in developing competent physicians who can meet the healthcare needs of the population of the country.

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The Bachelor of Medicine and Bachelor of Surgery (MBBS) is the primary undergraduate medical degree and the curriculum is regulated by the Bangladesh Medical and Dental Council (BMDC). Medical education in Bangladesh spans five years, followed by a mandatory one-year internship in an affiliated hospital, ensuring that students receive both theoretical knowledge and practical experience (Rahman *et al.,* 2021). The medical education system in Bangladesh is structured around government and private medical colleges, with the former being more accessible due to lower tuition fees. However,

private medical institutions have been increasing in number, contributing significantly to the availability of medical education in the country (Kabir *et al.,* 2019).

Despite the structured approach to medical education, challenges such as limited resources, variations in the quality of training, and disparities between government and private institutions persist (Akter, 2020). Addressing these challenges is essential to ensuring the quality and consistency of medical education, which is key to improving healthcare outcomes in Bangladesh. This country paper highlighted the current situation, future challenges and recommendations to ensure quality of undergraduate medical education in Bangladesh.

Current Scenario

One of the key features of the current scenario is the large number of medical colleges in Bangladesh. As of 2023, there are over 100 medical colleges, with about 37 being public institutions, while the rest are privately owned. Recently the number increased to 112 among which 37 public, 69 private and 6 medical colleges are run by Bangladesh Armed Forces. All of the medical colleges provide around 11795 seats annually (Wikipedia, 2024). This rise in the number of medical colleges has led to an increase in the availability of medical seats, addressing the country's growing need for healthcare professionals.

The medical curriculum is regulated by the Bangladesh Medical and Dental Council (BMDC), which ensures standardization of the educational framework. However, despite this regulation, there are concerns regarding the quality of education in some public and private medical colleges. Critics point out the lack of adequate teaching staff, clinical facilities and infrastructure in several institutions, which may affect the competency of future graduates (Haque, 2021).

Another significant challenge is the uneven distribution of medical professionals in urban and rural areas. Many medical graduates prefer to practice in urban settings, leading to a shortage of healthcare providers in rural regions, which exacerbates the healthcare inequality in the Bangladesh (Ahmed, 2020).

Despite these challenges, Bangladesh's medical education system has made strides in incorporating modern teaching methods. Many institutions now include simulation-based learning and problem-based learning (PBL) approaches to enhance practical skills and critical thinking among students. Furthermore, digital education has seen growth due to the COVID-19 pandemic, which pushed many medical institutions to adopt online learning platforms even after the pandemic.

Future Challenges

Curriculum Modernization and Integration of Technology: One of the significant challenges in undergraduate medical education in Bangladesh is the need for curriculum modernization. The existing curriculum focuses heavily on theoretical knowledge, often neglecting the development of practical and clinical skills. Incorporating problem-based learning (PBL), more interactive and integrated teaching methods can enhance clinical reasoning and decision-making (Alam, 2020).

Shortage of Qualified Faculty: The increasing number of medical students has not been matched by a proportional rise in qualified subject-specific teaching staff. Many medical colleges face a shortage of experienced faculty, leading to inadequate mentorship and a strain on teaching resources. This faculty shortage hampers the delivery of quality education and prevents the full implementation of modern teaching methodologies (Rahman, 2019).

Limited Access to Research Opportunities: Research is a crucial component of medical education, yet opportunities for undergraduate students to engage in research are limited in Bangladesh. Only the students of third year of MBBS program conduct a community survey under the supervision of Department of

Community Medicine and Public Health. There is a lack of infrastructure, funding and mentorship available for undergraduate medical research. Developing structured research programs and partnerships with international institutions could help address this challenge.

Inadequate Clinical Training: Many medical colleges in Bangladesh struggle with overcrowded hospitals and limited access to diverse clinical cases, impacting the quality of clinical training. Students often face challenges in gaining hands-on experience with patient care, diagnostic procedures and emergency management, which are critical aspects of medical education (Ahmed, 2021).

Accreditation and Quality Assurance: The standardization of medical education and the enforcement of strict accreditation measures remain significant challenges in Bangladesh. The absence of a uniform national standard for curriculum delivery, assessment and institutional accreditation has led to variations in educational quality across medical colleges. Establishing a centralized accreditation body with stringent guidelines can help ensure consistent education quality across institutions (Hossain and Chowdhury, 2020). Initiatives are taken recently regarding this issue in Bangladesh.

Financial Constraints and Inequality: Economic disparities are another hurdle, as many students, particularly from rural areas, face financial barriers to accessing quality medical education. In addition to these, political involvement of medical students, teachers and staff badly impact the quality of medical education in Bangladesh. Drug addiction is also an alarming problem of medical students. Strong political commitment to make medical college campus free of politics, administrative measures, moral education and motivational activities can help to overcome the situation.

Conclusion

Undergraduate medical education in Bangladesh has evolved significantly in response to the growing healthcare needs of the population. Over the years, the government has implemented reforms aimed at improving both the quality of education and the infrastructure of medical colleges. However, challenges such as inadequate faculty training, overcrowded classrooms and limited clinical exposure are hindering the overall quality of medical education. Furthermore, the emphasis on rote learning over practical experience continues to be a major issue that affects the competency of graduates. Despite these hurdles, initiatives such as the introduction of competency-based curricula and collaboration with international institutions show promise for the future. Addressing the gaps in faculty development and resource allocation will be crucial to preparing a workforce capable of meeting the healthcare demands of Bangladesh.

Recommendations

To improve undergraduate medical education in Bangladesh, several key reforms are necessary. First, curriculum revision is crucial, focusing on competency-based education that emphasizes critical thinking, patient care and ethical practice. Second, faculty development programs should be expanded to include modern teaching strategies and continuous professional development. Third, both public and private medical colleges should invest in improving infrastructure and resources to support practical learning. Finally, stronger oversight by regulatory bodies is needed to ensure that medical colleges adhere to high educational standards. Though undergraduate medical education in Bangladesh has made significant strides, there remain areas that require substantial reform to ensure that future doctors are well-prepared for the complexities of modern healthcare. With concerted efforts from educational institutions, government bodies and regulatory agencies, the system can evolve to meet international standards and produce competent, compassionate healthcare professionals.

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