



Original Article

Medical Student's Attitudes towards Implementation of National Licensing Exam (NLE) – A Qualitative Exploratory Study

Saima Bashir¹ and Rehan Ahmed Khan²

¹Department of Pathology, Gomal Medical College, Dera Ismail Khan, Pakistan

²Department of Surgery, Riphah International University, Islamabad, Pakistan

ARTICLE INFO

Keywords:

National Licensing Exam, Medical Education, Standardization

How to Cite:

Bashir, S., & Khan, R. A. (2024). Medical Student's Attitudes towards Implementation of National Licensing Exam (NLE) – A Qualitative Exploratory Study: National Licensing Exam and Medical Students. *Pakistan Journal of Health Sciences*, 5(05). <https://doi.org/10.54393/pjhs.v5i05.1556>

***Corresponding Author:**

Saima Bashir
 Department of Pathology, Gomal Medical College,
 Dera Ismail Khan, Pakistan
doc.saimabashir@gmail.com

Received Date: 19th April, 2024

Acceptance Date: 27th May, 2024

Published Date: 31st May, 2024

ABSTRACT

The introduction of the post-qualification National Licensing Examination (NLE) in Pakistan has been met with resistance from the medical students. They are the main stakeholders of medical colleges. **Objective:** To explore the opinions of medical students regarding the feasibility of NLE. **Methods:** An exploratory, qualitative study was conducted at Riphah International University, Islamic international medical college, Rawalpindi and Gomal Medical College, D.I. Khan, KP using in-depth interviews. A sample of 12 medical students from different medical colleges in Pakistan was included. The recorded interviews transcribed verbatim. Thematic analysis was then conducted using NVivo V2 and coded into nodes and daughter nodes, of which 5 themes and 17 subthemes emerged. **Results:** A total of five themes and 17 themes were created. NLE was deemed as a good standardization tool for assessing the competence of medical graduates. Students believed that current MBBS assessment lacks in clinical skills assessment and did not prepare to treat patients upon graduation. However, they did not want to take another exam after the professional exams especially when no incentives are offered to graduates upon clearing. They suggested NLE should be used as a means of constructive feedback for institutions and students to allow them to work on weak areas. **Conclusions:** There were mixed opinions regarding the acceptance of the exam. If medical institutions across the country focus their curricula on developing clinical skills and incentives are provided to the doctors upon clearing, the students would readily accept the exam.

INTRODUCTION

After studying medicine at a medical institute or university, entering the clinical workplace is indeed a crucial part of the medical profession. However, a minimum standard of protocol is required to treat patients and because of this need, several academics and educators believe that all new physicians should be evaluated to ensure they meet a minimum standard of competency [1]. Since every country differs in the core medical education systems such as curriculum design and assessment methods, they differ in the measures required to ensure the quality of medical graduates as well. Nonetheless, the common goal of medical education is to produce physicians who can provide quality care and patient safety. In order to assure quality, several approaches are implemented in medical education including accreditation systems and

assessment programs such as the NLE [2]. Recently, NLE has been introduced in South Asia including in Pakistan to assess medical graduates before allowing practice on real patients [3]. The National Medical Authority in Pakistan effectively carried out the NLE test, comprising 200 multiple choice questions as well as 20 Clinical Skilled Examination stations [4]. Moreover, in Pakistan, the growth of private medical colleges over the past two decades has exceeded the capacity of the regulatory system due to weakened regulations by the regulatory authority. Teachers, policymakers, and medical students in Pakistan have been somewhat divided about the National Licensing Exam. Though supporters argue that the NLE would standardize medical education and improve the quality of healthcare generally, critics point out that the

NLE would burden students more and that current curricula are inadequate to prepare them for such assessments [5, 6]. The NLE is planned as a two-step assessment. The initial step is the Multiple-Choice Questions (MCQ) based theory part containing 70% MCQs from clinical sciences and 30% MCQs from basic sciences. A student needs to pass this first step to meet all requirements for the second Clinical Skills Examination (CSE). The students can show up in the first theory component solely after securing their MBBS qualification. The two stages should be passed to accomplish a permanent clinical permit from PMC [4]. There are several stakeholders involved in the implementation of this exam including the government, medical schools, endowment bodies, employers, medical teachers, and students. We believe that students are valuable stakeholders in process of assessment [7]. The NLE is a high-cost policy; therefore, there is a need to understand its impact; what changes it has brought, and what further changes it would bring to medical education [8].

The aim of the study was to explore the attitudes & perceptions of undergraduate medical students in medical colleges in Pakistan regarding the national licensing exam as stakeholders.

METHODS

Ethical approval (Ref No: Riphah/IIMC/ IRC/22/2013) was taken at 27th January, 2022 from the ERC, Riphah international university (Islamic international medical college), Rawalpindi. Written and verbal consent was taken prior to the interviews. Confidentiality and anonymity were assured to the participants. RIU (Riphah International University, Islamic international medical college, Rawalpindi). Gomal Medical College, D.I. Khan, KPK. This research study was carried out in two medical institutions from 1st February, 2022 to 31st July, 2022: The study design was "Qualitative Exploratory". A total of 12 students from both institutions were interviewed. Purposive sampling with maximum variance technique was used. Inclusion criteria was Final year MBBS students (two with top score, two with average & two with failed attempts in the class without gender discrimination) on the basis of the senior class who were about to graduate and appear in NLE in near future to provide the most relevant information. One public-sector medical college in a remote area & one private medical college in the capital city were selected to provide variation in data collection. Exclusion criteria was All students not falling in the inclusion criteria as mentioned above were not included in the study to avoid irrelevant data extraction. In-depth semi-structured one-to-one interviews were arranged face-to-face and through zoom meetings depending on the feasibility of the participants. The interviews were audio-recorded. Open-ended

questions were used to let the participants have freedom of expression including emotions and gestures. The interview started using the introductory open-ended question "What do you know about licensing examinations nationally and internationally?". The researcher used probes during the interview to get in-depth details as and when required. Afterward, the recorded interviews were transcribed verbatim. Before transcription, the participants were assigned numbers with codes to maintain anonymity and confidentiality. The transcripts were saved on the researcher's laptop hard disk. These transcribed interviews were sent back to participants for checking to ensure credibility and support triangulation. After this stage, the data was transferred to NVivo software v 12 for windows, which is qualitative data management software. Computer-Assisted Qualitative Data Analysis: Computer-Assisted Qualitative Data Analysis (CAQDA) was done using NVivo software version 12.0. All interview files were initially added to a new NVivo file. Then, an Inductive thematic analysis was done. Similar content was exported to individual nodes in NVivo. Then these nodes were re-assessed to evaluate emergent patterns. Recoding was then performed to identify themes and subthemes. The final node files were then exported to MS Word.

RESULTS

In Table 1 total of five themes and 17 subthemes were identified.

Feasibility of NLE: All the participants were well-versed in the concept of a licensing exam. They were somewhat familiar with international licensing exams conducted abroad such as the USMLE in the US and PLAB in the UK. The students made an argument that they are already being assessed by the Pakistan Medical Council (PMC) during the duration of MBBS program, there should not be any standardized exam to check whether the students graduating from these institutions are competent enough or equally competent. While some students deemed NLE unnecessary, many students believed that NLE could bring about a positive change in medical education and practice. They believed that such exams are imperative as the medical profession is a high-risk profession that deals directly with human lives. These students believed that NLE could serve as a platform to validate the medical education program the students go through and put forth the shortcomings in the infrastructure. They were hopeful that the NLE would break the cycle of rote learning common in Pakistan: "The biggest advantage of this is that we will know our system at the MBBS level. Often, our system is rote learning based. We just passed the papers and got the degree" (M1).

Reasons for Having NLE: Two types of learning were identified; rote learning and learning through application of

knowledge & skills. In the medical colleges with curricula higher on the Integration ladder, the curriculum assessed the application of knowledge more efficiently, as compared to medical colleges that still have their curricula closer to the traditional systems. The students expressed that they feel very nervous and unprepared when asked to interact with a real patient. Consequently, fresh medical graduates are not competent enough to practice on real patients: "The thing is that we do not have exposure to the patient directly. We don't know how to deal with the patient. We are just practicing on the dummies. We get more anxious than the patient sometimes while doing." (M3).

Demerits of NLE: Some students stated that they did not understand the point of having an additional assessment instead of improving the assessment system that already exists. The imposition of continuous exams might discourage prospective students from taking up medical education and practice: "We are continuously examined to prove our knowledge; and continuously tested to see our abilities in every aspect, whether it's practical or theoretical. I believe it (NLE) is not necessary. It is just deterring people away from doing medicine." (M5). Moreover, they might neglect patient care and focus more on studying well for the exam and the stress of the exam and getting a passing percentage overshadows everything else.

Areas for Improvement in NLE: The students were quick to embrace the idea of constructive feedback. Through feedback, the students can not only recognize their weak areas which might not have been brought to their attention but it can also aid in improving patient care in the future as it would help work on weak areas and polish already existent skills: "This is going to help because he will know where I need improvement or where I am going well and where I do not need to worry about." (M7). While the majority of the students believed that NLE should be focused more on professional identity formation and competencies instead of just knowledge, two students believed that professional identity cannot be developed through NLE. The majority of the students were in favor of NLE being conducted after house job as they believed that most of the clinical skills are acquired during house job and if NLE is going to assess the graduates based on skills, after house job would be the right time.

Resistance to NLE: Medical students across the country showed great resistance against NLE in Pakistan. The exam does not guarantee a good job and would not add any value to their profession. Similarly, the exam would not guarantee a better income in the future, improve their quality of life, or working conditions, or improve their skills: "The Quality of Life (QoL) "in our country is not what everyone wants. So, a lot of people leave for income and QoL." (M3). Moreover, many students were not willing to

take NLE in Pakistan as they believe that the medical system is corrupt and lacks opportunities which are accentuated by the fact that bribery to get jobs is a common practice in Pakistan.

Table 1: Themes and Subthemes

Themes	Subthemes
Feasibility of NLE	Defining Licensing Examinations
	Compared with International Examinations
	Self-Sufficiency of MBB
	Validation of MBBS
	Social Accountability
Reasons of Having NLE	Assuring High-Quality Patient Care
	Curricular Infrastructure
Demerits	Competence to Practice
	Additional Hardships
	Deterrence from Studying Medicine
Areas of Improvement	Patient Care Affected
	Constructive Feedback
	Professionalism
Resistance	Timing
	Incentives Abroad
	Corrupt System in Pakistan
	Detering from Learning Skills in House Job

DISCUSSION

However, not much is known about the actual effect NLE has on protecting the public from substantial clinical practice and improvements in a country's healthcare system. Literature already in publication shows that responses to licensure tests vary widely. Studies conducted, for example, in the US and the UK have shown that, while students often express concern and tension about the high stakes involved, they typically see licensure tests as essential [9]. Many of the students emphasized the possible advantages of the NLE, which include the possibility of improving the level of medical education and guaranteeing uniformity for medical graduates. This viewpoint is consistent with studies from other nations where excellent standards in healthcare are seen to depend on licensure tests [10, 11]. Significant worry among students about the extra demands the NLE will place was also found by the research. This is consistent with research from across the world that show medical students experience a great deal of stress from the high stakes of licensure tests. This worry is heightened in Pakistan, however, by worries about the uneven quality of education offered by various medical schools, which students worry might make test performance and job prospects even more unequal [12]. About 93% of the students surveyed nationally in the UK on their opinions on the general medical councils' suggested reform of undergraduate medical assessment said that they supported uniformity in the assessment method across medical schools [13].

Similarly, Study by Siddique *et al.*, on stakeholders' perception on the Indonesian Medical Doctor National Competency exam showed that the exam was perceived as a standardization tool to decrease the disparity among various medical schools in the country [14]. Hidayah *et al.*, reported that when NLE was introduced in Indonesia, a large number of students from private colleges failed the exam. The students upon failing multiple times started a protest against NLE. The Indonesian government held the medical institutions to be responsible for the students' failure which forced the medical schools to be more diligent regarding their quality of education. They also restricted the number of students allowed to be admitted to universities that did not meet the accreditation criteria and whose students performed poorly in NLE [13, 15]. With the modular system, the students have to be exposed to the clinical environment beginning from their first year and the students need to study more subjects in one year as opposed to the conventional system which demanded more work from the teachers. This was not feasible for all medical colleges in Pakistan and since the modular system was not mandated, many institutions across Pakistan still use the conventional mode of education [16]. The bulk of students in the current survey believed that their MBBS program does not provide them with sufficient clinical experience to build their confidence in their clinical abilities. Jeyaraju *et al.*, said that because of unprofessional training techniques at hospitals, medical graduates lack easily available practical information and abilities, which make them, unfit to perform on actual patients [15, 17]. Students' recommendations for addressing these issues such as proposals for curriculum changes and better preparation materials were also emphasized by the qualitative data. These suggestions are consistent with methods used in other nations to help students preparing for national examinations, such as thorough review courses and the inclusion of exam-related material into normal courses [18]. Moreover, Rahim F pointed out in his study, the introduction of NLE during house job would make the students and even educators lose focus on developing competencies essential to treating real-life patients which would affect patient care [19]. The licensing exam should focus on assessing the competency of students through a balance in assessing knowledge and clinical skills. In the study by Huwendiek *et al.*, the combination of MCQs and clinical skills assessment was perceived to be appropriate for NLE as it allowed assessing the applied clinical knowledge in addition to practical and communication skills. This was perceived as a shift towards competency-based assessment [17, 20]. NLE has faced resistance from students in Pakistan as it doesn't offer the students any benefits. International licensing exams like the USMLE are taken by thousands of

graduates around the world unlike in Pakistan. Moreover, American doctors are favored in their exams and post-graduation residency is offered to them based on their USMLE results. The least the NLE can offer to medical graduates in Pakistan is residency based on their exam scores [19]. The participants of the study were not satisfied with the job prospects, career progression and society and governments attitudes towards the doctors trained in Pakistan whereas the status, living standards, ability to cope with working conditions, social and political circumstances was deemed better abroad [20]. Furthermore, the medical system in Pakistan is corrupt based on undue intercession and the fee of the exam is too much for some students which deters them from the idea of NLE.

CONCLUSIONS

The study explores the students' feelings and opinions about the National Licensing Exam as stakeholders. The students were familiar with the value and significance of conducting a high-stakes exam nationwide. The students expressed mixed opinions regarding the acceptance of exams.

Authors Contribution

Conceptualization: SB

Methodology: SB

Formal analysis: SB, RAK

Writing, review and editing: SB, RAK

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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