

Ensuring a Smooth and Hassle-Free Implementation of National Exit Test (NExT) exam: Feedback from a Pan-India online cross-sectional survey

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ABSTRACT

Background: The National Exit Test (NExT) exam is a proposed common entrance exam for both licensing to practice medicine and admission to postgraduate medical courses in India. Recently NMC published a draft for NExT Regulations to seek comments from the students, faculty and stakeholders. So, we aimed to assess the perception of MBBS students, graduates and medical faculty towards NExT Regulations to ensure a smooth and hassle-free implementation of NExT Exam.

Materials and Methods: A cross-sectional questionnaire based study was conducted online during January 2023. The study questionnaire included various types of questions: yes/no/maybe, single best response, likert scale and open ended questions pertaining to the specific points about the NExT draft. The questions were designed under the main domains of: (1) Participant characteristics, (2) General acceptance about NExT, (3) Feedback for NExT Step 1, and (4) Feedback for NExT Step 2.

Results: Of the 1412 participants, 873 (61.8%) participants felt that there was 'No Need' to replace the conventional theory exam. 895 (64.4%) participants preferred to have a single paper exam. 1141 (80.8%) opined that there should be 'Single best response type Multiple choice questions (MCQs)' only. Of the 1412 participants, 559 (39.6%) opined that the score should be valid only for 1 year and 550 (39%) opined it to remain valid for 3 years. 1042 (73.8%) participants felt there was No need for NExT Step 2.

Conclusion: Though the implementation of NExT was planned with an intention to elevate the quality of medical education and bring a certain degree of uniformity across the nation, the policy level thought process did not fully percolate to the masses, especially students. The reasoning for the changes is not strongly supported by previous year data in the proposed draft. Therefore, there is a need to alleviate the anxiety among students about the NExT exam before implementing it. Based on our study we were able to give our suggestion to the proposed NExT draft.

Keywords: NExT Exam, India, MBBS, NEET PG

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INTRODUCTION

The National Medical Commission (NMC) is a regulatory body established by the Indian government to oversee and regulate medical education and practice in the country. The NMC was established in 2019 through an Act of Parliament, replacing the previous Medical Council of India (MCI).¹

The NMC is responsible for maintaining high standards of medical education in India and ensuring that medical practitioners adhere to ethical and professional standards.¹ The commission is also tasked with maintaining a registry of medical practitioners, monitoring medical education institutions, and promoting research in the field of medicine.¹ The establishment of the NMC was seen as a necessary

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step towards modernizing the Indian healthcare system and improving the quality of medical education and practice.² The NMC is expected to address many of the shortcomings of the previous regulatory body (MCI) and usher in a new era of transparency and accountability in the Indian healthcare system.^{1,2}

In India, the MBBS degree (Bachelor of Medicine and Bachelor of Surgery) is awarded to students who successfully clear university exams (Theory and practicals). The MBBS course is generally of five and a half years duration - four and a half years of study and one-year internship. The course is divided into four phases - Pre-clinical (1st year MBBS), Para-clinical (2nd year MBBS), Clinical (Final year MBBS Part 1 and Part 2), and Internship.³ The MBBS university exams are not so easy, and students have to prepare rigorously to pass the exams. The passing percentage for the MBBS exams is generally set at 50%, and students who fail to clear the exam in the first attempt are given a chance to appear for a supplementary exam.³ In most states, the MBBS university exams are conducted by a board of examiners appointed by the university. The exam consists of both theory and practical components. The theory exam usually consists of multiple-choice questions (MCQs), short answer questions (SAQs), and long answer questions (LAQs). The practical exam usually includes a viva-voce, clinical case presentation, demonstration of examination skills, timed spots and table viva.³ They are aimed to assess the knowledge of the student through discussion with the examiner and also check skills in communication, overall confidence of a student.

NEET-PG (National Eligibility cum Entrance Test for Postgraduate) is a national-level entrance exam conducted in India for admission to postgraduate medical courses. The exam is conducted by the National Board of Examinations (NBE) and is mandatory for admission to MD/MS/Diploma courses across the country.⁴ NEET-PG is a computer-based exam which consists of 200 questions and to be completed within a time frame 3.5 hours. NEET PG exam tests the candidates' knowledge, understanding, and application of medical concepts based on the undergraduate medical curriculum. The exam is highly competitive, and only a limited number of seats are available for admission to various medical colleges across the country. According to statistics released by the NBE, a total of 1,74,886 candidates appeared for the NEET PG exam in 2021. Out of these, 1,60,888 candidates qualified for admission to various postgraduate medical courses, resulting in a pass percentage of 91.15%.⁴

The National Exit Test (NExT) exam is a proposed common entrance exam for both licensing to practice medicine and admission to postgraduate medical courses in India.⁵ The proposal for NExT was first introduced by the National Medical Commission (NMC) in 2019 as a part of the

National Medical Commission Act, 2019.⁶ The main objective of the exam is to standardize the entrance process for medical colleges. NExT exam will be a computer-based test consisting of both multiple-choice questions and clinical vignettes. The exam will test the candidates' knowledge, skills, attitudes, and ethics, and will include both theoretical and practical components.⁷ The NExT exam is expected to reduce the burden on students by reducing the number of entrance exams they have to appear for. It will also provide a level playing field for all students by standardizing the entrance process and eliminating the need for different state-level exams. The proposed exam has received mixed reactions from students and faculty. While some believe that it will reduce the burden on students, others are concerned about the pattern and difficulty level of the exam and the impact it may have on the students and medical education in India. Recently NMC published a draft for NExT Regulations to seek comments from the students, faculty and stakeholders.⁸ So, authors conducted a pan-India online survey to put forward collective feedback to the NMC regarding the proposed NExT draft. We aimed to assess the perception of MBBS students, graduates and medical faculty towards NExT Regulations to ensure a smooth and hassle-free implementation of NExT Exam.

MATERIALS AND METHODS

The study was a cross-sectional questionnaire based study conducted online. Inclusion criteria was: MBBS degree graduates (Medical Student, Intern, PG resident, Medical teacher, Practicing / retired doctor) from Indian Medical schools or Indian Medical students studying abroad. None were excluded. The survey was conducted through an online questionnaire administered in English through the means of Google Forms. The study population was reached through various medical community groups over Whatsapp. The recruitment was by Snowball technique sampling wherein the link was forwarded to groups and would be subsequently shared by members of the group to their medical school groups and so on.

The study questionnaire included various types of questions: yes/no/maybe, single best response, likert scale and open ended questions pertaining to the specific points about the NExT draft. The questions were designed under the main domains of: (1) Participant characteristics, (2) General acceptance about NExT, (3) Feedback for NExT Step 1, and (4) Feedback for NExT Step 2.

The data was tabulated with Microsoft Excel 2010 and analyzed using SPSS 25.0 software. Qualitative data like demographics, country, state, was presented as frequencies and percentages. There was no quantitative data.

RESULTS

We received a total of 1412 responses.

[A] Study population characteristics:

Of the total 1412 participants, 1382 (97.9%) participants were Indian Medical Graduates [IMGs], that is studying or passed from a medical school in India. The remaining 30 (2.1%) participants were Foreign Medical Graduates [FMGs] from countries like: China, Kazakhstan, United Kingdom, Kyrgyzstan, Georgia, Nepal, Nigeria, Mauritius and Ukraine. Among IMGs, the maximum participation was received from the states of Maharashtra (34%), Uttar Pradesh (13.4%). We received good responses from almost all states across India.

Of the 1412 participants, 1186 (84%) were medical students, 154 (10.8%) were working as an intern, 32 (2.3%) participants were training as residents, 8 (0.6%) participants were

medical teachers and the remaining 32 (2.3%) participants were graduate practicing doctors. Among the 1186 medical students, the year-wise distribution of medical students was as: 308 (21.8%) were studying 3rd year MBBS Part 2, 533 (37.7%) were studying 3rd year MBBS Part 1, 193 (13.7%) were studying 2nd MBBS and 152 (10.8%) were studying 1st MBBS.

[B] General Acceptance about NExT:

When asked directly, “Is there a need to bring in the NExT exam to replace the existing NEET examination system?”, 872 (61.8%) participants said “No”, while 317 (22.5%) said “Yes” and the remaining 223 (15.8%) were unsure and said “Maybe” [Figure 1].

When asked directly, “For the purpose of determining merit especially for admission to broad -specialty Postgraduate Course the NExT Step scores shall remain valid for three years”. (NEET scores valid only for that year’s admission)

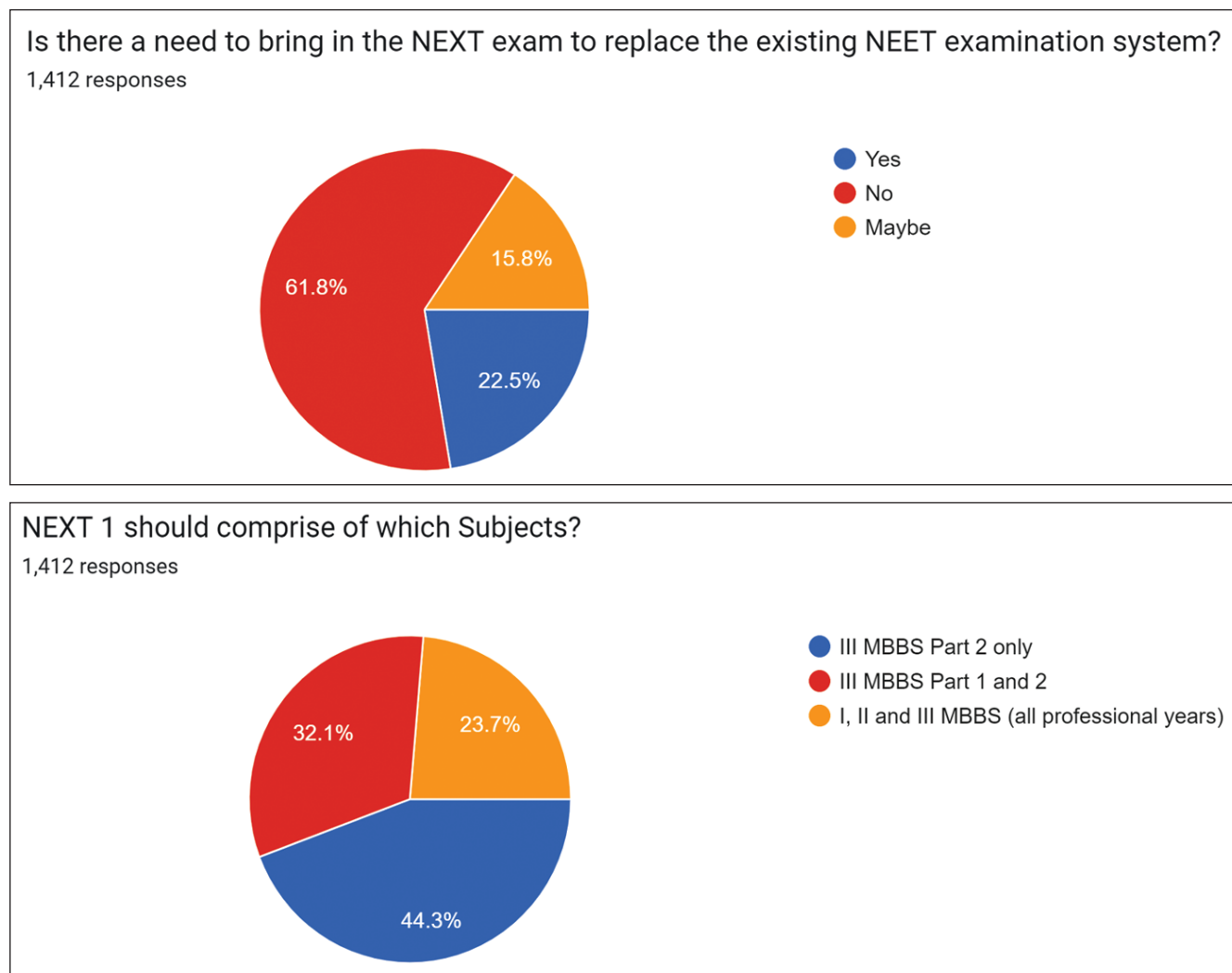


Figure 1. General Acceptance about NExT

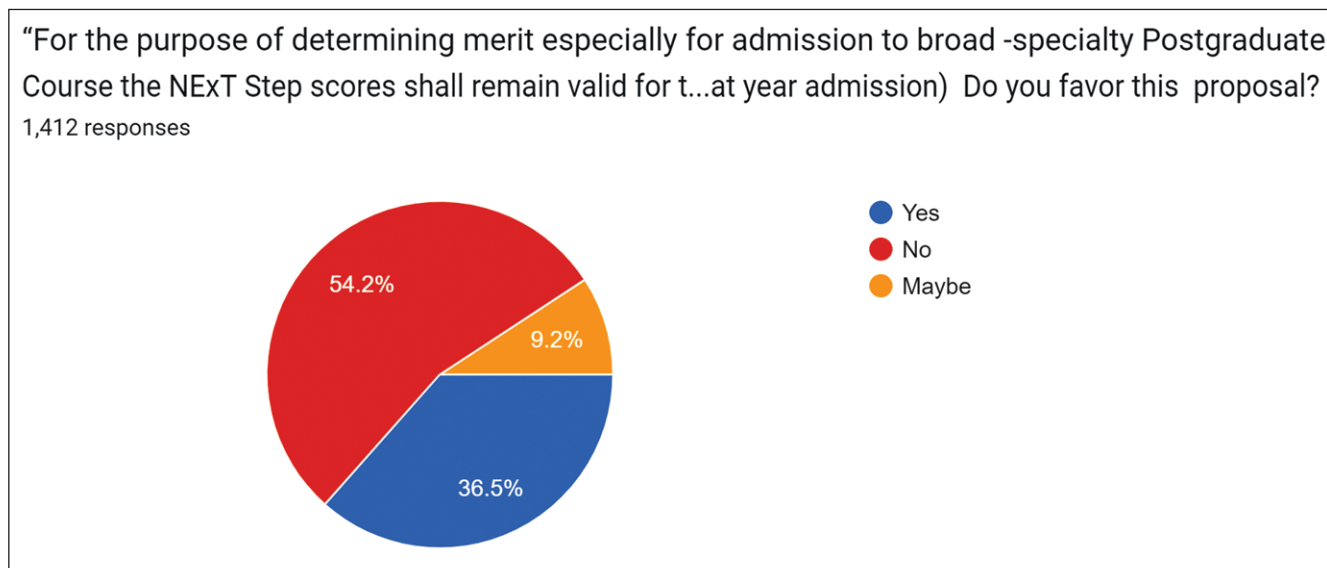
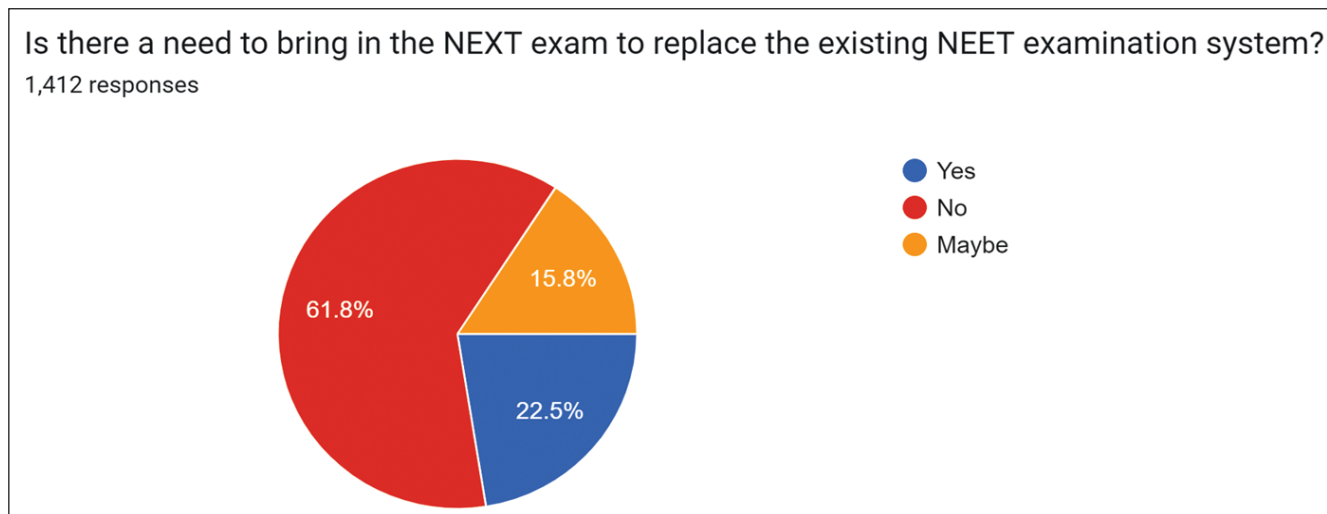


Figure 2. NExT Step 1 responses

Do you favor this proposal?”, 766 (54.2%) participants said “No”, while 516 (36.5%) said “Yes” and the remaining 130 (9.2%) were unsure and said “Maybe” [Figure 1].

[C] Feedback for NExT Step 1:

The feedback for NExT Step 1 was collected under domains as described:

1. Need to replace the Conventional Theory exams of 3rd year MBBS Part II:

Of the 1412 participants, 873 (61.8%) participants felt that was ‘No Need’ to replace the conventional theory exam; while 427 (30.2%) agreed and the remaining 112 (7.9%) were unsure about the need to replace the conventional theory exam [Figure 2].

2. Subject Composition/Syllabus:

There were balanced opinions about the subject composition/syllabus for NExT Step 1. 625 (44.3%) participants opined that exam should have subjects of III MBBS Part 2 only, while 453 (32.1%) opined to include both III MBBS Part 1 and 2, and the remaining 334 (23.7%) opined to include subjects of all professional years [Figure 2].

3. Conduct of examination (number of papers and exam days):

Among the participants, 895 (64.4%) participants preferred to have a single paper exam, and 517 (36.6%) preferred a six-paper exam as proposed in the draft. If we were to continue with the proposed six-paper exam, 980 (69.4%) participants wished to have it be conducted over

Likert scale agreement to statements about NExT Step 1:

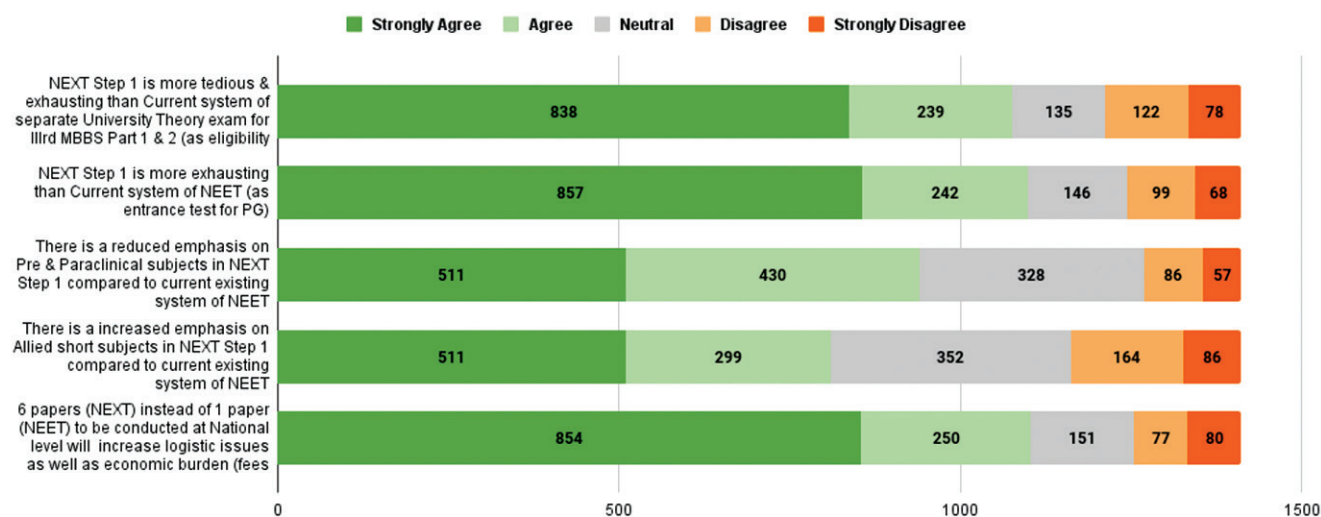


Figure 3. Likert scale agreement to statements about NExT Step 1

Likert scale agreement to statements about NExT Step 2:

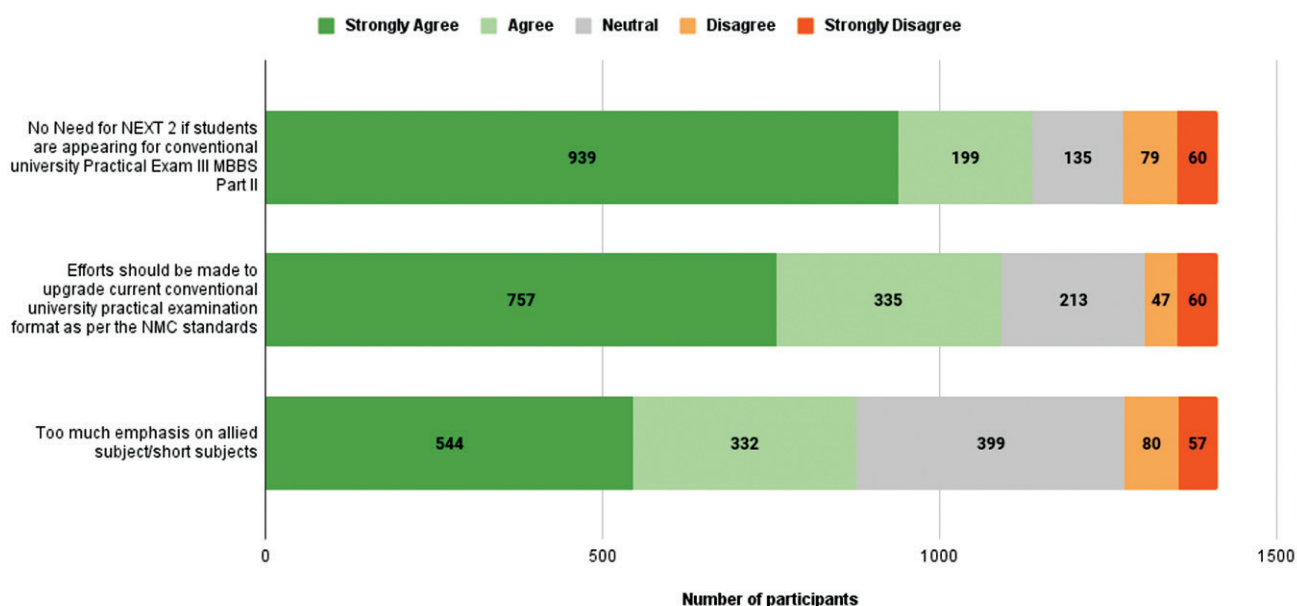


Figure 4. Likert scale agreement to statements about NExT Step 2

a 6 days (1 paper a day) pattern. Less than a third, 432 (30.6%) participants, were okay with the 3 days exam (2 papers a day) as proposed in the draft.

4. Type of questions:

Regarding type of questions, 1141 (80.8%) opined that there should be ‘Single best response type Multiple choice questions (MCQs)’ only. 231 (16.4%) participants

were comfortable to have a combination of ‘Single best response type MCQs’ and ‘More than one response type MCQs’, and 40 (2.8%) opined to have ‘More than one response type MCQs’ only.

5. Negative marking system:

Among the participants, 914 (64.7%) opined to have ‘No Negative Marking’, while 490 (34.7%) opined to

have 'Negative marking for Incorrect answers only' and the remaining only 8 (0.6%) opined to have 'Negative marking for Incorrect answers as well as Unanswered questions'.

6. Percentage Passing marks cut-off:

When asked about the passing marks percentage cut-off for the exam, we received balanced opinions: 489 (34.6%) for at least 35%, 441 (34.2%) for at least 50%, 428 (34.3%) for at least 40% and 54 (3.8%) for at least 60% passing marks.

7. Score validity duration:

Of the 1412 participants, 559 (39.6%) opined that the score should be valid only for 1 year and a similar number 550 (39%) opined it to remain valid for 3 years. The remaining 136 (9.6%) and 167 (11.8%) opted to remain valid for 5 years and Lifetime, respectively.

8. Agreement on Likert scale:

The responses recorded as in Figure 3. More than half of the participants 'Strong Agreed' to the following statements: 'NExT Step 1 is more tedious & exhausting than Current system of separate University Theory exam for IIIrd MBBS Part 1 & 2 (as eligibility test)'; 'NExT Step 1 is more exhausting than Current system of NEET (as entrance test for PG)'; and '6 papers (NExT) instead of 1 paper (NEET) to be conducted at National level will increase logistic issues as well as economic burden (fees for exam) on medical students'. About one-third 'Strong Agreed' to the following statements: 'There is a reduced emphasis on Pre & Paraclinical subjects in NExT Step 1 compared to current existing system of NEET'; and 'There is a increased emphasis on Allied short subjects in NExT Step 1 compared to current existing system of NEET'.

[D] Feedback for NExT Step 2:

The feedback for NExT Step 2 was collected under domains as described:

1. Need for NExT-2:

When asked directly "If State Universities are already conducting the conventional university Practical Exam III MBBS Part II, is there a need for additional examinations like NExT-2 at the end of internship?", 1042 (73.8%) participants said "No", while 232 (16.4%) said "Yes" and the remaining 138 (9.8%) were unsure and said "Maybe".

2. Conduct of NExT-2:

1211 (85.8%) participants opined that the exam be conducted by their own medical school and the remaining 201 (14.2%) opined to have this exam conducted at a nearby medical school.

3. Agreement on Likert scale:

The responses recorded as in Figure 4. Nearly half or more of the participants 'Strong Agreed' to the following statements: 'No Need for NExT 2 if students are appearing for conventional university Practical Exam III MBBS Part II' and 'Efforts should be made to upgrade current conventional university practical examination format as per the NMC standards'. About one-third 'Strong Agreed' to the following statements: 'Too much emphasis on allied subject/short subjects'; however, about a quarter of the participants remained 'Neutral' about the same.

DISCUSSION

General Acceptance about NExT:

Problem: There has been a negativity or hesitancy about the NExT exam especially among the students. Our study reflects that 61.8% and 15.8% participants said "No" and "Maybe" respectively, when directly asked if there was a need to replace the NEET with NExT. These results were in contrast with the study by Dulloo et al., a survey from medical teachers, where a majority (85%) welcomed NExT exam as a positive step.⁹ Pardeshi et al. have reported that interns wanted a common entrance test.¹⁰ Though the implementation of NExT was planned with an intention to elevate the quality of medical education and bring a certain degree of uniformity across the nation, the policy level thought process does not percolate to the masses. The reasoning for the changes is not strongly supported by previous year data in the proposed draft. Rao reported that students consider this exit exam as an 'extra burden', which is reflected in our survey as well.¹¹

Our suggestion: We propose that the problems in the current medical education system need to be brought into the public domain backed with data from previous years. It can be done by structures articles/blogs on the official website. Further, the rationale and objectives of bringing in the NExT exam need to be emphasized in the draft before proposing the plan. The hypothesized outcome needs to be stated. There is a need to give a 2 year, 3 year, 5 year plan after implementation of NExT. We believe these steps will be reassuring to the masses and bring in some gradual progressive systemic change and easy acceptance.

Replacement of Conventional Theory exams of 3rd year MBBS Part II with NExT- 1:

Problem: As per our survey, 61.8% participants said there is 'No need' for this replacement

Our suggestion: The university theory and practical exams have been a time-tested norm and should not be immediately abolished. Recall-based structured 'Essay writing' has its

own place in the learning process and has been a time tested tool for years since primary school education to which we are highly adapted.¹² Kommalage et al. have supported 'Analytical essay writing' as a successful activity promoting many aspects of active and collaborative learning. We propose to raise standards for the current university exams in addition to the NExT. In our opinion, the NExT exam can be planned as an add-on exam after about 2 months of the conventional theory and practical exam of 3rd year MBBS Part II. Upon analyzing the success of NExT, the abolishing of these conventional exams can be implemented eventually.

Subject composition/ syllabus and conduct of NExT- 1 exam:

Problem: As per our survey, there were balanced responses about the subjects composition of the NExT exam [Figure 2]. However, based on likert scale responses [Figure 3], there was a reduced emphasis on pre and para-clinical subjects with an increased emphasis on short allied clinical subjects. Participants also perceived that the 6 paper NExT exam conducted over just 3 days to be more tedious and exhausting than the NEET-PG as well as conventional theory exams. This may also increase the logistics of conducting the exam at a central level as perceived by participants.

Our suggestion: The NExT exam should be conducted as a 3 paper exam over a period of 3 days. Pre and paraclinical subjects give the founding concepts to be applied in clinical reasoning and hence should not be undermined. Besides, there is a considerable population that chooses to do their specialization in pre and para clinical subjects as well. So we suggest to balance and give equitable emphasis to these subjects. Paper 1 focuses on pre and paraclinical subjects (anatomy, physiology, biochemistry, pathology, pharmacology, microbiology and forensic medicine). Paper 2 focuses on major clinical subjects (medicine, surgery, orthopedics, obstetrics and gynecology and pediatrics) while Paper 3 focuses on remaining shorter subjects (ENT, Ophthalmology, Community medicine, dermatology, psychiatry, anesthesiology, radiology). Paper 1 especially should not be just fact based answering but include clinical scenario based questions. We also propose that there should be an increased emphasis on clinical case-based application type questions and questions to test knowledge on biostatistics, research methodology, medical ethics and communication skills across all 3 papers through case-based scenarios as in USMLE Step 1 (focuses on pre and paraclinical subjects but through clinical application) and USMLE Step 2 (focuses on clinical subjects).

Questions, Marking system and validity of score of NExT-1:

Problem: As per our survey, 80.8% opined that there should be 'Single best response type Multiple choice questions

(MCQs)' only. 16.4% participants were comfortable to have a combination of 'Single best response type MCQs' and 'More than one response type MCQs'. 64.7% opted out for negative marking and 34.7% opted negative marking only for incorrect questions but not for unanswered questions. There were balanced opinions for passing cut-off marks. 54.2% participants did not favor the proposal of keeping the NExT score valid for 3 years for admission to broad speciality. 39.6% opined that the score should be valid only for 1 year, 39% for 3 years, 9.6% for 5 years and 11.8% for lifetime.

Our suggestion: We agree with the majority of the participants to keep 'Single best response type Multiple choice questions (MCQs)' only, for the ease of assessment. However, we strongly recommend increased usage of audio-visual aids (images, sound clips, videos) while framing the questions. De Leng et al. has emphasized on how video cases could be used as authentic stimuli in problem-based medical education.¹³ Having audio-video based questions and image-based questions could raise the quality of assessment. Certain questions related to statistical chart analysis, abstract-based questions and drug ads may also be included as in USMLE Step 3. We recommend No negative marking as per majority of the participants. Regarding the validity of the score, we recommend it to be optional and the choice be left to the student while filling the exam form for a second attempt. Often students wish to give a second attempt to increase their scores. Also, the range of score for each year varies annually as per level of difficulty for that exam. Hence, locking the scores for 3 years or taking an average score with previous attempts may adversely affect the students. We propose locking the 'percentiles' of a candidate rather than 'scores' for 3 years. For example, if a student underperforms in the first attempt and desires to give a second attempt at the exam for admission into broad speciality, then he has to waive off the validity of the score of first attempt. The score of the 2nd attempt alone would be now used for further admission process. However, those who did not go for a 2nd attempt at NExT-1 and did not secure a seat for that year, they should be given a 'predicted score' for the admission process of that year based on their locked percentiles.

Conduct and need for NExT-2:

Problem: As per our survey, 73.8% participants said there is 'No need' for NExT-2 exam. 85.8 % opted to have them in their own medical schools. In contrast, opinions by medical teachers, 82.45% preferred to have the NExT exam conducted by National selection authorities.⁹ On a likert scale most agreed about the need to upgrade the conventional practical examination Figure 3.

Our suggestion: We stand by the opinion of most of the participants and suggest no immediate need to bring

in NExT-2, but rather regularly assess and improve the standards of conventional practical exams. However, if the conventional practical exams are found to be substandard, we support bringing in NExT-2 but to be conducted at par with the PACES examination of the MRCP-UK. Additionally we propose filming of the examination to standardize the assessment as proposed by Yeates et al.¹⁴

Few limitations of our study were, since our study is an online survey there might be a sampling bias. No Equal representations from all states & institutions.

CONCLUSION

Though the implementation of NExT was planned with an intention to elevate the quality of medical education and bring a certain degree of uniformity across the nation, the policy level thought process did not fully percolate to the masses, especially students. The reasoning for the changes is not strongly supported by previous year data in the proposed draft. Therefore, there is a need to alleviate the anxiety among students about the NExT exam before implementing it. Based on our study we were able to give our suggestion to the proposed NExT draft.

END NOTE

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Conflict of Interest: None declared

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