

Review of Admission of MBBS Students at KMC

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Abstract

This is an account regarding the intake of the 7th batch of MBBS students at Kathmandu Medical College (KMC) for the academic session 2003-2004. A total of 257 admission forms had been issued to Nepali students. Of these, 252 admission forms were filled up and were submitted to KMC together with the completed questionnaire by the Nepali students. Seven students (approximately 2.7%) did not attend interview. After the interview, out of the 245 interviewed students, the names of only 50 were brought out in the 1st list for admission. The paper presents the system for admission of MBBS students and has made recommendations for future action.

Keywords: Admission process, medical students, KUMET.

Medical student education is an ever-changing process. In a developed country e.g. U.K. in line with guidance from the General Medical Council in 1993 (*Tomorrow's Doctors*)¹ the emphasis on factual knowledge has decreased, and more stress is being placed upon self-learning, communication skills and sociological understanding. This GMC guidance was revised in 2002 noting the need for a knowledge base, in an effort for keeping up to date. The modern day medical student's curriculum tries to integrate scientific knowledge and clinical practice from the earliest weeks and to encourage students to be problem solvers. Education has become "topic" based and students are learning increasingly outside the walls of the teaching hospital.

Some guiding principles obtained from the Internet for the selection and admission of medical students to medical college that have been agreed by many medical councils² are as follows:

1. Selection for medical school implies selection for the medical profession.
2. Candidates should have obtained some experience of what a career in medicine involves and demonstrate their suitability for a caring profession, as the primary duty of the doctor is to the patient.
3. The selection process should attempt to identify the core academic and non-academic qualities, which doctors must possess, as a high level of academic attainment will be expected.
4. Appropriate attitude for the practice of medicine requires the highest standards of professional and personal conduct plus also the highest standards of professional competence.

5. The selection process for medical students must be transparent and involve procedures that respect obligations under the race relations and offer equality of opportunity.
6. Failure to declare information that has a material influence on a student's fitness to practice may lead to termination of their medical course.
7. Medical schools should welcome mature students who satisfy the selection criteria

Since today's medical student is tomorrow's medical professional, medical education is very sensitive and is directly related to the health of the people. Therefore medical colleges have a duty to make sure that no member of the public is harmed as a result of being a participant in the training of the medical students. Medical colleges should be making sure that only those who are fit to become doctors are allowed to enter medical school and graduate there from. Medical schools should put in place valid, open, objective and fair selection procedures. They should also publish information about the admission system, including guidance about the basis on which places at the medical school will be offered and the selection process. Since medical subject is such a broad and dynamic, students should have good knowledge of many disciplines ranging from science to psychology.

Kathmandu Medical College too, is committed to the belief that educational opportunities should be

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available to all qualified persons without regard to race, creed, colour, age, sex, religion, marital status, handicap or national origin. The admission policies and procedures reflect and support this belief. At Kathmandu Medical College, we have initiated to follow the above guiding rules for the selection of students for admission.

Selection of students for admission at KMC

The annual report and the final examination result of any institution, irrespective of academic or non-academic resources reflect the overall situation and performance of that institution. One way of setting up a conducive environment towards establishing an effective and strong institution is by having efficient and responsible staff and students. Over the years it has been accepted that both recruitment of staff and enrolment of students should be conducted in an efficient and competitive manner in order to improve performance. The approach to admitting good students could be by selecting through both written examination and interview methods. To attain this, the study entitled "Review of Admission of MBBS Students at KMC" was initiated by KMC to review the admission process of MBBS students of seventh batch.

The objective of this study is to address the following:

- a) To review the annual admission procedure for MBBS students at KMC.
- b) To identify the strength and weakness of the admission process.
- c) To evaluate the questionnaire used in the study.
- d) To review the performance of students at interview.
- e) To recommend the specific policies with a view to suggesting an efficient and effective method of selecting students for admission in future.

Overview of KMC Admission Procedure

The criteria of admission of Nepali students are:

1. Nepali citizenship,
2. Pass in the KUMET. (The grading of A, B and C meant attainment of marks over 70%, 60% and 50% respectively).

The admission process of the MBBS students-seventh batch began in the first week of August 2003, which was two weeks earlier than for the last two batches, though the process itself lasted longer in previous years as the classes had started in November. For the seventh batch KMC was permitted an intake of 100 out of which the college had to allocate 10 seats for HMG sponsored

candidates from the Ministry of Education. These students need not have taken KUMET and were exempted from the KMC held interview. From the remaining seats, 40 were allocated for International students and 50 for Nepali nationals who were to be selected by KMC after interview in the manner being described. KMC had made the provision to enrol students from either of the two categories in case vacancies occurred in the number allocated for each.

All together 257 admission forms were distributed over a period that had been extended for a week longer than first scheduled, due to blockage of entry road to Kathmandu valley. Only 252 admission forms were finally submitted to KMC. Of the 252 submitted forms only 245 candidates attended the interview. Among the interviewed candidates, 55.1 % belonged to male and 44.9 % belonged to female candidates respectively. Out of the total interviewed candidates 24.1 % belonged to candidates whose names were included in KUMET A, 45.7% in KUMET B and 28.2% in KUMET C list respectively. The remaining 2.0% were of withheld candidates. The result is presented in more detail in Tables 1, 2 and 3.

In comparison the overall breakdown of Kathmandu University Medical Entrance Test (KUMET) results were as 36.31 % in A grade, 38.99% in B grade, and 24.70% in C grade.

Candidates were called for interview on first form submission, first come basis over a period of 13 days. Out of the total of 252 students, 20 were called for the interview each day. Seven (2.7 %) candidates remained absent. The interviews were taken by a four member interview team comprising of the Principal, Chief Academic and Controller of Examination, Psychologist, and a female representative.

Among the team members only the female representative varied daily due to their having other commitments. This led to a slight variation in the marks given by different female representatives. This will have to be corrected in future for maintaining standardization. The interview focused mainly on:

- a. The students' inclination towards medical education,
- b. The confidence level, verbal reasoning and verbal expression of students,
- c. Selecting only competent and diligent students,
- d. Preparing an effective interview format for next batch.

Table 1. KUMET distribution of interviewed candidates

KUMET	Number of students	Percent
A	59	24.1
B	112	45.7
C	69	28.2
Withheld	5	2.0
Total	245	100.0

Table 2. Gender distribution of interviewed candidates

Gender	Number of students	Percent
Male	135	55.1
Female	110	44.9
Total	245	100.0

Table 3. Distribution of KUMET against Gender of interviewed candidates.

KUMET	Gender of students		Total
	Female	Male	
A	17 6.9%	42 17.1%	59 24.1%
B	56 22.9%	56 22.9%	112 45.7%
C	33 13.5%	36 14.7%	69 28.2%
Withheld	4 1.6%	1 .4%	5 2.0%
Total	110 44.9%	135 55.1%	245 100.0%

Selection process

In previous years, emphasis had been given partly to students' knowledge and also to replies given on the standard questionnaire (Appendix I). From this academic session we initiated on a trial basis, to observe the integrated performances of the candidates, ranging from their academic qualification to their inclination to sports and culture. All these were enquired at the interview by the four categories of persons involved. To standardize the process, a format of the interview had been prepared (Appendix II) but this was not implemented this year as it was felt to be incomplete and could be done from next year onwards.

It is to be noted that full marks of selection for admission was allocated 20. This consisted of 3 marks for each interviewer, 3 marks for 10+2/PCL, 3 marks for KUMET, and remaining 2 marks for SLC. Initially we had thought of including sports and culture for 2/2 marks but these criteria were later rejected.

Efforts have been made this year to make the selection process fair and unbiased. The interviewer team worked very hard with this objective and to finalize the result. After analysing interviews and submitted certificates, the top 50 students were selected as the 1st list for enrolment. Amongst this 54.0%, and 46.0% were male and female students respectively. Of this group 68.0 % belonged to KUMET A, and 32.0% belonged to KUMET B. The result is presented in more details in Tables 4.

Table 4. Distribution of KUMET against Sex of students of 1st list.

KUMET	Sex of students		Total
	Female	Male	
A	13 26.0%	21 42.0%	34 68.0%
B	10 20.0%	6 12.0%	16 32.0%
Total	23 46.0%	27 54.0%	50 100.0%

The students on the 1st list were given a weeklong deadline for enrolment, during which only 32 students registered their name for admission. The KMC took 50% fee at the time of admission from the students whereas the remaining amount was to be collected on instalment basis during the course period. During the process, many parents approached the college and expressed their willingness to pay the full tuition fee at the time of admission if their wards were given a chance for enrolment. The vacancies were fulfilled from the second list which was published based on the merit of performance during the interview. Ability to pay the full tuition fees was also taken into consideration. Thus the 50 students quota of the 1st list were filled. Having determined the policy of admitting Nepali students in the seats left vacant by International students prior to the admission process, further 10 and then 6 Nepali students were selected under such provision.

In the total number of Nepali students who finally made it to KMC, it was noticed that of the 66 students selected in 3 lots (50, 10, 6), the breakdown

of the KUMET results was A = 19, B = 42, C = 5. Of the 10 students who were sent to us by the Ministry, only few had appeared for the KUMET examination. It was noted too that two male students had applied to KMC for admission also and had been selected but had not come for admission, as they were fairly confident of being selected in the scholarship seats.

Scholarship Student

The government guideline for selection was to be as follows, 80 % male, 20 % female. The stated government criterion for selection was female quota 20%, Janjatis 15% and 10% Dalit. The students sent to KMC were 90% male, 10% female.

It is noted that in this year's Nepali intake, the percentage of females has increased appreciably. The overall gender breakdown of the 100 students is as follows:

Table 5. Distribution of KMC 7th batch students

National	Male	Female	Total
Nepali	30 (45.45%)	36 (54.55%)	66 (100%)
International	16 (66.67%)	8 (33.33%)	24 (100%)
Scholarship	9 (90.0%)	1 (10%)	10 (100%)
Total	55 (55.0%)	45 (45.0%)	100 (100%)

Discussion

It has been stated that if the future healthcare professional is to be adjudged competent, s/he must, in addition to technical and clinical skills, be able to display appropriate attitudes and competence in such areas as communication. Honesty, integrity and an ability to recognize one's own limitations and those of others are central to the practice of medicine. In addition, medical students should be expected to have good communication and listening skills, an understanding of professional issues such as teamwork and respect for the contribution of other professions. Curiosity, creativity, initiative, flexibility, and leadership are all desirable characteristics for the aspiring doctor.³

Heavy reliance has normally been placed on high academic achievement, in particular on achieving top A level grades in scientific subjects. Medical schools have in the past been accused of elitism, a lack of fairness and transparency in the process of selection, and of not selecting from a diverse range of social and ethnic backgrounds.³

It must be recognized that some students may not be suited to a career in medicine, even though they may attain the academic standards necessary for admission to medical school. It is in the interests of such students themselves and the public, for them not to be admitted to medical school, rather than to have to leave the course or the profession subsequently.

Selection Process

The guidelines that have been issued may be categorized into three groups, which are as follows:

1. By the Medical Council of the country,
2. By the University,
3. By the concerned medical college/school.

There is some evidence that the GMC's guidance to medical schools '*Tomorrow's Doctors*', published in 1993, has begun to influence selection. Medical schools are beginning to take account of the applicants' personal qualities, interests, communication skills and relevant work experience in an attempt to select those who have the potential to be versatile, flexible and sensitive professionals.

Nepal Medical Council (NMC) which has brought out its own recommendations for MBBS education in 1993 and revised it in 1995 states the prerequisites for admission such as; the minimum age of admission to be 17 years, that the candidate should have passed I.Sc. or equivalent with a minimum of 50% in Physics, Biology, Chemistry (PBC) subjects together with over 50% in aggregate.⁴

It is interesting to note that whilst medical councils of the developed world e.g. UK, USA, Australia and Canada have lifted many of the prerequisites, and simplified the process of admission; we on our part continue to insist on or to advocate the PBC subjects only because this was what was stated to be the essentials by the British, while they still ruled India. Many authorities no longer insist on PBC and students with mathematics are also accepted into the medical courses. This is also confirmed when we look at the entry requirements of medical schools in Europe. Many councils or medical registration authorities allow or even encourage prospective medical students with some humanities backgrounds to enter the medical course in the belief that this will produce more 'humane' doctors.

Kathmandu University requirements:

1. Minimum of completion of 10+2 years of education or I.Sc. (science stream with Physics, Chemistry, Biology (PCB) and English).

2. Proof of at least 50% marks in PCEB and in aggregate,
3. There is no upper age limit.

Universities also may have other procedures as given below:

1. Identify (as early as possible) medical students whose conduct gives serious cause for concern or whose health is affected to such a degree that it could harm the public;
2. Provide those students with appropriate support; and
3. Make sure that if students are still a risk to patients that they are not allowed to graduate with a medical degree.

Selection process varies at different institutions. Some medical schools welcome mature students who satisfy the selection criteria. Mature students, whether graduates or not, are sooner and better able to handle the responsibilities of being a doctor. The student would be more mature, more widely educated, and more likely to have chosen to study medicine after careful reflection, something that may not be true of applicants who are still in their teens⁵. However, leaving aside the financial implications of such a change there are no clear justification for a graduate-only entry. What is important is not the age at which the student begins, but what the student has previously studied and been exposed to, the criteria guiding selection, and the way in which the curriculum is thereafter organized and delivered. The end product should be a doctor capable of providing good, safe patient care⁶.

Diversification is necessary. It is important to guard against future generations of doctors being drawn from too narrow an academic and socio-economic base. Patients want doctors to be clinically competent, and thus doctors must be able to understand scientific method and principles. This is not all that being a doctor entails. An understanding of science may be a necessary condition for entry to medical school, but it cannot be sufficient. The future doctor must also have demonstrated other qualities, not least a capacity to be open-minded, comfortable with uncertainty, free of preconceived views and capable of recognizing and responding to ethical issues

Since patient care is the prime duty of a doctor, they must understand a range of social and cultural values, and differing views about healthcare and illness. They must be aware of issues such as alcohol and drug abuse, domestic violence and abuse of the

vulnerable patient. They must recognize the need to make sure that they are not prejudiced by patients' lifestyle, culture, beliefs, race, colour, gender, sexuality, age, mental or physical disability and social or economic status.

As far as Kathmandu Medical College is concerned, we have tried to observe students' academic and non-academic profiles. The following activities were carried out in selecting students for admission.

1. It has been observed from the number of admission forms and questionnaires issued and filled up that many students were interested and attracted for getting admission to KMC. It was perhaps because the result in the KU final MBBS examination was very good. Another reason could be that we had good faculty members.
2. This study has reviewed the admission process of the seventh batch at the KMC with particular reference to the currently adopted method by evaluating the feedback received through the questionnaire filled in by the students.
3. The selection process had been divided into two categories: one based on academic qualification, together with other attributes mentioned in the questionnaire and another relating to interview.
4. The selection team was very concerned that only capable and competitive students should be selected for admission.
5. At the beginning of this selection process we had planned to include the scores of sports and music/culture in the final result for admission on the basis of filled up questionnaire, but it was not realistic and practical, as almost all the students had mentioned that they were good in sports and music/culture. Their statements could not be subjected to independent verification due to lack of time.

All said and done it must be realized that the process of selecting students for the MBBS course is not as easy as it may appear at first sight. Search of the literature shows that there are a number of studies that have been done. Of the three quoted here, two were in Pakistan and one in India. The objective in these studies was to find out if the selection procedure could be a predictor of performance in University examinations and future competence. The results were as follows:

- a. The study at Ziauddin Medical University at Karachi in Pakistan looked at 159 MBBS students admitted in 1995, 1996 and 1997. Their conclusion was that none of the admission criteria (SSC, HSC, ZMU admission test and

interview scores) predict the performance of medical students in the professional examination⁷.

- b. Another study involved 4 batches of medical and dental students who graduated between 1997 and 2000 from the Karachi Medical & Dental College. A total of 166 student records were analysed, the conclusion was that the IBA admission scores, combined with HSC marks could predict academic achievement of medical students for the first three to four years. It however does not predict the performance in the final year, which is where the exit competencies, necessary for practicing medicine, are acquired by the graduates⁸.
- c. A retrospective study of 4 consecutive batches of students at Lady Hardinge Medical College, New Delhi in the MBBS examination was done. The students were divided into 3 categories based on the criteria of entrance into the medical college. The category I included students who entered through a tough pre-medical test, category II comprised those nominated by government and defence personnel and category III included the Schedule Caste and Schedule Tribe students. The results of the category I was remarkably better than that of II while that to category III was dismal. The last two categories had a large number of students leaving the college without completing their course, resulting in 5.4% wastage of medical seats and psychological distress to the student concerned⁹.

Conclusions

The study is to present a review of admission process. This is the first time in KMC history that the admission process has tried to introduce a more extensive selection method, besides the questionnaire and declaration, which had been in use in the previous two years. This time the stress was on interview. Questions were asked ranging from students' academic qualifications to their inclination to sports and music/culture.

Based on the above description the following points can be stated as a conclusion:

1. Students were influenced and attracted to KMC by the able and experienced faculty members and the results of KU final Examination.
2. Students who submitted admission forms and were selected for admission were equally capable irrespective of sex. Perhaps the females had a slight edge.
3. Looking at SLC and I.Sc. results and comparing with the performance in KUMET, it was felt that those who attended coaching

classes conducted by institutions within Nepal appeared to be more specific. Those within the country were thought to be more helpful according to the students.

4. Students who had done well in interview, got admission on performance of 10+2 and KUMET rather than on their immediate academic qualification.
5. The first list was published on the basis of students' performance and competitiveness. Later, the emphasis given in second and third lists was also on scores in interview as well on the readiness of students to pay the full tuition fees at the time of admission. Offer of places and selection was made on merit basis from the KMC evaluation list that had been prepared.
6. As there is bound to be some difference in performance among the scholarship and fee paying students, it is suggested that a study be done of the three categories of students at KMC:
 - a. Ministry of Education scholarship students who were admitted even without interview.
 - b. Those admitted from the A, B or C categories of KUMET results.
 - c. International students admitted on the basis of HSC or equivalent and an interview.

Recommendations

If some defect/discrepancy is apparent in the selection of students for admission, it should be removed for next year's selection.

Based on the above description the following would serve as recommendations:

1. The efficient, competitive and standard format of questionnaire should be reassessed to observe overall performances of students during the coming years.
2. Representative of females as interviewer should be the same person.
3. Marking and scores given to Indian certificates and Nepali certificates possessed by Nepali students should be reviewed, as overall marking given in Nepal is much less than what is in vogue in India.
4. More specific emphasis should be given to the interview format for selection to ensure that prospective students look on it as a more credible process of assessment than just marks from examination. Preference should be given to those with consistent results.
5. Our total score was 20, of which 12 was allocated for the interview and 8 for the students'

academic qualifications. It is said that an interview is subjective and subjective marks should not exceed objective, and therefore score allocated to academic qualification should be greater than that of the interview.

6. The seventh batch of MBBS students should be compared with the sixth and eighth batches and all should be followed up till they have completed their internship and qualified. Final comments should be made on the basis of these studies.
7. As the result of our selection process is still to come at the end of the course, final conclusion on the efficiency of this selection process will take some years to be confirmed.

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DECLARATION

I, do solemnly declare that statements made in the application for admission to the MBBS course of Kathmandu Medical College are true and correct. If any discovery is made that the information is false or misleading, or has been concealed or withheld then I am willing for my application to be rejected. This rejection can be immediate or in the event of my being admitted and registered it can result even in withdrawal from the University. I am willing to leave the course after three months if my performance is found to be unsatisfactory. In such an event the processing fee, initial discount and a sum in lieu of my having attended classes may be deducted from the amount paid in my name. The fact that I am enrolled does not mean that I am assured of qualifying as a doctor. I accept that I will have to study hard throughout the duration of the course.

Dated:, 2003

Signature

QUESTIONNAIRE FOR NEW STUDENTS – 2003/2004

Name: Date of Birth:/...../..... Sex:
M/F

First Middle Last D/ M/ Y

Nationality Passport No./Citizenship
No.....

Address:
.....

EDUCATIONAL QUALIFICATION

I.Sc./10+2/Equivalent Year Board

1. How did you hear about this college?

Advertisement Brochure Website
Word of mouth

Student of KMC Approved agent Who:
.....

2. Did you attend any coaching class? Did this help for your success in KUMET?

3. How do you study?

4. Write in about 100 – 150 words why do you want to study medicine?

5. Why particularly in Kathmandu Medical College?

6. If you are not selected, what will you do?

7. What is your next choice of profession and why?

8. What languages do you know?

.....	Good	<input type="text"/>	Medium	<input type="text"/>	Little	<input type="text"/>
.....	Good	<input type="text"/>	Medium	<input type="text"/>	Little	<input type="text"/>
.....	Good	<input type="text"/>	Medium	<input type="text"/>	Little	<input type="text"/>
.....	Good	<input type="text"/>	Medium	<input type="text"/>	Little	<input type="text"/>

9. What do you do in your past time?

10. What sports do you play?

11. What is your hobby?

Indoor: Outdoor:

.....

.....

12. Who is your favourite author?

13. What is the last book in English that you read?

14. What character did you like the best in that particular book and why?

Appendix II

Proposed format for interview to elicit ability of prospective students

STUDENT EVALUATION FOR ADMISSION – 2003

Name.....Age..... Sex M / F

File No.:

SLC Aggregate:

ISc Aggregate:

KUMET grading:

Please rate on all criteria

	CRITERIA TAKEN	A+	A	B	B+	C
1	Medical inclination					
2	KMC connection					
3	Extracurricular activity – Sports					
4	Extracurricular activity – Music					
5	Verbal / Emotional expression (ease of expressing ideas, friendliness etc.)					
6	Self confidence					
7	Verbal reasoning					
8	Variety of interests, hobbies					
9	Knowledge about worldly affairs (GK)					
10	Clarity of aims					
11	Source of motivation (Intrinsic / Extrinsic)					
12	Absence of signs of anxiousness, nervousness, restlessness, awkwardness, sweating, stuttering, twitches etc.					
13	Interests and hobbies					
14	Knowledge regarding current health scenario of local areas					
15	Remarks (other observation during interview)					

How strongly do you recommend the student to be selected?
1.Very strongly **2.** Strongly **3.** Decide taking other factors into consideration

(Please tick)		
1	2	3