



Original Article

Approach of Undergraduate Medical Students Towards the Contemporary Examination System in Khyber Pakhtunkhwa, Pakistan

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ABSTRACT

A good teaching environment and a widely accepted professional system of examination can yield both educated and skilled persons. For good assessment and outcomes, one needs an adequate system of assessment. **Objective:** To know the approach of undergraduate medical students towards the contemporary examination system in Khyber Pakhtunkhwa, Pakistan **Methods:** It was a cross sectional descriptive type of research which was conducted by the Department of Medical Education at Nowshera Medical College (NMC), Nowshera, Khyber Pakhtunkhwa, Pakistan. Students of NMC from 1st year to 4th year MBBS were inquired through a semi structured and pre-validated questionnaire **Results:** Out of total 400 students inquired, 21.75% (87) students gave "A" grade, 31.5% (126) gave "B" grade, 30.75% (123) gave "C" grade and 16% (64) gave "D" grade to the present annual examination system. About 32.5% favoured semester system, 26% favoured Problem Based Learning (PBL) and 22.5% of total wished to be examined via interactive sessions **Conclusions:** We found very low levels of satisfaction of students regarding current system and they want modifications to internationally recognized systems such as semester or PBL system of instruction and examination. They need a system that makes their concepts clear, more focused on main concepts, short and easy to go through annual examinations.

INTRODUCTION

An ultimate assessment structure determines approaches to equally instruction i.e., what as well as how teachers educate and learning i.e., what students gain knowledge of. Apart from student evaluation, examinations aid teachers amend their teaching methods or implement new ones to report the preferred academic outcomes [1]. Among the array of disciplines, medical education is very much tough, time consuming and requires too much hard work and devotion to get through its exams. Therefore, different systems of examination are applied time to time, to better judge the knowledge and skills of future health care professionals. These includes Conventional annual exam system, Semester system; Problem based learning (PBL), MCQs/SEQs and Scenario based questions[2,3]. New

systems are being introduced and thought of to be implemented for betterment of students. According to a study conducted by Myron tribus in the year 1994, there are countless proposals for reforms, the target is to have comprehensive attitude to practice many good works to us [4,5]. Annual and semester arrangement are two unlike arrangements of examination based on different conflicting systems of instructions. Yearly structure relies on instruction pattern and semester structure is relies on erudition paradigms. However, the grave aspect in the accomplishment of whichever structure is its efficient execution of set of laws and policy. In twelve-monthly arrangement, the whole thing lies at the back of the screen, whereas in semester scheme, they are unwrapped and

crystal clear, and is favored by the students and the administration [6]. The problem-based learning (PBL) teaching model was initially developed in 1969 in Canada and the approach has since turned out to be an accepted education model globally. PBL is a student-oriented approach that requires students to do research, combine theory and practice, find practical solutions over a defined problem and use their knowledge and skills [5]. In the PBL teaching model, students play a major role in the process of teaching, and teachers facilitate the student learning and support that learning through experimentation, clinical cases, and seminars. PBL teaching model is different from the traditional (lecture-based learning) LBL teaching model in which students often passively accept their instructors' knowledge. PBL teaching model is a novelty that has greatly stimulated students' interest in learning [7-10]. Annual exam system provides good opportunity to the students go through the topics extensively. The semester system of examination is superior than the annual system of examination as it enhances learning, ensures that education goes on throughout the year and the students are not burdened [11]. The rationale of this study was to know about the feelings and levels of satisfaction of students about the present annual examination systems and to know whether they want to switch to another system like semester system, PBL, MCQs/SEQs pattern, scenario-based questions. We were interested to know about examination system which is helpful in concept building and to make current examination system more particle and acceptable. This in turn will be helpful in their clinical skills development and they will get more chances to improve their studying skills. The purpose of this study was to bring our examination system at the level of world top rank medical universities examination system.

METHODS

It was a descriptive cross-sectional study which was conducted by the Department of Medical Education at Nowshera Medical College, Nowshera, Khyber Pakhtunkhwa, Pakistan. The study was executed for about 01 year (January, 2020 up to December, 2020). A total of 400 students were selected out of which one hundred students were selected randomly from each class (1st year up to 4th year MBBS). Volunteers, both male and female students from 1st year to 4th year MBBS were inducted in the study whereas, those who were unwilling to participate were excluded. Data was collected through convenient sampling through a pre-validated structured questionnaire for choosing different parameters related to the current examination system after obtaining the ethical approval

from Institutional Ethical Review Board (IERB) of Nowshera Medical College, Nowshera vide letter No. NMC/IERB/Sec dated: 27/01/2020. The data which was collected was initially organized and then entered in Excel sheet. Data was analysed using SPSS version 24 for descriptive statistics i-e; frequencies which was shown in percentages for all categorical variables.

RESULTS

Out of total 400 hundred students asked, 76% (228) students found the present annual exam system biased whereas 72 students said that it is fair and equitable. Most of the students were in favor of increasing the percentage of theory marks to 60% in annual exam, 61% students replied that they feel being under pressure during viva exam, 70% (210) of the students find internal assessment to be beneficial and advantageous while facing the examiner during viva while 30% (90) don't. Internal evaluation weight age included in annual exams according to 118 (39%) students of NMC should be 10%, 71 (24%) students were of the view that internal evaluation should not be given any weight age in annuals, 64 (21%) were in favor of 25% weight age while 47 (16%) were in favor of 50% weight age of internal evaluation in annuals. These internal evaluation methods were appreciated by 230 (77%) of students, 253 (63.25%) students found Scenarios and MCQs asked in stages beneficial in preparing them for annual examinations. Majority (69%) of the students were satisfied with the way they are taught and the way they are examined in the annual exams whereas 31% were not found to be satisfied with the way of teaching, 61% (183) students found the present system not helping them in building concepts, 161 (54%) students found the Present examination system helpful in future Postgraduate training and examinations and make them competent, 82% (247) believed that the present system needs switching to a more practical approach among which 35% (105) favored semester while 26% (79) like PBL 22% (65) wished to be examined via interactive sessions, 77% (232) students stressed the implementation of PBL and interactive sessions, as they are more helpful in learning and building up concepts. Detailed findings and results are interpreted in the table 1-11 which are given below;

Result	Frequency	Percentage
Yes	213	53.25%
No	187	46.75%

Table 1: To judge the knowledge of students in the present examination system

Result	Frequency	Percentage
Yes	278	69.5%
No	122	30.5%

Table 2: Present examination system being biased

Result	Viva: Theory	Frequency	Percentage
1.	50:50	111	27.75%
2.	40:60	178	44.5%
3.	60:40	111	27.75%

Table 3: Marks distribution of theory and practical exam (viva) in annual examination

Result	Internal Assessment Weightage	Frequency	Percentage
A.	0%	96	24%
B.	10%	143	35.75%
C.	20%	89	22.25%
D.	30%	72	18%

Table 4: Internal evaluation weight age included in annual exams

Result	Frequency	Percentage
Yes	253	63.25%
No	147	36.75%

Table 5: Scenarios and MCQs asked in stages help students in preparing for annuals

Result	Frequency	Percentage
Yes	243	60.75%
No	157	39.25%

Table 6: Levels of satisfaction with teaching the way students are taught in annual system

Result	Frequency	Percentage
Yes	235	58.75%
No	165	41.25%

Table 7: Present exam system helps students in future postgraduate training and examinations

Result	Frequency	Percentage
Yes	317	79.25%
No	83	20.75%

Table 8: Examination system need switching over to approach that is more practical

Result	Frequency	Percentage
Yes	164	41%
No	236	59%

Table 9: Present examination system helpful in making internationally competent doctors

Result	Internal Assessment Weightage	Frequency	Percentage
A.	Semester System	130	32.5%
B.	Problem Based Learning	104	26%

C.	Interactive Sessions	90	22.5%
D.	Daily Assignment and Discussions	76	19%

Table 10: Examination system students prefer for the better assessment of knowledge

Result	Frequency	Percentage
Yes	269	67.25%
No	131	32.75%

Table 11: Performance in semester system as compared to annual examination system

DISCUSSION

In the current research, several fascinating things came into representation and students recommended many ways and modifications that could be integrated into the present conventional annual system of examination for better future outcomes. In our study, we tried to know the views and levels of satisfaction of students about the current adopted system of annual examination. One study concluded that in all teaching institutions, external examination system should be replaced by a system of internal and continuous evaluation by teachers themselves. Continuous internal evaluation, curriculum based internal and external system of examination of equal weight age should be developed for continuous evaluation [12]. Findings of this research are similar to our study as students are of parallel opinion that stages and other internal exams are helpful for them to prepare for finals. Some were of the view to have equal weight age of both internal and external evaluation but majority of students demand for 10% weight age of internal evaluation in annual examination. Majority of students 275 (68.75%) were in favor of MCQs and SEQs and Scenario Based Questions and they consider it a positive approach towards checking of knowledge. Rests of the students did not agree to this point. We found in our study that scenarios and MCQ tests that are taken by teachers in internal evaluation tests help students in preparing for annuals. Similarly, 253 (63.75%) students take benefit from scenarios and MCQ that are a part of internal evaluation tests. Similarly, an exploratory pilot study found that relationship issues and examinations were the major sources of stress for medical students. The respondents described multiple context-sensitive coping styles, as well as reported 'avoidance' or 'wishful thinking' coping strategies as ineffective. Their stress-and-coping process suggests the influence of Asian culture and medical school culture[13]. In one other study regarding the examination system which was published in 2011 concluded that teachers and students both agree on the following; Assessment activities and final examination were correctly planned for the learning and reflected the

objectives of the respective course. Assessment activities played a role in preparation for finals. The ratio of marks of assignments and examination for final aggregate was suitable. It was also recommended to include the multiple-choice questions in the assignments and final examination [14]. The opinion of the participants of our study were parallel to the findings of the previous study conducted in 2011. Both groups of students appreciate the role of stages, sub-stages and other evaluation tests and they are in favor of MCQs to be included in their final papers and internal evaluations. Our study concludes that 236 (59%) students are of the view that current system of examination is not helpful in making internationally skilled doctors. While others say that this system is good enough to generate doctors that are internationally proficient. In our study, majority of students are satisfied with this pattern of examination and they appreciated its outcome and finds it helpful for postgraduate studies. But our students do not find it helpful in competing with students on international levels and they are of the opinion that this examination system is not good enough to make them internationally competent which is in line with the findings of Habib F et al., [15]. According to him, the towering failure proportion in the fellowship examinations of the College of Physicians and Surgeons Pakistan (CPSP) has become common. The failure rates are generally higher in examinations of CPSP as compared to the examinations conducted by Royal Colleges of UK and Ireland. They further added that high failure rates in postgraduate training and licensing exams are because of flaws in our conventional teaching and examination systems both at undergraduate and postgraduate levels. As per findings of a meta-analysis conducted, PBL's effects on student attitude are affirmative but small ($g=0.44$) according to the random effects model [5]. In another study conducted at a medical school in province Sindh, Pakistan concluded that 83% of students were motivated towards self-directed learning (SDL) while liking for PBL was 82%. Commencement of prior knowledge was achieved by 83% students [15]. Furthermore, in another descriptive study, which comprised of 300 (150 males and 150 females) students of post graduate level from education departments of University of Gujrat (UoG), University of Education UoE), and Bahauddin Zakarya University (BZU). Questionnaire containing 30 statements for students named as Semester System Questionnaire for Students (SSQS) was developed on 5-point Likert scale having wide range of choices i.e.: Strongly Agree (SA), Agree (A), Un-decided (U), Disagree (DA) and Strongly Disagree (SDA). It was found that semester system is conducive for learning, focusing on students and completion of course contents, timely feedback of students [16-20]. In our study, when students

at NMC were asked whether they can perform better in semester or in annual system of examination, 269 (67.25%) were in favor of semester system remaining 131 (32.75%) students voted for annual system. Thus, our study configures many of the conclusions of previous studies; in that majority of the medical students experience some level of anxiety during exams. The study limitation included small sample size.

CONCLUSION

We found very low levels of satisfaction of students regarding current system and they want modifications to internationally recognized systems such as semester or PBL system of instruction and examination. They need a system that makes their concepts clear, more focused on main concepts, short and easy to go through annual examinations. That system should help them pass through postgraduate examinations and international boards and certifications with good communication skills and practical performances. By this way, burden of course, exam phobia and depression due to higher failure rated will be decreased. Our present system needs some modifications as mentioned by the students.

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