

Student's Perception Regarding an Integrated Curriculum at a Public Sector Medical College

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ABSTRACT

Introduction: Pakistan Medical and Dental Council recommends that a curriculum that links the concepts of basic and clinical disciplines and ensure early exposure to patients should be introduced in undergraduate medical education, therefore integrated curriculum is implemented. The current study is undertaken to identify students' perceptions regarding an integrated curriculum at a public medical college.

Study Design: Descriptive cross-sectional study.

Place and Duration: Bacha Khan Medical College, Mardan from January 2020 to July 2020.

Material and Methods: Second year MBBS students participated in the study. A pre-validated three-point Likert scale questionnaire was used to gather student's feedback.

Results: Second-year students (n=50) participated in this study. The percentage of cumulative positive feedback regarding content coherence, teaching learning methods, time management and evaluation methods was 63%. Majority of the students appreciated integrated method of teaching and 90% had positive perception regarding better application of knowledge, logical thinking, enhanced interest and motivation along with better communication skills and clear concepts. Negative perception was recorded in only 33% with respect to the content of some modules which they found voluminous and more time consuming that leaves them with less time for self-study.

Conclusion: Evaluation of the integrated curriculum revealed acceptance by the students. Feedback by the students should be utilized to bring about improvements at institutional level.

Key words: Integrated curriculum, Students Perception, Undergraduate Medical Education, Pakistan Medical and Dental Council.

INTRODUCTION

Integration is derived from the Latin word "integer", which means coordination among various actions to ensure harmonious functioning. The best example of integration is human body where different systems work together in a coordinated way in total harmony. Integrated teaching is defined as "the organization of teaching content to unify the disciplines which were previously taught separately.¹ Horizontal integration corresponds to the integration among subjects which are taught separately but simultaneously at a specific level (academic year). These subjects are unified into one interdisciplinary block created to reduce the content and makes assessment easy, thereby providing students with ample time for self-study.² On the other hand, vertical integration is built over time in different academic school years with the aim of fulfilling the gap between basic and clinical courses³.

The integrated method of teaching has been implemented across the world^{4,5}. It was introduced for the first time in 1952 in Cleveland in the United States⁶. The General Medical Council (GMC) of the United Kingdom has also adopted integrated methods of teaching for their medical institutions. Likewise, Indian Medical Council also introduced horizontal and vertical integration in their undergraduate curriculum⁷.

This concept prompted the Pakistan Medical and Dental Council (PM&DC) to adopt an integrated need-

based curriculum in Pakistan⁸. The basic aim of our medical education program is to train our medical graduates to the standards at which they can handle human life safely⁹. In order to achieve the required criteria, PM&DC have set standard for curriculum design and management. Khyber Medical University (KMU) Peshawar initiated the task by designing an integrated curriculum in liaison with their constituent and affiliated medical college's curriculum planning committees.⁸

By knowing their positive and negative perceptions, medical teachers can bring about improvements in the newly implemented curriculum⁸. Various studies have been conducted nationally as well as internationally on students' perception regarding an integrated curriculum, utilizing students' feedback as a tool to bring about improvements in their course quality¹⁰. In Pakistan, studies were carried out in Karachi, Rawalpindi and Peshawar, their findings implicated that most of the students preferred the integrated curriculum, however few suggestions evolved for further improvements^{11,12}.

At a local level this feedback and strategy can be utilized to provide an important educational experience to the students of BKMC, Mardan.

MATERIALS AND METHODS

This cross sectional study was conducted at Bacha Khan Medical College, Mardan from January 2020 to July 2020.

Total 50 students of both genders were enrolled in this study. An informed written consent was obtained from the students willing to participate in the investigation. The response rate was 90.90%. Their age ranged from 19 to 21 years; there were 10 female students and 40 male students. The students were given a brief introduction about integrated teaching before distributing the questionnaire containing 11 items consistent with previous studies¹³. A simple three-point Likert scale (1: Agree, 2: Disagree, 3: Neutral) was used to evaluate student feedback regarding suitability of time management, content coherence, teaching learning methods, along with assessment methods. In addition, questionnaires also contained queries on the positive and negative aspects so as to assess their perception¹⁴. They were then encouraged to put forward suggestions for improvement. The data was collected simultaneously from all the participants who were given approximately thirty minutes to complete the questionnaire. During compilation, facilitation extended to the target group concerning concept clearance about the proforma contents to reduce inaccurate answers due to different understanding of the questions by the participants. At the end of the session, questionnaires were collected

and recorded anonymously. Keeping in view the indicators, the students' perception was taken as positive if found "agree" in the questionnaire. IBM SPSS 26 was used for data analysis. The students' inputs were analysed section-wise which provided the percentage of satisfaction for that particular section

RESULTS

The cumulative percentage of positive perception regarding content coherence was 62%, while regarding various teaching learning methods was 68%. With time management it was 62%, and regarding evaluation methods 62% (Table-1). The cumulative positive perception of students regarding an integrated method of teaching was 63%.

In response to the positive and negative perceptions, the majority of students displayed concurrence with the positive aspect of integrated curriculum. Negative perception was seen in only 33% of students especially with respect to the contents of some modules that are lengthier and time consuming which leaves them with less time for self-study (Table-2).

Table 1: Responses of students (frequency and percentage) regarding integrated method of teaching by Likert Scale.

Item	Agree	Neutral	Disagree
Student's perception regarding content coherence			
Were instructors consistent when teaching a subject?	32 (64%)	10 (20%)	8 (16%)
Was holistic and integrated understanding supported?	35 (70%)	10 (20%)	5 (10%)
Were subjects properly sequenced	27 (54%)	11 (22%)	12 (24%)
Cumulative Content Coherence percentage	62%		
Student's perception regarding teaching Learning methods			
Were various teaching –learning methods supported?	36 (72%)	10 (20%)	4 (8%)
Were specific learning objectives presented?	28 (56%)	20 (40%)	2 (4%)
Was student participation actively encouraged?	38 (76%)	8 (16%)	4 (8%)
Cumulative perception regarding various learning methods	68%		
Student's perception regarding time management			
Was appropriate time assigned for the subjects offered?	25 (50%)	12 (24%)	13 (26%)
Was the timetable properly sequenced?	37 (74%)	5 (10%)	8 (16%)
Cumulative perception regarding time management	62%		
Student's perception regarding evaluation methods			
Was the frequency of tests appropriate?	34 (68%)	10 (20%)	6 (12%)
Was holistic and integrated understanding necessary to solve test items?	30 (60%)	15 (30%)	5 (10%)
Did test items properly reflect learning objectives and contents?	31 (62%)	16 (32%)	3 (6%)
Cumulative perception regarding evaluation methods	62%		

Table 2: Responses Pertaining to the Positive and Negative Perceptions towards integrated teaching- 50 students [3]

Positive Perception		Agree	Disagree
1	It improves the application of knowledge?	48(96%)	2(4%)
2	It develops Logical thinking?	44(88%)	6(12%)
3	Creates interest in Subjects	43(86%)	7(14%)
4	Boosts the confidence and speaking skills	46(92%)	4(8%)
5	Motivates the student to study	40(80%)	10(20%)
6	Good concept	45(90%)	5(10%)
7	Interaction and participation by all	46(92%)	4(8%)
	Cumulative percentage	63%	
Negative Perception			
8	Helps only small group	10(20%)	40(80%)
9	Boring	10(20%)	40(80%)
10	Lengthy at times	30(60%)	20(40%)
	Cumulative percentage	33%	

In response to the comments section, the majority of the students appreciated integrated method of teaching as it promotes conceptual knowledge across basic and clinical

disciplines. The students need to study thoroughly for the end of modules and block exams rather than preparing only important and selective topics for the exams as was the

case in traditional curriculum. They appreciated the research component of PRIME (professionalism & communication skills, research, identity, management & leadership, ethics and law) module as it will inculcate research skills in them which are considered important for the today's doctor for addressing evidence based medical practice.

Suggestions for improvement by the students' witnessed were that faculty should be trained with new teaching techniques, short answers questions should be included in the university block exams as they are already there in the end of module and block exams conducted by the college. Moreover, proper academic calendar and module guides should be made available to them as they are available in almost all private sector and some of the public sector medical colleges. The course content of pharmacology, community medicine and pathology are not aligned with the weightage given to these subjects in summative assessment, because of which most of the students lack interest in these subjects while preparing for block exams.

DISCUSSION

This study shows that students appreciated integrated method of teaching and learning and perceived it excellent with regard to understanding and application of knowledge, logical thinking, increased confidence and interest along with clear concepts. Similar findings were recorded in other studies as well ^{4,8,15}.

The cumulative percentage of students who were satisfied regarding content appeared 62%. Similar observations have been reported in other studies ^{12,16}.

Students with positive feedback regarding various teaching learning methods appeared 68%. These findings are consistent with reported data by ^{10,17,18}.

With regard to time management 62% students gave positive feedback which is comparable to the studies by ^{7,8,19}. In the integrated method of teaching, many changes are brought about in the way exams are conducted now. It involves various departments to work together to create a single paper for 'an end of the module exam' as well as block exam. Questions in the paper are from the entire course taught during that specific module. Because of this shift to single paper, only a single day is required rather than a week-long exam as was practiced in traditional curriculum. This approach provides more time for self-directed learning, so 62% of the students recorded satisfaction with the assessment methods. This is comparable to our national studies. ^{7,11,20}

In the present study, the overall percentage of positive perception to the curriculum obtained was 63% as most of the students were realizing the advantages of creative and logical thinking, more motivational and interactive. These findings are consistent with previous finding ²

Negative perception witnessed was 33% as they consider some of the modules lengthy which leave them with less time for self-study. Such observations have also been reported previously ¹⁴

The significance of this study has provided the implication that students have an important role to play in curriculum evaluation. As a result of their constructive

feedback, important aspects for improvement have been identified along with faculty development.

CONCLUSION

Student feedback helped in assessment of the effectiveness of the integrated curriculum. This evaluation showed that it is appropriate and in accordance with the needs of the students as they gain integrated knowledge by integrated teaching. Stakeholders' suggestions would be utilized for improvement at institutional level. Further multicentre qualitative studies are recommended with involvement of the neighbouring medical colleges and evaluation of long-term impact of integrated curriculum in terms of knowledge retention.

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