

PERCEPTION OF MEDICAL/DENTAL UNDERGRADUATES REGARDING INTERACTIVE LECTURES IN OUTCOME INTEGRATED CURRICULUM

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ABSTRACT

Objective: To determine the feedback of medical and dental undergraduate students towards interactive lectures in an integrated curriculum.

Materials and Methods: A cross-sectional study was conducted in the Kabir medical college and Sardar begum dental college, Peshawar. In this study, 400 undergraduate medical and dental students participated (200 MBBS & 200 BDS). The duration of this study was 2 months (October and November, 2020). The sample size was selected through simple random sampling. 1st year and 3rd year students were excluded from the study. A questionnaire was designed, comprises of 20 questions and responses were recorded in 5-point Likert rating scale. Pre-testing of the questionnaire was done on 10% of the population. SPSS (version 22) were used for data analysis.

Results: The results shown that medical and dental students understand integrated curriculum and they considered that it provides framework and modification in learning, as 66.5% of MBBS and 80.0% of BDS response was positive (p -value < 0.05). Student's perception about the integrated curriculum results showed that the Mean \pm SD of MBBS students were 4.32 ± 0.69 where the BDS students were 4.48 ± 0.66 with -0.16 mean difference. 81.5% MBBS students and 86.0% BDS students also contemplate it as an effective mode of teaching which helps to achieve learning outcomes.

Conclusion: Students have understanding about the interactive lectures and integrated curriculum, they provided positive feedback. It is helpful for students in their learning perspective which will also motivate them to excel in their profession.

Keywords: Perception, Integrated, Feedback, Interactive Learning, Curriculum, Profession

INTRODUCTION

In health care, the current climate is one of refining form that has changed the healthcare delivery and medical education, the medical/dental community

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must examine its field, not as a separate entity, but one included in holistic patient care¹. Communication, assessment, and evaluation of the curriculum should be proper to the educational institution and easily be modified into practice². For modification, it is important to collect feedback through assessment from the students that will provide information regarding their knowledge level for the teachers. Teaching with impact is important for student learn-

ing in professional fields³ In health care education system, the lecture has been the leading form of teaching and principal system of an instruction⁴. A move from the traditional subject-based approach toward integrated system-based teaching is now implemented by the medical/dental institutes⁵. Mc Masters in Canada who are the pioneers in providing and practicing integrated curricula in medical education⁶. The main features of this curricula are educational strategies, assessment tools and the learning outcomes⁷. It focuses on the active learning pathway i.e., Task-based learning (TBL), Problem-based learning and Small group discussion (SGD) where student's intelligence is based on essential knowledge⁸ and the learning outcomes for them should be arranged with productive educational theories. According to medical education research, lecture as least effective⁹. It is a passive way that can be utilized for abstract cognizance of evidence to tie the knowledge gap among students and teachers, and for large groups most of the preferred teaching tool in medical institutes. The lecture is a core educational method for delivering theoretical knowledge and well-defined as one-way communication of a person. To make the lecture interactive the scholars advocated replacing the traditional lectures with interactive lectures¹⁰ to improve the knowledge that is transferred in the form of questions and answers. Animated lectures have best learning outcomes according to Paivio's dual-coding theory. Small group learning methods are the productive approach for interactive learning⁷, the facilitators and students are participating in actively¹¹ and motivates and improves the heedfulness of the students for formative feedback¹¹. The interactive lecture is the core method used in obtaining learning outcomes of an integrated curriculum. Many studies have been done to understand student feedback towards "Interactive lectures" in medical/dental undergraduate students¹². Effective teaching, curriculum modification, conducive environment, students can have a better chance to perceive good quality information¹³. It is important for an institute that there is a healthy student-teacher relationship for the productive educational environment. Ramsden¹⁴ made partial corrections to the fundamental knowledge of productive teaching as it would provide the depth of the knowledge. According to Harden¹⁵, there is more focus on the autonomy of the students in medical universities, as they have increased responsibility for their education, and they

have a variety of different styles and approaches to their learnedness. The students enjoy taking part in the discussion and remember the topic during brainstorming. It provides, to develop skills, to improve students' knowledge and behavior towards learning¹¹. Small group discussions (SGDs), reinforce whatever had been taught in the lecture. It involves linking of theory and practice which serves as the core ingredient for developing clinical reasoning. The purpose of this study was to evaluate the feedback regarding the perception of the students towards the integrated curriculum in Gandhara University. As it is modified educational structure for the medical students, and they are used to traditional setups.

MATERIALS AND METHODS

The study design for this study was the cross-sectional, using quantitative approaches. The duration of this study was to 2 months from October 2020 to November 2020. The sample size was 400 students of MBBS and BDS in the 3rd and 4th year professionals, including both genders. The 1st year and 2nd year MBBS/BDS students were excluded. Sample was selected through simple random sampling, a probability sampling. The students of medical and dental colleges of Peshawar were randomly asked to participate in the study on voluntarily basis and fill the questionnaire. A close-ended questionnaire was designed from literature review of articles on interactive lectures, an integrated curriculum^{13,14}. Informed consent was taken from the students as well as from the authorities. A pilot study was conducted on 10% of the population. Response rate was 100%. Ethical approval for this study was taken from the ethical committee of Gandhara University, reference number is No.GU/Ethical Committee/2019/1831.

RESULTS

A total 400 of medical and dental undergraduates participated in the study. The mean age of the participants was 20 years. Both the male and female students participated, and the response was 100 per cent. Table 1 is showing the students response on the integrated curriculum. Out of 400 participants, 133 (66.5%) MBBS and 160 (80.0%) BDS students were agreed that integrated curriculum provides framework and facilitate modification in learning ($\chi^2=9.301$, $p<0.05$). Table 2 provides students perception about the integrated curriculum. The Mean \pm SD of MBBS students were 4.32 ± 0.69 where

the BDS students were 4.48 ± 0.66 with -0.16 mean difference ($t=-2.35$, $p<0.05$). The table 3 represents the students' responses that how integrated curriculum is effective in achieving their goals. The results showed that 81.5 per cent of the MBBS and 86.0 per cent of the BDS undergraduates agreed that integrated curriculum aids in achieving their outcomes ($\chi^2=10.394$, $p<0.05$).

DISCUSSION

MBBS and BDS undergraduate students' understanding and perception about the integrated curriculum was assessed and compared in this study. Health educationalists are continuously emphasizing to move medical curricula from lecture and teacher-based curricula to students focused programs²². Medical education is changing energetically, most of the American medical institutes are involved in curricular improvements. Implementing horizontal or vertical curricular integration is the major modification which has been focused more recently. Horizontal integration fuse either the interrelated basic science domains to amend the undergraduates' understanding of the body systems, or the interrelated domains of clinical science via interdisciplinary guidance¹⁸. Our study, the MBBS students had less perception in the modification of knowledge and

skills regarding the integrated curriculum than the students in dentistry¹⁹. Furthermore, the dental students were keener in improving the quality of the medical education that would provide better skills in the long run. The traditional curriculum provides undergraduates with limited opportunities to participate in establishing an introductory diagnosis and sequential symptomatic and restorative²¹. Whereas medical students educated by the avenue of the new curriculum is an efficacious concept to gain comprehensive information, attainment of practical skills and recognizes the topics as diverse disciplines of the courses²⁰. Additionally, in bulky classes, undergraduates could be metered into performing pods to improve the comfort of listing the concepts similarly gathering the importance of the model. In small-group, the students' have faculty governance, a preliminary concept for evaluation, and relationship-based learning and curriculum²¹. The shift towards integrated curriculum has productive comprehension and endures less stressful than traditional curriculum²². In the present study, integrated teaching was perceived to be useful by most of the medical/dental undergraduates, a p-value of 0.01. Interestingly, these undergraduates feel that with the integration of the curriculum would increase their level of confidence and knowledge and skills during

Table 1: It represents the students' responses on integrated curriculum

Education	Provides framework & facilitate modification in learning		Total	Chi-square value	p-value
	Yes	No			
MBBS	133 (66.5%)	67 (33.5%)	400 (100%)	9.301	<0.05
BDS	160 (80.0%)	40 (20.0%)			

Table 2: It shows that integrated curriculum is effective than traditional curriculum

Education	Mean	SD	Mean difference	95% confidence interval of the difference		t-value	p-value
				Lower	Upper		
MBBS	4.32	0.69	-0.16	-0.29	-0.27	-2.35	<0.05
BDS	4.48	0.66					

Table 3: Student's responses that integrated curriculum is helpful in achieving outcomes

Education	Helps in achieving outcomes		Total	Chi-square value	p-value
	Yes	No			
MBBS	163 (81.5%)	37 (18.5%)	400 (100%)	10.394	<0.05
BDS	172 (86.0%)	28 (14.0%)			

their undergraduate level. Europe and North America promote student-centered knowledge exercises with the improvement in the integrated curriculum. Faculty need to modify and what/how is the course being taught. Students will be capable to comprehend the relevance of their curriculum with the clinical skills in their practical life. In our study, the outcome of perception in an integrated curriculum was 78.5% in MBBS and 86.2% in BDS. In the SPICES model for educational strategies, integration is described as a sequence through full integration at the side, discipline-based teaching on the other side through intermediate measures between the two ends²⁰. In our study the students felt that they could achieve better outcomes; in having the depth of knowledge that is important for experienced consultants, understanding their merits and demerits, managing complexity, and involved in self-representation. These medical/dental students could also understand how patient care is affected socially in their life and to work with patients from diverse backgrounds. To develop a vivid association with the faculty mentors it is difficult for the students with bounded opportunities in the traditional curriculum. Whereas, in the integrated curriculum, enhanced role modelling and mentoring give guarantee for the students' involvement. Moreover, to achieve these outcomes improves the depth of the knowledge and the skills for learners with safe and effective clinical training²¹. naturalizing the learning exercises, the learning perspective should be adopted by introducing learning and teaching methodologies²².

LIMITATIONS

This study was administered in one college of the province although such studies should be directed on the provincial level to generalize the results and make comparison between the traditional and integrated curriculum.

CONCLUSION

Medical students (MBBS/BDS) supports the integrated curriculum and this program enhances their academic capabilities. It also motivates students to acquire knowledge and develop practical skills which are much needed in their professional career.

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