

DENTAL CURRICULUM DEVELOPMENT BY ENGAGING STUDENTS: THE NEED OF TIME

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ABSTRACT

Objective: To identify the strengths & weaknesses of current curriculum of dentistry for a future integrated curriculum.

Study Design: A qualitative explorative study.

Place and Duration of Study: Study was conducted at Foundation University College of Dentistry, Islamabad, from Feb to Aug 2017.

Methodology: We conducted a two session focus group discussion (FGD) was conducted with equally stratified students according to their academic achievements i.e. high achievers (70-80%) and low achievers (56-62%) grades in Oral Biology. A total of 14 students, 7 from each high and low achievers group participated in each FGD session.

Results: Students reservations were based on 6 themes, which are; i) Teaching method, ii) Difficulties in 1st year BDS education, iii) State of cooperation between teachers and students, iv) Status of qualified and experienced regular faculty and v) Role of students in curriculum development and vi) Lack of interactive sessions and discussions.

Conclusion: This study findings show the strengths & weaknesses of current curriculum of dentistry and that the status of curriculum can be improved by integrating multiple modes of teaching and that the students should be involved in an interactive discussions and debates on various basic concepts in an interactive class. Integrated curriculum of dentistry is the need of time.

Keywords: BDS students, Curriculum, Dentistry.

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INTRODUCTION

How many of us (the health care professionals) had the opportunity to design and formulate the same curriculum that we studied; at the undergraduate level? The answer is NONE. In our medical education system it is quite difficult to comprehend students getting involved in designing the curriculum, whereas input from students in this respect is strongly supported by Handley and Eve in their study¹. The student involvement in curriculum development was devised in the first issue of SPICES model². Students are ignored while doing curricular reforms³. Harden, described 11 steps in the level of integration of curriculum from isolation to trans-disciplinary

teaching and learning, which are presented in the form of an integration ladder³.

Thoroughly assessing today's medical education system it appears that students play a passive role, as they are ignored by the university authorities in development of the curriculum, scrutinizing/evaluating system as well as ignorance about student's rights and responsibilities. This leads to lack of understanding and inadequate knowledge about the medical education system and in turn demotivates the students⁴.

In order to give students a meaningful role in designing, management and evaluating the curriculum as advocated by WFME 2015 document; students should be given an active role in medical education department of an institute, this will lead to better understanding of course content, autonomy and less psychological pressure⁵. In this regard the teaching methodology, course

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content and its design, cooperation between faculty & students should be looked into.

This study was aimed at, collecting the input from students of our dental college; on the strengths and weaknesses of Oral Biology curriculum and how should it be changed for better understanding by the students. The current status of medical curriculum deviates from the expectation of students, specially, in basic subjects of dentistry like Oral Biology.

Due to the impact of this subject a lot of research has been carried out. Jafarey mentioned in his literature that curriculum is the most important issue that needs urgent attention of medical or dental educators⁶. Aptitude of students is their inborn ability⁷, course content and its design, cooperation between faculty & students should be looked into. The students should be involved in curriculum designing. By relating student education and research into a interrelated relationship, we can link all three (student, faculty & community) in a new ways of connection⁸.

METHODOLOGY

It was a qualitative explorative (focus group discussions) study, which was conducted in Foundation University College of Dentistry, Islamabad. The duration was 6 months i.e, from 6th February to 31st August 2017. The sampling technique was non probability purposive sampling type.

Qualitative explorative style of study was used to have a better representative view of data. It offers participant's involvement and expression relating to their problems. The sample was students of 2nd year BDS. Which were divided into two strata according to their grades in the subject of Oral Biology i.e, high achievers (70-80%) and low achievers (56-62%). The sample size was 14 in total. Two sessions of focus group discussions (FGD) were conducted, by dividing them into groups of seven each. The high achievers group had all female students while the low achievers group had 4 females and 3 males.

The researcher himself was the moderator of the sessions. Written informed consent was taken (in English language) from students before the start of the FGD session. They were asked a set of 6 questions (in English language) and their responses were audio taped and noted in written form as well. The session duration was of 60 minutes. The study aim was measured in terms of weaknesses and strengths of Oral Biology curriculum according to student's perceptions.

The mode of discussion was in English language, which was transcribed and word documents were prepared for each FGD. Conformability was achieved by arrangement of the transcribed material, manual scanning of responses by students was done and key messages were noted. Continuous statements and phrases were highlighted by aligning the transcribed responses to each question Coding were done by thematic analysis; Open codes, Selective codes and Themes. Triangulation and member checking was performed to validate my findings.

RESULTS

The following themes were extracted;

1. Teaching methodology.
2. Difficulties faced in 1st year.
3. No cooperation between teachers & the students.
4. In-experienced teaching faculty.
5. No group discussions.
6. No role of students in curriculum development.

High Achieving Students (70-80%)

Expectations about curriculum

Almost all the respondents mentioned that they had high expectations of dental education when they joined BDS studies. They had an idea that the class sessions will be more informative and detailed as in pre-medical F.Sc. classes.

Around 10% subjects stated that their expectations about curriculum were met; the experience of joining BDS education was good. Regarding problems in 1st year BDS with respect

to curriculum: Many respondents said that they knew there will be difference between FSc and BDS curriculum as in pre-medical FSc they had gone through one book, however, in BDS there are two books plus the discussion and presentations are different too.

Teaching Method

They had to adjust to new style of teaching; most of the stuff was presentation and slides in whole day lectures.

Communication between Teacher and Student

Most of the respondents (75%) were not satisfied with the communication style of teachers. Teachers presented lectures as Power Point Slides and always mentioned that they are giving introductory concepts only.

Practical & theoretical modes of study

More than 50% or fewer students preferred the practical session of OSPE. One subject said, "As compare to the theory exam, the OSPE were quite easy".

Lack of qualified and experienced teachers

Most of the student mentioned (70%) that regular staff having appropriate qualification and teaching experience should be hired.

Role of students in curriculum development

When the respondents were asked to suggest on how the institute can help them to meet the expectations, majority (75%) of students said that they should be given chance to give input in the schedule of studies and curriculum.

Coordination between students, teachers and institute

Many respondents (60%) highlighted the lack of coordination between teachers and students, as the first year in BDS is quite difficult for new arrivals.

Communication skills

Some students were not comfortable with the communication status during the classes and almost one third of them suggested that the

college should hire good teachers with plenty of experience and good communications skills. Discussions & interactive sessions. Again most of the students mentioned that interactive sessions should be included in the curriculum. There should be group discussions apart from presentations.

Student's presentation and competition. While preparing for a presentation the students had to go through each and every detail pertaining to the topic. Satisfaction of students regarding teaching methods. Few students (20%) said that they are satisfied with the mode of

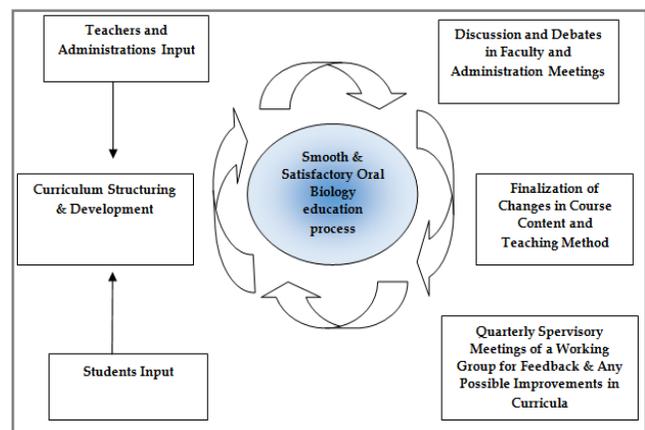


Figure: Conceptual framework of student's engagement in curriculum development.

education; however they mentioned there was a room for improvement.

Difficulty in Oral Biology

Most of the students thought that oral biology curriculum was difficult. One subject said that, "I think the curriculum was a bit difficult for a normal student."

Teaching method

Most of the students mentioned that the method of teaching was not appropriate. As one subject said, "I couldn't understand Oral Bio from the beginning, because teacher's way of teaching was the reason".

Unmet expectations

Almost 80% respondents said their expectations to Oral Biology curriculum were not met.

As one of the subject said that, "I think my expectations were not met, I was hoping that they will teach us that what are the basic concepts".

Satisfactory curriculum

Fewer students (20%) thought that the curriculum is adequate and it was same as they expected. As a subject said that, "I really had no issues with the curriculum, because there were limited numbers of books".

Cooperation between teachers and students

There should be a coordination between students and teachers. As a subject said, "I had a few problems with our teachers, because the slides were really precise & the course was very lengthy".

Role of students in curriculum development

The faculty should include BDS students when deciding the pattern of study. As one subject said that, "Teaching style should be changed, they should put more attention towards us, and they should give more time to us, and I think there wasn't too much concern towards us".

Check and balance of teaching staff

A subject said that. "Institute should check the teachers if they are delivering the lectures according to the need of the students".

Flaws in curriculum

Most of the students thought that the curriculum is flawed as teaching method is very specific and difficult. There should be a change in teaching method and style.

Self-study

A subject said that, "in the end we had to study by ourselves to understand, & every answer to any question was it's in this book & this page, just look for it. It was difficult in the beginning".

Earlier difficulty, later comfort

A subject said that, "it was difficult for us to capture things, take the concept on the 1st go, but as the year progressed we were like use to it & tried to go with it as it is, & managed by ourselves".

DISCUSSION

In the light of observations of this study the Oral Biology curriculum is inadequate, unsatisfactory and needs to be revised. Both high and low achieving students highlighted the following 6 themes;

Teaching Methods. Difficulties in first year BDS education and Oral Biology. Lack of cooperation between teachers and students. Lack of qualified and experienced regular faculty. Role of students in curriculum development. Absence of interactive sessions and discussions. Several institutions have suggested proper training of medical educationists and monitoring of their teaching during the whole session⁹. The study discloses that students faced problems in the first year taking into account the contrast between F.Sc, and BDS education system.

On the skills point of view, the experienced teaching and technical staff could play a vital role in these situations. Rayan T & Handerson advocated this point in his literature that there are very basic issues that must be discussed and finalized in curriculum designing¹⁰. Jafarey cited in his literature that curriculum is the most important issue needing attention dental educators⁶. Students complained that the teaching faculty kept on changing and their communication skills were questionable which is also advocated by previous studies. Faculty should promote problem solving and critical thinking¹¹. During this study, the mismatching of the teaching content and the course book made it tough for students to comprehend, this is also has been mentioned by Deng¹². Three main ideologies were described by Kelly¹³. Curriculum as content and education as transmission, Curriculum as product and education as instrumental, and Curriculum as process and education as development.

Shah has mentioned that due to the rigid attitude of our (Pakistan) policy makers, there are numbers of problems, which need to be sorted out and remedial actions be taken¹⁴.

These findings highlight the importance of student's involvement in medical curriculum formulation. In our institute, the MBBS students give input in curriculum development, whereas no BDS students are involved.

There are many examples from the literature about student's participation in curriculum designing and its benefits. A recent study by D'Haese *et al* revealed that student's participation in curriculum designing and study progress has led to major changes in Ghent University, Belgium. After lots of discussions between study body, academicians and college administrations the degree has been revised to 6 years instead of 7 years¹⁵.

Another study by Fujikawa *et al* reported that by student's participation in the process of curriculum finalization, they developed liaison with other influential and intelligent peers at the institute which can lead to exposure to positive professional attitude and behavior⁴. Mahmood *et al* highlighted the issue of weak curriculum in library and information sciences. He concluded that it would be very difficult to find manpower possessing required knowledge and skills for respective professions^{16,17}.

Nasim M pointed out that learning should be community oriented, that is, education should focus on the health needs of the community and the groups and individuals within it¹⁸. Many students grasp knowledge more accurately in Problem Based Learning sessions and discussions which act as a guiding role to the teacher and students learn by themselves and from their peers during these brain storming exercises¹¹.

According to majority of educationists the present curriculum format is not suitable to meet the twenty first century medical challenges¹⁹.

Demand in current medical practices is multi-dimensional besides the basic medical education in basic and clinical sciences. The students need to have thorough understanding of other areas related to health like; population health, healthcare systems, health policies and interdisciplinary healthcare²⁰.

The medical colleges in Pakistan should also follow the examples of international institutions and give opportunity to all stake holders including dental students to participate in curriculum designing (figure).

The current study adds many advantages. This is one of the very few evaluations of students' ideas and perceptions regarding BDS curriculum of Oral Biology. A group of students was assessed using FGDs so that they can openly express the current state of curriculum and their experiences at this college during their first year. Limitations of the study were mainly related to the composition of FGDs as we could not stratify the groups according to gender adequately and male gender participation was too less than females. Initially, two medical colleges were planned to be studied, however, due to technical and logistical issues this could not be achieved. Moreover, other stakeholders like faculty members and administrators were not included in the study.

CONCLUSION

As per study findings, the status of Oral Biology curriculum was not up to mark. In this regard the teaching methodology, course content and its design, cooperation between faculty & students should be looked into. The students should be involved in curriculum designing.

This study opinionates a selective group of BDS students views in a medical institute. For generalization of these findings further large-scale research studies should be done. There should be equal stratification of composition of FGDs participants and other stake holders like teachers and administrators should also be interviewed.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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