Significance of Student's Feedback in the Development of Dental Curriculum: A Qualitative Study

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Abstract

Objective: To understand the significance and importance of the students' feedback in the development and incorporation of the students' point of view and reservations as a stakeholder in order to build a more effective and unbiased dental curriculum.

Methods: A qualitative explorative study was conducted in Foundation University College of Dentistry for a duration of 6 months starting from 6th Feb and ending on 18th Aug 2017.Inclusion criteria included a two sessional focus group discussion (FGD) conducted with likewise graded students as per their exam scores which include high achieving (75-85%) and low achieving groups (55-66%) in the subject of Oral Biology. Those students who were willing to participate in this study.Exclusion criteria included students who scored less than 55% in low achievers and those who scored less than 75% in high achievers in the subject of Oral Biology. Also those who were not willing to participate in this study.Sample size was of 14 students took part in the FGD sessions.

Results: Manual Thematic analysis was done to drive codes out of it. Open and Selective codes and themes were derived. Member checking and triangulation was done to validate my findings.

Six common themes were adopted and students were asked to record their views and reservations on these themes. The themes included.Teaching approach, Issues regarding 1st year BDS education,Teachers/Students collaboration, Faculty qualification/experience status, Impact of student's input in curriculum development, Absence of collaborative sessions.

All these points included were added based upon the students' feedbacks and reservations about the curriculum, teachers, assessment modes and were considered critical for better learning.

Conclusion: As per our study findings, integrating multiple teaching approaches and emphasizing on students' feedback is significant for dental curriculum development.

Keywords: Formative Feedback, Curriculum, Students, Dental.

IRB: Approved by Ethical Review Board of Foundation University Medical College. Ref# FF/FUMC/215-91Phy/21. Dated: 28th January 2021.

Citation: Sheikh QM, Ghafoor MW, Jameel RA, Chaudhry SYG, Ejaz S, Masood M. Significance of Student's Feedback in the Development of Dental Curriculum: A Qualitative Study [Online]. Annals ASH & KMDC 2022;27:89-96

(ASH & KMDC 27(2):89;2022)

Introduction

The term curriculum as per Oxford dictionary is "The subjects comprising a course of study in a school or college", which means that the emphasis is on the content in comparison learning depends mostly on how the content is delivered by the teachers, learned by the students, and finally assessed. Curriculum is a critical element of any medical program as it is the basic resource of information that the internal stakeholders i.e. students, teachers and external stakeholders use to comprehend what the students will experience on their academic journey to become a mature medical professional with empathy and professional attitude.

An effective curriculum meets the basic cultural and societal demands and serve the prospects of the population. Curriculum development h-

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Date of Submission:4th march 2021
Date of Acceptance: 27th may 2022

has to be revisited continuously based upon the feedback and reviews[1]. The latest curriculum may differ from the conventional curricula which was more discipline based and quite difficult to integrate[2]. The most important pillar of curricular development is the subject specialists and teachers, who utilizes their knowledge and ideas for an effective output[3].

Feedback can be referred as a phenomenon of identifying the breach between the existing and expected levels of knowledge/skills[1]. Previously, the feedback was thought to be the way of the teacher's viewpoint towards the students, and was mandatory for the teachers and more teacher centric[4]. In contrary to that, a learning centred feedback involves the learners along with the teachers in the development of the curriculum.The feedback of our students has identified various lags, and helped cover them in grasping more advantage from the educational system[4].

Harden proposed ten questions/guidelines that are the basic principles or pillars for the construction of the medical curriculum, these include questions regarding to needs, aims and objectives, contents that should be included, how to organize the content properly, educational policies that should be implemented, teaching and assessment methodologies, need of a proper educational environment, and lastly how to manage all these above mentioned processes. Harden also mentioned 6 major concerns (SPICES model) which emphasise on educational strategies whether they are student or teacher centred, problem solving or information gathering, integrated or speciality based, community-based or hospital based, elective or standard, systematic or apprenticeship[5].

As a health professional, do we ever feel what dental students go through during their BDS studies? This question enthralled to carry out this study about what is the student's opinion regarding our dental educational system in general and particularly about the Oral Biology subject.

In our medical/dental educational system it seems quite hard to comprehend as to why the students should have a say in planning the dental curriculum, whereas students feedback in this reference is highly recommended[6-9].

Student's active participation in meetings pertaining to curriculum designing is very beneficial to all the stakeholders of the institute, by creating a unique network of highly motivated peers. So, by the use of this formal activity, the institute by developing these groups of students, motivates them to develop professionally, ethically, and socially. The values of serving the public are better found in motivated students though leading them to be well equipped medical professionals when they graduate,which many medical educators in traditional medical teaching techniques are struggling to be after graduation.

A study by Fujikawa H et al reported that student's participation in the process of curriculum finalization helps them in overcoming the barrier between them and the faculty which was previously suboptimal, to have a positive learning environment by communicating face to face with all the stakeholders of the institute and providing their concerns related to issues in the medical education program[10].

It is pertinent to mention here that World Federation for Medical Education (WFME) 2015 document[1] support the dynamic role of students in their institute's curriculum development which may result in better understanding of their course content, this may also result in reducing their stress. The intention of our study was to collect feedback of students of our dental college regarding curriculum of Oral Biology so that it can be amended in future for healthier learning of our students.

Methods

Qualitative study was done for 6 months from 6th Feb to 18th Aug 2017. We used the purposeful non-probability sampling type. Permission was sought from the Ethical Review Committee of

informed consent was obtained from the students at the start of the study. The sample from 2nd year BDS students was distributed into 2 groups as per their grades in the Oral Biology subject i.e. high scorers (75-85%) and low scorers (55-66%). A two sessions FGD was conducted, by allotting them into groups of 7 each. The high scorer group consists of all females whereas low scoring group had 5 females and 2 males. All students not attaining this percentage were excluded from the study.

Just before each FGD session, an informed written consent was taken from the students by the moderator/researcher. A set of 6 questions was asked by the researcher from students and their answers were audio recorded and transcribed as well. The duration of each session was 60 to 90 minutes.Study result was formulated on basis of good and bad points of curriculum of Oral Biology by taking student's feedback.

The participants were assured of anonymity, confidentiality and secrecy of information.The data was transcribed and documented for each FGD. We achieved conformability by properly arranging the written material, students' answers and key messages were documented and manually scanned. Uninterrupted statements and sayings were underlined by arranging the recorded answers for every query. Manual Thematic analysis was done to drive codes out of it. Open and Selective codes and Themes were derived. Member checking and triangulation was done to validate our findings. In Triangulation process, the researcher asked the group of students from high scorers of the class who did not participate in FGD if the researcher have interpreted the themes correctly or not. The same question was asked from FGD non-participant low achievers. In member checking, the researcher asked from participants of each FGD group if the researcher have interpreted the right themes from their answers. The following are the 6 themes that were highlighted by both FGDs: teaching mode,problems in 1st year BDS education, teachers/students cooperation, faculty qualification/experience status, student's role in curriculum development; lack of interactive sessions.

Results

From the group of high achieving students (scoring 75-85%) the following aspects of curriculum were highlighted, Fig 2.

Most of the students highlighted that before joining BDS studies they had quite some expectations about dental education that the lectures will be as informative as they were in F.Sc. Few participants pointed out that their hopes were met regarding curriculum.

As per most of the students to pass in BDS studies, they have to go through more than one book and consult lecture notes, as compared to FSc where they had to consult just one book. Majority of students were not at ease with the teaching approach. Teachers gave lectures as Power Point presentations thus only giving basic concepts,rest the students have to study by themselves.

Around half of the students preferred OSPE ses-sion. One student said, *"In Comparison to theory exam, the OSPE was easy".*When the students were asked to give feedback on the role of the institute to fulfil their anticipations, majority of them responded that the institute should value their input in the curriculum designing. Few students stated that there is communication gap between teachers and students in lectures.

Majority of the students said that the dental curriculum must have collaborative sessions and group discussions. A frequent issue that students were facing was that while making a presentation they had to go through the whole topic which was not taught during the lectures.Very few students stated that they were satisfied with the method of education, with a room for progress.

From the low achieving students group (scoring 55-66%) the following problems were identified; as per majority of the students dental curriculum was tough. One student said that, "I think the curriculum was a bit problematic for a normal student."

Regarding teaching approach, almost all students pointed out that the methods of teaching were not proper. As one student said, *"*I couldn't comprehend Oral Bio from the beginning, because teacher's way of teaching was to be blamed". Majority of the students were of the opinion, *"*We think our expectations were not met, as we thought that we will be taught basic concepts". Very few students were of the opinion, *"*Owing to a small number of books we have no issues with the curriculum". The students also emphasized that students and teachers should coordinate. As one student said, "I had issues with my teachers, owing to precision of slides and lengthy".

The student emphasized that faculty should weigh in their opinions while determining the design of study. As one student said that, "Teaching pattern should be modified, by giving more attention towards us". According to one student. *"*Institute should check the teachers if they are delivering the lectures according to the need of the students*"*.

According to majority of students the curriculum has many deficiencies. There should be an improvement in teaching methodology.

One student stated that, "in the end we had t-o study by ourselves to understand and every answer to any question was it's in this book and this page, just look for it. It was difficult in the beginning". Another student stated that, "it was difficult for us to capture things, take the concept on the first go, but as the year progressed we were like used to it and tried to go with it as it is, and managed by ourselves".

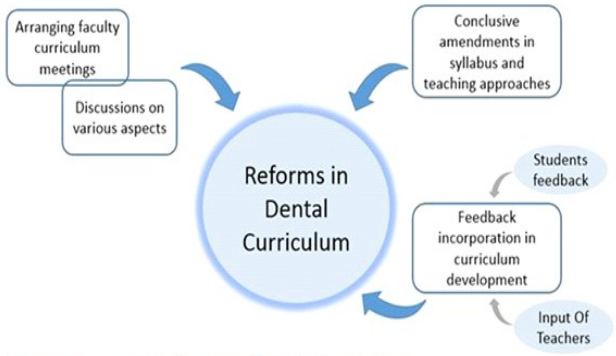

Figure 1: Factors Effecting Dental Curriculum Reforms

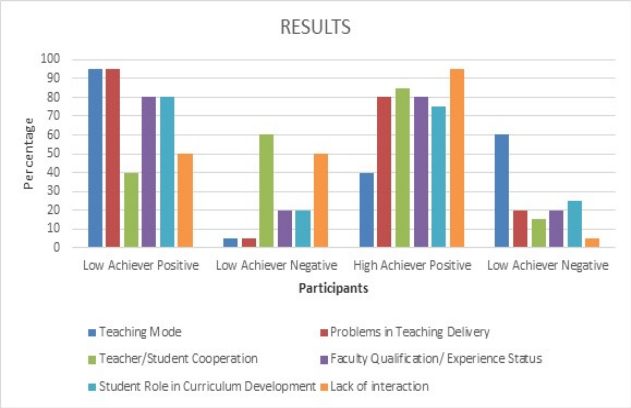

Fig 2. A graphical presentation of results showing problems raised by the students in percentage

Discussion

Curriculum is the foundation of any institute which shows the roadmap of events taking place during the whole academic year, but it cannot be in a static state, by time it needs developments according to current needs of community, for this, feedback of students is one of the important part which indicates the problems they are facing, according to which the teachers do the reforms in the curriculum.

Medical and dental education has a direct impact on the health structure of the community, thus a proper and justifiable healthcare care should be produced through the medical and dental education that would be able to serve the community with empathy and professional attitude. Curriculum as a whole consists of course content, teaching and assessment methodologies.

In this study, students contributed rich insights of their perspectives. Themes we identified from student receptiveness to the curriculum are consistent with those identified by Delva et al regarding determinants of feedback-seeking[11,12]. Consistent with prior studies, participants in our 2 groups expressed the concern for the presence of a conducive environment that normalizes and encourages them to reflect their feedback[3,13].(in superscript)

Many institutions are seeking to create a separate department of medical education to acco-

mplish a new type of academic, for a formal training of doctors as the medical education has advanced from the work of academics to that of healthcare professionals with further training notably in education[14]. As andragogy theory advocates, students showed interest in self-directed learning involving alternative and new instructional methods. They preferred their teachers to act as facilitators rather than traditional academic instructors. Applying adult learning principles to design the instructions can strengthen medical education.

Students experienced issues in the first year owing to difference between F.Sc and BDS education system. Such situations are approached judiciously by a trained teaching faculty. These main issues need to be addressed & contemplated in reforming the curriculum.

In this study, students markedly observed the qualifications/experience and communication skills of the teaching faculty and expressed dissatisfaction regarding Oral Biology teaching. The discordance of content of teaching given in curricula and that in course books made it difficult for the students to assimilate, which is backed by Eva &Regher[14,15].

Traditional undergraduate medical curricula ne-ed reconstitution to account for communicating core knowledge instead of providing plethora of information, and introducing interdisciplinary teaching and learning strategies that successfully inspire and educate students[4]. The variety in education techniques is critical to the success of the curriculum. As per these findings involvement of students in medical curriculum formulation is highlighted[16,17]. In our college, the students' feedback is appraised when MBBS curriculum is structured to enhance the learning experience, but this practice has yet to be started for BDS curriculum development.

The Medical education literature emphasized the potential advantages of student's involvement in curriculum formulation[18-20]. As per a study by D'Haese et al conducted in Ghent University, Belg-ium has revealed that when students were taken as a stakeholders in curriculum reforms, the curriculum of 7 years program reduced to 6 years[21]. This transition was made by eliminating the superfluous content and reorganizing the curriculum after discussions that involved student body, academicians and college administrators.

Student's engagement in medical education h-as a wider perspective[4] other than improvement in educational processes. Fujikawa H et al stated that students get an opportunity to interact with other highly motivated and intelligent peers as well as faculty members in the process of curriculum reforms. This networking leads to develop positive professional attitude and behaviour in them[10].

Issues pertaining to weak curriculum for the department of library and information sciences was stressed upon by Mahmood K in his study. Thus the reformed curriculum was implemented by the Department of Library and Information Sciences at Punjab University.

However, the senior professionals, especially from some known universities and special libraries, who had reviewed this progress in curriculum development insisted for a further revision and effective implementation of this curriculum. They further raised the point that the quality of education level is not up to the mark,reason being that the library schools were not keeping pace with the latest technological and environmental developments in libraries. This led to their deduction that it would not be an easy task to find manpower possessing required knowledge and skills for particular professions[22-24].

The existing medical and dental education system in Pakistan has its roots in the colonial era. There are many institutes where medical and dental education is being taught to undergraduate students. On the basis of technical and application point of view, medical and dental education is not the same as that of conventional education.

As the professional world of health care is dramatically evolving with the time, educationists

believe that the present educational preparation and training is not suitable to enable medical practitioners to meet the challenges in 21st century health systems[25]. There is dire need to reform medical education by developing a national accreditation system for undergraduate medical training.

The undergraduate medical education curriculum is facing challenge not only to incorporate the learning of a body of knowledge that is continuously expanding and changing but there is increasing demands placed on such programs to assimilate more content into medical curricula as the profession evolves to meet public, health system and professional demands for better comprehension of students[26].

Patterns of international institutions should be followed by medical and dental colleges in Pakistan by taking all stake holders on board including dental students to take part in curriculum reforms. There should be students' working groups or committees which should be incorporated into the main curriculum committee to observe the overall educational system and its reformative progress within the institute. The students should be given the opportunity to critically analyse the curriculum and also the level of teaching within the institute. The students' responses should not be constrained so they should be able to independently state their views whenever needed during the curriculum meetings,giving the students a sense of professional maturity. This will have a positive impact on the professional attitude of the students leading to the production of highly qualified, self-directed medical professionals with a positive attitude.

The present study highlights many benefits: there are few studies where students are brought together to encourage dialogue and exchange ideas on how to improve BDS curriculum; student's contribution in medical education using FGDs gives them an opportunity to express their experiences regarding curriculum[1,27]. This builds up their professionalism which is the need of the hour.

The phenomena of engaging students to make reform in dental curriculum is very helpful in their academic growth, the WFME Document of 2015 advocated engaging the students in designing, management and better evaluation of the curriculum. Students are the major pillars of medical education and thus should be given proper accreditation by giving them the opportunity to attend curriculum committee meetings, by giving weightage to their perception and feedback regarding the curriculum.

Limitations of the study were mainly the small sample size without representing the whole cohort of students and the composition of FGDs with more participation of male gender as compared to females.

It involved only one specialty (Oral Biology) therefore difficult to compare across a range of disciplines which may limit its generalizability. This study involved only one institution. Primarily, two medical colleges were planned; however, this could not be achieved due to some technical and logistical issues. Also, other stakeholders (faculty members and administrators) were not involved. A focus group that brings students and faculty together for exploring perspectives from both groups in the feedback exchange process may be more effectual in establishing shared understanding of the constraints and possible solutions for improving the curriculum. Our recommendation to future researchers would be to add more medical institutes of our country and feedbacks of other stakeholders for example faculty members and administrators may be involved to yield better results.

Conclusion

Faculty and students do differ in their viewpoints regarding curriculum in traditional educational methods. A comprehensive dental curriculum can be developed with an agreement between student and faculty implementing new systems of teaching basic science and applying principles with a clinical approach that ensures the highest standards of education. Students are one

of the stakeholders in the educational system therefore their perceptions of the dental education necessitate feedback to improve their understanding in the field of the profession.

Conflict of Interests

Authors have no conflict of interests and received no grant/funding from any organization

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