

Perception of Undergraduate Dental Students Regarding Teaching Learning Methods in Oral Pathology

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ABSTRACT

Background

Third year is considered crucial in undergraduate dental education as this is when students start to have clinical exposure and taught about various oral pathologies. Many a times, students fail to make proper clinical and pathological correlation. It is the responsibility of teacher to impart adequate knowledge to the students regarding a disease in most effective way. Understanding the students perception is an effective way of making new roadmaps for teaching.

Objective

To assess undergraduate dental student's perspectives regarding oral pathology along with the effectiveness of various teaching learning methods and assessment methods currently used by faculties of Department of Oral Pathology.

Method

This cross sectional study was conducted from June 2023 to July 2023 among 136 undergraduate dental students of Kathmandu University School of Medical Sciences by using the pretested questionnaire. Convenience sampling method was used. The data collected were entered into the Microsoft Excel Sheet and statistical analysis was done using Statistical Package for the Social Sciences version 20.

Result

A total of 136 students participated in the study. Among them, 46 (33.8) were from third year, 51 (37.5) were from fourth year and 39 (28.7) were from fifth year. Half of the students believed that oral pathology is an interesting subject. Most of students; 66 (48.5) participants strongly agreed that knowledge of oral pathology helps in clinical training. Except two students, all the participants said that integration of oral pathology teaching with clinical training will help in better understanding of diseases. More than half of the students 71 (52.2) agreed that lectures and demonstrations taken by faculties has stimulated interest in the subject. Most students 80 (58.8) believe that formative assessment serve the purpose of analyzing the cognitive skill. Sixty six (48.5) students agree that MCQs are an effective tool for analyzing cognitive skills.

Conclusion

The overall perception of undergraduate dental students regarding the oral pathology subject and the teaching learning method used by faculties is good. However, incorporation of case based learning, integration of oral pathology with other clinical subjects and taking regular feedback from students may be of great use in providing holistic and effective learning environment.

KEY WORDS

Dental, Oral pathology, Perception, Teaching learning methods, Undergraduate

INTRODUCTION

Oral pathology has always been considered as an important foundation for clinical dentistry. It is considered as the bridge between basic and clinical sciences of dentistry.¹ Knowledge of disease etiology and pathogenesis helps students to understand the disease and formulate the better treatment plan.

In undergraduate BDS education, third year is crucial year because this is when students start to have clinical exposure and taught about various oral pathologies. In this regard, the role of faculty member is to facilitate the learning process in the best possible way.² It is very important for teachers to know about student’s interest as well perception regarding the subject.³ Getting regular feedback from students is considered as an reliable method to assess teaching learning process and its effectiveness.⁴

This study aims to assess undergraduate dental student’s perspectives regarding oral pathology along with the effectiveness of various teaching learning methods and assessment methods currently used by faculties of Department of Oral Pathology.

METHODS

This cross sectional study was carried out in Department of Oral Pathology, Kathmandu University School of Medical Sciences (KUSMS) from June 2023 to July 2023. The study was conducted among 136 students of BDS third year, fourth year, and fifth year of KUSMS after obtaining ethical approval from Institutional Review Committee, KUSMS. Convenience sampling method was used. Informed consent was obtained from each respondent and students not willing to participate were excluded from the study. Data collection was done by using the pretested questionnaire adopted from the study of Bhat et al.³ The study participants were given 10 minutes to submit their responses after which the questionnaires were taken back. The data collected were entered into the Microsoft Excel Sheet and statistical analysis was done using Statistical Package for the Social Sciences Version 20.

RESULTS

A total of 136 students participated in the study. Among them, 46 (33.8%) were from third year, 51 (37.5%) were from fourth year and 39 (28.7%) were from fifth year (Fig. 1). Half of the students 68 (50%) agreed that oral pathology is an interesting subject. Most of students 66 (48.5%) participants strongly agreed that knowledge of oral pathology helps in clinical training. Except two students (1.5%), all of the participants responded that integration of oral pathology teaching with clinical training will help in better understanding of diseases. The next question was “Is oral pathology more difficult to understand than

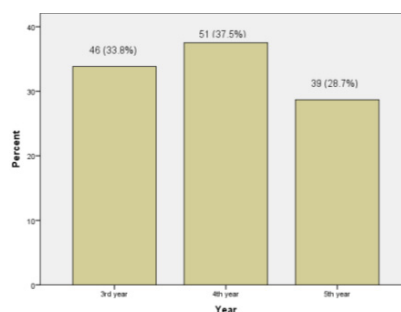


Figure 1. Frequency distribution of participants based on academic year

systemic pathology?” The response to this question was fairly divided. Out of 136 respondents, 46 (33.8%) marked neutral, 36 (26.5%) agreed and 20 (14.7%) strongly agreed to the question whereas 30 (22.1%) said they disagree with it (Table 1).

Table 1. Perception about subject

Perception about subject	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)
Is oral pathology an interesting subject?	20(14.7)	68(50)	39(28.7)	6(4.4)	3(2.2)
Does knowledge of oral pathology help in clinical training?	66(48.5)	60(44.1)	7(5.1)	3(2.2)	0
Does the integration of oral pathology teaching with clinical training will help in better understanding of diseases?	67(49.3)	54(39.7)	13(9.6)	2(1.5)	0
Is oral pathology more difficult to understand than systemic pathology?	20(14.7)	36(26.5)	46(33.8)	30(22.1)	4(2.9)

The next set of questions were regarding the perception of students about teaching learning methods currently used by faculties of Department of Oral Pathology. More than half of the students 71 (52.2%) agreed that lectures and demonstrations taken by faculties has stimulated interest in the subject. Eighty one students (59.6%) agreed that the delivery and pace of lectures were suitable to the level of their understanding. The next question was “Does the teaching of clinical correlation wherever relevant is been done in lectures?” Seventy eight students (57.4%) agreed to this question while 3 (2.2%) participants showed their strong dissatisfaction. The student’s response to the question “Did the highlighting of important points during

lectures help you for further study in each topic?" showed that 89 (65.4%) students strongly agreed whilst 1 (0.7%) student strongly disagreed with the statement. More than half of the students (50.7%) agreed and 41 (30.1%) students strongly agreed that teachers encouraged to ask questions whereas 5 students (3.7%) strongly disagreed to this (Table 2).

Table 2. Perception about Teaching Learning methods

Perception about Teaching Learning methods	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)
Do lectures and demonstrations taken in a way that stimulated interest in the subject?	20(14.7)	71(52.2)	42(30.9)	3(2.2)	0
Were the delivery and pace of lectures suitable to the level of your understanding in the class?	20(14.7)	81(59.6)	32(23.5)	3(2.2)	0
Does the teaching of clinical correlation whenever relevant is been done in lectures?	19(14)	78(57.4)	34(25)	2(1.5)	3(2.2)
Did the highlighting of important points during lectures help you for further study in each topic?	89(65.4)	41(30.1)	5(3.7)	0	1(0.7)
Did the teachers encourage students to ask questions?	41(30.1)	69(50.7)	16(11.8)	5(3.7)	5(3.7)

Regarding the questions about assessment methods, most students (58.8%) believe that formative assessment serve the purpose of analyzing the cognitive skill whereas 3 (2.2%) students did not agree with this statement. The last question was " Do you think MCQs are an effective tool for analyzing cognitive skills?". Sixty six (48.5%) students agree, 56 (41.2%) strongly agree and 14 (10.3%) were neutral to this question (Table 3).

DISCUSSION

Regular reviewing of teaching learning process is considered as an integral part of good education system. This may be of great help to teachers for growth and improvement

Table 3. Perception about Assessment methods

Perception about Assessment methods	Strongly agree n(%)	Agree n(%)	Neutral n(%)	Disagree n(%)	Strongly disagree n(%)
Did the Assessments in the form of formative assessment serve the purpose of analyzing cognitive skill (Knowledge)?	29(21.3)	80(58.8)	24(17.6)	3(2.2)	0
Do you think MCQs are an effective tool for analyzing cognitive skills?	56(41.2)	66(48.5)	14(10.3)	0	0

whenever it is required. Sometimes even teacher may fail to meet the student's expectation. In this regard, student's feedback may be an important and reliable method to assess the teaching learning process and its effectiveness.⁴ It is worth mentioning that taking regular feedback from students helps to enhance knowledge and professional performance of teachers. In this study, we have assessed the perception of undergraduate dental students regarding oral pathology and also the effectiveness of various teaching learning methods including the assessments methods used by faculties of Department of Oral Pathology.

The results of our study showed that out of 136 participants, 37.5% students were from fourth year, 33.8% were from third year and 28.7% were from fifth year. Half of the students perceived oral pathology as an interesting subject. An integrated methodology of teaching oral pathology with other clinical subjects along with case based learning may be further useful to arouse interest in the subject.^{5,6}

Less than half participants strongly agreed that knowledge of oral pathology helps in clinical training. The lesser number of students agreeing to this statement could be due to students mentality that oral pathology is not relevant to their future clinical practice.⁴ Regarding the question on integration of oral pathology teaching with clinical training, except two students all the participants believe that integration of oral pathology teaching with clinical training will help in better understanding of diseases. Similar results were obtained in a study conducted by Bhat et al., who assessed medical students perception about pathology training.⁴ This shows that students are well aware of the fact that the knowledge of disease etiology and pathogenesis is utmost to formulate the better treatment plan.

More than one fourth of the students felt that oral pathology is more difficult to understand than systemic pathology. The reason behind this could be attributed to the traditional method of teaching in most of the dental

schools. Incorporation of case based learning in day to day teaching may be of great help in this context as it promotes critical thinking, problem solving ability and provoke interest to learn the topic.⁵ Apart from this, use of 'role play' exercises can be helpful to enhance student's participation and curiosity toward the subject.⁷

Regarding the question about teaching learning methods, more than half of the students agreed that lectures and demonstrations taken by faculties has stimulated interest in the subject and the delivery and pace of lectures were suitable to the level of their understanding. The syllabus of Oral Pathology is very vast and some of the topics are volatile as well. Hence teaching clinical correlation wherever relevant and highlighting of important points during lectures may be of great help to students especially during exam times. In our study majority of students agree that clinical correlation has been mentioned and highlighting of important points has been done during the lectures. Except few students, majority of them agreed that teachers encouraged to ask question during lecture.

Assessment is considered as the important aspect of teaching learning process. Currently, formative assessment has been emphasized in the academic world. In our study also majority of students believe that formative assessment serve the purpose of analyzing the cognitive skill. Three students however disagreed to this statement. At present, there are various real time applications such as Kahoot that are used to fulfil the purpose of formative assessment. Use of such tools make learning fun and enjoyable and motivate students to learn at a same time.⁸ Multiple choice questions (MCQs) is an effective way of assessment that analyzes the cognitive skills of student. None of the students in our study

disagreed to this statement. Some of the studies from India have also reported similar results.^{6,9} In medical education, the measurement of problem solving skill is important. Whilst MCQs assess the ability to retain fact, multiple essay questions (MEQs) are ideally suited for measurement of problem solving skills. Hence incorporation of both MCQ and MEQ will be beneficial in order to assess higher order cognitive skills.¹⁰

To summarize, it can be concluded that the overall perception of undergraduate dental students regarding the oral pathology subject and the teaching learning method used is good. However, the integration of oral pathology with other clinical subjects along with case based learning will help students better understand the disease which in turn will be used to formulate the better treatment plan. Nevertheless, our study represents data from only one institution and needs to be validated by further studies with large number of samples representing all the dental institutions of Nepal.

CONCLUSION

Regular feedback from students in teaching learning process is an invaluable asset in shaping the future of education for the better. This dynamic interaction not only help students but also the teacher by creating an educational environment that is both effective and efficient and reflects the diverse need of students. Incorporation of case based learning, integration with other clinical subjects and taking regular feedback from students may be of great use in providing holistic and effective learning environment.

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