

Perception of Students Towards Anatomy Internal Assessment in Competency based Undergraduate Curriculum

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Abstract

Introduction: Many changes have taken place in the field of education to improve the standards of professional course. A new competency based UG curriculum developed from 2020 in response to improve knowledge & skills in medical students. Assessment is the essential key to judge the students' knowledge. Students' feedback about new curriculum is a useful tool to identify strength and weakness of the new curriculum.

Objective: To assess the perception of under graduate medical students towards assessment in anatomy in competency based curriculum. To identify challenges and obstacles faced during competency based curriculum.

Materials & Methods: 135 first year undergraduate Medical students studying in A.C.S medical college were selected for the study. A questionnaire that includes questions relating to new curriculum, teaching methodology and assessment techniques were prepared and circulated among the students using google form.

Results: Most of the students felt that the Assessment should be conducted once in a month. Students favoured examination pattern was clinical based & multiple choice questions. Majority of the students felt that internal assessment should be the criteria for allowing students to appear for the University examinations. Students' feedback was affirmative for histology discussion. Many of the students agreed that they had enough time to prepare for the Internal Assessment in covid -19 lock down period.

Conclusion: The study concluded that the students were favoured towards Anatomy Internal Assessment in competency based UG curriculum.

Key words: Internal assessment, curriculum, competency.

Introduction

Assessment is a constant cycle of improvement. The goal of assessment is to provide a clear concept of students

learning outcome. Assessment or examination is defined as a systematic process of collecting, analysing and interpreting data in order to validate or judge students. Evaluation of students is considered one of the most important aspects of teaching, and it induces motivation for learning and provides educational feedback for teachers^[1]. Traditionally assessment was done at the end of the term or the academic year. Later internal assessment was introduced in medical curriculum^[2]. The role of the faculty member in the modern concept of medical education is to facilitate the learning process. It is important to use multiple techniques in order to reach

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as many different types of learners as possible. It is observed that curriculum review, teaching methodology, evaluation at institutional level is done by the senior faculty members & by Medical council of India.^[3] .Teaching and learning have become more scientific and rigorous, Curricula are based on sound pedagogical principles, and Problem based and other forms of active and self-directed learning have become the mainstream.^[4]

The written assessments are done with the help of multiple choice questions (MCQ) and subjective or descriptive open-ended questions^[4]. The descriptive, structured, and essay questions are considered useful in testing the higher-order thought process and interpretation skills^[5].

Learning and progress of medical students is assessed worldwide by using theory, practical, and clinical examinations including written papers as well as objective structured practical examinations (OSPE), case studies, and viva voce examinations^[5].The aim of the modified clinical based essay question is to broadly measure both the absolute amount of knowledge retained by the candidate and the ability of the candidate to use that knowledge to reason through and evaluate clinical problems^[6].Modified essay questions consist of a case followed by a series of questions that relate to the case and must be answered in the sequence asked. This leads to question inter-dependency and a student answering the first question incorrectly is likely to answer the subsequent questions incorrectly too. A well written modified questions assess the approach of students in solving a problem, their reasoning skills and their understanding of concepts, rather than recall of actual knowledge^[7].

Multiple choice questions have the capacity to assess the higher orders skills^[8]. On the otherhand during covid-19 lockdown period online learning has many challenges that can stimulate students motivation towards learning . Hence the assessment of anatomy subjects through online can be saved and it can be checked by the student anytime. Moreover faculty cannot miss any students marks and works.

From 2020, Medical council of India revised the MBBS curriculum.The students are usually never involved in the planning or revising the curriculum. It

is necessary to know the views of the students while revising the curriculum and to know the best teaching methodology that will facilitate the learning process. It is also important to know the opinion of the students regarding the best assessment (formative and summative) techniques to measure their knowledge and skills^[3].The first year MBBS students as they walk into the medical colleges face multiple challenges in the first few months of their course. The subject of Medical Anatomy and its subdivisions forms a vast portion of their overall curriculum in first year MBBS with maximum teaching hours^[9].

With this background, the following study was undertaken to assess the attitude, perception as well as the preference of assessment methods among the undergraduate medical students in the study setting. The questionnaire was collected back from the students and analysis of each question of the questionnaire was performed.

Methodology

The study was done among the I-M.B.B.S students (2019-2020) Batch of A.C.S. medical college and hospital, Chennai.We conducted four internal examinations for theory & practical according to the competency based curriculum. A well designed questionnaire was developed relating to various assessment techniques for theory & practical internal exams in anatomy. The questionnaire was prepared with reference to Swapnali Shamkuwar^[11]& Naiketa^[12]. The purpose of the study was explained in detail to the students and informed consent was taken.They were asked not to reveal their identity while answering the questionnaire. Data thus obtained was analysed considering each question of the questionnaire. Then the data entered was statistically analysed.

Results

About 135 students of I year undergraduate medical students of ACS Medical college responded to the questionnaire shared in google form for about five days .Out of 150 students ,135 students participated in the study.

In the present study out of 150 MBBS students 46.7% students were male and 53.3% were females. Many students intention was to conduct the internal examination

once in a month for both theory & practical examination. In the present study many of the students felt that a theory paper should carry maximum of 50 marks. 68.1% students strongly agreed that clinical based essay question in IA is necessary in competency based UG Curriculum. 82.2% students agreed that Multiple choice question (MCQ) in IA is necessary in competency based UG curriculum & MCQ was considered as the best form of assessment in theory by 45.9 % of students. Most of the students favoured multiple choice questions (MCQ) followed by short notes was easier to answer, time saving & fetches more marks than other two formats. With regard to a method to test the knowledge of the topic, MCQ was preferred by 69.6% students. Further analysis of data revealed that 57.8% students agreed that the questions asked are relevant in Internal Assessment in accordance with the present curriculum. Majority of the students (33.3%) felt that time allotted for writing the theory paper was adequate. Most of students agreed that internal examination is stressful & causes absentees in the class. Best assessment technique for osteology practical exam should be viva- voce on true bones (76.3%). In the present study (35.6%) students felt that internal assessment should be the criteria for allowing students to appear in university examinations. 28.1% of students agreed to add the internal assessment marks in university exams.

In terms of relevant questions asked in accordance with the present curriculum, 57% of students answered in the affirmative. With regard to daily class assessment after every topic was useful by 36.3% students. Majority of students (32.6%) felt that there was enough time to prepare for IA during lock down period. Most of the students (34.1%) preferred charts for embryology practical assessment, some of them (27.4%) voted for 3-D images, 21.5% students prefer videos & 17% students prefer models. 37.8% students agreed for histology slide discussion in practicals and realized the necessity in competency based curriculum. There was a disparity among students in writing speed while writing internal assessment in this lock down period. The speed was moderately affected in 27.4 % students and slightly affected in 19.35% students.

Discussion

In our study, majority of students preferred internal

assessment should be conducted for both theory & practical examination. Considering the interval of internal assessment about 60% students preferred test once in a month. In study by Chakrabarti S et al.^[9] 55% students preferred monthly assessment. In our study many students felt that a theory paper should carry maximum 100 marks. Majority of students preferred clinical based essay question in IA is necessary in competency based curriculum which is similar to study conducted by Naik et al.^[10] 82% students prefer multiple choice questions are necessary in competency based curriculum. Best form of assessment in theory Multiple choice question was preferred by 45.9% students and Majority of students in the present study favoured multiple choice question over other three formats as it was easier to answer, time saving as well as test the knowledge which is similar to study done by Sharma HS et. al.^[5] who stated that the MCQ scores were significantly higher than Short essay question scores. Short notes questions was considered to fetch more marks by 34.1% students. A study done by Naik et al.^[10] revealed that SEQ helps to fetch more marks

In present study 57.8% students accepted that the questions asked are relevant in the internal assessment in accordance with present curriculum. In certain Universities a combination of Clinical based questions & multiple choice questions are presently used for assessment of theory. 35.6% of students felt that internal assessment should be the eligibility criteria to allow students for the university examinations whereas in study done by Jaiswal et al.^[3] 29.4% students agreed to consider the performance in the internal assessment. In the present study best assessment technique for conducting osteology practical examination was viva- voce on true bones (76.3%) and 37.8% students agreed that histology slide discussion is necessary in competency based curriculum which is similar to study done by Jaiswal R et al.^[3] I

In the study conducted by Chakrabarti et al.^[9] students preferred combination of spotter, discussion on gross specimen & discussion on histology.

Conclusion

An opinion regarding competency based curriculum, teaching methodology & assessment techniques in Anatomy was taken from the first year MBBS students at

A.C.S Medical College, Chennai with specially framed questionnaire. Majority of students favoured towards clinical based questions with Multiple choice questions as a pattern of examination. Majority of the students felt that the curriculum can be taught in one year duration with present system of lecture and practical timetable. Students agreed for competency based curriculum as it relies on scientific content and was able to understand better. Majority of the students viewed positively that the best method of assessment to assess knowledge in theory was multiple choice questions, the best assessment technique for practical examination should be osteology viva- voce using true bones and the internal assessment must be conducted once in a month. It is important to obtain more frequent feedback from the students which will help teachers to modify the assessment methods and improve the standards of medical education in future.

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