

The evaluation of Undergraduate Medical Students' Perception Regarding the Summative Assessment of Pathology

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ABSTRACT

Background: Teaching and learning is an active and vital process for the growth, prosperity, progress and development of the mankind. The assessments have got paramount importance for the evaluation of achievements in the process of teaching and learning. The assessment is a dynamic process which requires modifications from time to time for the precise evaluation of required components of learning outcomes.

Aim: To evaluate the perception of undergraduate medical students about the multiple choice questions (MCQ) and short answer questions (SAQ) which have been used for the summative assessment of pathology.

Methods: The study is conducted through a questionnaire which included 10 items about the multiple choice questions (MCQ) and 11 items are related to short answer questions (SAQ). A total of 250 proformas have been distributed among the willing participants from the students in faculty of medicine by convenience sampling during the study period of April 2019 to May 2019.

Results: A total of 212 completely filled proformas have been analyzed which were received during the study period. These proformas have been received from 71 female students and 141 male students. A significant number of both male and female students think that multiple choice questions (MCQ) of pathology challenged their thought process. A significant majority of the male and female student think that the multiple choice questions (MCQ) are a good tool to assess their knowledge more accurately. Among the female students, 75% are in favor that the examination should contain only MCQs while only 45% of male students are in favor of this notion. The majority of male and female students think that more study time is required for the preparation of SAQ type examinations and a significant number of students think that for pathology SAQs, they have to study hard.

Conclusion: The perception of MBBS students regarding the multiple choice questions (MCQ) used for the summative assessment of pathology is that these MCQ have challenged their thought process and the multiple choice questions (MCQ) are a good tool to assess their knowledge more accurately. Majority of the female students expressed that only the MCQ should be used in the summative assessment of pathology while majority of male students prefer to have both MCQ as well as SAQ type of questions in the summative assessment of pathology.

Keywords: Students' Perception, MCQ, SAQ, Summative Assessment, Pathology

INTRODUCTION

Education has got vital importance for the safe, prosperous, peaceful community. It plays very significant role in the economic and social development of the nation. The acquisition of skillful knowledge is the main foundation of teaching and learning process in the field of education and the proper assessment is an essential component of the academic program¹.

Assessment is an important tool for the evaluation of required strength of knowledge and skill among the students as well as for the determination of standard of institution in the provision of conducive environment for learning and teaching process and the assessment also helps to achieve more improvements in this regards².

The accurate assessment techniques have got significant importance for the precise evaluation of the professional skills among the healthcare providers for the regularity authorities³. From the patient safety point of view, the validity and reliability of assessment methods even becomes more vital in this regards.

There are several different types of assessment tool for the evaluation of achievement of intended learning outcomes which includes diagnostic assessment (also known as pre-assessment), norm-referenced assessment, formative assessment, criterion – referenced assessment,

interim / benchmark assessment and summative assessment⁴⁻⁹.

The diagnostic assessment is carried out at the beginning of the course to find out the strength and weakness of knowledge and skill of the students. This assessment tool is quite useful in the identification of gaps in the knowledge and misconceptions of the students which could be helpful in the planning of lessons. The formative assessment is conducted during the learning process and it provides feedback to the students regarding their comprehension and understanding of the subject and to the teachers for the improvement in the teaching techniques.

In the norm-referenced assessment, the performance of the student is compared to other student which is a selected group of students from a reference group. The criterion – referenced assessment method evaluates the performance of the student against predefined criteria. The interim / benchmark assessment is an evaluation tool used during the learning process to determine the progress of students and this can also determine the level of preparation of the students for the future summative examinations.

The summative assessment is an important tool for the evaluation of students after the completion of course. The summative assessment evaluates and gauges the level of knowledge and skill of the learner. It determines the

level of achievement of the student after the completion of the defined course.

The summative assessment is quite helpful in the development of curriculum and teaching strategies for the teaching and learning process.

The aim and objectives of this study is to evaluate the perception of undergraduate medical students about the different types of questions (MCQ & SAQ) used for the summative assessment of pathology.

MATERIALS AND METHODS

The present research project has been submitted to the Local Committee of Bio Ethics at the Northern Border University for approval. After the approval of present study from the committee, a total of 250 proformas have been distributed among the MBBS students who are willing to participate in this study after discussing the aim and objectives of the study. The questionnaires are distributed among these students of faculty of medicine by convenience sampling during the study period of April 2019 to May 2019. The questionnaire included 10 items about the multiple choice questions (MCQ) and there are 11 items in this questionnaire which are related to short answer questions (SAQ).

After collecting the responses from the MBBS students, the data is entered in the computer. The completely filled proformas has been included for the analysis while incompletely filled proformas have been excluded. The confidentiality of the data has been ensured.

RESULTS

A total of 223 responses have been received from the MBBS students during the study period of April to May 2019. There were eleven proformas which have been excluded from the study as these were partially and incompletely filled. The remaining 212 completely filled proformas which included 71 from female students and 141 from male students have been analyzed after entering the data in the computer.

The analysis of the data shows that majority of the male as well as female students think that more number of multiple choice questions (MCQ) in the summative pathology examination assesses their knowledge more precisely.

A significant number of both male and female students think the multiple choice questions (MCQ) of pathology challenged their thought process. A significant majority of the male and female student think that the multiple choice questions (MCQ) are a good tool to assess their knowledge more accurately. Among the female students, 75% are in favor that the examination should contain only MCQs while only 45% of male students are in favor of this notion. The results are shown in table 1. Most of male and female students think that more study time is required for the preparation of SAQ type examinations.

A significant number of students think that for pathology SAQs, they have to study hard. The results are shown in table 2.

DISCUSSION

Teaching and learning is an active and vital process for the growth, prosperity, progress and development of the mankind. A significant portion of time and money is being invested on this extremely important process for the development of human being which marks the strong distinction between the humans and other living creature on the surface of earth. The assessments have got paramount importance for the evaluation of achievements in the process of teaching and learning and the assessments also predict the performance during internship and clerkship¹⁰⁻¹¹.

The assessment is a dynamic process which requires modifications from time to time for the precise evaluation of required components of learning outcomes. In the active learning process, the constructive feedback from the learner has got paramount importance particularly for the development of new techniques and strategies for the assessment process.

In the present study, the majority of the MBBS students have the perception that increased number of multiple choice questions (MCQ) in the summative pathology examination assesses their knowledge more precisely and MCQ of pathology have challenged their thought process.

A study published by Khan MU revealed that good multiple choice questions are quite efficient tool for the assessment of higher cognitive skills of the MBBS students¹². The well - constructed multiple choice questions are quite useful tool for the evaluation of achievement of learning goals¹³. Another study which assessed the perception of students regarding the benefits of OSCE and MCQ modalities revealed that the students' opinion about MCQs is that multiple choice questions foster in obtaining the knowledge¹⁴.

In the present series, the majority of the female students are in favor that the summative assessment of pathology should contain only multiple choice questions (MCQ) while the majority of male students are in favor that the examination should contain both MCQs as well as SAQs.

A study published by Pham H et al showed that the use of high quality MCQ proved to be effective tool for the evaluation of cognitive skills and they also narrated that MCQ may be used as a single format in the written examination¹⁵ but another study revealed that MCQ (context rich) and SAQ increase the learning through testing as compared to MCQ (context free) or studying alone¹⁶.

The feedback from the students regarding the summative assessment may be quite helpful in the improvement of the standard and structure of examinations. Similarly, feedback from the fresh medical graduates of the institution about the various forms of assessments may also be helpful in the identification of areas which require further improvement in the examinations.

CONCLUSION

The majority of MBBS students have a strong perception that the multiple choice questions (MCQ) of summative assessment of pathology have challenged their thought process. A significant majority of the male and female student think that the multiple choice questions (MCQ) are a good tool to assess their knowledge more accurately. The female students have a strong preference for the MCQ type of questions to be used for the summative assessment of pathology while the male students prefer to have both MCQ as well as SAQ type of questions in summative assessment of pathology.

Conflict of interest: Nil

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