

Title: Curricular alignment, assessments and students' progress are interlinked- An evidence based study

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Context and Setting: The assessment is an integral process of medical curriculum which monitors alignment and drives the progress of students. This study explored the monitoring of the phase 1 integrated MBBS curriculum and its alignment and the role of repetition of questions and students' performance.

Why the idea was necessary: Discipline based assessments for integrated teaching learning is being conducted for undergraduate medical students at BPKIHS. Assessments explore the strengths and weaknesses of the medical curriculum and also influence progress of the students through performance indicators. However, role of frequent repetition of questions influencing students' progress and performance was still unanswered.

What was done: Following initial orientation to the purpose and study design, assurance of confidentiality and receipt of consent feedback survey questionnaire study comprising of 27 and 12 close and open ended questions respectively was conducted among 96 second year MBBS students regarding perceptions about the integrated approach of MBBS curriculum and the summative assessments including repetition of questions influencing performance and the progress. A 5 point scale was used for close ended questions. The SPSS 10.0 version, Standard deviation and Percentage analysis were done for the data collected.

Therefore, this study has been successful in encouraging a common understanding of integrated assessment and evoking its need for implementation in UG medical curriculum at BPKIHS. Comparative analyses of phase 1, 2nd year MBBS, unit 4 (endocrine, reproduction, kidney & fluid balance and integuments) intended and taught curricula were reviewed focusing on total hours and overall assessment plan.

Retrospective (2001-2006) analysis of unit 4 theory question papers of 12 summative assessments and the respective student performance using a matrix grid was done regarding distribution of marks for extent of alignment between class hours and assessment. An association of repetition of questions with students' scores was also observed.

Evaluation of results and impact: The responses of 100% participants to close & open ended questions of feedback revealed strategies for improving and strengthening the curriculum, its alignment and assessments. 57% and 65% students agreed to the representation of all areas of study and frequent repetition of questions respectively in summative assessments as 81% students agreed to solving 15 – 30% questions following 6-8 years of earlier questions. However, question paper and performance analyses revealed that in Microbiology and Pathology, the ratio of % of marks distribution and class taught was nearly equal to 1 signifying alignment in the class hours and marks' distribution while in Pharmacology the % of marks was three times higher than the % of taught class hours. Significant difference ($p < 0.001$) in mean ratio was observed in Biochemistry and Pharmacology with reference to Anatomy. A significant association was observed between increased repetition of questions resulting in better student's performance in Pathology ($p < 0.001$). Therefore, this study has been successful in monitoring strengths and weaknesses of assessment driven curriculum and alignment influencing student progress and evoking the need for strategic strengthening of the UG medical curriculum at BPKIHS.

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Dr. Soumya Bhattacharya-Contributed in analyses and concept paper preparation.

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