



Just A Minute (JAM) with Concept Clearance- A Teaching Learning Tool

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Abstract

Introduction: The skill of decision making, confidence, level of knowledge, presence of mind are the essential qualities which needs to be developed in a student. Biochemistry being clinically related with the diagnosis, treatment and prognosis of the disease, needs the concept to be clear with basic knowledge and its application. To build these qualities from the Phase I, assessing students through this ‘Just A Minute’ tool was planned for Phase I MBBS students in Biochemistry.

Material and Methods: The students of Phase I MBBS were included in this study. Prior preparation about the protocol for conducting the session, syllabus, and pretest and posttest questionnaire was done. Students were divided in four groups (each group with 30 students). The students were well informed about this activity, rules

and syllabus. For a group, one student one question method was followed. Student was given an opportunity to choose a number and the power point presentation of same number was displayed. Then the student was given a minute to discuss the answer of the same. This was followed by the detail interactive discussion for concept clearing for all the students in the group.

Results: Statistical analysis of pre- test and post -test was done using the paired T test. There was statistically highly significant difference in the number of students who answered the pre and post -test questionnaire. (< 0.0001) Student and faculty feedback analysis was significantly positive.

Conclusion: Giving more exposure to clinical scenarios through Just A Minute with immediate concept clearing

will definitely help the student to improve clinical approach from phase I itself.

Keywords: Just A minute, immediate concept clearance, pre- test and post- test questionnaire

Introduction

There is a wide range of assessment tools available for medical education, each one having its own advantages and disadvantages. These all methods assess the knowledge, skills and attitude. The medical field being an ever evolving one, the skill of decision making, confidence, level of knowledge, presence of mind are the essential qualities which needs to be developed in a student. One-minute preceptors and five-minute preceptors are also been practiced for effective teaching outcome. But the clinical scenario and application are not addressed often.

Biochemistry being clinically related with the diagnosis, treatment and prognosis of the disease, needs the concept to be clear with basic knowledge and its application. Practice of clinical application of knowledge as a routine from phase I MBBS will help the students to improve their performance in clinical field. Confidence and ability to apply the knowledge in clinical scenario will also improve.

To build these qualities from the Phase I, assessing students through this 'Just A Minute' tool was planned for Phase I MBBS students in Biochemistry.

Objectives

1. To enhance the ability of clinical based approach from Phase I MBBS
2. To provide more clinical based approach to the students.
3. To enhance the skill of clinical application of knowledge from Phase I.

4. To practice immediate concept clearing through discussion.
5. To link this ability to improve health services

Materials and Methods

Study type and design: 120 students of Phase I MBBS were included in the study. Ethics committee approval was obtained. Consent from students was taken. Pre-test, Post-test, Feedback after was collected and was analyzed with appropriate statistical test.

Study-center: Department of Biochemistry, Dr. Vasantrao Pawar medical college, Hospital and research centre Nashik.

Study duration: September 2022 December 2022

Eligibility criteria

Inclusion criteria

- Students who participated and attempted all requisites (pre-test, post-test, feedback)

Exclusion criteria

- Students who participated but didn't attempt all requisites (pre-test, post-test, feedback)
- Students who were not willing to participate in the study.

Methodology

After ethics committee approval, the study was carried out as follows.

Prior preparation about the protocol for conducting this session, syllabus, pre- test and post- test questionnaire (20 questions) were prepared. Validation of questionnaire for pre-test and post- test was done with departmental faculty while feedback forms (five-point Likert's scale) were validated with MEU members. Twenty questions were included in the pre and post -test questionnaire. Faculties at department level were oriented about the session.

Students were divided in four groups (each group with 30 students). The students were well informed about this activity, rules and syllabus. The syllabus planned for this session was conveyed to the student one month prior of this activity. Pre- test was conducted before the session.

For a group, one student one question method was followed. All the questions included were based on clinical application. (e.g. Case history/ laboratory report/ technique/ Disorder/ metabolic reactions with enzyme defects). These questions were displayed in the form of power-point presentation (ppt.). Student was given an opportunity to choose a number and the ppt of same number was displayed. Then the student was given a minute to discuss the answer of the same. ⁽¹⁾ One student one ppt method was followed. This was done for all 30 students in the group. After each question, detail interactive discussion for immediate concept clearance for all the students in the group was done.

This method was repeated for all four groups of the students. After each session, post test was conducted. A questionnaire in the Google form was shared with the students and feedback about the session was obtained. Faculty feedback was also obtained through the Google form. Students who were absent for this activity or have not submitted any of the test or feedback were excluded from the study. Statistical analysis of pre- test and post-test was done using the paired T test.

Results

Out of 120 students, 105 students participated in this study. The Number and percentage of students answering correctly were analysed and compared.

Table 1: Average number of students answering correctly

Pre test	Post test	P value
41.45 ± 17.52	70.55 ± 19.07	< 0.0001*

*Statistically significant

Table 1 shows that there was statistically highly significant difference in the number of students who answered the pre and post -test questionnaire correctly.

Table 2: Average percentage of students answering correctly

Pre test	Post test	P value
39.48 ±16.69	67.16 ±18.17	< 0.0001*

*Statistically significant

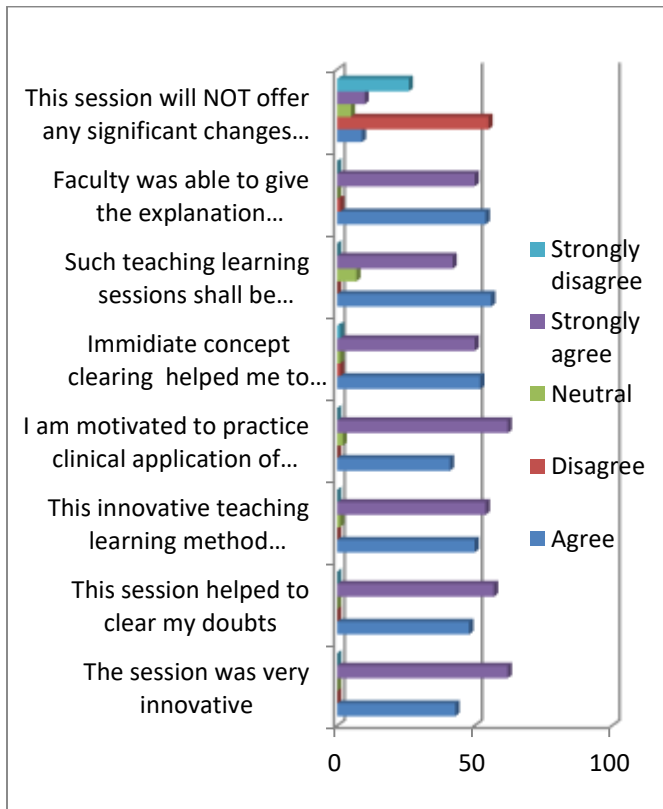
Table 2 shows that there was statistically highly significant difference in the percentage of students who answered the pre and post -test questionnaire correctly.

Table 3: Number of students answering each question correctly with percentage

Table 3 shows the detailed analysis of each question in pre and post -test answered by the students correctly. This shows significant improvement in post -test analysis.

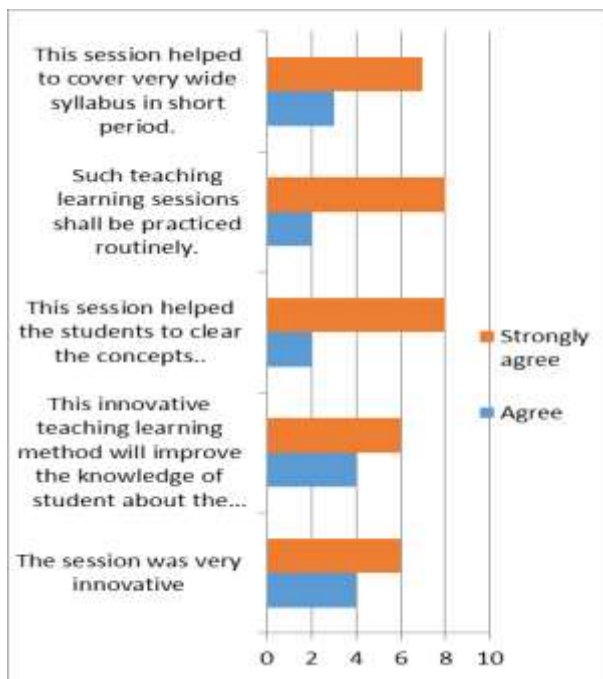
MCQ No	No. of students answering correctly and percentage	
	Pre- test (%)	Post- test (%)
1	39(37.1)	59(56.2)
2	47(44.8)	69(65.2)
3	46(43.8)	68(64.8)
4	29(27.6)	50(47.6)
5	65(61.9)	93(88.6)
6	48(45.7)	76(72.4)
7	32(30.5)	84(80)
8	34(32.4)	60(57.1)
9	78(74.3)	58(55.2)
10	22(21)	82(78.1)
11	23(21.9)	85(81)
12	26(24.8)	93(88.6)
13	18(17.1)	37(35.2)
14	75(71.4)	98(93.3)
15	27(25.7)	51(48.6)
16	40(38.1)	96(91.4)
17	65(61.9)	52(49.5)
18	47(44.8)	46(43.8)
19	33(31.4)	60(57.1)
20	35(33.3)	94(89.5)

Graph 1: Student feedback analysis



This analysis showed the significant positive feedback by the students.

Graph 2: Faculty feedback analysis



Faculty also responded positively for this activity.

Discussion

Medical Education recently been reformed as Competency Based Medical Education (CBME). The main features of CBME are being student centric and outcome based. The learning domains address cognitive, psychomotor and affective aspects with their alignment to assessments. Continuous formative classroom assessment is the backbone of any medical curriculum and need of the hour to achieve the goal of competent Indian Medical Graduate (IMG). Several strategies have been described recently in medical education literature to address the problem of application of knowledge⁽²⁾⁽³⁾ Some of which include: One minute preceptor (OMP); SNAPPS (Summarize, Narrow, Analyse, Probe, Plan and Self-directed learning) etc.

Haarveen Kaur Gulati et al⁽⁴⁾ highlighted the advantages and disadvantages of One Minute preceptor (OMP) as a teaching learning tool and the positive response to OMP by both the learners and faculty. Annie Rosita et al⁽⁵⁾ explained the importance of 5- minute OMP among nursing students. This analysis revealed that 80% to 100 % of the students agreed that this five-minute preceptorship has helped them to achieve the clinical learning objectives during their clinical placement. Umesh Yadav et al⁽⁶⁾ showed that in busy clinical settings, OMP is feasible and effective teaching learning method and induces a significant improvement in clinical skills of postgraduate student in orthopaedics. Bimal Kumar Sahoo et al⁽⁷⁾ in their study also showed that One minute paper is an inexpensive, instant, insightful and informative classroom assessment tool. Involvement of students in the teaching learning process with active participation were the learning outcome of their study.

Our study also supports all these findings. In addition to this, immediate concept clearing after each question was the feature of our study. All students who were answering the questions may or may not have the very clear concept about the topic. Hence after each question, concept clearing session was taken by the faculty. This helped the students significantly to improve their knowledge as shown in table 1 and 2.

The student feedback analysis also showed the acceptance of this innovative teaching learning method. Regular implementation of this method will definitely help the students in clinical application. Faculty also reacted positively for this method and very much interested to apply at their departmental level. Prior preparation for the session may took time consuming but more practice will make it certainly useful and effective.

Conclusion

Giving more exposure to clinical scenarios through Just A Minute with immediate concept clearing will definitely help the student to improve clinical approach from phase I itself. Practicing this unique concept throughout all phases will improve the outcome as an Indian Medical Graduate. (IMG)

Limitations

The study population was limited hence such more studies with large population is required.

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References

1. 3 minute Thesis (3MT) Medical school- University of Minnesota at <https://med.umn.edu> (sited on 01/08/2024)

2. Just A minute-A Virtual Intra- Class Competition at <https://tagoreint.com> (sited on 01/08/2024)
3. Just A Minute Competition (JAM) 17-Mar- 2018- Shigally Hill at <https://shigallyhill.com> (sited on 01/08/2024)
4. Haarveen Kaur Gulati; One minute preceptor- introduction and perception evaluation of a novel teaching tool for teaching routine histopathology slides to post-graduate students in pathology; Indian Journal of Pathology and Oncology; July-September 2016;3(3);503-507
5. Annie Rosita; Enhancing clinical teaching: Introducing 5 -minute preceptor model among nursing students during their obstetrical nursing clinical placement; IJAMSCR; Vol.7 (2) Apr-Jun 2019; 442-45
6. Umesh Yadav, Sujata Sethi, Mrityunjay Deka, Muhammad Naqvi, Anand Gupta , Sabuj Baran Singha; Introduction of one minute preceptor as teaching learning method for postgraduates in Orthopedics ; Journal of orthopedics Trauma Surgery and Related Research ;18(1);2023;1-6
7. Bimal Kumar Sahoo, Manish Taywade; One minute paper: The reflective way to teach and learn in medical education; Indian Journal of Forensic and Community Medicine; 8(1): 2021; 58–62