

RESEARCH ARTICLE

Skills assessment during internship: A novel approach to enhance competencies among Indian medical graduates

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ABSTRACT

Background: Internship is the best period for acquiring practical knowledge and skills in Community Medicine to become a successful primary health-care physician. Effectiveness of internship has been questioned in many research papers. Assessment of skills during internship holds a very important place, because if the interns are not assessed for the skills, these skills are usually not practiced. **Aims and Objective:** This study aimed to frame a conceptual setup and introduction of a system of skill assessment for interns at the end of Community Medicine posting for acquired skills in cognitive, psychomotor, and affective domains. **Materials and Methodology:** The study was a cross-sectional study. Totally 45 interns who completed their internship in Community Medicine at different points of time were inducted in the study. Before the starting of internship in Community Medicine, the interns were already briefed regarding their skills' assessment at the end of the internship completion in the subject of Community Medicine. The interns were told about the skills which are already identified in the log book and were asked to practice it during their field training at respective places. Prior to assessing the skills, as this was a new method of assessment, the interns were briefed about the 10 skills. They were also briefed about the method of assessment which was a mix of Objective Structured Clinical Examination (OSCE) question stations and OSCE procedural stations. About 2 stations were kept for psychomotor domain, 1 for affective domain, and the rest 7 were of cognitive domain. Hence in total, there were 7 question stations and 3 procedural stations. Interns went through each station and had to answer the questions. **Results:** About 17 (37.8%) interns liked the assessment from very much to some extent, 21 (46.7%) interns were of the opinion that they practiced and learned skills because of this assessment as it was compulsory for them to learn, 20 (44.4%) interns said that this assessment introduction enhanced the learning process, and 18 (40%) interns liked the assessment system in an overall format. Overall, 22 (48.88%) interns liked the internship assessment very much. Nearly 24.44% of the interns did not like the assessment system. **Conclusions:** Skill assessment during internship offers an effective method to enhance competencies in Indian Medical Graduates (IMGs). The majority of the positive feedback of this innovative method from the interns validates the importance of structured efforts to achieve continuous professional development of IMGs.

KEY WORDS: Internship; Indian Medical Graduate; Skills; Assessment; Feedback

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INTRODUCTION

Internship is the best period for acquiring practical knowledge and skills in Community Medicine to become a successful primary health-care physician. Effectiveness of internship has been questioned in many research papers.^[1] The interns should acquire skills to deal effectively with an individual

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and the community in the context of primary health care. However, many inadequacies/problems plague the internship training.^[2] Weak point in the system is the assessment at the end of training period. Interns maintain a record of work/logbook which is to be verified and certified by the medical officer under whom he/she works, but this is not meticulously done in many colleges. Almost all students who undergo internship in Community Medicine are given completion irrespective of their competencies exhibited or field work done. The skill acquisition is not verified.^[3] In the proposed algorithm for the National Eligibility Entrance Examination by the year 2016, assessment of skills and competence at the end of the internship is envisaged. The Medical Council of India aims to standardize the output of graduate medical education in the form of an Indian Medical Graduate (IMG); a skilled and motivated basic doctor.^[4] By this fact, the new proposed assessment system will help in orienting the interns for their final assessment in the end. Currently, the interns are also not focusing on the desired skills which are enlisted in the log book as there is no formal practical evaluation. When the interns are not assessed for the skills, skills are usually are not practiced. Currently, there is no assessment of the desired skills which should be acquired by the interns in Community Medicine. By doing such exercise, there is scope of improvement and sensitizing the interns that they will be evaluated in the practical sense and not in a theoretical manner.

Aim and Objectives

The current study was conducted with the aim of framing a conceptual setup and introducing a system of skill assessment for interns at the end of Community Medicine posting for acquired skills in cognitive, psychomotor, and affective domains.

Specific Objectives

- Demonstration and assessment of acquired skills by interns
- To get the structured feedback from interns about this form of assessment.

MATERIALS AND METHODOLOGY

Study Design

The study was a cross-sectional study. Totally 45 interns who completed their internship in Community Medicine at different points of time were inducted in the study.

Batch number of interns	
1	6
2	16
3	23
Total	45

The interns who completed their posting in Community Medicine from 26th October 15 to 28th February 16 were subjected to the internship assessment. A total of three groups came for assessment during this period: The 1st batch on 26 October 15, 2nd on 29 November 15, and the last batch on February 16. About 11 skills were already identified in the log book of Community Medicine; but out of that, one skill is not actually done in Community Medicine as of now so that particular skill was omitted from assessment. Before the start of internship in Community Medicine, the interns were already briefed regarding their skills' assessment at the end of the internship completion in the subject of Community Medicine. The interns were told about the skills which are already identified in the log book and were asked to practice it during their field training at respective places. Prior to assessing the skills, as this was a new method of assessment, the interns were briefed about the 10 skills. They were also briefed about the method of assessment which was a mix of Objective Structured Clinical Examination (OSCE) question stations and OSCE procedural stations. The skills are usually acquired during the posting in Community Medicine in the field, i.e., Primary Health Centre, Rural Health Training Centre, Urban Health Training Centre, and Non-governmental Organization. The skills were assessed in the Department of Community Medicine. Two stations were kept for psychomotor domain, 1 for affective domain, and the rest 7 were of cognitive domain. Hence in total, there were 7 question stations and 3 procedural stations. Interns went through each station and had to answer the questions. For example, counseling is identified as one of the skills; here, the intern has to do a real demo counseling sessions for 5 min and the intern was thereby assessed for counseling skills based on a checklist. Interns were given marks based on their performance in the skills' assessment. Constructive feedback was given on the spot during assessment to the interns. Marks were given to the interns based on their performance. A total of 5 marks were allotted for each station. Anonymous feedback was taken from the interns in the form of open-ended questionnaire comprising likes, dislikes, and methods of improvement for this method of internship assessment. In feedback, totally 4 questions were put up in Likert scale ranging from 0 to 2. Hence, the minimum score was 0 and maximum was 8. The current study was approved by the Institutional Ethics Committee.

RESULTS

Totally 17 (37.78%) interns liked the idea of practical assessment of interns from very much to some extent (Figure 1), 21 (46.67%) interns were of the opinion that they practiced and learned skills because of this assessment as it was compulsory for them to learn (Figure 2), 20 (44.44%) interns said that this assessment introduction enhanced the learning process (Figure 3), and 18 (40.00%) interns liked the assessment system in an overall format (Figures 4 and 5).

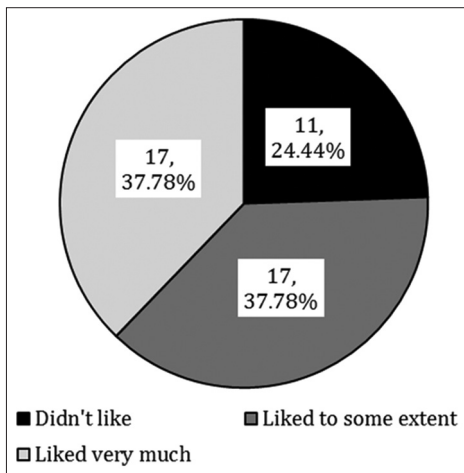


Figure 1: Interns' perspective on liking for the idea of a practical assessment of interns

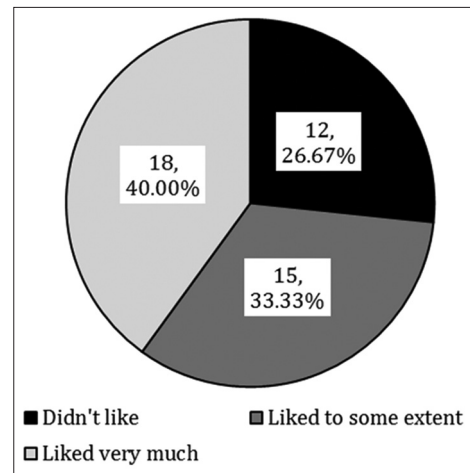


Figure 4: Interns' perspective on overall liking for this new system of assessment

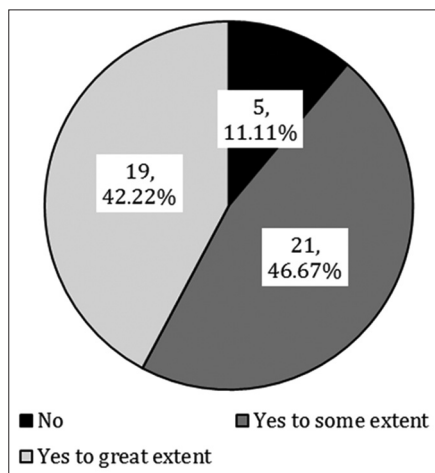


Figure 2: Interns' responses for an avenue to practice skills

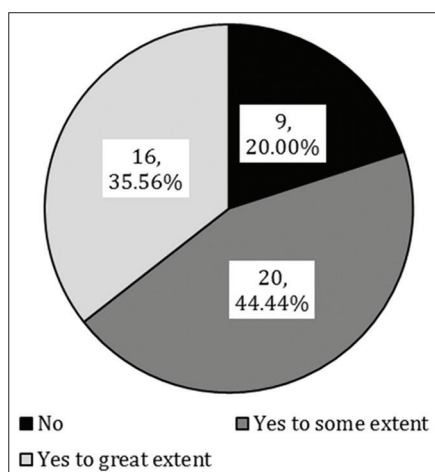


Figure 3: Interns' responses for this assessment introduction in enhancing learning

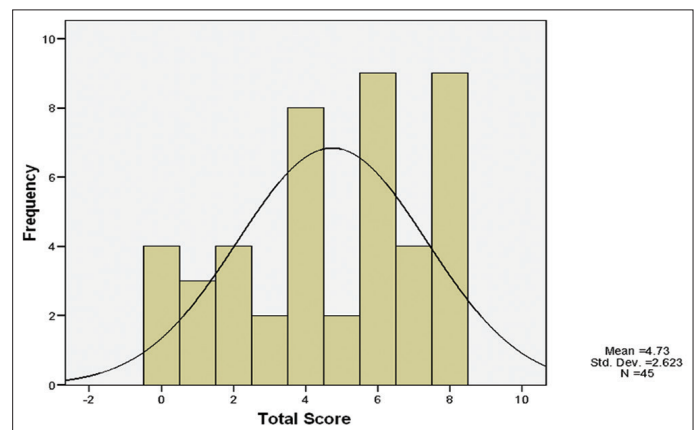


Figure 5: Distribution of total scores with normal plot

DISCUSSION

Internship is a very crucial period of learning skills. When skills are learned and practiced, they must be subjected to assessment. Putting a new assessment system for interns in the subject of Community Medicine and to know their valuable feedback was the sole objective of conducting this study. In a study on interns by Naik et al.,^[5] they mentioned that a large number of interns felt that undergraduate (UG) training was inadequate to prepare them to prescribe rationally. Hence, it is concluded that internship is definitely a period where an intern will learn desired skills in all the departments. Singhal and Ramakrishnan^[6] point out that most exposure to hospital care starts during the internship year except in Obstetrics and Gynecology. They also pointed out that UG medical education in India is lacking in doctor-patient communication skills.

The present study emphasized on the liking for this new system of assessment of interns and not on the marks scored by the interns albeit it was also done as a subpart of the study. We assessed the skills and thereby quantified the feedback of the interns. Schuwirth and van der Vleuten^[7]

Overall, 22 (48.88%) interns liked the internship assessment very much. Nearly 24.44% of the interns did not like the assessment system (Table 1). Interns' comments regarding assessment were shown in Table 2.

Table 1: Measures of central tendency of marks by interns and "cutoff" for total marks with grading

Measures of central tendency of marks by interns		Values
Mean		19.24
Median		19.00
Mode		23
Standard deviation		5.970
Variance		35.643
Range		22
Minimum		10
Maximum		32
Percentiles		
2.5		10.00
97.5		31.85
Cutoff for total marks	Grading	n (%)
0-2	Did not liked	11 (24.44)
3-5	Liked to some extent	12 (26.66)
6-8	Liked very much	22 (48.88)
Total		45 (100.0)

Table 2: Interns' comments regarding assessment

Good attempt, major topics covered
Up to mark
Proper explanation to be given
Inspire us to study more, shows our weak points
Proper explanation to be given
Some improvement needed
Practical questions can be added
Viva to be taken at posted centers
Remove the assessment part
Should be done after final examinations
Teach before assessment

state that a great emphasis was put on the numerical aspects of assessments in medical education owing to the dominance of psychometric theory during the second half of the 20th century. However, they also mentioned that, now in contrary, assessments are perceived as being at the heart of the educational design.

Community Medicine has its identified skills in the community and at the primary health-care level setup. None of the skills which are listed in the log book were assessed previously, and as the skills were not assessed, mostly these were not practiced also. Assessment drives learning and so this was thought that, whatever the interns practice or learns, the skill must be assessed based on their learning objectives as defined in the log book. Raupach *et al.*^[8] mentioned that if learning is not adequately incentivized by an adequate summative assessment that is matched to the learning

objective, identifying the "ideal" teaching format might be futile.

Almost 40% of the interns liked the idea of practical assessment rather than by multiple choice questions (MCQs). For practical purposes, internship assessment by answering MCQs is not meaningful when we want to assess the skills which requires to be performed like preparation of oral rehydration salts, counseling for family planning methods, or finding the residual chlorine level and like. According to Palappallil,^[9] the medical UGs during their Community Medicine postings are given training to give health talks at community levels and this might be the reason why either group expressed very much confidence in delivering health talks. This public health skill of demonstrating and talking is also sharpened during internship, and in this study, it was put as an assessment question, wherein the interns were supposed to demonstrate this communication skill.

We found that almost 50% of interns were of the opinion that they practiced and learned skills because of this assessment, as it was compulsory for them to learn. Basic desired skills must be learned and practiced time to time, and assessment of these skills is considered as a drive to learn, and as the assessment was compulsory for all the interns, the interns practiced the skills during their field posting. Nearly 45% of the interns stressed on the fact that this assessment introduction enhanced the learning process. Whenever any skill which is learned or being taught if not assessed does not give the judgmental value. Hence, this assessment provides a platform where the interns were assessed and also gave an opportunity to the assessors to know whether the interns have correctly gained the skills or not. In the text by Wisconsin,^[10] it is mentioned that assessment is an integral part of teaching and learning. It is also mentioned that "Purposeful assessment practices help teachers and students understand where they have been, where they are, and where they might go next."

Nearly 40% of the interns liked the assessment system in an overall format. Based on the cutoff for liking scores for three categories, overall, almost 50% of the interns liked the internship assessment very much whereas almost a quarter did not like the present assessment system in Community Medicine. Wormald *et al.*^[11] in their study questioned about the influence of an assessment's weighting on the motivation of students to study the particular subject. They also found that medical students' self-reported drive to study a subject is directly influenced by the weighting of the subject in the overall scheme of assessment despite being multifactorial and complex in nature.

CONCLUSIONS

Assessment drives learning and the internship period should be utilized fully for learning the skills and consequently

the skills should also be assessed. Skill assessment during internship offers an effective method to enhance competencies in IMGs. The majority of the positive feedback of this innovative method from the interns validates the importance of structured efforts to achieve continuous professional development of IMGs.

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