Selecting and modifying items from the Ministry of Health clinical teaching standards for developing a checklist

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Abstract

Background: The assessment of clinical teaching is a considerable task. The aim of this study was to select and modify items from the ministry of Health's clinical teaching standards to develop a checklist to assess clinical teaching.

Methods: This cross-sectional study was carried out in the faculty of medicine at Tabriz University of Medical Sciences. Participants were clinical academic staff in the faculty of medicine who had an educational level of a master's degree in medical education. Ten clinical teachers were identified who were eligible to be in this study. They were requested to read the checklist and provide feedback and suggest changes regarding the environment at Tabriz University of Medical Sciences to make the modified checklist fit with local practices.

Results: All of the participants had consensus on keeping 11 (73%) items of the checklist the same. Four (27%) of the items were recommended to be omitted. Clinical teaching standards have three main parts: preparation, timing, and implementation of clinical teaching. The most recent version of the checklist consists of 11 items based on participant review. These 11 items consist of five items from preparation, one item from timing, and five items from implementation.

Conclusion: The checklist was modified to be more usable. The most recent version of the checklist consists of 11 items based on participant review. The checklist can also be adapted to improve self-promotion among the faculty.

Introduction

Training in the clinical setting includes teaching and learning addressing such skills as taking a history, physical examination, communicating with patients, and professionalism. In this setting, clinical clerkships provide training to medical students on what it is like to be a real doctor. Their medical understanding is put to practical use in patient management.[1]

The assessment of clinical teaching is a considerable task. Assessment can help pinpoint barriers and facilitators for teaching staff, providing a source of encouragement, and if the assessment results join with comments to the students, such assessments can enhance education. Assessment outcomes usually have an effect on an educator's annual action assessment. Additionally, enhanced education may lead to improved perceptions for students, better management for patients, and a more useful instructional schedule for the organization.[2]

The Ministry of Health in Iran developed standards for clinical teaching in 2015, and there is a need for teaching assessment in the clinical environment,[3] since adherence to the Ministry of Health clinical teaching standards may not be routinely assessed at Tabriz University of Medical Sciences. Almost all checklists designed to assess informative activities are more related to conventional classroom training than to current clinical teaching.[4,5] Other checklists give only an individualistic summary grade to categorize faculty actions, which does not permit targeted feedback to help improve faculty instruction.[6] For these reasons, no current tool is useful for continuous improvement in clinical teaching at Tabriz University of Medical Sciences.

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The aim of this study was to select and modify items from the Ministry of Health's clinical teaching standards to develop a checklist to assess clinical teaching at Tabriz University of Medical Sciences.

Materials and Methods

This was a cross-sectional study carried out in May 2018 in the faculty of medicine at Tabriz University of Medical Sciences, the largest university in northwest Iran and one of Iran's top medical schools, with more than 5000 students. Participants were clinical academic staff of the faculty of medicine who had received master's degree in medical education. Ten clinical teachers were eligible for this study. The first draft of the checklist, derived from the Ministry of Health's clinical teaching standards booklet, was used in this study. The clinical teaching standards included 27 items, 12 preferred and 15 obligatory. It had three main domains: preparation for clinical teaching (6 items), timing of clinical teaching (4 items), and implementation of clinical teaching (17 items). The preparation for clinical teaching domain included teacher education on clinical teaching methods, supervising students, location, and equipment for clinical teaching. The timing for clinical teaching domain included both frequency and duration of clinical teaching.

The implementation of clinical teaching domain included the combination and number of patients, object-based teaching, teaching content, effective educational practices, night shifts for medical interns, ethics, evidence-based practice, medical recording and documentation, and evaluation.

Participants were requested to read the first draft of the checklist, which included 15 obligatory standards, and provide feedback and suggested changes keeping in mind the environment of Tabriz University of Medical Sciences to help the checklist fit with local practices. A page including a statement about the Ministry of Health clinical teaching standards booklet was also provided to each participant with a blank space after each item so that they could provide feedback. Likewise, one of the authors (M.B) talked with the participants and recorded their suggestions and the reasons for their modified items. This feedback was categorized and analyzed after validating through questions and evaluation with the participants. There are no standard principles to determine when consensus is reached; for this study, the fiftieth percentile was used to determine the point at which consensus was reached.[6,7] In selecting items for inclusion in the checklist,

participants' recommendations were used as well as the goal of making the checklist more useful, including being shorter.

Results

The checklist was modified and is more usable. An expert panel was consulted that consisted of a cardiologist, a psychologist, two pediatric specialists, a gynecologist, two internists, and three community medicine specialists who are academic members of the Tabriz University of Medical Science with an average of 15 years of experience in their jobs. Four participants were male and six were female, with a mean age of 46 years. The researchers analyzed all feedback.

All participants had consensus on keeping 11 (73%) items of the checklist, recommending dropping the remaining items. Six participants recommended omission of three items in the implementation of clinical teaching domain, and seven participants recommended omission of one item in the timing domain (Table 1). All omission suggestions were received by more than fifty percent of participants, so the checklist was revised based on this feedback. The final version of the checklist consisted of 11 items (Table 2). These 11 items consisted of five items from the preparation domain, one item from the timing domain, and five items from the implementation domain.

Discussion

There is an increasing number of studies correlating to the growth of checklists and grading rates.[4] Currently, Litzelman et al have assessed and clarified a tool for judging clinical training which is formed on seven classifications: organizing a definite educational involvement; supervision of the training period; transferring aims to students; advancing perception; assessment of accomplishment of objects; comments to students; and improvement of self-directed learning.[8] Pattern checklists have been established in expanded different trainings. These tools show the understanding of students, and could be established to allow health care providers and patients to give feedback regarding their experiences with clinical training competence among medical students.[9,10]

The assessment of clinical teaching is usually done from the perspective of the student. Our checklist includes the perspectives of both teachers and institutional administrators.[2]

Other types of checklists for assessing clinical teaching include a checklist designed by Copeland and Hewson

Table 1. Items and their domains which are recommended to be omitted from the checklist of assessing clinical teaching in an outpatient clinic

Domain	Number	Item
Timing	1	Students are present in clinic from beginning to the end
Implementation	2	Students visit at least one new case *at each session*
	3	Students have at least two night shifts and maximum of eight during each month of the course
	4	Related references are in clinic for student use

Table 2. Modified checklist of items and domains to assess clinical teaching in an outpatient clinic

Domain	Number	Item	Yes	No
Preparation	1	Students visit patients under the supervision of clinical teachers at outpatient clinics.		
	2	The *maximum* number of *students* who are under the supervision of a clinical teacher is five at outpatient clinics		
	3	Teaching hospitals have a general outpatient clinic for training students		
	4	Each office is equipped with the required tools for a physical examination		
	5	Outpatient clinics are equipped with enough chairs and tables for students		
Timing	6	Students have been trained at least two days per week in outpatient clinics		
Implementation	7	Learning goals and necessary experiences have already been determined and students have been informed		
	8	The training methods are used such that students will able to visits prevalent patients independently at the end of their clinical course		
	9	For each outpatient visit, effective educational communication between the trainer and students has taken place for a minimum of three minutes		
	10	Student actions have been documented in students' log books		
	11	Assessment of students constitute their practice in outpatient clinic		

which helps the faculty evaluate a physician working in rotation, and helps to ensure that physician are successfully teaching students.[11] Kikukawa et al designed an instrument for assessing clinical teachers in Japanese postgraduate medical education, the first such instrument to be developed for an Asian setting. Ten items of the Kikukawa checklist consider aspects of clinical teaching that are related to both Western and Japanese environments and may not be sensitive to cultural differences. This instrument included no items relating to independent, active or self-directed learning.[6] Such checklists focus on assessing teacher and clinical teaching effectiveness and have not evaluated preparation and timing of clinical teaching.

The main implication of the results of this study is that a checklist may increase the effectiveness of medical education in the clinical departments in the faculty of medicine at Tabriz University of Medical Sciences. Clinical departments could use the checklist to gather and record data in a common format that can be used across departments. Different departments can be compared throughout Tabriz University of Medical Sciences, thus enabling the ability to address research questions relating to variables affecting clinical teaching. Based on the exploratory results, the checklist is appropriate in scaling promotion of teaching through faculty members. Outcomes can also be adapted easily to improve self-promotion among faculty. The vigor of such a checklist lies in the method of continuous meetings with key stakeholders and informants. By supporting a sound checklist, this academic medical center may improve teaching specifically and the importance of clinical teaching overall can be promoted. This checklist may be helpful for clinical teachers outside Tabriz University of Medical Sciences who contribute to teaching medical students.

There were some limitations to this study. First, the number of participants was low; a number of at least 20 participants have been recommended.[6] Second, in the translation between Persian and English, some item wording could not be matched completely. Third, this study was done within one faculty at the university. To generalize these results to other settings, more participants are needed and more faculties should be used as a source of participants.

This study was part of a project to evaluate the implementation of a clinical teaching standards checklist in the pediatric and internal medicine wards at Tabriz University of Medical Sciences.

Further study is recommended to test this checklist at other universities. Similarities and differences among universities may show a further influence of cultural factors.

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