



Review

Instructor's Role In The Conduction Of Basic Clinical Fitness In The Clinique Fitness Laboratory / Skills Laboratory

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ABSTRACT

Teaching clinical skills is a must in the 21st century. Medical school is required to make its graduates as skilled and professional doctors need a lot of support such as clinical skill laboratory facilities (Skills Lab) and instructors. Students need to be given sufficient opportunities to practice basic clinical skills in a place that is comfortable, safe and controlled without fear of harming patients and can be monitored and assessed in accordance with the expected competencies. Clinical skill instructors are the cornerstones of basic clinical skills teaching process. The role of the instructor includes building two-way relationships for each individual student, giving feedback, becoming role models so that students will be responsible for carrying out each procedural step of clinical skills. Their role is very important in guiding and facilitating the students to practice clinical skill, making sure their skills progress, and preparing them to obtain the predetermined competency as a doctor.

INTRODUCTION

Current medical education has significantly advanced, leveraging modern technology to educate medical students to become professional doctors (GMC, 2013). One such advancement is the establishment of Clinical Skills Laboratories as a means to teach basic clinical skills before students directly engage with real patients in hospitals. Virtually all medical educational institutions worldwide have these laboratories as a tool

for teaching clinical skills to their students. Here, students can learn and extensively practice basic clinical skills in a comfortable, safe, controlled environment without the fear of endangering patients. Furthermore, their progress can be monitored and assessed to ensure alignment with the expected competencies.¹

Research by Nielsen et al. (2003) has proven that Clinical Skills Laboratories can enhance students' skills and confidence, making them more prepared

for clinical education. Students require practice to be proficient in performing clinical skills according to the competencies, all of which can be achieved in these laboratories. Learning methods employed may include role-playing, video observation, learning from mannequins, or simulated patients.^{2,3} The trained clinical skills encompass communication skills, physical examination, medical procedures, clinical reasoning for diagnosing diseases, or other necessary skills for practicing medicine.⁴

During clinical skills training, students are guided by a clinical skills instructor. Despite various teaching methods in skills labs, an instructor must ensure that guided students make significant progress evident in their learning outcomes. The instructor's role is pivotal in guiding students' learning of clinical skills. Instructors should have expertise in clinical skills, a passion for teaching, and sufficient time for discussions and reflecting on students' learning outcomes.⁵

Given the crucial role of basic clinical skills instructors, it is essential to discuss teaching these skills in medical education. What preparations should an instructor undertake to support the teaching and learning process in basic clinical skills training? How can an instructor effectively guide and facilitate learning to train students in basic clinical skills according to the existing competencies?^{3,5}

DISCUSSION

Clinical skills represent one of the seven fundamental competencies outlined in the Indonesian Medical Doctor Competency Standards (SKDI). Medical schools are mandated to graduate skilled professionals. The teaching and learning process in medical education largely revolves around clinical learning.⁶ There are three basic components in teaching

clinical skills: cognitive, affective, and psychomotor.³

It's crucial to note that the learning atmosphere in clinical settings is distinct, requiring a particular approach to learning. Often, when students first engage in these skills, they may feel uncomfortable facing real patients. Therefore, a learning environment that allows practice and skill repetition is necessary. Hence, the most suitable place is the Clinical Skills Laboratory.³

There are fundamental principles in teaching clinical skills:⁷

Conceptualization

Students must grasp the cognitive elements of a skill—understanding why and when it's performed and what considerations to observe during clinical skills execution.

Visualization

Students witness complete skill demonstrations by instructors, providing a model for expected performance.

Verbalization

Students hear narrations of the clinical skill steps and are able to accurately recount the steps before.

- a. Practice/Rehearsal After observing and hearing, students practice the skills.
- b. Error correction is crucial and should be immediate, offering positive feedback.
- c. Skill Mastery. The ability to flawlessly execute trained clinical skills in real situations.
- d. Skill Autonomy The capability to perform clinical skills routinely in real situations without errors.

From these basic principles, a five-step method was developed:⁷

- 1) Overview: Provided to motivate students about the benefits of learning the skill and its practical application.
- 2) Demonstration: Instructors demonstrate a clinical skill without describing step-by-step procedures.
- 3) Demonstration repetition by the instructor, with clear explanations of each sequential step, allowing students to follow and ask questions or seek clarifications.
- 4) Verbal repetition by students, aiming for them to recall and understand the clinical procedure.
- 5) Students practice the taught clinical skill while the instructor observes and provides feedback.

Scherpbier and Metz described five stages for teaching clinical skills in the skills laboratory:⁴

- a. Preparation: Students familiarize themselves with the skill to be performed.
- b. Training: Verbalization or narrating along with movements/maneuvers.
- c. Practice: Training format using models or standard patients, mannequins, etc.
- d. Simulation: Integrating skills with reality, enabling practice with actual patients.
- e. Assessment: Feedback on the quality of the activities performed.

Gagne explains the basic clinical skills learning process through three stages: cognitive, associative, and automaticity. The cognitive stage involves concentration and guidance from instructors. In the associative stage, errors decrease as students improve and self-correct based on their established knowledge. The automaticity stage sees proficient skill execution with minimal errors. Here, instructors mainly facilitate the learning situation.^{1,3} Through these steps, instructors can promptly identify and

correct issues arising in students while learning clinical skills. Active student participation is crucial, granting them opportunities to practice learned clinical skills in line with the fundamental principles of clinical skills learning.⁸ An instructor must be able to assess students' performance in each training session. They should develop students' clinical skill experiences in various situations and contribute to their preparation. Before engaging in teaching clinical skills, instructors should be adequately prepared, which includes attending training sessions aligned with established standards.^{1,6,9}

Referring to the aforementioned descriptions, an instructor must possess roles and capabilities in guiding students in basic clinical skills activities. The instructor's roles in the teaching and learning process of basic clinical skills encompass:^{1,5,6,10}

Allowing students to participate in every clinical skills activity. Students should have sufficient freedom in their learning process, actively participating in each activity and given opportunities to repeat skills. Teaching and demonstrating skills according to competencies.

Demonstrating clinical skills is crucial. Instructors' proficiency in demonstrating skills can inspire students to practice until they master them. Observing students during the learning process.

The ability to observe all students during practice helps identify each student's weaknesses for immediate improvement. Providing constructive guidance and feedback.

Explaining the clinical skill procedures and giving comprehensive feedback on what's done correctly and incorrectly. Influencing, inspiring, and motivating students to improve the quality of their skills. Presenting clinical cases and emphasizing the benefits and importance

of clinical skill procedures encourages students to learn until mastery.

Stimulating collaboration and contextual learning. Learning from interpersonal interactions can have positive impacts. Teaching students to collaborate in a team and with individuals from various disciplines is essential. Contextual learning describes learning that reflects real-world situations, applying knowledge and skills to daily life. Assisting students in understanding and swiftly correcting mistakes.

Skillfully explaining materials helps students understand more clearly, keeping them engaged and motivated to learn while quickly identifying mistakes. Engaging in evaluation and reflection.

Evaluation includes skill practice, learning goal achievements, and the support of training resources. Reflection involves reviewing experiences, identifying training obstacles, and remediation.

According to Scherpbier and Metz in teaching clinical skills, an instructor must motivate, guide, and facilitate all student needs. They should motivate and guide students to actively engage in the learning process, engaging in repetitive practice to achieve desired competencies.^{1,4} Based on Suryadi's research, proficiency in skills requires stages, repetition, ample practice time, feedback, and reflection to improve and perfect skills.⁸

In executing their role, instructors may encounter several challenges or problems during the teaching and learning process. These challenges or problems may include:^{1,5}

Time constraints due to teaching, clinical duties, or research commitments. Insufficient preparation or lack of enthusiasm for training sessions, both in knowledge and skills. Unstructured training: unclear objectives, expected outcomes, and a lack of summarized learning

Inability to establish a good relationship between instructors and students (a sense of distance), leading to inadequate guidance and reduced student participation. Lack of incentives and recognition for teaching. Uncomfortable teaching environments, such as inadequate tools for supporting skill practice

Additionally, instructors might face issues when they are unprepared or lack enthusiasm in training clinical skills. This problem arises when they have to replace another instructor who suddenly can't attend. It's crucial to emphasize, in clinical skills education, the pivotal role instructors play in guiding students in the learning process. Apart from having expertise in the clinical skills they teach, instructors must motivate students to understand the benefits of the skills and achieve the learning objectives.^{5,6}

It's evident how crucial the role of a clinical skills instructor is in the learning process for students to achieve the expected competency in clinical skills. An instructor should collaborate within a team to assess students' performance in each training session. Moreover, they should develop their own clinical skill experiences in various situations and contribute to student preparation. Before teaching clinical skills, instructors should be adequately prepared, including attending training sessions aligned with established standards. Institutional recognition also plays a crucial role when an instructor teaches clinical skills, whether in the form of financial rewards, career advancements, or other forms of recognition.^{5,12}

In the implementation, the basic clinical skills learning activities for pre-clinical students take place in a specific room within the Clinical Skills Laboratory (skills lab) in small groups facilitated by one instructor. The learning objective within small groups, as per Quinn (2000), is to

place the student at the center of learning. This approach allows instructors to interact, exchange ideas, and focus more on monitoring students' work during the learning process.¹¹

In practicing basic clinical skills, instructors fulfill their roles by teaching the material, demonstrating, observing the learning process, providing feedback, and evaluating learning outcomes. The method employed is the five-step method, which summarizes the fundamental principles of teaching clinical skills. It involves an overview of the learning purpose, demonstrating the skill, re-demonstrating the skill while explaining step-by-step, verbal repetition by students, and finally, students practicing the taught skill while the instructor observes and provides feedback.⁷

CONCLUSION

Teaching clinical skills demands considerable attention. Its success heavily relies on students' understanding of foundational knowledge, regular skill practice, and the role of instructors as clinical skill trainers. The significance of an instructor's role in the clinical skills learning process lies in their ability to motivate and participate in student activities, aiming for the achievement of learning objectives aligned with existing competencies. An instructor should possess knowledge and skills within their discipline, enthusiasm for learning and teaching, and the ability to inspire or motivate students in developing clinical skills professionally.

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