

The Clinical skills Laboratories as a Learning tool for undergraduate Students in Hadramout University College of Medicine

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The clinical skills laboratory (CSL) is a multidisciplinary education facility that provides clinical skill training and practice in various formats to specified level of competency prior to direct patient contact ,It does not replace learning in the clinical setting. It is an extra-tool for bedside clinical teaching which decline due to several reasons.

It is aimed to prepare students for clinical problems in less threatening environment.

A wide range of training skills were learned in (CSL) which include clinical examination , diagnosis and communication skills , this is achieved by using models , simulations , peer group , role –playing , mannequins , stimulated patients and standardize patient .

The purpose of this paper is to provide an overview of the skills laboratory and look at the advantage and disadvantage of training in clinical skills laboratory.

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Introduction

The clinical skill laboratory (CSL) is a multidisciplinary educational facility that provide clinical skills training and practice in various format , to various level of competency prior to direct patient contact.⁽¹⁾

Clinical skills (skills necessary in dealing with patients) are usually divided into psychomotor (manual skills that require coordination between brain and body, hands in clinical settings, such as stitching a wound), cognitive (skills of thinking, such as decision-making as in making a diagnosis or deciding to do a surgical operation) and communication (transferring information and skills to the others, including taking a history, explaining a procedure, breaking bad news or encouraging life style changes)⁽²⁾.

This is achieved by using simulated patients, (is a person well trained to simulate a patient 's illness), simulated video tapes, manikins, (a model of human body) simple anatomical models (models of body parts), computer-assisted learning, interactive videos, dolls for resuscitation, pelvic models for speculum examination and simulators, e.g. a plastic arm containing rubberized vein (for injection procedures) are widely used in clinical skill laboratories in addition to set for examination of breast and different body system

A high level human patients simulator is a whole body mannequin with driven mechanical and computer soft ware⁽³⁾ in particular " Harvey "

Harvey is an adult sized mannequin that produces realistic simulations of normal and abnormal heart sound (but its use is limited by its inability to include changes in position of patients to assess radiation and change in murmurs)⁽⁴⁾.

Factors which led to the trend:

Today medical students have less access to bedside teaching so teaching clinical skills to medical students became difficult as actual bedside teaching has declined from a percentage of 75percent in 1960 to less than 20 percent today ⁽⁵⁾

Among factors leads to this decline is shortage of patient time spent in hospital due to advance in imaging and laboratory technique . The increased rate of patients care at private clinic , where there are no students teaching programs are allowed. The faculty members are working in private sectors and increase administrative duty of senior doctors . Furthermore , most medical school nowadays adopt early clinical exposure when medical students are inexperienced . Involving such students in bedside teaching places both students and patients in a threatening environment .Indeed , it was found that a substantial proportion of medical students enter their internship year without any basic skills experience. ⁽⁶⁾This affects the quality of care interns provide , weakens the confidence of nursing and medical staff in new graduate .

Also with the increasing awareness of patients rights, patient's consent to being part of medical education is no longer granted . In addition to above reasons the traditional bedside teaching based on apprenticeship model of education alone can not be relied on to provide comprehensive training in clinical skills ⁽⁷⁾ ,so clinical skill laboratory is extra tool for bedside clinical teaching it does not replace learning in the clinical setting .

Historically , since the recommendation of British General Medical Council (GMC) in its document Tomorrow's Doctors to introduce the teaching of clinical skills at an early stage of medical curricula, many school , all over the world , have adopted this recommendation with positive outcomes ⁽⁸⁾. Hadramout university college of medicine (HUCOM) has unique experience in teaching of clinical skills in Yemen .The clinical skills training starts in the first year of the 6- year undergraduate curriculum and continues until the end of the six year where the students rotate through the clinical specialties.

Advantages and disadvantages:

Clinical skills laboratory in undergraduate setting aiming at preparing students to practical skills provides non- threatening learning environment with no concern of stress that traditional clinical teaching (patient encounter)^(9,10) might cause to real patients .Furthermore , one important advantage seems to be the fact that social and ethical problems are overcome when students learn intimate examination skills in the CSL. Using mannequin's students may perfect these skills and can then approach patients with more confidence . Opportunities of immediate feedback enhance further the effectiveness of skills teaching. Video recording of interviews usually takes place in CSL. This allows feedback on history taking and interviewing skills , which improves their communication skills in practice .

(CSL)offers an innovative methods of learning that efficiently fills the gap between theoretical knowledge and clinical practice . Students can afford mistakes without emotional reaction of the standardized patients or mannequins to incorrect response . Moreover , they can repeat procedures as often as they like .It also provides longitudinal integration between basic and clinical sciences.

Skills are usually taught in three steps, description, demonstration and practice. A skill is described in terms of its importance, indications of use and method and stages of its performance. Then the skill is demonstrated correctly, visibly and with explanation of each step and emphasizing the important points. The last step in teaching skills is to arrange practice sessions. This is the most important and required careful planning for implementation . The key questions to be answered are: What skills should be learned? How and when will training take place ?Who will provide the training ?How to make sure it work. How and when these skills are learned must be guided by clear aims and objectives , as the aim of teaching clinical skills is to help students to be able to do the skills and not just know how to do them. So a clear understanding of the level of the achievement and proficiency expected at different points throughout the undergraduate medical curriculum and a defined set of intended outcomes .

The main disadvantage of the CSL is that although the use of simulated patients was proven to be a useful learning aid, some clinical signs are impossible to

simulate. Also it is cost in term of staff, equipments , replacement , consumables cost.

Conclusion :

Clinical skills centers can significantly contribute to medical education by using alternative venues for training . Some skills need to be covered early in the curriculum such as communication , history taking and physical examination to provide foundation for students preparing for clinical attachment (this covered through first three year of our curriculum with clear intended learning outcomes). in the later years more sophisticated skills are added example advance practical procedures , patient management and investigation .

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