

Clinical skills and it's importance in undergraduate medical curriculum

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Information about the article:

Published online: July 12, 2018

Cite this article:

Roy B, Rashid M, Sathian B, Banerjee I. Clinical skills and it's importance in undergraduate medical curriculum. *Journal of Biomedical Sciences*. 2017;4(1):1-2.

Publisher

Nepal Health Research and Welfare Society, Jorpati, Kathmandu, Nepal
eISSN 2382-5545

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EDITORIAL

This The core of medical teaching constitutes of "knowledge, attitudes and skills" these can be acquired through various means like bedside teaching, lectures, demonstration, audiovisual presentation, role play [1, 2]. Clinical skills program is considered as an important adjunct to other forms of the undergraduate medical curriculum - plays a vital role. Intensive training in clinical skills right at the beginning of medical career builds a good medical professional. Clinical skills are learned through different procedure under the guidance of clinicians or set a number of cases followed by performing the same procedure under supervision. Medical schools of different parts of the globe have separate clinical skills lab, where undergraduate students are trained as a part of their MBBS curriculum which enriches the student's knowledge and understanding for future [3].

Clinical skills lab session can be blended with traditional bedside teaching an integrating part of the undergraduate curriculum. In the clinical skills lab, students take patient's history, perform the physical examination, which develops their clinical clerking skills, helps them to interpret diagnosis in a logical manner. As the clinical skills session uses simulators, manikins, simulated patients and case scenarios, so it builds proper concept and helps the student to perform in a better way independently at health care setting in any clinical scenario that should lead to early and accurate diagnosis and patient management.

Clinical skills laboratories is an ideal educational environment for the students to learn a wide range of skills in a self-directed pace getting immediate feedback. Although, these laboratories can't be a replacement of real clinical environment and patient interactions, enabling medical students to better learn basic clinical skills, making self-confident and better performer in clinical set up [3, 4]. Clinical skills build self-esteem, which develops their competence and gradually improve it.

Clinical skills can be subdivided into three main parts - diagnostic procedures, therapeutic procedures, communication and infections control skills. Diagnostic procedures includes medical history taking, measuring vital signs, managing blood samples, measuring and interpreting blood glucose, taking cultures (blood, urine, coating from pharynx, nose and skin) for testing, performing and interpreting electrocardiograph (ECG),

basic respiratory function tests, urine multi dipstick test, pregnancy testing, pap smear test, clinical examination, examination using special equipment (ophthalmoscope, otoscope, colposcope), ABCDE assessment of a critically ill patient, interpretation of basic imaging tests (x-ray of chest/abdomen), health needs assessment and decision making etc. Therapeutic procedures include airway management techniques (ventilation techniques etc.), establishing peripheral intravenous access and setting up an infusion; use of infusion devices, administration of drugs, procedure of blood transfusion, urinary catheterization, skin suturing techniques, wound care dressings, delivery procedure etc. Communication and infections control skills include professionalism, communication skills with patients and relatives (announcement of bad news, patient management), team spirit, informing patients about modifiable risk factors, observation and presentation of imaging tests (x-ray, CT, MRI) to the patient [5].

Students trained in skills lab becomes more professional, able to perform procedure faster, developed better communication skill and provided overall better medical care to the patients [6]. So medical schools which are based on traditional teaching system need to develop clinical skills lab and introduce clinical skills lab session in the curriculum to make better healthcare professionals.

Competing interests

None declared.

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References

1. Bloom BS, Engelhart MD, Furst EJ, Hill WH, Krathwohl DR. Taxonomy of Educational objective: The classification of educational goals. New York: David McKay company, Inc; 1956.
2. Banerjee I. Problem based learning (PBL) - approach to learn medicine: an experience from a medical school of Nepal. *Journal of Biomedical Sciences*, 2014, 1(1): 3-5. DOI: <http://dx.doi.org/10.3126/jbs.v1i1.10926>
3. Smyrnakis E, Faitatzisou A, Benos A, Ntompros N. Implementation of the objective structured clinical examination (OSCE) in the assessment of medical students. *Archives of Hellenic Medicine*. 2008;25(4):509–19.
4. Morgan R. Using clinical skills laboratories to promote theory-practice integration during first practice placement: An Irish perspective. *J Clin Nurs*. 2006;15(2):155–61. DOI: <https://doi.org/10.1111/j.1365-2702.2006.01237.x>
5. Emmanouil S, Maria M, Frideriki S, Apostolos T. Exploring correlation between early clinical skills teaching and self-reported competence of senior medical students; a cross-sectional study. *Aristotle University Medical Journal*, 2016; 43(3): 13-23.
6. Lund F, Schultz JH, Maatouk I, Krautter M, Möltner A, Werner A et al. Effectiveness of IV Cannulation Skills Laboratory Training and Its Transfer into Clinical Practice: A Randomized, Controlled Trial. *PloS ONE*. 2012;7(3):e32831. DOI: <https://doi.org/10.1371/journal.pone.0032831>