



Implementation of Skills Competencies Across a Medical Curriculum

Jamil Ibrahim, Linda R Adkison, Mignonette Sotto, Frances Jack-Edwards, B Scott, and Amrie Morris-Patterson
Trinity Medical Sciences University, School of Medicine, St. Vincent and the Grenadines, WI

Abstract

Purpose: To further define the curriculum map for the Trinity Medical Sciences University School of Medicine (TMSU-SOM) and to better document the development of students’ clinical skills, the faculty developed a clear expectation for the introduction of skills and level of mastery. At the end of five clinical terms, student skills were assessed in an objective structured clinical examination and a summary report was provided to the clinical chair of the first clerkship. **Methods:** A review of the clinical skills curriculum provided a list of skills introduced and assessed either as formative or summative assessments. Students documented practice of these skills during pre-clerkship terms in a skills log. Skills were mapped as “introduced/practiced” and “expected to perform.” Clinical clerkship chairs participated in mapping expectations for clerkships. The map was reviewed annually. An Individual Clinical Skills Assessment form was developed to provide information to clinical chairs as students entered clerkship training. **Results:** The Skills Map provided a clear expectation for students and was included in each course’s master syllabi. Students acknowledged increased transparency on expectations. Among pre-clerkship clinical faculty, the map provided improved reproducibility of expectations during terms and for the two-year evaluation of students. The Clinical Skills Assessments provided clinical chair with insight into each starting student and led to better alignment of students with preceptors. Assessment outcomes could also be used in letters of reference and the assessments used for the Medical Student Performance Evaluation. **Conclusion:** Developing a clear and progressive expectation of skills development provides repetitiveness needed leading to competency. The benchmarks provided transparency for assessment which students appreciated. The Clinical Skills Assessments were well received by clinical faculty.

Purpose

The medical school undertakes a regular review and update of the curriculum map after modifications and changes in the curriculum. During the process of curriculum review, clinical and basic science faculty engage in discussions about improving communication between St. Vincent and Baltimore, MD where clinical training occurs. The goal was to better define the introduction of specific clinical skills in the curriculum and clearly indicate for students at what point they were expected to demonstrate the skills. A hand-off report was also prepared at the end of second year and sent to the clerkship director. This provided better information about the level of clinical achievement and facilitated choice of facilitator and small group sessions.

Methods

Clinical skills training during pre-clerkship training spans five terms and culminates in an OSCE. Most students begin clerkships training in the Family Medicine clerkship. The pre-clerkship curriculum seeks to introduce skills sequentially but also with an appreciation of material being presented in other courses. These skills and the level of expectation was mapped to the curriculum map.

To complement the new Skills Map, a hand-off report was developed for the Family Medicine clerkship chair. Feed back was collected through direct communication.

Results

Skills Map of years 1-2 and core clerkships: Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Surgery.

CLINICAL SKILLS	TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	FMED	IMED	OBGY	PEDS	PSYC	SURG
History & Physical											
History of Present Illness											
Past Medical History (medical/surgical, obstetrical, neurodevelopmental for pediatric patients, psychiatric, allergies, immunization)											
Family History											
Personal & Social History											
Review of Systems											
Vital Signs (BP, HR, RR, Temp)											
Patient Note/SOAP note											
Patient Presentation											
Focused Exam (H&N, ENT, cardiovascular/respiratory)											
Focused Exam (abdomen, peripheral vascular, musculoskeletal, neurological)											
Focused Exam (gynecologic, breast exam)											
Focused Exam: hernia											
Mental Status Exam											
Fundoscopy											
Gloving											
Digital Rectal Examination											
Urethral/Foley Catheterization											
IV Cannulation											
Suturing											
Wound management											
Differential Diagnosis											
Interpret lab tests											
Interpret imaging studies											
Interpret basic EKG											
Discuss orders/prescriptions											
Assist with delivery											
Formulate treatment plan											
Demonstrate evidence-based medicine											
Obtain Informed Consent											
Collaborate as a team member											
Give/receive patient handover											
Demonstrate appropriate physician behaviors											
Introduced/practiced Expected to perform											

Clerkship directors assisted with refining the Skills Map. Once completed and approved, specific skills for each term and clerkship were add to all master syllabi so that students were fully informed at the beginning of each term of the expectations. Student Government representatives also served voting members of the Curriculum Committee and participated in discussions about the Skills Map and helped with communication to students.

INDIVIDUAL CLINICAL SKILLS ASSESSMENT					
[Identifying information for Student]					
Competencies:	Needs Improvement	Satisfactory Performance	Performance Competent	Not Observed	
Bedside Clinical Skills: Are the Students' skill level appropriate for their education level?					
Obtaining a medical History: The student obtains a comprehensive description of symptom attributes including critical ROS, PMI-I, Fam Hx, Obstetrical Hx, Personal and Social Hx, including medications and allergies. Chief complaint presentation — Class mean: 95.1%			x	94%	
Performing A Physical Exam: The students are able to use all pertinent ancillary techniques (may include inspection, palpation, percussion and auscultation) to perform a skillful, patient-centered exam that reflect respect for patient privacy, comfort, and safety. Skills test — Class mean: 91.7%			x	96%	
OSCEs: Student's grade in Term 5 OSCE Class Mean: 80.1%	87.3%				
Communication Skills: Has the student developed those skills that are required to be effective in communicating information concisely, accurate and appropriate in a medical setting?					
Physician/patient relationship: The student's approach to the patient is appropriate with empathy, openness and responsive to the patient needs.			x		
Speaking/Listening Skills: The student is able to converse intelligently and communicate medical issues effective with patients and staff.			x		
Case Presentation: The student is able to present a well-organized, concise case including all important details, both oral and written. Clinical Case Presentation grade: Student write-up — Class mean: 85.5%			x	Good 95%	
General Medical Knowledge: Are the Students' knowledge level appropriate for their education level?					
Basic & Clinical Knowledge: The student demonstrates an appropriate knowledge of medicine, and able to apply the multidisciplinary body of basic sciences to clinical analysis and problem solving			x		
Interpretation of lab results: The student distinguishes between normal and abnormal findings and recognizes lab errors.			x		
Clinical Synthesis/DDx: The students are able to derive a logical diagnosis consistent with history and PE from a reasonable differential diagnoses.		x			
Professional Skills: Does the students possess those qualities important to a physician in establishing trust and rapport with patients and the Medical team?					
Professional Demeanor: The student is thoughtful, professional and displays appropriate behavior when interacting with the patient, other students and faculty. Student maintains a neat and clean appearance, and appropriate attire.			x		
Responsibility/Dependability: The student is always present, punctual and conscientious. Student comes in well prepared and with necessary tools for the rotation. Student complies with all necessary requirements that were expected from him/her.		x			
Faculty Comments:					

At the end of Term 5, clinical faculty reviewed the evaluations of students during the five terms. Students participated in clinical rotations pre-clerkship training. Where possible, objective data were provided with class means. The Individual Clinical Skills Assessment was forwarded to the Family Medicine Chair before the student began clerkships.

Discussion

Clinical skills development is a competency embedded within several ACGME competencies. Students must possess satisfactory skills in order to perform well in patient care settings. However, tracking relevant skills in pre-clerkship training horizontally through the curriculum was not being done methodically at TMSU-SOM. The process undertaken by the faculty, clearly defined what was being introduced to students where in the curriculum in relation to other courses and clerkships. It also clearly indicated to students expectations of practicing the skills for formative feedback during courses and when the skills would become part of a summative feedback and students were expected to perform skills.

Feedback from the Family Medicine chair indicated that having the hand-over assessment made it easier to better match students with preceptors to provide optimal learning teams.