

Original article

Perception of medical students regarding early introduction of clinical skills at RAKMHSU

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Abstract:

Introduction: Medical students on joining the course face a new environment, and this is one of the biggest concerns for them. Most medical programs impart a knowledge intensive, didactic based curriculum during the early years. Having early exposure to actual patients in terms of cases or mannequin practice during their course helps medical students learn the basic clinical skills procedures. It also provides social relevance, helps them to acquire proper attitude and improves their communication skills.

Objectives: The main objective of this study was to compare the perceived use and benefit of early clinical skills introduction between two different batches of third year medical students.

Methods: A prevalidated questionnaire was administered to two successive batches of third year MBBS students of RAK Medical College, RAKMHSU.

Results and conclusion: More than 85 % of the students agreed that clinical skills is essential for MBBS year I and II and that the skills sessions correlated with other subjects being taught in the MBBS year I and II. Majority were confident of performing the skills on patients in the future and the help of peers was sought and utilized in learning and practicing the skills.

One of main concerns was that not many students practiced the skills learnt in first year during the second year. It was also noted that many students did not visit library or seek additional resources to learn.

Early introduction of clinical skills is essential, is truly rewarding to students, and should be incorporated in all medical schools.

Key words: Medical students, Clinical skills, Communication skills, Attitudes.

Introduction:

The main goal of medical education is to prepare students to become clinically competent doctors.^[1] This goal needs to be maintained during the whole period of study and requires a lot of hardwork and motivation on the part of the student. This includes learning and retaining the knowledge of various clinical skills. Clinical skills and theoretical knowledge are two equally important parts of medical fields. Medical education has evolved over the last few years with a lot of emphasis on interactive experiential learning. In recent years there has been lot of changes in teaching methods in adopting various interactive sessions such as group discussion, case based learning, problem based learning, team based learning, early introduction of clinical skills etc. The older traditional curriculum relied heavily on imparting knowledge in the form of lectures especially in the early years of study without exposing them to clinical skills, which was only imparted to the students during the clinical years of study. It should be emphasized

that medical knowledge is increasing in leaps and bounds and this places a burden on the students to imbibe the required knowledge in 5-6 years. Every year of medical studies then becomes crucial in order to learn the skills required for patient care and support.

The early exposure of clinical skills in year I students is done using interactive sessions with case problems and skills practice on mannequins. This allows students to master the skill before applying it to the real patients during their clinical years. Early introduction of clinical skills is also beneficial to the patients as studies suggest that practicing clinical skills on real patients without proper training during the early years imparts a lot of risk to patients.^[2]

Medical students having early exposure to clinical skills learning during their course benefit in various ways. It provides social relevance, enhances medical knowledge, helps in the acquisition of proper attitudes, improves communication skills and allows the students to learn a few basic clinical skills procedures.^[3] It is important for undergraduate medical students to acquire interviewing/communication techniques and physical examination skills early in medical education, in order to adopt correct behaviors in approaching patients and their problems.

The anxiety experienced by the students entering medical colleges, especially with regards to the clinical skills, will also be mitigated to a great extent if teaching of clinical skills is started earlier.^[4] Early introduction of clinical skills makes students more comfortable in performing patient assessment during their clinical years. They also learn to be self-dependent and this improves their confidence.^[5,6]

It should be stated that learning clinical skills involves two sets of benefits – those related to conducting the procedure and those related to communicating with the patient. All these points underline the need for curriculum changes in the vast majority of medical programs making early clinical skills a compulsory course. This was lacking in traditional curriculum which focused on basic subjects with no clinical skill experience which may demotivate students and instill negative emotions when they enter into the clinical years.^[7,8]

The main objective of this study was to assess the benefit and knowledge aspects of students who have undergone such program in their first and second year of studies.

Materials and methods:

The study was conducted at RAK Medical and Health Sciences University. The study was conducted on two successive batches of third year students. The total sample size was 118 with 95% confidence level and 5% confidence interval with population size of 170. Out 170 students 77 (37 and 40 respectively) given consent for the study and filled the questionnaire.

A standard set of questionnaire was prepared after going through the various indexed articles related to the topic. The questionnaire was pre validated by applying the questionnaire to small set of students (10 Nos) who were not part of the study. The data was entered into SPSS and Cronbach's alpha value >0.8 considered as valid questions. The questions were revised if there was any deviation.

With the approval of institute ethical committee, the pre designed pre validated questionnaire was applied on students in their classroom. The filled questionnaire were collected immediately and data entered into excel sheet and results collated as percentage.

Results:

The results of the study have been depicted in table 1,2 and 3. The study showed that high percentage of students were in agreement with clinical skills is essential for MBBS year I and II (84% and 87.5%) and Many were in view that sessions were correlating with other subjects taught in the MBBS year I and II (81% and 85%). In terms of performing the skills on patients in future 67% and 62.5% agreed they were confident and 57% and 95% students raised concerns that clinical skills add extra pressure on studies.

Table 1: Showing the views of participants in percentage

Questions	Batches	5 (Strongly agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly disagree)	
Do you think clinical skills are essential for MBBS year I and II?	I	24(65%)	7 (19%)	3 (8%)	2 (5%)	1 (3%)	
	II	30 (75%)	5 (12.5%)	1 (2.5%)	2 (5%)	2 (5%)	
Do you think sessions will help to correlate with clinical knowledge of other subjects?	I	19 (53%)	10 (28%)	3 (8%)	4 (11%)	0	
	II	33 (82.5%)	1 (2.5%)	2 (5%)	3 (7.5%)	1 (2.5%)	
Do you think early exposure with patient will benefit more than simulated patients?	I	24 (65%)	6 (16%)	5 (14%)	0	2 (5%)	
	II	35(87.5%)	4 (10%)	1 (2.5%)	0	0	
Are you confident in performing skills in future on patients?	I	11 (31%)	13 (36%)	5 (14%)	6 (17%)	1 (2%)	
	II	20 (50%)	5 (12.5%)	1 (2.5%)	4 (10%)	10 (25%)	
Does clinical skills add extra pressure on your study?	I	10 (27%)	11 (30%)	7 (19%)	3 (8%)	6 (16%)	
	II	34 (85%)	4 (10%)	0	0	2 (5%)	
Do think early CK will make you competent in clinical years?	I	17 (46%)	11 (30%)	7 (19%)	2 (5%)	0	
	II	29 (72.5%)	5 (12.5%)	4 (10%)	2 (5%)	0	
DO you think skills have improved your communication skills?	I	13 (35%)	9 (24%)	8 (22%)	5 (14%)	2 (5%)	
	II	29 (72.5%)	3 (7.5%)	1 (2.5%)	4 (10%)	3 (7.5%)	
		YES			NO		
Do you take help of yours peers for	I	12 (75%)			7 (25%)		

practicing the skills after the sessions?	II	20 (50%)	20 (50%)
Do you practice the skills learnt in previous years in respective years?	I	16 (46%)	19 (54%)
	II	12 (35%)	22 (65%)
Do you visit the library to read clinical skills books after the sessions?	I	5 (14%)	31 (86%)
	II	10 (25%)	30 (75%)

Table 2: Showing the gender wise difference in their views in percentage

Questions	Batches	Agree		Disagree	
		F (21)	M (16)	F (21)	M (16)
Do you think clinical skills are essential for MBBS year I?	I	20 (95%)	10 (83%)	1 (5%)	2 (17%)
	II	23 (85%)	7 (54%)	4 (15%)	6 (46%)
Do you think sessions will help to correlate with clinical knowledge of other subjects?	I	20 (91%)	9 (82%)	2 (9%)	2 (18%)
	II	27 (100%)	13 (100%)	0	0
Do you think early exposure with patient will benefit more than simulated patients?	I	17 (100%)	13 (87%)	0	2 (13%)
	II	27 (100%)	13 (100%)	0	0
Are you confident in performing skills in future on patients?	I	15 (83%)	9 (69%)	3 (17%)	4 (21%)
	II	18 (67%)	10 (77%)	9 (33%)	3 (23%)
Does clinical skills add extra pressure on your study?	I	9 (53%)	12 (92%)	8 (47%)	1 (8%)
	II	26 (96%)	11 (87%)	1 (4%)	2 (13%)
Do think early CK will make you competent in clinical years?	I	18 (90%)	10 (91%)	2 (10%)	1 (9%)
	II	23 (85%)	7 (70%)	2 (15%)	3 (30%)
Do you think skills have improved your communication skills?	I	14 (78%)	8 (67%)	4 (22%)	4 (33%)
	II	20 (74%)	8 (62%)	7 (26%)	5 (38%)

Table 3: Showing the views of students about benefits of early introduction of clinical skills

1. Provides practice, more competent, increases the confidence.
2. Provides basic skills, learning makes real doctors.
3. Want early exposure to patients rather than just mannequins.
4. Helps in future rotations.
5. Provides foundation,
6. Teaches clinical etiquette for clinical practice.
7. Provided real patient like experience.
8. Approach towards patient will improve.
9. Improvement of communication skills.
10. Better understanding of subjects.
11. Brings perfection.
12. Prepare us for ethical and professional interaction with patients.
13. Makes us to learn empathy towards patient care.

Many students (75% and 50%) took help of peers in practicing the skills during MBBS year I and II, but only 46% and 35% revised and practiced the skills of previous years. The study also found that 86% and 75% of did not visit the library to gain extra knowledge during their studies.

The gender wise difference views have been shown in table 2 and Table 3 shows the overall suggestion and benefits they got during the skills sessions.

Discussion:

At RAKMHSU medical college, the curriculum which is followed is a hybrid curriculum with vertical integration across all subjects. The medically qualified doctors teach the clinical skills in MBBS year I and II. This has major impact on the learning process since the students do not visit the patients in the hospital, the clinical experience of faculty would give them a feel of real life case discussion along with mannequins, which are used for practice. The skills are assessed by the OSCE format (Objective structured clinical examination) which has been recognized not only as a useful assessment tool but also as a valuable method for promoting student learning.

A study has shown that 95.5% of medical students reported early clinical exposure to be useful in their studies and our study is also in concordance with this as 81% and 85% were in view that the sessions correlated with other subjects taught during that period.^[9] Medical students who had early exposure to clinical skills developed a positive attitude, which ensured that they would enjoy their medical practice in the future and also boosted their self-confidence levels.^[10]

Our study did not assess the attitude but 67% and 62.5% agreed that they were confident in performing the skills on patients in future. Dyrbye et al. believed that interactions with and between peers and faculty are also important elements in professional development^[11] and in our study the peer influence on learning skills was evident as 75%

and 50% students had taken the help of peers in learning skills. This interaction certainly enabled them to develop professionally as they progressed to the next year of study.

According to Duque et.al (2003), medical students were satisfied with early hospital clinical; experience, ^[12] but in our study the early clinical experience was given as virtual scenarios which was also appreciated by students as 84% and 87.5% agreed that these scenarios imparted an experiential learning environment during the early years.

86 % and 75%of students in our study did not visit the library to find the resources for learning which is a cause for concern. This aspect has been not studied by other studies and we believe is one of the key factor to be a good primary physician. Visiting the library- either physical or virtual- and utilization of all the resources, instills skills of lifelong learning and this must be encouraged by faculties while teaching the sessions. This also promotes the help seeking attitude. We hope this feature may not be seen in the later years of learning as the study was limited to MBBS year III students' views who have learnt the clinical skills in year I and II. Another concern of the study was that many students did not revise or practice the clinical skills learnt in year I and II. Revisit and practice must be encouraged using various methods as learning is a continuous process and with explosion of knowledge content in medical field, every student should be on their toes to learn the content. For effective learning of clinical skills, practice is the key for making good doctors and providing proper patient care.

The study did not find significant difference in opinions between the genders.

Limitations of the study:

- This study was based on the self-assessment by the students and may not provide exact correlation during their practice.
- The study was done on two batches of students in one institution, so the results cannot be generalized.
- The response bias by students cannot be ruled out.

In conclusion:

The early introduction of clinical skills is essential and must be implemented in medical education starting from MBBS year I. These sessions need to be taken by well qualified medical faculty, who will be able to correlate with clinical cases and evoke interest in students. This early experience is truly rewarding to students and will enhance the motivation and positive thinking about the medical profession. They must be made aware of the reason why they joined medical profession, and the roles played by them in future as general physicians. This will aid them in the right direction in learning medicine and taking care of patients.

Future research:

The study will be continued with further batches and with different years.

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