



STUDENTS' PERCEPTION REGARDING SKILL LAB TRAINING IN MEDICAL EDUCATION.

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ABSTRACT... Clinical skills refer to the skills required for a clinician to manage a complete patient encounter. Clinical skill laboratories provide facility to medical students and medical staff to learn the clinical skills before applying them on patients. To evaluate perception of medical students regarding skill lab training. **Study Design:** Cross-sectional study. **Setting:** Wah Medical College. **Period:** January to June 2017. **Materials and Methods:** Students of Final Year MBBS, 114 students, Convenient sampling. With informed consent of participants, questionnaires were filled by students themselves. Questionnaire was comprised of two parts; first part comprised of demographic data, second part comprised of 18 questions to determine perception of medical students about skill lab training. The responses of 18 questions were measured on four-point Likert scale from strongly disagree to agree. Data was analyzed by using SPSS version 19, frequencies and percentages were calculated. The Chi square- goodness of fit test for one sample was applied on various levels of agreement. The p value of less than 0.05 was considered as significant. **Results:** The mean age of 114 students was 23.4 years with minimum age of 21 years and maximum of 26 years. Male students were 45(39%) and 69(61%) were female students. Out of 114 medical students 108 (94.8%) students preferred to practice in skill lab before performing it on patient and they also had an opinion that the mentor must be friendly and helpful during teaching. Among them 107 (93.9%) students desired that procedures in the skill lab should be performed by the mentors first in front of students and 103 (90.4%) students thought that training of practical skills improve their learning. Out of them 94(82.5%) students believed that skill lab training increased their motivation to become a doctor, 102 (89.5%) students thought that skill lab practice provides a feeling of security for learning process and 100 (87.7%) students had an opinion that it should be a compulsory part of medical curriculum and even it should be started from the first year of the medical education. P value of level of agreement of all the variables regarding perception about skill lab training was found to be < 0.001 which was statistically significant. **Conclusion:** The students believed that skill lab training is very useful for them and they preferred to practice on manikins before dealing with the patients.

Key words: Clinical skills, Learning mobility, Medical Education, Skill Lab Training, Students.

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INTRODUCTION

Today, medical students have underperformance in their clinical skills because of decline in bedside teaching. The seniors spent less time in rounds because of their other responsibilities leading to decrease in bedside teaching. Therefore, there should be some alternate options for the betterment of clinical skills of medical students.¹ Clinical Skill lab (CSLs) is a valuable place for the students to acquire clinical skills as it provides

opportunities to practice essential medical skills on manikins in a systematic and safe way before dealing with the patients.² Such skill learning opportunities enable students to train themselves via effectual educational facilities according to their own individual requirements. High efficiency and cost effectiveness are one of the striking features of working in skill labs.³

Practicing the skills repeatedly in CSLs enhance

the learning abilities of students and it also led to increase expertise and confidence level, decrease anxiety and have feeling of security among students. Furthermore, non-technical skills like communication, leadership and decision making is also improved by doing these clinical skills. The students are able to differentiate between, “knowing” and “doing” which definitely influences the outcomes in clinical setting.⁴⁻⁷

The aim of the study was to evaluate perception of students of Wah Medical College regarding skill lab training so that we can do need-based changes and get better setup for improving the learning of medical students.

MATERIAL AND METHODS

A Cross sectional study was conducted on 114 final year students of Wah Medical College. The sample was taken by using convenient sampling technique and the sample size was calculated by the Cochran's formula i.e $n = z^2pq/d^2$ with 95% confidence and estimated prevalence of 90%.⁸

It was carried out from January 2017 to June 2017. Initially verbal consent was obtained from all students as a part of ethical practice and then data was collected using a self administered closed ended questionnaire. The questionnaire was comprised of demographic information and 18 questions on student's perception regarding skill lab training as shown in Table-I.

The reliability of questionnaire was tested by Cronbach's alpha test which was 0.704. The questionnaire was distributed to 124 students and 114 responded to it. The questionnaire was responded on Likert scale of strongly agree, agree, disagree and strongly disagree. SPSS version 19 was used for analysis of data. Frequencies and percentages were calculated for categorical data and mean and standard deviation for continuous data. The Chi square- goodness of fit test for one sample was applied on various levels of agreement. The p value of less than 0.05 was considered as significant.

RESULTS

The mean age of 114 students was 23.4 years

with minimum age of 21 years and maximum of 26 years. Male students were 45(39%) and 69(61%) were female students.

Out of 114 medical students 108(94.8%) students preferred to practice in skill lab before performing it on patients and they also had an opinion that the mentor must be friendly and helpful during teaching. Among them 107 (93.9%) students desired that procedures in the skill lab should be performed by the mentors first in front of students and 103 (90.4%) students thought that training of practical skills improve their learning.

Out of them 94(82.5%) students believed that skill lab training increased their motivation to become a doctor, 102 (89.5%) students thought that skill lab practice provides a feeling of security for learning process and 100 (87.7%) students had a view that it should be a compulsory part of medical curriculum and even it should be started from the first year of the medical education. Amongst them 101 (88.6%) students told that this practical training was very useful for them and it also increased their confidence to work in real life situation. The frequencies and percentages of other responses regarding the skill lab training items were shown in Table-I. P value of level of agreement of all the variables regarding perception about skill lab training was found to be < 0.001 which was statistically significant.

The mean and standard deviation of all items was presented in Table-II separately.

DISCUSSION

In medical education, skill laboratories played pivotal role in bridging the gap between theory and practice. In skill lab medical students not only learn the clinical skills but also gain confidence and experience which is helpful in medical profession.

This study evaluated the perception of students about skill lab training. Overall more than 90% students were preferred to practice in skill laboratory before dealing with the patients in real life.

Sr. No	Questions	Strongly Disagree/Disagree		Strongly Agree/Agree	
		Frequency	Percent	Frequency	Percent
1	I prefer to practice in skill lab before performing it on patient.	6	5.3	108	94.8
2	I want that the mentor must be friendly and helpful during teaching.	6	5.3	108	94.8
3	Practice in skill lab increase motivation for becoming a doctor	20	17.6	94	82.5
4	Mentor's attention is required in directing students	22	19.3	92	80.7
5	Mentors first perform the procedure in front of students in such a way so that students perform the procedure easily.	7	6.1	107	93.9
6	I have developed professional approach in skill lab	43	37.8	71	62.3
7	I have to participate actively in skill lab to perform well on patient.	17	14.9	97	85.1
8	Skill laboratory training has increased my confidence.	13	11.4	101	88.6
9	Is skill lab training should be necessary as a part of medical education.	14	12.3	100	87.7
10	Do you think you have to prepare your mind for learning process in skill lab before going to lab?	22	19.3	92	80.7
11	I think skill lab training must be started from 1st year of medical education.	14	12.3	100	87.7
12	Skill lab training is useful for me.	13	11.4	101	88.6
13	Teachers tell me about my skill performance.	27	23.7	87	76.3
14	Learning by the practice is more than theory	12	10.6	102	89.5
15	I will be able to perform clinical skills under doctor's supervision at the end of course.	13	11.4	101	88.6
16	I will be able to apply all clinical skills on patient myself.	19	16.7	95	83.3
17	Skill lab practice provides a feeling of security for learning process.	12	10.5	102	89.5
18	Learning occurs better through training of practical skills.	11	9.6	103	90.4

Table-I. Frequencies of responses about perception of skill lab training

Sr. No	Questions	Mean	Standard Deviation
1	I prefer to practice in skill lab before performing it on patient.	3.5351	.59763
2	I want that the mentor must be friendly and helpful during teaching.	3.4912	.59861
3	Practice in skill lab increase motivation for becoming a doctor	3.1754	.73166
4	Mentor's attention is required in directing students	2.9737	.70974
5	Mentors first perform the procedure in front of students in such a way so that students perform the procedure easily.	3.3421	.59241
6	I have developed professional approach in skill lab	2.8158	.78217
7	I have to participate actively in skill lab to perform well on patient.	3.1842	.69849
8	Skill laboratory training has increased my confidence.	3.2105	.63069
9	Is skill lab training should be necessary as a part of medical education.	3.3333	.73673
10	Do you think you have to prepare your mind for learning process in skill lab before going to lab?	3.0614	.71994
11	I think skill lab training must be started from 1st year of medical education.	3.4035	.72526
12	Skill lab training is useful for me.	3.3158	.72032
13	Teachers tell me about my skill performance.	2.9825	.77554
14	Learning by the practice is more than theory	3.307	.70557
15	I will be able to perform clinical skills under doctor's supervision at the end of course.	3.1491	.65490
16	I will be able to apply all clinical skills on patient myself.	3.0614	.65561
17	Skill lab practice provides a feeling of security for learning process.	3.2719	.62803
18	Learning occurs better through training of practical skills.	3.2895	.70049

Table-II. Descriptive statistics of responses about perception of skill lab training

More than two third students agreed that better learning can be achieved through training of practical skills which was supported by a study carried out in Nepal by Narata et al.⁹ Students perceived that their learning was enhanced when skills were first performed by mentors and they wanted to perform the skills under mentor's supervision who should be welcoming and helpful. These results were comparable with the observations of Merel et al¹⁰ and Ingebjorg et al which showed that learning was depended upon teamwork, training on practical skills and teacher's guidance.¹¹

In our study, most of the students considered skill lab training was very useful for them and it also increased their motivation for becoming a good clinician. The result of this study was similar to the work done by Rizwan Hashim et al which showed that skill lab training not only increased motivation for becoming doctor amongst students but it also provided benefit to the students.¹² Some other studies by Soliman et al, Ingebjorg et al, and Dorte et al supported the result regarding usefulness of skill lab training before working as clinician.^{8,11,13}

About 89% students had opinion that their confidence level was enhanced after performing in skill lab. Rahul et al¹⁴ and Ayse demiry et al¹⁵ also concluded that skill lab training improved their skills of communication with the patients and enhanced their self esteem and confidence.

In our setup the students believed that skill lab training must be a compulsory part of medical education and it should be started from the first year of medical education so that they can relate their theoretical knowledge with their practical performance. Similar perception had been observed by Rahul et al and Trung quang et al.^{14,16}

For appropriate learning of clinical skills secure and protected environment is required and most of the students believed that while practicing on manikins they had strong feeling of security because they believed that anybody could not be hurt while training. Analogous results were reported by Ingebjorg et al and Rizwan Hashim et al.^{11,12}

Most of them had an opinion to have sessions in such labs before dealing with the patients and the practiced helped them to perform clinical skills independently in real life at bedside or operation theatres. This matched with the observations noticed by D widyandana et al.¹⁷

Based on these observations it is recommended that skill lab training should be promoted in medical institutions from the very beginning as it not only develops professionalism in students but also raises their confidence and allay anxiety. Furthermore, this training is a better choice for learning and sharpening their clinical skills.

CONCLUSION

It is concluded that students were in favor of skill lab training and they considered it to be very valuable for them as it provides sense of contentment and inspiration for becoming a competent doctor.

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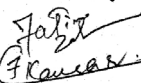
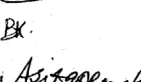
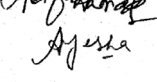
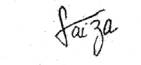

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2	Musarat Ramzan	Critical revision of the article for important intellectual content.	
3	Fatima Tuz Zahra	Collection of data, Drafting of article.	
4	Farhana Kausar	Collection of data, Drafting of article.	
5	Benish Khan	Collection of data, Drafting of article.	
6	Asifa Ahmed	Collection of data.	
7	Ayesha Andleeb	Collection of data.	
8	Faiza Ashraf	Collection of data.	