

# Clinical Education: A Challenge Component for Undergraduate Students in Medical Laboratory Sciences in UAE universities



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## Abstract

**Background:** Clinical training refers to programs that provide and orient students with practical and skills under the supervision of a skilled professional. Training is the fundamental program for a well-established educational program; it is a term used to describe the transformation process from novice to an expert health care provider. There are many factors and resources that influence student training; training staff, training facility, logistics and regulations of the training site, students' preparation and knowledge. **The aim of this study** is to highlight recent and potential challenges that effect the training program and trainees in various disciplines at the hospital training site, since clinical training remains an ongoing issue for professional education thus making the optimal use of clinical resources is one of the key issues for professional education today. **Methods:** A qualitative cross-sectional study was conducted, and questionnaires were distributed among the faculty of Medical Laboratory Sciences in different universities across UAE, after gaining the acceptance of the ethical approval. **Results and Discussion:** The majority of participant agreed that the number of students enrolled in the universities program impact practicum courses (88%). Although some results showed that one semester is not adequate for receiving training in 6 departments (50%). Important issue that tend to be overlooked is the ability to access lab information system (LIS) under the supervision of a professional to make it easy for students to link diagnosis & results during clinical practice (58%).

## Objectives

- To formulate challenges found in clinical training all over UAE.
- Evaluate challenges for future improvement.

## Methodology

This is a qualitative, cross-sectional based study which was distributed among the Medical Laboratory department in different universities. After obtaining an informed consent, participants were asked to fill up a printed structured questionnaire, as Table 1 shows. Data was analyzed using excel, frequency and percentages were calculated and divided into categories. The study population included all faculty members and professionals in the medical laboratory department of different universities. The study did not involve any risk or harm as it sought to see information from participants of their work related.

## Results and Discussion

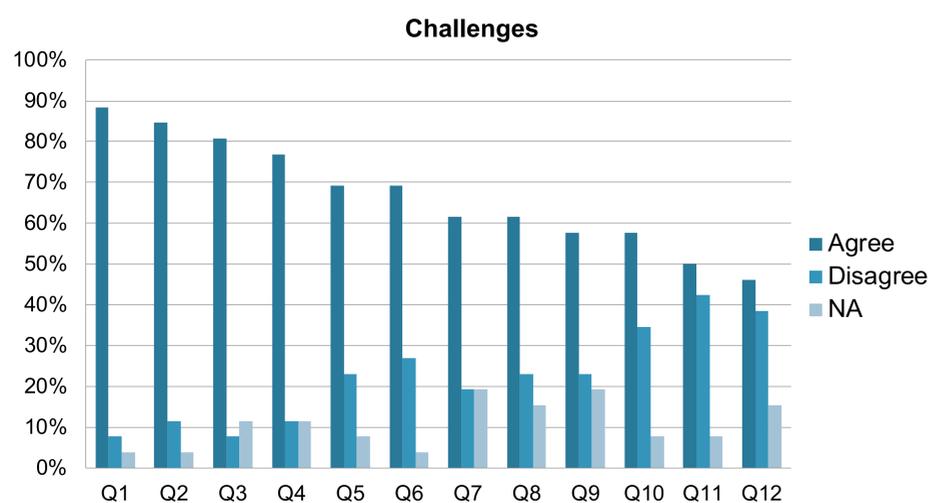


Figure 1: Results of all questions that were given on the questionnaire.

No.	Challenges	Agree	Disagree	NA
1	The number of students enrolled in the university program and its impact on practicum courses.	23(88%)	2(8%)	1(4%)
2	Update lab settings to prepare students to be professional health care provider. (Equipment, analyzers, new techniques).	22(85%)	3(12%)	1(4%)
3	Assigning regular supervisors for providing a continuous mentoring.	21(81%)	2(8%)	3(12%)
4	Limitation in training sites for some specialties.(e.g. histopathology, serology)	20(77%)	3(12%)	3(12%)
5	Rules & regulations set by the training sites (e.g: considering the training program as an observational program at some training sites).	18(69%)	6(23%)	2(8%)
6	Preceptor feedback/ follow up on student's performance.	18(69%)	7(27%)	1(4%)
7	Availability of training center owned & operated by the university.	16(62%)	5(19%)	5(19%)
8	Lack of training orientation at the training sites. (The hospital do not provide a complete orientation session: conducting presentations, orienting students with hospital rules & regulations, safety...etc)	16(62%)	6(23%)	4(15%)
9	Ability to access lab information system (LIS), for result interpretation and follow up.	15(58%)	6(23%)	5(19%)
10	Availability of Qualified & Competent supervisors.	15(58%)	9(35%)	2(8%)
11	The time students' spend at the training laboratory site. (Is it an adequate time for receiving a good training?)	13(50%)	11(42%)	2(8%)
12	The link between theoretical courses and clinical practice at the training sites.	12(46%)	10(38%)	4(15%)

Table 1: Results of each question on the survey in frequency and percentages ordered with number 1 challenge as the most common challenge found in all universities.

The total number of professionals and expertise surveyed was 26. Frequency and percentage of the respondents for various opinions is shown in Figure 2 where the results of this study indicate that "the number of students enrolled in the university program and its impact on practicum courses" came in as the first major challenge, 'Updating lab settings to prepare students' came in second, on the other hand many universities update their lab settings as part of their program requirements so they didn't find it as a challenge. "Assigning regular supervisors for providing a continuous monitoring" came in third because it's important to have more than one tutor to follow up with the student during training. "linkage between theoretical courses and clinical practice at the training sites came in last. Many agreed that in some departments the link between theoretical courses and clinical sites in the case of serology, immunology, and genetics and a few others is not enough. Fortunately, there was an extra column left for any remarks by the respondent suggesting any sort of improvement or clarifying the reason he/she chose in the survey.

## Conclusion

The medical world is dynamic and therefore, there is always a dynamic change in the health care industry. This research helped by suggesting challenges in clinical training that can be improved in the future. The challenges unraveled a number of solutions during discussions and through questionnaires and the importance of feedback from all participants has been valuable.

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## References

- Polgar, S., & Thomas, S. A. (2013). Introduction to research in the health sciences.
- Challenges of training and clinical skill acquisition in radiography education: perceptions of students in resource-poor southeastern Nigeria (2016, November 01)
- Pill, K., & Pilli, E. (n.d.). Challenges and opportunities in practical training – perceptions of clinical education.
- Hashim, Rizwan (2016) Role of Skill Laboratory Training in Medical Education ... (n.d.)
- Imran, Madiha (2016) Effect of preclinical skill lab training on clinical skills of students during clinical years