

Perception of Stagiaires and Freshly Graduates Regarding Clinical Training of the Final Year Medical College

Luma k. Mohammed *FIBMS/CM*

Dept. of Family and Community Medicine, College of Medicine, Al-Nahrain University, Baghdad, Iraq

Abstract

Background	Medical students experience the transition between preclinical and clinical training as a stressful period, as preparedness for practice as new doctors is associated with patient safety issues.
Objective	To explore medical students/graduates' perception regarding methods of assessments, feedback, support and new responsibilities.
Methods	A cross-sectional analysis was carried out online using google form sent to all medical colleges of Iraq during March-May 2023 on stagiaire and first year graduates to inquire about their opinions regarding their clinical training.
Results	From 250 responses received from different universities, 37.3% of students found the educational sessions are most useful for training, 14.1% found they are not useful and 5.6% don't attend the educational sessions. Majority of Al-Nahrain students have adapted new responsibilities (60%), most of them have chosen group members as their main supporters (46%) and most of them have suggested skill labs as a method for improvement in future sessions.
Conclusion	The majority of the students found that the educational sessions and skill lab are the most useful tools for preparedness and clinical training.
Keywords	Clinical training, medical education, stagiaire, skill lab
Citation	Mohammed LK. Perception of stagiaires and freshly graduates regarding clinical training of the final year medical college. <i>Iraqi JMS</i> . 2024; 22(2): 203-211. doi: 10.22578/IJMS.22.2.3

List of abbreviations: None

Introduction

Medical graduates' preparedness for practice as new doctors has long been an area of international interest. 'Under preparedness' for the transition from medical student to postgraduate year is associated with patient safety issues and, at the level of the individual doctor, can lead to stress and burnout ⁽¹⁾. Related to this conceptualization, the majority of studies have focused on identifying individual (e.g., sociodemographic) and educational (e.g.,

medical school curricula) factors, which may influence preparedness for the transition into practice generally and/or in relation to specific tasks (e.g., prescribing, dealing with angry patients, etc.). Graduated doctor involves two fundamental things; the first is that it is a time of personal and occupational change and uncertainty for individuals, the second is that new doctors do not work in a vacuum, they work within social settings where there are certain expectations and norms ⁽²⁾. There is data that suggest that medical students do not feel sufficiently prepared for clinical practice in the stagiaire year. Studies have shown that medical students experience the transition

between preclinical and clinical training as a stressful period. They are generally frustrated by their inability to apply their knowledge to solve clinical problems in practice. Preclinical patient contacts may offer a solution to this 'shock of practice' ⁽³⁾. In the final year of undergraduate medical training, students acquire clinical experience through direct participation in patient management under the supervision of faculty members who are actively involved in providing clinical service ⁽⁴⁾. This includes bedside clinical teaching sessions with question-formulating exercises during which they learn how to convert relevant issues in patient care into focused, answerable clinical questions. The questions range from the utility of diagnostic tests to the effectiveness of treatment and prognosis of disease. Students are coached by their supervisor and peers to frame their question as specifically as possible, following the PICO framework (P: patient; I: intervention, prognostic indicator or index test; C: comparison; O: outcome), many countries developed catalogues with basic learning objectives for undergraduate medical education ⁽⁵⁾. The final year of undergraduate training or internship, depending on the educational system, is supposed to facilitate the transition to residency and should prepare the students to work in clinical settings and get accustomed to the roles and responsibilities of a resident. students experience a tough transition from pre-clinical to clinical training and previous studies suggest that this may constrict students' progress ⁽⁶⁾.

Research justification

Our medical colleges are lacking clear empirical evidence regarding clinical training of medical students, these researches enable the understanding of how clinical training impacts students can lead to better educational practices, ultimately enhancing patient care. Research can identify gaps in training that may affect the quality of care provided by new physicians, in addition to its benefit in

curricular development, addressing burn out, stakeholder involvement and educational effectiveness.

This study aimed to explore medical students/graduates' perception regarding methods of assessments, feedback, support and new responsibilities.

Methods

Study design

Cross sectional study with analytic component.

Study setting

The study was carried out at different medical colleges of Iraq during March-May 2023 on stagiaire and first year graduate to inquire about their opinions regarding clinical training.

Sampling and data collection

A sample of 250 graduates and stagiaires were recruited in this study, the data collected by google form to be filled by the participants themselves. The participants had received the google form through social media groups of Iraqi colleges that contain students from different colleges.

Inclusion criteria

Final year medical students and freshly graduates.

Exclusion criteria

Medical students in the first five stages and resident doctors.

Definition of variables

Stagiaire: final year medical student

Freshly graduate: those who recently graduated from different Iraqi medical colleges and haven't start work yet.

Data collection tool and duration

The data was collected during March 2023 using a modified standard questionnaire that had been obtained from standard validated published articles ⁽³⁻⁵⁾ and edited and revised by the researcher. The data had been collected by

medical students of fourth grade who were responsible for distributing the google form.

The questionnaire contained two sections:

First part: included general data of medical students as follows: Name (Which is optional), if they were current stagiaire or fresh graduate, gender, university, type of curriculum followed by university.

Second part: involved questions regarding clinical training, the differences of being a stagiaire or a graduate compared to being a medical student in 5th grade student.

Ethical consideration

Purposes and details were clarified through an introductory part of the google form, which was used. The study was approved by Department of Family and Community Medicine, College of Medicine, Al-Nahrain University.

Statistical analysis

Data were introduced into Microsoft excel sheet 2019 and loaded into SPSS (Statistical Package for Social Sciences) version 24. Parametric data are presented as mean and standard deviation. Categorical data presented as numbers and percentages. Chi-square test and Fisher exact test were used. P value <0.05 was considered significant.

Results

The study involved 250 medical students (newly graduates and stagiaires) from different universities (Al-Nahrain University, Baghdad University, Kufa University, Al-Anbar University, Babylon University). The highest participation rate is from Al-Nahrain students 20.4%, and mostly were stagiaires 82.8% while newly graduates were 17.2%, 44% were males and 56% were females. Regarding the curriculum, 38.4% voted to "I don't know" as shown in table (1).

Table 1. Characteristic of the studied sample

Sociodemographic features		N	%
Gender	Male	110	44.0
	Female	140	56.0
University	Al-Nahrain University	51	20.4
	Other universities	199	79.6
Curriculum	Know the type of curriculum	154	61.6
	I don't know	96	38.4
Academic stage	Stagiaire	207	82.8
	Newly graduate	43	17.2

N = 250

Regarding feelings and responsibilities, 44.8% felt that they are students, and 56% of them thought that they "have adopted/undertook new responsibilities, with 54% of the student felt that their role changed since the final year started (Table 2).

Regarding the support that was received by stagiaires and fresh graduates, group member

achieved the highest answers 46.8% and the least answer was hospital staff 16.4%. The supervisor was following them mainly through attendance check 42%, and 22.8 reported no follow up or support from their supervisors (Table 3).

Table 2. Responsibilities that had been adopted by participants

Question	Yes N (%)	No N (%)	Total N (%)
Have adopted /undertook new responsibilities?	140 (56.0)	110 (44.0)	250 (100)
The role changed since you started	137 (54.0)	113 (46.0)	250 (100)

Table 3. The support that was received by stagiaires and fresh graduates

Question	Answers /options	N*	%
Who are your main supporters	Group member	117	46.8
	Hospital department	41	16.4
	Academic staff	68	27.2
	None	76	30.4
How does your mentor/supervisor Follow up you?	Continuous monitoring	84	33.6
	Quizzes	74	29.6
	Attendance check	107	42.8
	None	57	22.8

*Each question accepts more than one response in the given options, that is why the total is more than 250

Regarding feedback, 37.6% was received from academic staff and 25.2% by peers, and this affected positively 56% of the students, however, 50.4% of the feedback was through verbal informal way (Table 4).

Regarding clinical training, for the question "How do you find the education sessions", the highest answer was (relevant) 43%, for the question "What is the best method for

improvement in the future sessions", the highest answer was (skill lab) 63.2%, while for the question "In what form the feedback had been given to you", most of student's answer was (yes and maybe) 46% and 34.4% respectively, moreover, for question "Do you find recorded sessions", (emergency training) 40.8% was the highest answer and least answer was (Research writing) 20% (Table 5).

Table 4. The feedback that had been received

Questions	Answers/ options	N	%
Feedback had been received by:	Supervisor	82	32.8
	Peer	63	25.2
	Academic staff	94	37.6
	None	69	27.6
How has this affected your role?	Positive	140	56.0
	Negative	28	11.2
	Not affected	82	32.8
In what form the feedback had been given to you?	Verbal informal	126	50.4
	Midterm mark	57	22.8
	Formal meeting	31	12.4
	Not given	71	28.4

*Each question accepts more than one response in the given options, that is why the total is more than 250

Table 5. Perception of stagiaires and freshly graduates regarding clinical training and educational sessions

Questions	Answers/ options	N	%
Do you find the educational sessions?	Relevant	191	43.0
	Best useful	93	37.3
	Not useful	35	14.1
	I don't attend	14	5.6
What is the best method for improvement in the future sessions?	Mandatory attendance	70	28.0
	Simulation	128	51.2
	quizzes	77	30.8
In what form the feedback had been given to you?	Skill lab	158	63.2
	yes	115	46.0
	No	38	15.2
	May be	86	34.4
Do you find recorded sessions?	I don't know	11	4.4
	Online courses	82	32.8
	Emergency training	102	40.8
	Research writing	50	20.0
	Communication skills	86	34.4

*Each question accepts more than one response in the given options, that is why the total is more than 250

Discussion

Effective and proper support helps final year medical students to get the best advantage from their sessions and guides them to the best and most effective methods of learning, medical education is one of the most important

factors contributing for the efficiency of newly graduated doctors ⁽⁷⁾.

Participants in the current study were from different medical colleges in Iraq, mainly stagiaires, and didn't know the type of their curriculum, maybe because of the limited

knowledge about the different types of curriculums, which may need more concentration and advertisement by the college authorities to make these data available for the students.

The role changed since you started

The highest rate was 54% who answered yes compared to 17.6% who answered no, that may be due to the new role they gained in dealing with more patients and giving their opinion about medical cases, this percent can be increased by further engagement of final year medical students in clinical practice. As half of participants felt like a student, stating that there is no difference from the previous years, which can be explained as they still have to do assignments, seminars and quizzes, not to forget the clinical exams, which of course rotators don't struggle with. A high percentage of stagiaires feels mixed because they are preparing for residency so they spend most of their time in the hospital but on the other hand they still have to pay attention for the theoretical side, only 11.2% of them felt like rotators, this very minor percent indicates that the final year medical students are not dealing with enough patient, not having enough clinical expertise or may deal with the theoretical side more than the clinical one. In a study conducted in Australia about the final year medical students, more than half of doctors supported the implementation of final year medical students as a permanent addition to the medical workforce in the hospital, which may be the best way to change their role ⁽⁸⁾, this may imply that the traditional roles of medical students in clinical settings may need to evolve.

By allowing students to take on more responsibilities, they can transition from passive learners to active contributors in patient care. Raupach et al. confirmed in their study that further practical clinical skills are taught in the context of each system as students advance (e.g., interpretation of a chest X-ray during the respiratory teaching block, writing and reading an electrocardiography as part of the cardiovascular teaching block). Advanced

abilities like clinical decision-making are incorporated into the curriculum in the last year, when students should be competent in applying fundamental clinical skills ⁽⁹⁾.

Who are your main supporters?

Group members were stated to have the biggest impact on the academic performance of the participants owing to the active learning environment that student learnt to create in the very recent years. In a study, which was carried out by Abrams et al in 2022, the peers had a very important role and the participants who were included in the study stated that they could only overcome the very challenging time by the support of their peers ⁽¹⁰⁾.

On the other hand, 27.2% of our students pointed that academic and professional staff as their main supporters, too many causes to list; higher intellectual and academic maturity, expertise, more understanding in view of the very long journey they had in medical schooling. Hospital departments were the least influential factor, (16.4%), one of the causes is attributed to the overcrowding in our hospitals and the limited capacity of the departments, another cause is the unhealthy environment of the departments (e.g. risk of hospital acquired infections) making hospitals the least supporting factor for their learning process. While 30.4% of subjects stated that none of the previously mentioned responses had affected or supported their journey, this not a few! as many students chose only themselves to be their main supporter, this may be due to social, environmental and psychological causes. This is in agreement with Roh et al. who stated that during final year training, students reported feeling more confident to deal with patients, call out their peers' mistakes and more often attributing errors to system malfunction. However, students still reported communication challenges with senior doctors because of the hierarchical system changes in medical students' attitudes, beliefs, and feeling of personal and societal accountability specially in issues concerning patient safety ⁽¹¹⁾.

How does your mentor/supervisor support you?

Attendance check was on the top of responses (42.6%) to provide academic support. It is known that a lot of universities - especially in Iraq - obligate their student to attend their lectures, it has been proven that students who attend regularly are able to learn more and to develop better study habits. Also, it is shown that regular attendees tend to have higher grades, fewer problems with discipline than their peers, 33.6% of subjects suggested that continuous monitoring is of higher value in supporting their performance; it is very important to ensure that standard programs are maintained or improved, continuous monitoring allow student to keep track of their progress, continuously monitoring of students' needs provides an opportunity for lecturers to adjust students' learning experience based on their needs and demands. So far, teaching of important practical clinical skills at the faculty level focuses on the use of proper examination and diagnosis in addition to the skills labs, while peers mostly perform teaching (peers/student tutors), this had been agreed by many studies that have shown this concept continue to be effective ⁽¹²⁾.

The feedback stagiaires have received:

The majority of stagiaires (37.6%), received feedback from the academic staff, that may be due to the good expert of the academic staff in dealing with students and their ability to transform their experiences in an effective way. The feedback received was mainly in verbal informal form, which is the fastest easiest way of communication and giving feedbacks, also students may prefer this way of communication with their academic staff because it makes them feel closer for their supervisors or staff. On the other hand, the feedback had a positive effect on about 56% of participants and that's quietly a good number indicating that the students who have received support received it just the proper way and got the best advantage of that support. Only 11.2% of stagiaires got negative effect of that feedback but even that small number should have enough attention, because they may have

been misguided or their feedback have given in a harsh, discouraging manner or the feedbacks was out of context. According to review analysis by Sharma e al., junior physicians and fresh graduate in UK are typically unprepared for emergency situations and lack of proper feedback. It discusses the importance of formative feedback, it showed that feedback provided during the learning process found to improve performance, and it is important to design effective formative feedback strategies ⁽¹³⁾.

Hospital training sessions

The majority of stagiaires (43%), found that the clinical sessions were relevant, which may be due to many factors including: Alignment with learning objectives: Stagiaires are likely to find clinical sessions relevant if they are directly related to the knowledge, skills, and attitudes they are supposed to acquire during their training. Therefore, if the sessions address topics that were explicitly stated in their learning objectives, they are more likely to perceive them as useful and meaningful, the majority of them said that the recorded clinical session can be useful because by reviewing recordings of real-world clinical sessions, students can gain valuable insights into how to diagnose and treat various medical conditions. In the contrary to these findings, Störmann et al. mentioned in their study that involved final year undergraduate medical students that they demonstrate considerable deficits in performing some practical clinical skills when they had been assessed by a formative assessment, half of those students had over-estimate their own performance ⁽¹⁴⁾.

The majority of stagiaires think that the skill labs can provide valuable learning opportunities for them by refilling their clinical skills in a safe and controlled environment. This can help improve the quality of care and patient outcomes, and (51.2%) of stagiaires said that the simulation can improve clinical sessions because simulation can be a valuable tool to improve the sessions by providing them with realistic scenarios to practice their clinical skills and decision-making abilities. This is agreed to a study conducted Nepal, the results

we show that simulation and skill lab are both superior to traditional clinical medical education in achieving specific clinical skill acquisition goals, they mentioned that skill lab is the better choice for learning major skills such as catheterization, opening vein, auscultation of heart sounds, and endotracheal intubation ⁽¹⁵⁾.

It is good to mention finally that committees at medical schools have historically been in charge of updating and changing the curriculum, with little to no input from medical students. Nonetheless, medical students' enthusiasm, dedication, and vision can be a powerful catalyst for curriculum development since they frequently identify new subjects that need to be taught before faculty members do, which hopefully can be applied in our colleges. In conclusion, most of students believe that they had gained new responsibilities through this stage. The main supporters for most of students were "group member" and the majority received their feedback from academic staff in the form of "verbal informal" and the effect was positive in most of them, a lot of the students have chosen skill lab as a method to improve the future sessions. The authors recommend reconsidering the final year medical curriculum and increase the proportion of time that medical students spend participating meaningfully in multiprofessional teams as part of informal workplace learning, with more concentration on communication and interpersonal skills. These skills are crucial for success in the medical field.

Acknowledgement

The author is highly appreciating the medical students and graduates who participate in this study and enrich the results.

Conflict of interest

There is no conflict of interest stated by the author.

Funding

None.

References

1. Chaou CH, Yu SR, Chang YC, et al. The evolution of medical students' preparedness for clinical practice during the transition of graduation: A longitudinal study from the undergraduate to postgraduate periods. *BMC Med Educ.* 2021; 21(1): 260. doi: 10.1186/s12909-021-02679-8.
2. Chaou CH, Yu SR, Ma SD, et al. Effect of national curriculum reform on medical students' preparedness for practice: A prospective cohort study from undergraduate to postgraduate periods. *BMC Med Educ.* 2022; 22(1): 826. doi: 10.1186/s12909-022-03909-3.
3. Pearson E, Frakt A. Medical Scribes, productivity, and satisfaction. *JAMA.* 2019; 321(7): 635-6. doi: 10.1001/jama.2019.0268.
4. Homberg A, Narciß E, Schüttpelz-Brauns K. What reasons do final-year medical students give for choosing the hospitals for their clinical training phases? A quantitative content analysis. *GMS J Med Educ.* 2019; 36(4): Doc38. doi: 10.3205/zma001246.
5. Van den Broek WES, Wijnen-Meijer M, Ten Cate O, et al. Medical students' preparation for the transition to postgraduate training through final year elective rotations. *GMS J Med Educ.* 2017; 34(5): Doc65. doi: 10.3205/zma001142.
6. Alrasheedi AA. Deficits in history taking skills among final year medical students in a family medicine course: A study from KSA. *J Taibah Univ Med Sci.* 2018; 13(5): 415-21. doi: 10.1016/j.jtumed.2018.07.001.
7. Shahsavari H, Ghiyasvandian S, Houser ML, et al. Effect of a clinical skills refresher course on the clinical performance, anxiety and self-efficacy of the final year undergraduate nursing students. *Nurse Educ Pract.* 2017; 27: 151-6. doi: 10.1016/j.nepr.2017.08.006.
8. Walker K, Ben-Meir M, Dunlop W, et al. Impact of scribes on emergency medicine doctors' productivity and patient throughput: Multicentre randomized trial. *BMJ.* 2019; 364: l121. doi: <https://doi.org/10.1136/bmj.l121>
9. Raupach T, Vogel D, Schiekirka S, et al. Wissenszuwachs im Praktischen Jahr des Medizinstudiums in Deutschland. *GMS Z Med Ausbild.* 2013; 30(3): Doc33. doi: 10.3205/zma000876.
10. Abrams MP, Salzman J, Espina Rey A, et al. Impact of providing peer support on medical students' empathy, self-efficacy, and mental health stigma. *Int J Environ Res Public Health.* 2022; 19(9): 5135. doi: 10.3390/ijerph19095135.
11. Roh H, Park SJ, Kim T. Patient safety education to change medical students' attitudes and sense of responsibility. *Med Teach.* 2015; 37(10): 908-14. doi: 10.3109/0142159X.2014.970988.
12. Raes P, Angstwurm M, Berberat P, et al. Qualitätsmanagement der klinisch-praktischen Ausbildung im Praktischen Jahr des Medizinstudiums – Vorschlag eines Kriterienkatalogs

- der Gesellschaft für Medizinische Ausbildung. *GMS Z Med Ausbildung*. 2014; 31(4): Doc49. doi: 10.3205/zma00094.
13. Sharma PR, Alsaffarini KWB. Preparation for practice and the arguments for standardization in view of the forthcoming medical licensing exam: A literature review. *Med Teach*. 2020; 42(4): 451-6. doi: 10.1080/0142159X.2019.1708291.
14. Störmann S, Stankiewicz M, Raes P, et al. How well do final year undergraduate medical students master practical clinical skills? *GMS J Med Educ*. 2016; 33(4): Doc58. doi: 10.3205/zma001057.
15. Upadhayay N. Clinical training in medical students during preclinical years in the skill lab. *Adv Med Educ Pract*. 2017; 8: 189-94. doi: 10.2147/AMEP.S130367.
-

E-mail:

lumakmohammed@nahrainuniv.edu.iq

Received Sep. 26th 2024

Accepted Oct. 24th 2024