



## EVALUATING THE SIGNIFICANCE OF SENIORITY: A QUALITATIVE PERSPECTIVE OF TEACHERS' SENIORITY ON CLINICAL LEARNING IN UNDERGRADUATE MEDICAL STUDENTS OF PAKISTAN

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### ABSTRACT

**Background:** Clinical Clerkship is a uniquely immersive learning experience in hospital settings. During Clerkship years, students interact with a diverse clinical team, varying in age and seniority, ranging from senior Professorial staff to post-graduate residents. This disparateness in teaching experiences provides an exceptionally challenging learning environment. However, not much scientific data is available regarding the effect of this disparity on students' perception of clinical skill learning.

**Objective:** This study aimed to evaluate students' experiences and perceptions regarding the seniority of teaching faculty and its impact on their learning.

**Methodology:** This study was conducted with Final Year undergraduate medical students of University College of Medicine, The University of Lahore. We used purposive sampling and three focus group discussions were conducted to evaluate students' perception of their learning experience with senior and junior faculty members, and their suggestions about who should be involved in Clerkship activities was obtained. Late thematic analysis was performed. Reliability was ensured through member checking and qualitative analysis was performed by two independent researchers.

**Results:** Students perceived that senior faculty members to be more "knowledgeable, have Practical insight" and provide "Real world relevance" but do exhibit "confirmation bias", insufficient presence" and cognitive overload. Junior faculty was reported to be more "student-friendly", "ensured provision of examination-oriented knowledge", had "better skill" demonstration but "lacked leadership and managing abilities" resulting in "Poor class control".

**Conclusion:** Students perceived better learning with junior faculty members especially for Clinical methods; however they perceived that interaction with senior faculty is helpful in familiarization high-stake assessment.

**Key words:** Seniority, Clinical learning, Teaching faculty, Medical students' perception, Clinical skills, Teaching effectiveness

## Introduction

Medical education is highly coveted profession in Pakistan. Medical education includes basic science knowledge and clinical skill acquisition. Clinical Clerkship is a uniquely immersive learning experience that materializes in hospital settings, including its Outpatient and Inpatient Departments. Clerkship provides direct student -patient interaction and opportunity to have supervised hands-on experience They can obtain history, perform examination and can formulate management plan for patients. This experience acts as a bridge between basic science and clinical practice, helping students transition into their future roles as healthcare providers.<sup>1</sup> Most of colleges in Pakistan follow a traditional system (Flexner model),<sup>2</sup> where the clinical exposure starts from 3<sup>rd</sup> year onwards . Few colleges follow more integrated curricula and provide early clinical exposure as to improve clinical acumen.<sup>3</sup> In such curricula, the final year is dedicated to pure clinical clerkship.. This provides an excellent venue for experiential learning, which describes a holistic learning that can be applied in real-life situations,<sup>4</sup> promotes physician identity formation.<sup>5</sup>

Hospitals are intricate systems in which multiple factors interact and impact the learning of students. Students engage with healthcare professionals, patients, and their caregivers. The integration of patient safety principles in undergraduate education is a global concern.<sup>6</sup> A positive experience during clerkship can have a significant impact on a future physician's confidence and self-esteem in dealing with stressful situations.<sup>7</sup> Clerkship directors are typically the heads of the relevant department and are tasked with multiple responsibilities, including training house officers, overseeing postgraduate training, managing research projects, and handling various administrative responsibilities. Moreover, they are actively engaged in providing full-time clinical experience to undergraduate students, developing study guides, mentoring students on the wards, and creating strategies for evaluating individual students for programmatic evaluation.<sup>8</sup>

During Clerkship, students interact with a diverse clinical team, varying in age and seniority, ranging from senior Professorial staff to post-graduate residents. This disparateness in teaching experiences provides an exceptionally challenging learning environment. The quality of education is determined by the skills of instructors, whose effectiveness can significantly impact learners' motivation. This raises the question: How do medical students perceive learning from a diverse clinical team, and does the seniority of clinical teachers influence the quality of education? Are there best practices for improving the clinical learning experience for medical students? The literature does not provide evidence that junior faculty receive proper recognition for their role in helping newcomers navigate the clinical environment. The regulatory authority, the Pakistan Medical and Dental Council (PM&DC), designates professorial staff as teaching faculty, while juniors do not receive formal recognition or inclusion in teaching rosters. This study aimed to evaluate students' experiences and perceptions regarding the seniority of teaching faculty and its impact on their clinical skills development.

## MATERIALS AND METHODS

The Qualitative exploratory study was conducted in University College of Medicine (UCM), The university of Lahore December 2021 to February 2022. UCM is private sector medical college, that adopted integrated modular curriculum in 2016. We offer clinical clerkship in final year MBBS. The discipline includes medicine and allied, surgery and allied, Gynecology/OBS and pediatrics. Various teaching and learning methods are employed, including case-based discussion, student led ward rounds, Operating/Emergency room rotations, one-minute preceptors, Clinical method

practice. emergency drills and role play. Each department has designated clerkship director (head of department) and clerkship coordinator (senior member from department) with documented learning outcome and objectives for each discipline. Department share their clerkship timetable with Department of medical education (DME), outlining learning objectives and assigned teacher name.

For this study Operational definition of **Senior Faculty** include Professor, Associate professors and assistant professors **while** senior registrars and post graduate residents and medical officers were considered as **Junior Faculty**. We have a class of 150 student who are divided in 9 batches to complete their clerkship in rotation in four disciplines (Medicine and allied, surgery and allied, Obstetrics and Gynecology and Pediatrics).

After obtaining institutional ethical review of study, we used **purposive sampling** and invited 3 members from each batch. the batch representative, high and low achiever of last clerkship low stake assessment (Ward test). They were invited for interview to provide in-depth and rich accounts of their **experiences**.

A total of 24 students participated in this study, and data saturation was achieved after conducting three focus group discussions (FGD ). Each FGD lasted for 47 to 52 minutes each. Of the participants, 14 were female and 10 were male. An informed consent and permission to record the discussions was obtained. The FGD were moderated by one member of the research team, while two other members assisted with timekeeping and note-taking. The focus group was guided by following Question

Q1. What in your experience, is a good learning experience or positive learning environment?

Q2. Do you feel any difference in class conducted by senior or junior faculty if so, how?

Q3, what is your recommendation, who should be involved in clerkship activities?

I used **otter ai** to transcribe the recorded interview, Participants were given anonymous identity by giving numbers to everyone. Data was saved in MS word document. NVivo software 12 was used for Qualitative data analysis Two researchers coded the data independently. Thematic analysis was performed. To ensure the validity and reliability of the findings, we established credibility through member check. In member checking, participants were requested to review and validate the findings. Peer check was done by two authors who independently performed the coding and defined categories. Author being clerkship coordinator did not influence the opinion of participants and passively observed the Focus group discussions.

## Results

The figure 1 the top 1000 words of transcript.

Figure 1



The initial set of 109 codes, was categorized in 15 subthemes. From subthemes four themes were generated, which included Positive learning experience (PLE) , students’ perception of positive attribute (SPPA), students’ perception of negative attributes of senior and junior faculty (SPNA),) and their suggestion about faculty to be included in clerkship (SS). Table 1 shows themes, subthemes and verbatim in detail.

Table 1: Themes, sub-themes with respective quotations

Themes		Sub-themes	Verbatim
Students’ perception of Positive learning experience (SPLE)		Departmental ownership	P2: <i>Department should take our responsibility like in one discipline (Obs and Gyne ), from HOD to HOs, everyone helped and supervised us in their own capacity. This made us work hard also this is what we require in our rotations.</i>
		Feedback	P11:” <i>This is very important that if we have prepared patient histories, teacher should listen to us and provide feedback on our performance. If no one provide feedback we cannot correct our mistakes”</i>
		Personalized teaching	P21” <i>We can go freely and discuss the topic which we cannot understand better with coordinators and they helped and guided us. We have lectures and video on MOODLE that are very useful for revision.</i>
Students’ perception of Positive attribute of faculty (SPPA)	Senior faculty Senior faculty	Real world relevance	P13: <i>“Seniors are preferably more eloquent with their expression of the theory and how they have seen similar cases and similar patients because of their years of experience and exposure”.</i>
		Practical insight	P1: <i>“Seniors give us a very holistic view and they combine their many years of experience and they tell us certain points which are not even written in books so that does give you the edge and it enables you to understand the topic better and practice points in our own setup.”</i>
		knowledgeable	P8: <i>“During lectures I prefer being taught by a professor or a consultant as they know how to deliver a lecture effectively”</i> P15: <i>“The difficult or conceptual topics should be taught to us by the senior faculty, since they have a lot of experience”</i>
	Junior Faculty	Better Skill demonstration	P12: <i>“The SR taught us clinical skills and recent advances in a way no one could as everything was on their fingertips”</i> P22: <i>“PGR and MO in the OPDs allowed us to practice clinical methods and enhanced our clinical skills”</i>
		Student Friendly	P2: <i>“I think the SR and PGR tell us things they have recently learnt, so it is beneficial to interact with them without hesitation and ask questions”</i> P17: <i>“I think juniors are more cooperative and there is obviously a difference between the two somehow during interaction”.</i>
		offer examination-oriented guidance	P10:” <i>They help us to cope up with the situation in exams and give us tips in exams”</i>

Students’ perception of Negative attribute of faculty(SPNA)	Senior faculty	Confirmation Bias	P16:” They share their own practical experience and want to listen the same in examination from all of us”
		Insufficient Presence	P15:” I feel administrative responsibility for the HOD is too much and some time they just take short class and delegate it to junior person”
		Cognitive overload	P15:” HODs are less interactive. vastness of knowledge makes it less interactive and difficult for us to comprehend”
	Junior Faculty	Inadequate class control	P8: “Sometimes in junior faculty session, I felt myself lost when everyone starts talking and SR cannot control my colleagues”.
		Misaligned teaching	P11;”SR and PGR sometimes provide us with recent advances and details of the topics that are not required at our level and we felt confused”
Suggestion for faculty to be included in clerkship (SS)		Mix of both senior and junior faculty	P 24” HOD and Professors should take our case presentations as they are our examiners in professional examination. As senior registrars and PGR are present on the floor, they should be given more bedside teaching classes”

## Discussion

Clerkship is a pivotal stage in medical education, providing students with hands-on experience in a clinical setting and the chance to apply their theoretical knowledge in real-world situations. The presence of experienced faculty members with a wealth of knowledge, skills, and expertise is a valuable asset to the clerkship experience, which students have acknowledged as a positive attribute. Pedagogical content knowledge, a hallmark of effective learning, involves the transmission of specialized knowledge by subject-matter experts,<sup>10</sup> and you can mastery the skill over period of time. Experienced mentors possess the ability to impart in-depth understanding of complex medical concepts to students, while providing contextual learning,<sup>11</sup> thus enabling better retention and application in challenging clinical situations. The social interaction and physician patient encounter. Role modelling by experienced teacher is perceived as positive learning experience.<sup>12</sup> However; it has been observed that students find it challenging to comprehend senior teachers, due to less interaction. Students have shared that they perceive senior faculty members, such as the head of department, unapproachable or at times occupied with administrative responsibilities which inhibits friendly conversations and discourages them from posing questions. Students reported the junior teacher more approachable and have student-friendly behaviors. Establishing a strong bond with younger peers can be facilitated by the smaller age gap or their deeper understanding of the challenges and needs of student learning, resulting from near-peer shadowing.<sup>14</sup> Moreover, students gain realistic insights into their academic field and future professional role.<sup>15</sup> The findings of the research by Sari.D indicate that experienced peers in a clinical clerkship play a crucial role in promoting situational awareness, reinforcing vicarious learning, and encouraging students' participation in a clinical milieu.<sup>16</sup> Young faculty provides a “joyous” learning experience to student. Participants shared that with junior faculty sometime they experience “misaligned teaching”, They felt that junior faculty is providing knowledge that is not required for their level. it may be due the fact that have recently completed their post graduate examination and they have difficulty in identifying the core knowledge that should be imparted at this stage to undergraduate students. Clerkships are frequently referred to as "black boxes" due to the inability to evaluate the educational encounter of individual students. Furthermore, the clerkship is influenced by social and institutional frameworks.<sup>18</sup> For instance, well-defined learning goals, patient engagement, and pedagogic and affective backing foster learning. Clerkships are frequently referred to as "black boxes" due to the inability to evaluate the educational encounter of individual students. Furthermore, the clerkship is influenced by social and institutional frameworks.<sup>18</sup> For instance, well-defined learning goals, patient engagement, and pedagogic and affective backing foster learning.

In our study participants reported “departmental ownership”, “feedback” as positive experience. For our students, the concept of ownership entails the teacher assuming an active role in assigning tasks

and then providing feedback to them It is conceivable that, as a nation, a certain degree of paternalism is necessary in the realm of education, coupled with a patient approach to nurturing. Feedback plays a critical role and brings about an attitude of constructive modification of clinical skills.<sup>20</sup> Feedback in clinical settings should be timely, specific and include behavior. Behavior encompasses the skills students are expected to exhibit when providing safe and competent patient care. Clinical instructors should actively encourage students in their clinical practice. When addressing areas of weakness, instructors should first emphasize and reinforce the students' strengths with positive feedback before offering constructive criticism or suggestions for improvement. Presence of asynchronous teaching material on LMS offers "personalized learning", students also find it a positive experience as they can decide their pace of learning.<sup>21</sup> Students suggested that they should be taught by both senior and junior teachers. As most of the high stake examination are taken by Professors or Head of departments, students want interaction with them in wards. Students' learning during clerkship will depend on several factors, including the specific goals and objectives of the clerkship program, the teacher's individual style and approach to teaching, and the students' own learning styles and preferences. By carefully selecting teachers who have the skills, knowledge, and experience to meet the specific needs of medical students, clerkship programs can provide a rich and meaningful learning experience that prepares students for success in their future careers.

## CONCLUSION

The effectiveness of a clinical clerkship mainly depends on the harmonious interaction between the teacher and the student. This interaction is influenced by strong alignment between the teacher's teaching style and the student's learning style, resulting in a transformative experience. It is important for clerkship programs to prioritize this congruence, and make sure that students have mentors who can guide and teach clinical experience. By achieving such a concerted effort, clerkship programs can direct students towards becoming skilled and compassionate healthcare providers.

## LIMITATION/SUGGESTIONS

There is internal selection bias as teachers of varied seniority were involved and the possibility of a mismatch between teaching style and student learning preferences should be considered. In addition, external factors, such as the availability of clinical cases and case mix, as well as the general culture of the medical institution, can also influence the efficacy of clerkship. Therefore, it is imperative for clerkship programs to continually evaluate and adapt their strategies to overcome these limitations and ensure optimal learning outcomes for students.

## References:

1. Pepper J, Riegels NS, Ziv TA, Mazotti L. Twelve Tips for Students in Longitudinal Integrated Clerkships. *MedEdPublish*. 2019;8:59.
2. Page D, Baranchuk A. The Flexner report: 100 years later. *Int J Med Educ* [Internet]. 2010 [cited 2023 Jan 8];1:74–5. Available from: <http://creativecommons.org/licenses/by/3.0>
3. Wenrich M, Jackson MB, Scherpbier AJ, Wolfhagen IH, Ramsey PG, Goldstein EA. Ready or not? Expectations of faculty and medical students for clinical skills preparation for clerkships. *Med Educ Online*. 2010;15.
4. Kong Y. The Role of Experiential Learning on Students' Motivation and Classroom Engagement. *Front Psychol*. 2021;12(October):10–3.
5. Borkan JM, Hammoud MM, Nelson E, Oyler J, Lawson L, Starr SR, et al. Health systems science education: The new post-Flexner professionalism for the 21st century. *Med Teach* [Internet]. 2021;43(S2):S25–31.
6. Lee HY, Hahm M Il, Lee SG. Undergraduate medical students' perceptions and intentions regarding patient safety during clinical clerkship. *BMC Med Educ*. 2018;18(1):1–7.

7. Khan MA, Malviya M, English K, Forman R, Frisch S, Jordan K, et al. Medical Student Personality Traits and Clinical Grades in the Internal Medicine Clerkship. *Med Sci Educ* [Internet]. 2021;637–45. A
8. Glod SA, Alexandraki I, Jasti H, Lai CJ, Ratcliffe TA, Walsh K, et al. Clerkship Roles and Responsibilities in a Rapidly Changing Landscape: a National Survey of Internal Medicine Clerkship Directors. *J Gen Intern Med*. 2020;35(5):1375–81.
9. Tokan MK, Imakulata MM. The effect of motivation and learning behaviour on student achievement. *South African J Educ*. 2019;39(1):1–8.
10. Dar RA. Qualities of Effective Teachers. *Int J Adv Multidiscip Sci Res* [Internet]. 2018 [cited 2023 Feb 15];1(10):82–7. Available from: [https://books.google.com.pk/books?hl=en&lr=&id=x7RUDwAAQBAJ&oi=fnd&pg=PP1&dq=Good+teaching+attributes+of+senior+teachers&ots=idD4Eob0hb&sig=LvdJuCAO9Wr27AMpXu63scTTVKM&redir\\_esc=y#v=onepage&q=Good+teaching+attributes+of+senior+teachers&f=false](https://books.google.com.pk/books?hl=en&lr=&id=x7RUDwAAQBAJ&oi=fnd&pg=PP1&dq=Good+teaching+attributes+of+senior+teachers&ots=idD4Eob0hb&sig=LvdJuCAO9Wr27AMpXu63scTTVKM&redir_esc=y#v=onepage&q=Good+teaching+attributes+of+senior+teachers&f=false)
11. Dornan T, Conn R, Monaghan H, Kearney G, Gillespie H, Bennett D. Experience Based Learning (ExBL): Clinical teaching for the twenty-first century. *Med Teach* [Internet]. 2019 Oct 3 [cited 2023 Feb 19];41(10):1098–105.
12. Mukhalalati BA, Taylor A. Adult Learning Theories in Context: A Quick Guide for Healthcare Professional Educators. *J Med Educ Curric Dev*. 2019;6:238212051984033.
13. Han H, Roberts NK, Korte R. Learning in the real place: Medical students' learning and socialization in clerkships at one medical school. *Acad Med*. 2015;90(2):231–9.
14. Turner SR, White J, Poth C. Twelve tips for developing a near-peer shadowing program to prepare students for clinical training. <https://doi.org/10.1031/09.0142159X2012684914> [Internet]. 2012 Oct [cited 2023 Jun 11];34(10):792–5.
15. Mafinejad MK, Sarani H, Sayarifard A, Rostami D, Shahbazi F, Gruppen L. Insights on my future job: implementing near-peer shadowing program for operating room freshmen. *BMC Med Educ*. 2022;22(1):1–8.
16. Sari DP, Susani YP. The Role of Senior Peers in Students' Transition To Clinical Clerkships. *J Pendidik Kedokt Indones Indones J Med Educ*. 2018;7(2):143.
17. Mancinetti M, Guttormsen S, Berendonk C. Cognitive load in internal medicine: What every clinical teacher should know about cognitive load theory. *Eur J Intern Med*. 2019 Feb 1;60:4–8.
18. Gottschalk M, Albert C, Werwick K, Spura A, Braun-Dullaeus RC, Stieger P. Students' perception and learning experience in the first medical clerkship. *BMC Med Educ* [Internet]. 2022;22(1):1–9. Available from: <https://doi.org/10.1186/s12909-022-03754-4>
19. Dornan T, Tan N, Boshuizen H, Gick R, Isba R, Mann K, et al. How and what do medical students learn in clerkships? Experience based learning (ExBL). *Adv Heal Sci Educ*. 2014;19(5):721–49.
20. Kelly E, Richards JB. Medical education: giving feedback to doctors in training. *BMJ* [Internet]. 2019 Jul 19 [cited 2023 Feb 22];366. Available from: <https://www.bmj.com/content/366/bmj.14523>
21. Shemshack A, Spector JM. A systematic literature review of personalized learning terms. [cited 2023 Feb 22]; Available from: <https://doi.org/10.1186/s40561-020-00140-9>