ORIGINAL ARTICLE CODEN: AAJMBG

Feedback of phase II medical students during ENT clinical rotation: A descriptive study

Vijay R[1], Kandasamy Kamindan M.S[1], Somasundaram Subramaniam[2], Monica Mrudubhashini Michael[1], Anirudha V. Mutalik[3*] and Gayathri Bhaskaran[1]

[1]Department of Otorhinolaryngology, KMCH Institute of Health Sciences and Research, 99-A, Avinashi Road, Coimbatore-641014, Tamil Nadu, India, [2]Department of Otorhinolaryngology, Karpagam Faculty of Medical Science & Research, Pollachi Main Road, Coimbatore-642001, Tamil Nadu, India and [3]Department of Community Medicine, KMCH Institute of Health Sciences and Research, 99-A, Avinashi Road, Coimbatore-641014, Tamil Nadu, India

Received: 11th April 2023; ***Accepted:*** 16th August 2023; ***Published:*** 01st January 2024

Abstract: *Introduction:* The importance of feedback from medical students to improve the quality of teaching methods and their effectiveness has been extensively studied. However, there remains a need for further exploration of the feedback of medical students during their ENT clinical rotation. Therefore, this study aims to examine the feedback of Phase II medical students during their ENT clinical rotation in a tertiary care teaching hospital. In this study, we investigated the medical students' perceptions regarding the quality of the ENT clinical rotation program, including the methods of teaching, clinical exposure, and support provided by clinical supervisors. *Methodology:* This Descriptive Qualitative cross-sectional study was conducted among 142 phase II medical students using a Semi-structured Questionnaire. *Results:* Our findings suggest that although most of the students (~90%) were satisfied with the level of skill and clinical training provided during the rotation, 92% identified a gap between the clinical rotation and theory. This discrepancy can be addressed by adding a few hours of ENT theory sessions to the Phase II curriculum, which can run simultaneously with the clinical rotation. The students also felt that attending clinical sessions regularly increases their confidence. When asked for ideas to improve their participation, most of the responses were to increase the exposure of students to cases and increase OR visits and clinical discussions. *Conclusion:* This cross-sectional survey helped us understand the mindset of the students attending the clinical rotation and thereby wishes to change our approach, making sure every student who attends the ENT clinical rotation postings is heard and attended to.

Keywords: Feedback, Clinical Rotations, ENT, Medical Education.

Introduction

Medical education is an enigma in itself. To decipher the varied nature of such vast curriculum is the greatest training not only for the medical students who get trained but also to the fraternity that trains the medical graduate.

As said in one of the landmark articles by Ludwig Eichna, “We are training a group of physicians who have never been observed” [1-3]. He made a startling observation that the trained students aren’t given an opportunity to express their needs with the training part of the curriculum. Jack Ende states that the training in medical curriculum is like a ballet which is best done in front of the mirror [4].

Otolaryngology, also known as Ear, Nose and Throat (ENT), is a specialised branch of medicine that deals with diagnosing and treating disorders related to the head and neck. It encompasses a wide range of conditions, such as hearing loss, voice disorders, sinus infections, and head and neck cancer. Medical students in their second year of study are typically exposed to ENT clinical rotations to gain an understanding of the discipline's intricacies and complexities. Clinical rotations are integral to medical education, allowing students to develop their clinical skills and knowledge. The effectiveness of clinical rotations has been extensively studied in the medical education literature, with several studies highlighting the importance of

obtaining feedback from medical students to improve the quality of the rotation program [5-8].

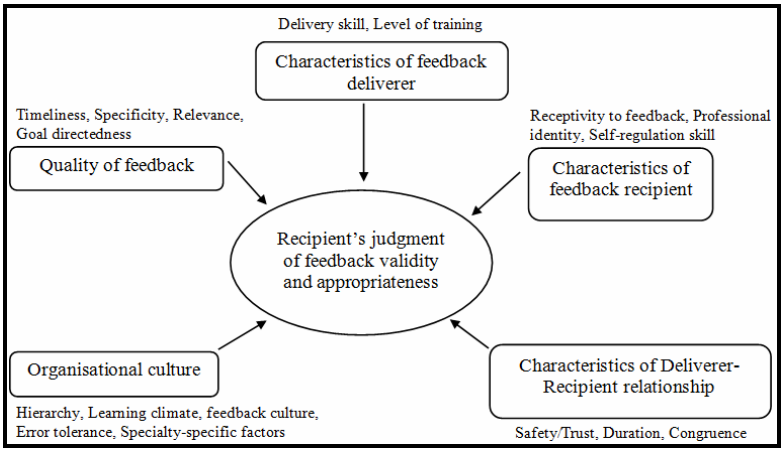
Several studies have evaluated the effectiveness of ENT clinical rotations from medical students' perspectives. For example, a study by Najwa Al-Mously et al. assessed perceptions on the quality of feedback received during clinical rotations. The authors found that the clinical exposure and support provided by clinical supervisors were crucial factors in enhancing the learning experience of medical students during their rotations [9]. According to Alan et al., an upward feedback study was initiated after a drastic reduction in medical student satisfaction [10].

This is akin to the situation we face during the training of undergraduates and postgraduates. This was predominantly seen in the students posted in a clinical rotation, and this observation is not a random occurrence to any teaching hospital. According to Alan et al. and other medical researchers this was because the faculty being redirected to meet increasing clinical demands [10-14]. Upward feedback receptivity was itself a topic of discussion in some of the studies done earlier, notably the study done by Amanda Kost et al [15].

Similarly, a study by Marzouki HZ et al explored medical students' perceptions regarding their ENT clinical rotation in a tertiary care hospital. The authors found that the clinical exposure and interaction with patients, along with the support provided by clinical supervisors, contributed significantly to the learning experience of medical students during their rotations [5]. Feedback is information about the gap between the actual level and the reference level of a system parameter which is used to close this gap [16-20]. Feedback is about providing information to students with the intention of narrowing the gap between actual and desired performance [21-22]. By the same token, feedback from the students helps the faculty members improve their teaching skills to provide better guidance to aspiring physicians in learning proper clinical practices. Feedback is key to effective clinical teaching [22-24]. The importance of feedback is typically threefold. First is a validation of things done right, which can be continued. The second is to become aware of the areas of lacunae and improve them. The third is to discontinue practices that serve no purpose. The purpose of giving feedback is to encourage learners to think about their performance and how they can improve [25-27].

Despite the significant contributions of these studies to the medical education literature, there remains a need for further exploration of the feedback of medical students during their ENT clinical rotation. Therefore, this descriptive study aims to examine the feedback of Phase II medical students during their ENT clinical rotation in a tertiary care teaching hospital. The study will investigate medical students' perceptions regarding the quality of the ENT clinical rotation program, including the methods of teaching, clinical exposure, and support provided by clinical supervisors. Additionally, the study will explore the areas for improvement that could enhance the learning experience of medical students during their rotations.

Chart-1: Criteria for judging feedback validity and appropriateness [15]



The new CBME curriculum has included student feedback on teaching as an important aid. This helps to refine and elevate teaching practices in medical colleges by staying aware of the emerging requirements of the students. In these changing times, staying updated on the needs and expectations is paramount. Feedbacks inform us of these needs so that practices that are redundant can be abandoned and, in their place, newer useful teaching methods can be adopted (Chart 1).

Material and Methods

The study's objective was to describe the student's responses to the feedback and the student's perspective of the experience in clinical rotation. The study design is a descriptive qualitative cross-sectional study, which obtained IHEC clearance on March 15, 2021. The location of the study is the ENT Department at KMCH Institute of Health Sciences and Research, and the setting is the students' clinical rotation postings. The duration of the study is three months, from July 2021 to September 2021. The participants are Phase II medical students, and the sample size is 142, which is justified as a universal sample that includes all the participants. The inclusion criteria are all those who attend the ENT clinical rotation posting, and the exclusion criteria are students who fail to attend the day of posting, interview or discussion due to sickness or emergency or any valid reason permitted by the head of the institution.

The tools used in the study are a semi-structured questionnaire, one-to-one interviews, and focus group discussions. The responses obtained from the participants are tabulated and described in the study. Overall, this study aims to provide insights into the experiences and perceptions of Phase II medical students during their clinical rotation postings in the ENT Department.

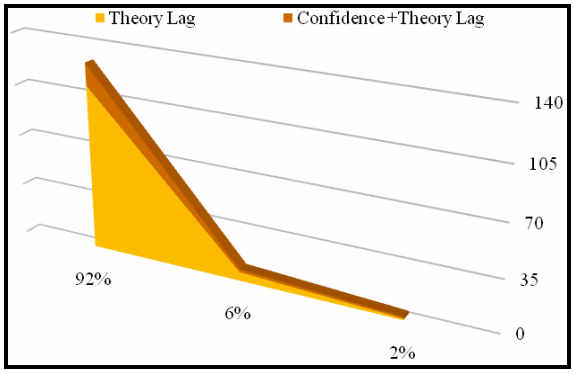
The students, who are 142 in number, are divided into 6 batches for clinical rotation in the department of ENT during the academic year 2020-21 as part of their Phase II clinical rotations as per NMC regulations. In this pilot study, a cross-sectional survey questionnaire will be given at the end of every clinical rotation for the divided batches of students attending the ENT clinical rotation posting. This feedback form will comprise of 5 questions. Four out of five questions will be about the ease of learning, the faculty's approach to imparting clinical knowledge, the impact of the pandemic on clinical teaching and student participation ideas. The fifth question is about the relevance of such feedback in the overall improvement they expect from the clinical rotation postings. The responses are noted and charted. After going through all the feedback forms, the responses were tabulated and described. One-to-one interviews and focus group discussions were done whenever possible with each batch in the Outpatient department and Operating room setting. The interview bias was avoided by non-ENT department faculties conducting the interview, with students being randomly allocated to the interviewers. All the interviewers were given a guide to have standardization. The interview was audio-taped, and transcriptions were done for further documentation (Fig 1).

Fig-1: (A) Focus group discussion in the Operating room during clinical rotation, **(B)** Student interview

Results

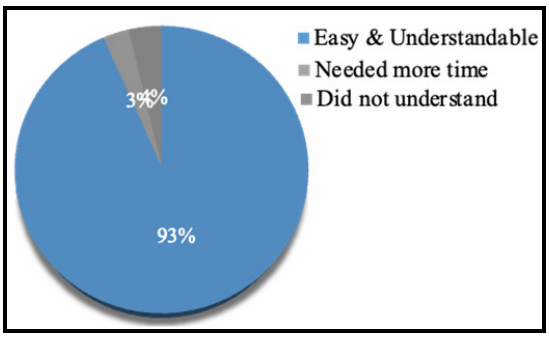
From the responses obtained, the following were the observations noted. 92% of the students felt that clinical rotation and theory gap is an issue since there are no theory ENT classes for Phase II students in the proposed CBME curriculum. The students also felt that attending clinical sessions regularly increases their confidence (Graph 1).

Graph-1: Stacked Chart showing the requisite of theory sessions along with clinical rotation during Phase II



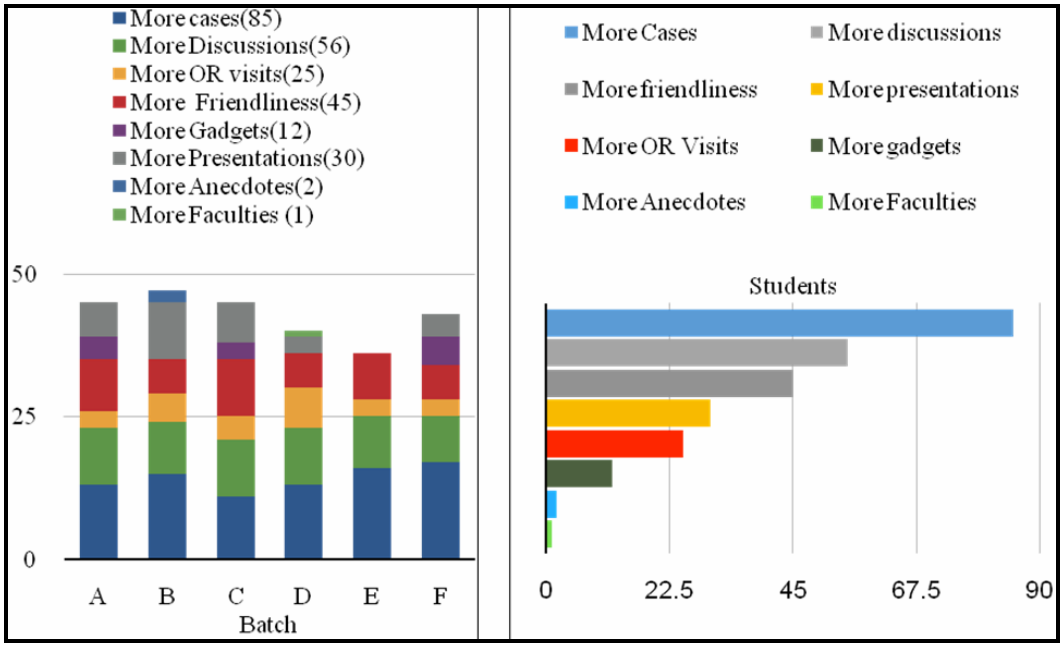
94% of the students felt that the language and etiquette followed by the ENT Department faculties were easy and understandable, 3% felt that they needed time to understand the discussion, and the rest felt they could not understand anything discussed (Graph 2). Committed, Thorough, Hardworking, Professional, Interesting, and Very strict were some of the interesting terms used to describe the faculties.

Graph-2: Pie chart showing ease with which students attended clinical rotation



2% of the students felt that clinical sessions during a pandemic are not advisable, and that was because they are scared of SARS-CoV-2 (these were some of the comments made before vaccinations opened for HCWs). 1% of the student felt clinical rotations are not important during the pandemic, while the rest of the 97% felt that clinical sessions are vital for developing clinical acumen despite the pandemic. Some even commented that compared to other departments, they felt safe in ENT rotation since faculties provide and insist on wearing proper personal protection while attending clinical teaching sessions.

Graph-3: Bar chart showing student participation ideas.



Student participation during clinical postings is where the lacunae usually arise. So we asked the students for ideas to improve their participation during clinical rotation. The most common responses are charted as follows. 85 responses were that they need even more cases to train themselves, 56 responses were that they needed more discussions, 25 responses were about increasing chances to visit operating rooms, 45 responses were about more friendliness between the teacher and the student, 12 of them felt use of projectors and computers should be done more often, and 30 responses were about increasing the number of case presentations (Graph 3).

96% of the students felt that giving feedback made them heard and wanted to return for subsequent posting to see if anything had really changed after giving feedback. 4% of students felt feedback does not change things around since their opinions are usually brushed aside, citing inexperience and naivety.

Discussion

In a recent systematic review, regular feedback significantly improved the clinical performance of consultant clinicians [28-29]. In a study by Hussain et al. Peer evaluation, self-evaluation, and administrator observation have questionable reliability due to a small number of students giving feedback [30]. This is probably one of the important reasons which has led to the institutions using student evaluation of teaching. In their study, feedback was given to individual teachers based on a proforma with grading for each criterion. The teachers found the feedback useful, but it also made them uncomfortable [9]. A similar study done by Marzouki HZ also suggests the same and is in accordance with our study [5]. In a study by Kost et al, they took bidirectional feedback from students and instructors at the end of the clerkship, which gave insights on criteria for validity and appropriateness of the feedback received by characteristics of the deliverer and the recipients, their relationship, the quality of feedback and the organisational culture [15].

The study done by Stephen L. Benton, et al. found that teacher variables (such as gender, age, teaching experience, personality, and research productivity), student variables (including gender, age, level, grade average, and personality), course variables (class size, time of day of class), and administrative variables (time of module during the term) generally do not impact upon the evaluations given by students on teaching quality [31].

Literature exploring the validity of student evaluations found that this tends to correlate highly with lecturers' self-ratings, with the ratings of lecturers 'colleagues and with students' actual grades [31]. However, according to Cohen et al, in terms of "the quality of the delivery of lecture or instruction," it is generally agreed that only students are in a position to provide good feedback [27]. The present study aimed to investigate the impact of upward feedback on the quality of teaching during a clinical rotation in ENT for Phase II medical students. Our findings suggest that although most of the students (~90%) were satisfied with the level of skill and clinical training provided during the rotation, 92% identified a gap between the clinical rotation and theory. This discrepancy can be addressed by adding a few hours of ENT theory sessions to the Phase II curriculum, which can run simultaneously with the clinical rotation.

The role of feedback in medical education has been widely recognised as essential for effective clinical teaching. However, most studies have focused on teacher-to-learner feedback to improve the quality of the trainee graduating from medical school. On the other hand, our study aimed to explore the impact of upward feedback on the quality of teaching, providing a unique perspective to enhance the overall outcome of the medical education process.

Our findings support the idea that learners' feedback can help improve teaching quality, which has been emphasised in previous research. According to Kraut et al., the learner-centric approach to feedback is more welcome in the medical curriculum, and our study's findings echo this sentiment, with 96% of students describing how giving feedback helps their learning [32]. Although our study did not quantitatively assess recipient engagement and motivation, it is clear that giving feedback can make a significant

difference in their learning experience. Further research is needed to identify the learning environment conditions that can spark recipient engagement, reflection, and motivation to change behaviour and ultimately improve Student-Faculty interaction, thereby improving student performance.

Conclusion

In conclusion, this study highlights the importance of upward feedback to improve the overall quality of medical education. Adding a few hours of theory sessions to the Phase II curriculum can address the gap between clinical rotation and theory. Our findings support the learner-centric approach to feedback and suggest that giving feedback can significantly impact learners' experience. Further research is needed to identify effective ways of incorporating feedback into the medical education process to improve teaching quality and enhance learners' outcomes.

Summary: This cross-sectional survey helped us understand the mindset of the students attending the clinical rotation, thereby opening new avenues and opportunities to change our approach and ensuring every student attending the ENT clinical rotation postings is heard and attended to. We also intend to provide equal opportunity in learning and scope for improvement in all academic aspects based on the responses collected from student-to-teacher feedback.

Limitations: We took the feedback of the 1st batch of students in our medical college; further feedback from the subsequent batches would be needed to increase the scope of the study.

Financial Support and sponsorship: Nil

Conflicts of interest: There are no conflicts of interest.

References

1. Eichna LW. Medical-School Education, 1975–1979: A Student's Perspective. *N Engl J Med.* 1980; 303(13):727-734.
2. Vantini I, Benini L. Models of learning, training and progress evaluation of medical students. *Clin Chim Acta.* 2008; 393(1):13-16.
3. Modi JN, Gupta P, Singh T. Competency-based medical education, entrustment and assessment. *Indian Pediatr.* 2015; 52(5):413-420.
4. Ende J. Feedback in clinical medical education. *JAMA.* 1983; 250(6):777-781.
5. Marzouki HZ et al. Students Perception and Awareness of the Term Otolaryngology-Head and Neck Surgery in a Saudi Medical School. *J Res Med Dent Sci.* 2022; 10(6): 312-315.
6. Fromme HB, Karani R, Downing SM. Direct observation in medical education: a review of the literature and evidence for validity. *Mt Sinai J Med.* 2009; 76(4):365-371.
7. Norcini J, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31. *Med Teach.* 2007; 29(9):855-871.
8. Jug R, Jiang XS, Bean SM. Giving and Receiving Effective Feedback: A Review Article and How-To Guide. *Arch Pathol Lab Med.* 2019; 143(2):244-250.
9. Al-Mously N, Nabil NM, Al-Babtain SA, Fouad Abbas MA. Undergraduate medical students' perceptions on the quality of feedback received during clinical rotations. *Med Teach.* 2014; 36(sup1):S17–23.
10. Allen L, Molloy E. The influence of a preceptor-student 'Daily Feedback Tool' on clinical feedback practices in nursing education: A qualitative study. *Nurse Education Today.* 2017; 49:57-62.
11. Amonoo HL, Longley RM, Robinson DM. Giving Feedback. *Psychiatr Clin North Am.* 2021; 44(2):237-247.
12. Bokken L, Linssen T, Scherpbier A, van der Vleuten C, Rethans JJ. Feedback by simulated patients in undergraduate medical education: a systematic review of the literature. *Med Educ.* 2009; 43(3):202-210.
13. Gilligan C, Powell M, Lynagh MC, Ward BM, Lonsdale C, Harvey P, James EL, Rich D, Dewi SP, Nepal S, Croft HA, Silverman J. Interventions for improving medical students' interpersonal communication in medical consultations. *Cochrane Database Syst Rev.* 2021; 2(2):CD012418.
14. Hewson MG, Little ML. Giving feedback in medical education: verification of recommended techniques. *J Gen Intern Med.* 1998; 13(2):111-116.
15. Kost A, Combs H, Smith S, Klein E, Kritek P, Robins L, Cianciolo AT, Butani L, Gigante J, Ramani S. A Proposed Conceptual Framework and Investigation of Upward Feedback Receptivity in Medical Education. *Teach Learn Med.* 2015; 27(4):359-361.
16. Ramaprasad A. On the definition of feedback. *Behav Sci.* 1983; 28(1):4-13.
17. Moorhead R, Maguire P, Thoo SL. Giving feedback to learners in the practice. *Aust Fam Physician.* 2004; 33(9):691-695.
18. Gupta K, Badyal D, Mahajan R, Singla G, Goyal R, Kaur H, Singla B, Ahi RS. Introduction of Structured Feedback to Medical Undergraduate

Students in the First Professional. *Int J Appl Basic Med Res.* 2021; 11(1):21-26.
19. Richard-Lepouriel H, Bajwa N, de Grasset J, Audétat MC, Dominicé Dao M, Jastrow N, Nendaz M, Junod Perron N. Medical students as feedback assessors in a faculty development program: Implications for the future. *Med Teach.* 2020; 42(5):536-542.
20. Thomas JD, Arnold RM. Giving feedback. *J Palliat Med.* 2011; 14(2):233-239.
21. Van Loon KA, Teunissen PW, Driessen EW, Scheele F. Formal Versus Informal Judgments: Faculty Experiences With Entrustment in Graduate Medical Education. *J Grad Med Educ.* 2018; 10(5):537-542.
22. Rekman J, Gofton W, Dudek N et al. Entrustability scales: outlining their usefulness for competency-based clinical assessment. *Acad Med.* 2016; 91(2):186-190.
23. Hesketh EA, Laidlaw JM. Developing the teaching instinct, 1: feedback. *Med Teach.* 2002; 24(3):245-248.
24. Gleeson C. Education beyond competencies: a participative approach to professional development. *Med Educ.* 2010; 44(4):404-411.
25. Hewson MG, Little ML. Giving feedback in medical education: verification of recommended techniques. *J Gen Intern Med.* 1998; 13(2): 111-116.
26. Hunter AJ, Desai SS, Harrison RA, Chan BKS. Medical student evaluation of the quality of hospitalist and nonhospitalist teaching faculty on inpatient medicine rotations. *Acad Med J Assoc Am Med Coll.* 2004; 79(1):78-82.
27. Cohen PA and McKeachie WJ. The Role of Colleagues in the Evaluation of College Teaching. *Improving College and University Teaching*, *JSTOR,* 1980; 28(4):147-54.
28. Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson DB. Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. *Med Teach.* 2006; 28(2):117-128.
29. Cantillon P, Sargeant J. Giving feedback in clinical settings. *BMJ.* 2008; 337:a1961.
30. Hussain Z, Ng DM, Alnafisee N, Sheikh Z, Ng N, Khan A, Hussain A, Aitken D, Sheikh A. Effectiveness of virtual and augmented reality for improving knowledge and skills in medical students: protocol for a systematic review. *BMJ open.* 2021; 11(8):e047004.
31. Stephen L Benton et al. Student Ratings of Teaching: A Summary of Research and Literature. *IDEA* [Internet]. [cited 2023 Apr 3]. Available from: *https://www.ideaedu.org/idea_papers/student-ratings-of-teaching-a-summary-of-research-and-literature/*
32. Kraut A, Yarris LM, Sargeant J. Feedback: Cultivating a Positive Culture. *J Grad Med Educ.* 2015; 7(2):262-264.

Cite this article as: Vijay R, Kandasamy Kamindan MS, Subramaniam S, Michael MM, Mutalik AV and Bhaskaran G. Feedback of phase II medical students during ENT clinical rotation: A descriptive study. *Al Ameen J Med Sci* 2024; 17(1): 74-80.

*All correspondences to: Dr. Anirudha V. Mutalik, Professor, Department of Community Medicine, KMCH Institute of Health Sciences and Research, 99-A, Avinashi Road, Coimbatore-641014, Tamil Nadu, India. E-mail: dr.anirudh333@gmail.com