



Intervention Program to Improve Clinical Medical Students' Feedback-Seeking Behavior: An Exploratory Study

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Abstract. The faculty of medicine has focused on conducting training programs to improve teachers' ability to provide feedback, but students still feel dissatisfied with feedback from teachers. Students think that they do not receive enough feedback. Intuitively, students have a desire to know how well they are performing. Attention to the role of students in seeking feedback is still lacking. The purpose of this study is to analyze students' needs, tasks, and performance needed to develop a feedback-seeking intervention program for clinical medical students. This qualitative study was conducted using the phenomenology approach. Data was collected through focus group discussions with clinical students from six different medical faculties and interviews with faculty from each institution as a form of data triangulation. The data was transcribed verbatim and analyzed thematically. The results of the thematic analysis from the focus group discussion and interviews obtained five themes. The program is to increase students' activeness and confidence in seeking feedback. The program should be interactive, with sessions from senior students and carried out in small groups. The content is about the importance of feedback, how to find and receive feedback, and the challenges of seeking feedback. The implementation is carried out during pre-clinic, during rotation, and before rotation. Program evaluation is carried out at the end and integrated with clinical modules. Intervention programs for students must be routinely carried out by the faculty of medicine to increase student activeness in the feedback process.

Keywords: Feedback, Feedback-seeking, Medical Education, Intervention Education

INTRODUCTION

Feedback is a cornerstone of medical education, shaping clinical competence and professional development. While the importance of feedback is widely acknowledged, medical students often encounter challenges in proactively engaging in this process. Some literature on feedback tends to place students as passive parties in the feedback process [1–3]. Whereas a person will be proactive seek information about how well their performance intuitively [4]. This behavior is referred to as feedback-seeking behavior. Feedback-seeking behavior is defined as the behavior of knowing, interpreting and applying information intentionally regarding a person's performance, aiming to achieve a set goal [5].

The concept of feedback-seeking behavior has developed among employees [6,7]. This concept can also be applied in a learning environment because students also have a goal-oriented and personal awareness like employees in the workplace [8]. Learners are considered to behave like workers in organizations who have the intuition to know how well they are performing by actively seeking feedback [1].

Some medical faculties conduct training programs to improve teachers' ability to provide feedback, but students still feel dissatisfied with feedback that given by teaching staffs [9,10]. Students feel that they do not receive enough feedback, while teaching staff feel that they have given feedback that students may not be aware of [1,11,12]. Existing studies have primarily focused on improving feedback provision rather than equipping students with the skills and confidence to actively seek feedback [1,2,12]. Despite the growing body of research on feedback, interventions aimed specifically at enhancing feedback-seeking behaviors among medical students remain limited.

Research conducted by Noble et al. [13] showed an increase in students' perception of their role in seeking feedback after being given a feedback program. Yau et al. [14] conducted a feedback workshop between students that focused on seeking, receiving and responding to feedback and obtained results in increasing confidence and desire to seek feedback. McGinness et al. [10] conducted a feedback workshop for students in the paediatric rotation profession at the University of Sydney, and obtained results in the form of increased feedback search by students and their satisfaction with feedback.

The development of intervention programs aimed at students can be an alternative strategy to the teacher-centered intervention model to improve the feedback process. Therefore, the development of intervention programs is needed to improve students' behavior in seeking feedback, especially in clinical medical education in Indonesia. There is a clear need for innovative interventions that target students' feedback-seeking behaviors directly, with the goal of fostering a culture of lifelong learning and self-improvement. This study aims to investigate the analysis of learners, their needs, tasks, and performance, which are essential for the creation of an intervention program aimed at improving feedback-seeking behaviors among medical students

SUBJECT AND METHOD

This study employed a qualitative, phenomenological approach to investigate the perception about intervention program to improve clinical medical students' feedback-seeking behavior. This methodology aims to provide a comprehensive understanding of clinical education experiences across different regions in Indonesia, capturing diverse perspectives about intervention program of feedback-seeking behavior, from both students and educators.

The researchers used purposive sampling with maximum variation to ensure a diverse group of participants, considering factors such as gender, pre-clinical academic performance, and regional origin. Data collection primarily involved focus group discussions (FGDs) with 43 clinical medical students from six public medical faculties, each representing a different region of the Association of Indonesian Medical Education Institutions (AIPKI). All selected faculties held an 'A' or superior accreditation status. To enhance data validity through triangulation, in-depth interviews were also conducted with clinical teachers. Both FGDs and interviews were carried out virtually between August and October 2023, continuing until data saturation was achieved. These sessions were recorded and transcribed verbatim.

The primary investigator (DO) independently analyzed the transcripts using the "Steps for Coding and Theorization" (SCAT) method, employing an iterative approach throughout the data collection process. Ethical approval for this study was obtained from the Research Ethics Committee of the Faculty of Medicine, Universitas Indonesia (reference number: KET-954/UN2.F1/ETIK/PPM.00.02/2023). All participants provided informed consent, and involvement was entirely voluntary.

RESULTS AND DISCUSSION

Based on the thematic analysis of the results of the FGD with clinical medical students and interviews with clinical teaching staff, five themes were obtained, namely objective of the program, form of the program, content of the program, implementation time and evaluation of the program. The summary of the themes and sub-themes can be seen in Table 1.

Table 1. Theme for Thematic Analysis

Themes and Sub-themes	
Objectives of the Program	<ul style="list-style-type: none"> Increasing student activeness Increased confidence in seeking feedback
Form of the Program	<ul style="list-style-type: none"> Interactive (case studies, simulations, role plays, workshops) Simileze of perceptions between feedback givers and seekers Briefing by education coordinator Sharing from senior interns Small groups Written media seeking feedback
Content of the Program	<ul style="list-style-type: none"> The importance of feedback in clinical education How to seek and receive feedback How to provide feedback to faculty Challenges in seeking feedback in clinical education Tips for preparing yourself before seeking feedback
Implementation Time	<ul style="list-style-type: none"> Before new rotation Before starting each station During rotation Pre-clinic Before and in the middle of rotation During pre-clinic and before starting clinical rotation
Evaluation of the Program	<ul style="list-style-type: none"> With evaluation at the end Evaluation integrated with clinical modules

Based on the results of the thematic analysis, the objectives of the intervention program include increasing student activeness and increasing student confidence in seeking feedback. The coding for each quotation stands for M = student, D = lecturer, FGD = focus group discussion, and W = interview.

"It further increases the confidence of the students to be able to see... at least increasing the desire of the students, and there is awareness to ask for feedback" (M3-FGD2)

"That's what I think should be a concern for how this student finally has the desire... There is no fear of expressing opinions." (D4W4)

The form of the intervention program is expected to be interactive such as simulations, workshops, roleplay or case studies.

"More interactive, yes. Because if for example we just let them sit, listen, they won't... have the desire to ask questions. They feel that their obligation is to come, enter, be present. Signed, done." (D2W2)

"Maybe more role play. So, for example, conditions like in hospitals, what makes it difficult for us to ask for feedback." (M4-FGD3)

In addition, the intervention program is expected to be in the form of simulate the perceptions to feedback givers and seekers, briefings by education coordinators, sharing from senior students, carried out in small groups and there is written media to seek feedback.

"So maybe even if there is training, uh... it's more about to have the same perception, doc, between those who want to give feedback and those who are given it... and those who ask for feedback." (M3-FGD1)

"If there is such a program, or other programs, maybe there is also sharing session from seniors," (M6-FGD5)

The content of the intervention program includes conveying the importance of feedback, how to seek and receive feedback, how to give feedback for teaching staff, challenges in seeking feedback in clinical education, and tips for preparing students before seeking feedback.

"The most important point conveyed to students is that this is the goal, what is the purpose, what are the benefits, how is the technique, I think it is included in one of the materials." (D1W1)

"Maybe if the topic is what, it can be uh... I mean if for example there is going to be a training, maybe more to uh... in terms of procedures and basic rules, doc. For example, if you ask, when is it best time to ask, what are the questions, maybe more to... the basic procedures, doc." (M3-FGD3)

The results of the thematic analysis related to the implementation time of the intervention program are quite varied, including before the rotation of the new cohorts, before the start of each station, during the rotation, when in the pre-clinic, before and during the rotation as well as when in the pre-clinic and before the starting the clinical rotation.

"In the pre-clerkship briefing, for example..." (D1W1)

"Gathered first, like that... clinical medical students who really want to enter the next station, are given a briefing... related to..., maybe by the admin or maybe by the consular or education coordinator staff, they can tell you how the... explanation related how to seek feedback to the teaching staff in this station" (M4-FGD2)

"Whether the program want to do it in the middle of pre-clinical, because we are also afraid that if we do it later, they already have a culture to be passive" (D5W5)

Evaluation of the intervention program can be carried out post-program evaluation and continuous evaluation integrated with the clinical module.

"I think it is used as one of the materials, but it's also good that this is like..., what is it... is the best form or is there such an evaluation that these people know" (D1W1).

"Included in the evaluation program per station.... Maybe if this is re-encouraged, or reactivated, this could be one of the points to evaluate whether it's effective and whether they're really trying to get this feedback" (D1W1).

DISCUSSION

The act of seeking feedback is crucial in the field of medical education, allowing students to evaluate their own performance and identify areas in need of improvement. However, medical students often face challenges in actively seeking feedback, which can hinder their professional development. This study aimed to explore the perceptions of clinical medical students and educators regarding intervention programs designed to enhance feedback-seeking behaviors.

Based on thematic analysis, themes were obtained regarding the objectives, form, content, implementation time and evaluation of intervention programs to improve the behavior of seeking feedback of medical students in the clinical stage. The purpose of the intervention program should be focused on increasing students' activeness and confidence in seeking feedback. This is in line with the definition of feedback-seeking behavior, which is the behavior of seeking, interpreting, and applying information about performance intentionally to achieve predetermined goals [5]. The latest concept of feedback in medical education also places students as active parties in seeking, assessing and using feedback information to improve their performance [10].

The form of the intervention program should be interactive, incorporating simulations, workshops, role-playing, or case scenarios. An interactive approach through simulations, role-playing and also case scenarios can help learners engage more effectively with the material and develop practical skills in seeking feedback. The educational intervention conducted by Milan et al. [15] in the form of a 90-minute workshop accompanied by role-playing exercises showed an increase in the search for feedback by students who had never previously sought feedback. Yau et al. [14] held a 50-minute feedback workshop using case scenarios and obtained the results of improving students' skills and confidence to seek feedback.

The content of the intervention program includes material on the importance of feedback, how to seek and receive feedback, how to provide feedback, challenges in seeking feedback in clinical education, and tips to prepare learners before seeking feedback. The material in the intervention program regarding the benefits of feedback, methods and tips for seeking feedback and overcoming the challenges of seeking feedback in clinical education is a comprehensive approach to ensure that students have sufficient knowledge to seek feedback, especially in clinical education. The delivery of material followed by role-playing sessions and analyzing case scenarios allows students to apply the knowledge gained in simulated conditions.

The timing of the implementation of the intervention program should be integrated into the curriculum at various stages, such as before a new rotation, before starting each station, during the rotation, and in the pre-clinical period. This ensures that learners are constantly reminded of the importance of seeking feedback and given the opportunity to practice these behaviors throughout the educational process. Hayes et al. [16] developed a curriculum consisting of six sessions to improve feedback-seeking behavior for medical students which was carried out longitudinally over a period of four years. At the end of the first year, an interactive presentation for 1 hour conveyed the basic elements of effective feedback in a large class format and continued with a second session for 1 hour to increase awareness about finding feedback. The third session was conducted at the end of the second year of the education program to help students assess the effective conditions of the feedback search. The fourth session was conducted during the pre-clinical clerkship orientation to repeat the material that had been presented in the third session. This fourth session was conducted in a large class for 1 hour and invited fourth-year students to share their experiences in seeking feedback. The fifth session was conducted while the clinical clerkship was running and aimed to make students use various feedback search techniques effectively. The sixth session was conducted at the end of the clerk's rotation period to refine the behavior of seeking feedback [16].

Program evaluation is very important to assess the effectiveness of the program in achieving its goals. Post-program evaluation and ongoing evaluation integrated with clinical modules can provide valuable insights into the success of intervention programs in improving feedback-seeking behavior. The evaluation carried out at the end of the program can use satisfaction questionnaires and pre/post-test questions in the form of multiple choice, which can help to get information on satisfaction and changes in the knowledge of program participants directly after the activity. Continuous evaluation that is integrated with clinical modules using behavioral assessment questionnaires or integrated with clerical activity log books can be an option to provide information on the application of knowledge or skills that have been acquired [17].

CONCLUSIONS

In conclusion, this exploratory study highlights the need for innovative interventions that target students' feedback-seeking behaviors directly, especially in Indonesia medical education context. By focusing on increasing student activeness and confidence, incorporating interactive forms of training, and providing comprehensive content, educators can create a culture of lifelong learning and self-improvement among medical students. The implementation of such programs at various stages of clinical education can ensure that students develop the skills and confidence needed to seek feedback effectively. Continuous evaluation is crucial to assess the program's effectiveness and make necessary adjustments. Ultimately, this study underscores the importance of equipping medical students with the skills and confidence to actively seek feedback, thereby enhancing their clinical competence and professional development.

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