

Original Article

Short-term Effect of Sensitization Workshop on “Giving Effective Feedback” among PG teachers of Pediatrics.

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ABSTRACT

Background: Postgraduate educators are key to developing physician leaders and specialists who shape community healthcare. To prepare them as effective teachers, imparting knowledge, skills, and professionalism through effective feedback on professional conduct and disposition is vital. This study aimed to ascertain postgraduate teachers' perceptions of effective feedback delivery. **Methodology:** This prospective intervention study was implemented over a 3-month duration, employing a convenience sampling method. All postgraduate teachers in the department were included, except for those on leave exceeding 4 weeks. A validated proforma (by a member of the Medical Education Unit [MEU]) was utilised for data collection, with pre-test and post-test assessments administered before and after the workshop. The short-term effects were assessed through a Google Form distributed 8 weeks following the intervention. **Results:** In feedback awareness and attitude, 75% of participants were giving feedback, 68.75% were giving it individually, and 56.25% believed that it should be given immediately. Only 37.5% had an understanding of feedback before the sensitization session. Post-intervention changes highlighted a general positive attitude towards feedback, and they realized the aspects of time constraints. The participants felt it should be given in all sessions, such as didactic lectures, clinical case discussions, ward rounds, and extracurricular work. Feedback had a positive impact on student performance and higher engagement in clinical case discussions. Later, after 8 weeks. Around 41.2% of the participants felt that giving feedback had become a routine, and 52.9% felt that it was only sometimes. **Conclusion:** The results indicate a positive shift in the practices and perceptions regarding effective feedback among post-graduate teachers in pediatrics, demonstrating the impact of sensitization workshops on improving feedback strategies and their implementation.

Key words: Effective feedback, impact of effective feedback, skill, behavior

The postgraduate phase of medical education marks an intensely critical period of learning on the path to becoming a specialist [1]. Within a medical residency program, a key platform for this progression, residents develop crucial competencies through immersive experiences like work-based learning, case analysis, problem resolution, and direct practical application. Therefore, residents must receive feedback to recognise their achievements and pinpoint areas for development [2]. To ultimately enhance the quality of patient care, feedback aims to train physicians primarily to improve patient outcomes while also developing their skills in delivering effective feedback [3].

Pediatricians should have a holistic knowledge of preventive, promotive, curative, rehabilitative, and palliative care for the pediatric population. During these formative years, pediatric students learn to critically analyze situations and act empathetically towards the patients [4]. While most medical

educators employ didactic lectures, small group discussions, and clinical teaching to guide postgraduate research, a significant gap persists in the integration of effective feedback mechanisms [5]. They participate in formative and summative assessment but seldom seek feedback from the postgraduate students or provide it themselves.

Disparities in faculty and resident perspectives on feedback mechanisms impede the effective delivery and reception of information, resulting in lost learning opportunities [6, 7]. Similarly, a disjointed flow of feedback hinders the growth and learning process for both students and educators. Conversely, effective feedback serves as a valuable tool for strengthening teacher-student relationships, thereby benefiting both parties [8]. This is critical for learner growth and development, necessitating a shared understanding and collaborative mindset between educator and learner to be meaningful. Effective

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feedback can be a great tool in enhancing teacher-student bonds and thereby being fruitful to both [8].

Feedback is not the means of fault-finding, but it's the two-way learning of students and teachers both. The student can identify his/her lacuna during training and can rectify them to achieve competency in that subject on time [9]. Similarly, the teacher will be taking feedback not only on their teaching quality and content but also on their behavior, availability, and verbal and nonverbal communication [10, 11]. So, they can also groom them into an effective teacher, guide, mentor, and role model for the students. Hence, medical teachers should understand the importance of taking and giving feedback, the method of feedback, what should be incorporated for constructive feedback, and how feedback should be integrated into their teaching. Considering this, the present study aimed to address the importance of feedback in medical education for both the educators and learners.

METHODOLOGY

This prospective interventional study was conducted in the Department of Pediatrics at Gandhi Medical College, Bhopal, to analyze the impact of the sensitization workshop on the awareness and practices of effective feedback amongst postgraduate teachers. Ethical approval was obtained from the institutional ethics committee (IEC No.16358 dated 06/05/2024), and informed verbal consent was obtained from all participants after the patient information sheet was provided. The study included all postgraduate teachers of the Department of Pediatrics, excluding the faculty on long-term leave for 4 weeks, resulting in a total sample of 16.

Data analysis tools included a validated pre- and post-test questionnaire to assess knowledge and awareness of effective feedback. A Google form was used to assess the short-term effect of practices and the adoption of giving feedback. The data were recorded on a pre-structured, validated questionnaire, including socio-demographic variables. The face validation of the questionnaire was performed by the MEU members of the college. A pilot study was conducted by providing the questionnaire to 5 faculty members of Obstetrics and Gynecology, who were not a part of the final analysis.

A pretest was conducted, followed by a sensitization workshop via a PowerPoint presentation, scenario-based group task, and role plays to educate participants on Effective Feedback. The content validation of the PowerPoint presentation was done. Following this, a post-test was conducted to determine the enhancement of knowledge and perception of the subject. After 8 weeks, a Google form was shared with all the participants to assess the adoption and practices of giving effective feedback.

The data was recorded on Google Forms and entered in MS Excel. EPIInfo software was used for statistical analysis. Descriptive statistics, including frequencies, percentages, and proportions, were carried out. The chi-square test was applied

to find a significant relationship. $P \leq 0.05$ was considered statistically significant. Qualitative Thematic content analysis was done for why effective feedback is considered necessary in medical education.

RESULTS

Sixteen PG teachers (study participants) in pediatrics participated in the study. The mean age was 42.56 ± 5.5 years, ranging from 35 years to 56 years, with an equal proportion of males and females. All participants had completed a basic or revised basic course in medical education (BCME/ RBCME). 18.75% had done a curriculum implementation support program (CISP). Half of the participants had completed Attitude, Ethics, and Communication (AETCOM). One had completed the Advanced Course in Medical Education (ACME). Study participants were aware of 'feedback' as a part of medical teaching.

Table 1 – Comparative analysis of General Feedback awareness pre- and post-test

Questions	Pre-Test N (%)	Post-Test N (%)
Awareness feedback can be		
Given	01 (6.2%)	0
Received	0	0
Both	12 (75 %)	16 (100%)
How feedback should be given		
Individually	11(68.75%)	13 (81.2%)
In Groups	02 (12.5%)	06 (37.5%)
Irrespective of the setting	05 (31.5 %)	03(18.75%)
When should feedback be given		
Immediate	09 (56.25%)	14 (87.5%)
After 24 hours	05 (31.5%)	04 (25%)
Next encounter	03 (18.75%)	01 (6.2%)
How participants learn about feedback		
Self	06 (37.5%)	06 (37.5%)
Short Session in BCME	10 (62.5%)	07 (43.75%)
Attended workshop	01 (6.25%)	12 (75%)
Read an article	01 (6.25%)	01 (6.25%)
Knowledge about the type of feedback		
Yes	06 (37.5%)	16 (100%)
No	09 (60%)	--
The objective of the feedback given		
Self-image	03 (20%)	02 (13.3%)
Knowledge Improvement	10 (66.6%)	14 (93%)
Skill improvement	09 (60%)	13 (86.6%)
Own knowledge	10 (66.6%)	09 (60%)
Frequency of feedback		
Daily	03 (20%)	10 (66.6%)
Weekly	02 (13.33%)	02 (13.33%)
Fortnightly	0	01 (6.6%)
Occasionally	10 (66.6%)	05 (33.3%)

Pretest results depicted the general perception of

participants about giving effective feedback (Table 1). The majority of the participants felt that awareness should be both given and received. However, one participant felt that only feedback should be given. Similarly, 68.75% of the participants felt that feedback should be given individually. However, few participants felt feedback should be irrespective of the setting. Regarding the timing of the feedback, it should be given immediately. Few participants felt that the feedback should be given after 24 hours. Mostly, participants learnt about feedback through short sessions in BCME. Only 30% have an idea about the type of feedback. An equal number of participants were found that the objective of feedback given is to improve

knowledge and skill, and it should be provided occasionally.

Pre-test and post-test analyses were carried out to assess the feedback method. Teaching activity feedback was given in the form of lectures, clinical cases, and ward rounds. The post-test feedback was improved in the clinical case teaching activity. It was noted that the pretest analysis sandwich method was more commonly employed than the Pendleton method. However, post-test analysis revealed that the sandwich, Pendleton, and Aloba modules. The mode of giving feedback was verbal on pretest analysis, and this changed to both verbal and written post-analysis.

Table 2. Comparative analysis of feedback method effectiveness

Questions	Pre-Test, N (%)	Post-Test, N (%)
In which teaching activity is feedback given		
Lecture	10 (66.6%)	09 (60%)
Clinical case	11 (68.75%)	14 (93%)
Ward round	10 (66.6%)	03 (20%)
Thesis work	08 (53.3%)	10 (66.6%)
Extra-curricular	05 (33.3%)	07 (46.6%)
Method used for giving effective feedback		
Sandwich	09 (60%)	16 (100%)
Pendleton	04 (26%)	16 (100%)
Aloba Module	03 (20%)	14 (87.5%)
Own way	01 (6.2%)	05 (33.3%)
Mode used for giving feedback		
Verbal	07 (46.6%)	04 (26%)
Written	0	0
Both	09 (60%)	12 (80%)
Did you observe change after feedback?		
Yes	14 (87.5%)	16 (100%)
No	02 (12.5%)	0
If yes		
In behavior	0	05 (33.3%)
Skill	03 (20%)	01 (6.2%)
Both	09 (60%)	10 (66.6%)

Short Term (assessment after 8 weeks) Impact

After 8 weeks of the workshop, all participants felt that it was essential to give effective feedback to students and that culture should be developed in the Department & Institution. All the participants demonstrated a clear understanding of the feedback objectives. Out of the participants, a small proportion focused only on observations or on making improvements. The majority of the subjects had a holistic approach, they combined observations, advice, and improvement plans. The feedback content varied; gave feedback on specific clinical behavior they observed, while 12.5% commented on general attitude and of the participants commented on everything clinical behavior, general attitude, and behavior. About 6.2% of them gave feedback about aspects beyond professional behavior.

Encouragingly, 87.5% involved the learner in making a plan of improvement, while 12.5 % involved learners in developing improvement plans and asked them to follow. In the

8 weeks (56 days), 25% of faculty gave feedback >10-15 times, 37.5% provided it 5-10 times, and only 7.5% of them gave feedback less than 5 times. None of the participants had included reflection in their feedback.

Notable challenges in implementing feedback were mostly due to a lack of time, followed by compromised privacy, whereas remaining participants felt that the involvement of students was suboptimal. Regarding routine feedback practices, 5.9% acknowledged its importance but did not practice it, 52.9% said that it should be a part of the routine sometimes, and 41.2 % agreed that providing feedback was now a part of their habit. This workshop was observed to have a positive impact on student-teacher relationships, with the majority believing it had a significant influence and that the impact was in the form of better learning. This enhanced culture of transparency and communication led to an improved relationship with students.

Table 3- Thematic analysis of why effective feedback is considered necessary in medical education

Theme	Subtheme	Verbatim Quote	Interpretation
Fostering Learning and Development	Bridging the Gap	"Feedback helps me understand what areas I need to focus on the most to improve my knowledge."	Clarifies the gap between desired performance and current abilities.
	Promoting Change	"Effective feedback can lead to a change in the students' thinking, behavior, and performance. It motivates them to learn more."	Acts as a catalyst for positive change and a growth mindset.
	Meeting Student Needs	"It also helps us to understand the needs of the student."	Allows for tailored learning experiences and improved student engagement.
Addressing Challenges and Enhancing Performance	Identifying Learning Obstacles	"Feedback allows us to identify problems in the working and learning of students, as well as their emotional and personal issues."	Helps identify knowledge gaps, skills deficiencies, and even emotional or personal challenges.
	Optimizing Knowledge and Skills	"It helps them to improve their knowledge and enhance their skill."	Leads to improved student knowledge, skills, and overall performance.
	Strengthening the Teaching-Learning Relationship	"It strengthens the bond between teacher and student."	Fosters open communication, trust, and a supportive learning environment.
	Targeted Improvement for Students and Teachers	"It allows us to know about the positive and negative aspects of teaching/clinical skills." (Provides students with specific areas to focus on and allows educators to improve their teaching.
Towards a Culture of Mutual Growth	Positive Reinforcement and Motivation	"It improves students' behaviour and work efficiency. Positive feedback gives confidence to the students."	Improves student confidence, work ethic, and motivation.
	Skill Development for Both Parties	"it leads to improvement in both the receiver as well as giver."	Allows educators to refine their delivery skills and communication methods.
	Improved Patient Care	"Improvement in behaviour and skill of trainee, to improve the work environment of the department."	Contributes to the development of well-trained professionals, leading to improved patient care.
Impact on Healthcare Quality	Enhanced Professionalism	"Improvement in learners, skill and behaviour, improvement in our teaching methodology."	Creates a positive and collaborative work environment, fostering professionalism within the healthcare team.

The verbatims solidify the importance of feedback in medical education. It's a cyclical process that fosters continuous improvement for both educators and learners, ultimately leading to a higher quality of healthcare.



Figure 1. Themes and Subthemes of Feedback

DISCUSSION

The study was conducted on PG teachers of the pediatrics department, highlighting the impact of a sensitisation workshop

on giving effective feedback. All the faculty were trained in BCME/RBCW courses, and 50% had undergone the AETCOM module. Before the intervention, 75% of the participants were giving and receiving feedback in their teaching practice. Modes used for giving feedback were verbal (46.6%) and verbal and written (53.4%), as mentioned by Tumma et al. [12]. Carr et al. [13] described in their study the variability in feedback techniques and the factors that influence how faculty and staff [14] observed that it should be a well-planned meeting focused on the clinical behavior of an individual student. Bhattarai *et al.* observed feedback as a well-planned meeting focused on the clinical behavior of an individual student [15]. Rachel et al. stated that the provision of feedback leads to improvement in learners, and receiving feedback is also related to heightened self-image [16]. They also discussed various models in their review article.

Constructive feedback plays an effective role in various settings, lectures, ward rounds, and case discussions by peers,

which helps to improve communication and language proficiency. Regarding prior training, 62.5% of the participants were aware of feedback through a short session in BCME before attending this session, the remaining knew the word but were not clear exactly what it is. Weallance *et al.* [17], in their systematic review, have highlighted effective and ineffective feedback. The absence of a feedback-seeking culture and the time constraints were mentioned as the biggest challenges in developing this culture of giving effective feedback. Patrika *et al.* [18], in their educational seminar, mentioned that the goal and expectation should be established before providing feedback. In the present study, feedback was given for various reasons, including improvement in students' skills and self-esteem.

The objective of feedback was clear: 56.25% observed improvements in the skills of students, 25% did not specify the improvement, and in 18.7% teacher's self-image was positively influenced. Post-session responses showed a significant improvement in awareness and practices regarding feedback in the present study. Sara Shafian *et al.* [19] also reported similar findings, that medical students hold positive attitudes towards feedback, however, the study revealed critical deficiencies in the feedback process. The post-workshop improvement indicates that holding such workshops for faculty can improve the role of feedback in medical education.

The models of feedback were not known to the majority of the participants in this study, but the sensitization workshop helped them understand the process of effective feedback. Although Kritek *et al.* [18] do not precisely discuss models in their work, they discuss the qualities and a step-wise approach to feedback. Similar findings were discussed in the study by Sara *et al.* [19] and Weallans *et al.* [17]. They also mentioned such dilemmas in providing feedback. As mentioned by Sara *et al.* in their study, residents mentioned that some faculty were not able to give feedback. Feedback literacy is the only answer to the situation. According to Table 2, in the present study, teaching activities involving feedback were ward rounds, clinical case discussions, etc, and were maximally used for giving feedback. A similar situation is described by Sara Shafian *et al.* In the present study, 87.5% of the participants already believed that feedback can bring changes in the students; this belief turned into 100% during post-test analysis. Similar observations are described by other researchers [14-19]. Improvement was observed in both skill and behavior.

The study concluded that though giving feedback is a naturally occurring tendency, substantiation improves the technique of feedback and its effectiveness. On observing the short-term impact in the present study, 100% of the participants felt it is an essential part of teaching, and the culture should be developed. The participants were now giving feedback with a clear objective; 87.5% were sharing their observations, making an improvement plan, and giving advice. The feedback was on a specific clinical behavior by 75% and 12.5% on general

attitude. These observations are like those reported by Kritek *et al.* and Bhattarai *et al.*, except the fact that giving advice should not be an integral part of the feedback process [15, 18]. In the present study, it was observed that 41.55% of the participants felt that giving feedback had become their habit.

Feedback forms an essential component for effective student learning in clinical practice. However, this was found to be deficient in current medical education [20]. This can be linked to the fact that feedback involves interaction between the learner and an evaluator, and this seems ineffective if it is perceived in another way [21]. Feedbacks are the expectations of most students and learners, as they expect their supervisors or superiors to spend more time providing them with constant insights regarding their clinical performance. Thus, effective delivery of feedback should be trained for faculty as they play a key role in the successful implementation for the betterment of clinical practice.

CONCLUSION

This study demonstrated that a well-planned sensitization workshop significantly improves postgraduate teachers' knowledge and practices about effective feedback in pediatric education. Post-intervention, 80% of participants preferred a combination of verbal and written feedback, and over 40% made it a part of their routine. The teachers observed elevated student engagement and performance, highlighting feedback's role in making medical training effective. However, as mentioned by many participants, time constraint was a major challenge. Making such workshops frequent and providing resources can keep these improvements consistent, ultimately strengthening postgraduate medical education.

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