

Students' and Faculty Perspective of Effective Feedback Analyzed in an Outcome Based Medical Education System of KSA

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Abstract

Objective: To evaluate and compare the students' and faculty's perspectives of feedback & its values in an outcome-based medical education system.

Methods: This was a cross-sectional, self-evaluated questionnaire-based observational study conducted on the students (group A) and faculty members (group B) of the College of Medicine, Majmaah University by convenience sampling technique. Prior to taking the feedback, consent was taken from the students and faculty members. The responses were recorded on a scale of 1-5 and the data was analyzed using 'SPSS version (25). The relationship between categorical variables was analyzed using the Chi-square test and a 'p value of <0.05' was considered significant.

Results: The questionnaire responses from the A and B groups were recorded. Three important elements were examined: efficacy, value, and the technique for recording constructive feedback. Both groups believed that positive feedback is essential. While there was agreement on various aspects, a substantial difference was also noticed between the perspective of the two groups in a few areas. Generally, students were observed of being responsive and perceptive, but the instructors responded oppositely. There was a considerable disparity in the extent/quantity of input supplied. While the teachers thought it was acceptable, the students did not.

Conclusion: The observed differences between the two stakeholders could create a barrier in the effectiveness of feedback and hence the learning process. The comparison in perspective helped in to understand that students and faculty members approve and understand the effectiveness and value of feedback. Encouraging and utilizing this mode to improve learning is required to strengthen students' education and teaching environment. There were a few conflict areas in accepting, encouraging, and utilization of feedback in the learning process. The medical education department may play a role in abolishing these conflicts to best utilize the affectivity of feedback.

Keywords: feedback, faculty, students, medical education.

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Introduction

The feedback process has acquired a specific meaning in education, specifically medical education. Over the last few decades, feedback in medical training programs has obtained significance and essentiality due to its rising importance in education.

Feedback is the transfer of observation-based information that is meant to improve performance. Scientists have emphasized that "Learning is at the heart of feedback", and thus have considered, feedback a required competency in medical education¹.

The Merriam-Webster dictionary defines feedback as "the transmission of evaluative or corrective information about an action, event, or process to the original or controlling source," or as "the return to the input of a part of the output of a machine, system, or process"².

Feedback is an essential element in medical education and teaching institutes. It stimulates to analyse training and performance. Student and ins-

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tractors can use feedback to explore their strengths and deficiencies and can take measures to improve their performance³.

Feedback is an important constituent of assessment and the elementary unit of effective teaching. Effective feedback should be based on an accurate evaluation; performance should be observed, assessed, guided to the next level and facilitated for improvement. Feedback should be purposeful i.e., constructive, inspiring and for correction⁴.

Feedback is a mean for providing information that targets particular details to create an improvement. Feedback is an intricate bidirectional process. Feedback should involve both teachers and students in giving and receiving information. The bidirectional model emphasises on learners' engagement in feedback, they should have equal power in giving feedback⁵.

There is a growing trend across the continuum of medical education has been observed moving to an outcome-based medical education (OBE) framework with a focus on outcomes instead of process⁶.

Educationists believe feedback is one of the key strategies for learning in an outcome-based curriculum. They argue that students are more interested in their scores and pay little attention to the feedback, and may not understand the importance of feedback and its effect on their performance because of their perception, and beliefs⁷. This understanding has led to many types of researches regarding students' perception of useful feedback; the purpose of feedback and beliefs about its affectivity.

Feedback responses from both students and faculty can stimulate changes and they can be incorporated into the curriculum for the betterment of learners and the organization considering that feedback is constructive and well structured. Instructor feedback evaluation helps in the assessment of strategies of teaching, redesigning teaching practices and creating effective teaching methodologies according to learners' needs^{3,8}.

Student perception of feedback is essential and can help to estimate the extent of how supportive feedback is in terms of their learning. The student's perception of feedback can benefit and influence their training. It can also help guide and improve academic interaction⁹. Feedback is also important to understand the relation between students' academic gain and faculty mode of delivery. Feedback helps a teacher to analyse various methodologies that influence students learning. Thus, understanding the teacher's perception of feedback is equally important for students' improvement and future achievements¹⁰.

The current study was planned to collect the perception of students as well as teachers on feedback to understand the effectiveness of such practices regarding students learning and a better understanding of the influence of effective feedback on teaching practices. The study also evaluates the barriers to the effectiveness of constructive feedback from students' and faculty perspectives.

The study aims to evaluate and compare the students' and faculty's perspectives on feedback & its values in an outcome-based medical education system.

Subjects and Methods

This questionnaire-based study was conducted during the 2020-21 academic session from January to June 2021, and comprised faculty and Students of the MBBS program. Feedback is a regular feature of the university at the end of each module.

After the approval of the institutional ethics review board, Vide#MUREC-22/COM-2020/4-6' a questionnaire was used to collect data from the participants of the project, regarding the effectiveness and values of feedback. The study was conducted in 2 groups, A comprising of students and B of faculty of the College of Medicine. The total number of participating faculty was 91, 249 students who were selected. All students and faculty willing to participate and furnishing informed consent were included, by convenience sampling

venience sampling technique. A standard pre-structured, interview-based questionnaire was designed after obtaining validity from experts and running run reliability analysis on each factor Cronbach alpha >0.7, while overall reliability is 0.8. The questionnaire was used to collect the data from students and faculty members which contained questions regarding participants' perception of feedback, its affectivity and values and the procedure of its recording. Based on the responses from students and faculty members the effectiveness of the feedback process in the college of medicine was analysed. All the data collected was entered in the SPSS version (25) for statistical analysis.

The responses were recorded on a scale of 1-5 and the data was analyzed using SPSS version (25). The relationship between categorical variables was analyzed using the Chi-square test and a 'p value of <0.05' was considered significant.

Results

The questionnaire response was recorded on a scale of 1-5, where 1 was the least and 05 highest level of agreement. The data obtained from 2 groups, A & B, was statistically analysed over SPSS version (25), considering a 'p value of <0.05' as significant. Respective perspectives of faculty & students were recorded for three major areas, namely, effectiveness, value, procedure of recording of constructive feedback.

Regarding the effectiveness of feedback, the questionnaire, assessed the understanding of students and faculty, if it helped students improve learning by knowing their strengths & weaknesses. Also, it was asked if feedback was perceived as a mutually bidirectional process. Whereas both the groups strongly agreed to both the concepts, there was no statistically significant difference between the 2 groups (Table 1).

Table 1. Comparative analysis of students' and faculty perspective about affectivity of feedback

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Faculty=91 Students =249										
Sr.No	Questionnaire	Agree		Neutral		Disagree		Don't Know	pValue	
		F	S	F	S	F	S			
1	Effective feedback is a mutual process which involves tutor and student equally.	79	190	10	48	1	5	1	6	0.214
2	Effective feedback is needed to improve the student's learning.	62	189	26	57	3	2	1	1	0.175
3	Effective feedback helps the students know about their strengths and weaknesses.	56	171	29	74	5	4	1	0	0.067

F= Faculty perspective, S= students' perspective

The value and significance of feedback in the opinion of faculty and students groups were inquired for several standards (Table 2). Of these, there was a significant difference of opinion regarding the acceptance of feedback and utilizing it for improvement of academic performance. Also, in the perception of encouragement and acceptability of the feedback the students and faculty differed significantly. For all these parameters, students were mostly receptive and perceptive, and faculty reflected otherwise.

Table 2. Comparative analysis of students' and faculty perspective about value of feedback.

Faculty= 91 Students= 249										
Sr No	Questionnaire	Always		Some Times		Never	Don't Know	p Value		
		F	S	F	S					
4	Feedback is effective only when it is positive.	21	96	38	98	32	50	0	5	0.005**
5	Feedback is reflective of students' marks in activity.	18	104	56	120	16	20	1	5	0.001***
6	Feedback is only important if students' marks are low.	25	89	31	72	35	81	0	7	0.159
7	Feedback tells the students what the tutors expects from them in a particular task	41	143	44	86	6	10	0	10	0.020
8	Effective feedback helps the students to clarify their doubts and misconceptions about a particular subject	54	174	27	62	8	6	2	7	0.039
9	Students accept their feedback positively and keep the points in consideration for improvement next time.	36	164	48	76	5	5	2	4	<0.001***
10	Feedback makes the students feel that tutor care about their work.	51	157	35	80	3	9	2	3	0.617
11	When students receive effective feedback, they feel encouraged.	43	165	39	71	5	8	4	5	0.015*
12	Students always read / listen to their feedback and focus on the points mentioned for improvement.	31	168	52	72	6	6	2	3	<0.001***

F= Faculty perspective, S= students' perspective

The procedure of giving constructive feedback in view of both groups was assessed and a significant difference was found regarding the extent/ amount of feedback provided. While the faculty felt it was adequate, the students disagreed (Table 3).

Table 3. Comparative analysis of students and faculty perspective about procedure of recording feedback.

Faculty 91=Students = 249										
Sr. No	Questionnaire	Always		Some Times		Never		Don't Know		pValue
		F	S	F	S	F	S	F	S	
1.	Written feedback is better than verbal feedback.	41	128	41	95	9	14	0	12	0.57
2.	Individual feedback is better understood than general.	53	168	32	62	3	11	3	8	0.30
3.	Amount of feedback provided is enough/ satisfactory.	40	84	44	118	6	44	1	3	0.05*
4.	The tutor should guide the student about the improvement plan after feedback.	34	86	48	105	9	52	0	6	0.37
5.	Frequent feedback makes the student feel more motivated.	22	132	59	95	4	16	6	6	0.00***

F= Faculty perspective, S= students' perspective

Discussion

Feedback is delivery of information & observation meant to improve the performance. Educationist consider “Learning as the heart of feedback”, and as such, feedback is an essential competency in the field of medical education¹¹. It is important to understand the purpose of feedback and what makes a feedback effective. The purpose of feedback should always be improvement. Among students and teachers, it is essential to identify the purpose and understand what elements make it effective.

Dawson & Handerson (2018) have pointed out that since the early years of last decade the paradigm has shifted to view feedback as a vital process that students utilize for making sense of

work they have done, and to further improve the quality of their subsequent work. However, the authors further feel that the fact is unclear if educators and students have a mutual understanding of concept feedback¹². The current paper reports a qualitative exploration of what educators and students think of the value of feedback, its effectivity and appropriate procedure of its recording. We administered a survey on feedback that was completed by faculty and students sharing reporting their perspective towards its understanding.

Effective feedback should be able to validate what student and staff can do with the acquired information about their work and how changes and improvement be presented regarding teaching and learning outcomes¹¹. Effective feedback demands a giver, receiver and a favourable environment. For an effective feedback teachers and students should have a good understanding of standards of performance¹².

The feedback is a two-way interaction between individual giving feedback and individual receiving it, resulting in conformation of positive features and correction of negative or improvement required elements. Seeking feedback can be helpful in self-assessment and accepting it without being defensive or feeling personally targeted and utilizing it for individual refinement and development. Students perceive feedback as valuable when presented clearly. Value is added when feedback is accurate and for the benefit of organization¹³. However, for the feedback to be constructive it is vital that both the giver and the receiver understand its value equally and are ready to extract the best out of it. In our study there was significant difference noticed in the two perspectives. Whereas the students felt that feedback is not only helpful if it is positive, the faculty significantly differed on that addressing it to be effective if it was positive. Researchers have defined “positive feedback as a signal that a task has been performed correctly and negative feedback as a signal that a task has been perform-

ed incorrectly"¹⁴. In 2017, Freedberg M, et al had observed in a study and reported that students who received all negative feedback and the control group engaged better in the cognitive learning strategies, whereas the positive feedback group could not¹⁵.

Another significant difference observed in the opinions of the students and instructors was their respective understanding regarding the significance of feedback on students' performance. Reflecting the inspiration of Gibbs reflective cycle¹⁶ the instructors expressed their perception that feedback is essential for students' reflective performance and not merely of their grades. While the students' group significantly differed in their impression of feedback, believing that feedback by instructors just reflect their scores. The observed perception of the students seems to be a huge barrier in their learning process. The educationists endorse reflective performance is a process in which learners deliberately reflect and ponder about their thought processes and actions, keenly & critically evaluating them, in order to improve their future performances¹⁷.

Research indicate that students tend to avoid critical constructive feedback that is intended to support and guide them, especially the lower-achieving student. They probably see feedback as an ego-threat, and therefore protect themselves by disregarding it¹⁸.

On this criterion of students' acceptance of feedback, our study observed different results as compared to previous data. Students' group in this study claimed to accept their feedback positively utilizing it for their improvement. Whereas, the faculty significantly disagreed to the fact. A similar attitude was noticed bilaterally, when inquired about the attentiveness of students towards the feedback given. And unfortunately, also towards the perception of students' morale reinforcement and encouragement on receiving effective feedback. Whereas majority of the students seemed to benefit from the exercise, the faculty seemed to significantly differ from their perception. Does that mean that faculty was just practicing the institutio-

nal requirement without being convinced of the benefits of the feedback or were they were themselves lacking the motivation? The answer to this could be either, consequence being the same –a half-hearted effort towards improvement. A recent study carried in one of the leading institutes of Pakistan, has investigated the reasons for teachers' disinterest in providing the students effective feedback¹⁹.

This study reports that the faculty felt some apprehension regarding the provision of feedback which might be ultimately reflecting on their teaching dossier as low ratings. The same participants also admitted that they were not appropriately trained to provide feedback. The faculty members also complained that since there was no incentive on their involvement in the educational activities, they are reluctant to take time out from their schedules & consider the activity fruitless. They also voiced their concern that the administration did not emphasize, or support, evaluation activities resulting in a lack of their commitment. Moreover, that they were not aware of the expectation from the learners at different levels and the educational impact of giving feedback. Hence, it seemed that faculty training, and grooming and emphasis is vital for the effectivity and credibility of the process.

Feedback is an essential parameter for assessing if learning is going in the right direction or a redirection is required. It is a valuable tool for learners to gather information, consolidate their strengths and areas to improve, and targets to support effective behaviour. Giving and receiving feedback is not an easy task and poses significant challenges for both sides²⁰.

These feedback skills are central in healthcare settings. The process is intimately interconnected with professional development and improved performance. Researchers emphasize that feedback should be constructive aiming on attitudes that can be improved. Building robust professional relations is a basic criterion for imparting effective constructive feedback that will act as a powerful motivator¹⁴.

Medical students and faculty should give and take feedback as a tool for improvement of quality, rather than feel it as a duty to respond²¹. Feedback can be taken verbally, in written form or taken electronically. Student's perception regarding preference of mode is important to ensure their active participation.

Feedback should target specific, in order to understand and comprehend problem and make an action plan. Thus, feedback is an important element of evaluation¹². Feedback is also important to understand relation between student's academic gain and faculty mode of delivery. Literature document that while recording feedback there is conflict in understanding useful comments and students and faculty attitude and capability to comprehend its positivity^{12, 22}. Effective feedback can motivate students. Literature suggests that students receiving feedback felt motivated and verbal feedback made them more driven towards targets. If a student is made to believe that their efforts are encouraged it ends up elevating their motivations towards learning⁹.

In our study, students differed significantly with instructors in terms of amount of feedback provided. While they felt the amount of feedback provided was enough for their improvement, the instructors felt otherwise. In previous studies however²³, it has been pointed out that students and teachers/facilitators generally agree on the importance of feedback, and its amount provided in a given course. The difference in the approach to feedback perception highlights the evolving importance of feedback amongst the teaching faculty and their aptitude to avail this forum towards quality improvement. Recently, Wisniewski et al²⁴ have revisited the influence of feedback and have summarized the difference of students and faculty's perception as if facilitators know much about the influence of feedback, however, they know little about how to utilize this power and make it effective to the students. This should be added in conclusion recommendation to be added in discussion. The study concludes that both instructors and learners and mostly approve of the effectiveness and value of

feedback in terms of improvement and identifying the strengths and weaknesses of students. However, there are a few conflict areas in accepting, encouraging, and utilization of feedback in the learning process. The different approaches of both stakeholders could be a hurdle in an important pillar of medical education.

Conclusion

The study provides a comparison of faculty and students' perspective related to important principles of feedback in the learning and teaching environment. We suggest proper faculty training and students' perspective related to important principles of feedback in the learning and teaching environment. We suggest proper faculty training and students' counselling regarding the value and effectiveness of feedback. At the same time, the observed undermined impression of the faculty related to feedback and its effectiveness in the learning process must be addressed rigorously, in order to best utilize from the exercise. We recommend, future work in the field, especially detailed study on the barriers of constructive feedback.

Conflict of Interest

Authors have no conflict of interests and received no grant/funding from any organization.

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