

The Impact of Skills Education of Presenting the Effective Feedback to the Internist Professors of Medical Sciences University of Birjand on the Application of those Skills in the Clinical Education by Professors

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Clinical education is recognized as a key component of medical education that is allocated to itself about 50% of medical education. Therefore, methods of clinical education are important. The feedback is known as an essential element in clinical training and the studies of the use of it is along with shortcomings in clinical by professors and therefore, this study examines the impact of skills education of presenting the effective feedback on the application of those skills by professors. This study was conducted an intervention study of before and after that was administered on the internist professors of Medical Science University of Birjand. The level of skills application related to presenting the effective feedback was evaluated by a valid and reliable check list. The intervention of this study was held in the form of a 6-hour workshop where the skills of the presenting the effective feedback to the professors were trained. Data after coding analyzed by using Spss software version 16. In analyzing the data, descriptive statistics (mean and standard deviation) and inferential statistics (T pair) were used. Data analysis showed that the application of skills related to the appropriate feedback by professors before and after the intervention has had change in this study significantly. Level of significance was reported for each of the skills ($P < 0.05$) that show a significant difference of changes before and after the intervention. The results showed that skills education of presenting the effective feedback to medical professors in the form of workshops, have a direct impact on their application in clinical education of that professors. So holding workshops for professors can be included in education programs of improving the quality of teaching academics.

Key words: Clinical education, Medical education, Feedback.

Clinical education is the foundation of medical education that causes to stabilize the theoretical learning of students. More than 50% of medical education is spent in clinical practice. And this shows the importance of this part of medical education.

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Feedback is the important teaching methods in clinical part which is an essential component of medical education and is essential to stabilize the performance of learners in clinical practice. Today attention to medical education has changed to achieve the learning outcomes and attention to the needs recipients that students must achieve to the define qualifications in his work at the time of graduation. Presenting the rapid

and detailed feedback on the performance of the students help them to achieve their desired qualifications.

The competency-based curriculum and curriculum-based simulation (SBME) that runs in many medical schools in the world, providing the feedback is discussed as an essential component of education. Feedback is known an essential element for the educational process that can help the students to reach their maximum potential. Feedback helps students to reinforce the self-regulated learning. Some know feedback as the medical education center for reaching to learning and teaching standards. The main part of medical education that most of professors avoid it in their training.

Feedback is a dynamic process whose usual sender are professors and its receiver are students. In the process of feedback, the professor confirms positive behavior by encouraging its repetition and corrects it by encouraging change in negative behaviors. In Medical Education, feedback means giving specific information about the observed practice of learner and its comparison with the standards of learning that can be done to improve his performance. Feedback is also defined as an objective and constructive criticism on student performance that improves his or her skills. In a classification, feedback divided into two types, formative and summative: Formative feedback refers to the purpose of correction and adjustment of the student behavior to achieve the learning objectives and summative feedback is done to evaluate students and at the end of the period with the aim of documenting the findings, assessment of student qualifications and compare the actual performance of students with standards and is adjusted on the performance of individual in compare to other students and to provide recommendations for the development and promotion. The final feedback indicates that how student done. However, some studies know the feedback and evaluation as a two different process. Because evaluation is held as final and the judge is important in it and instead feedback is a formative that is deliberately done to improve performance and the judgment will not be done. In the other divisions, feedback is divided to both formal and informal feedback. Informal feedback present to student during the performance of students, but

informal feedback held in the form of special. In other texts, it named the two types of positive feedback or reinforcer and negative feedback or corrective. Also for feedback, three others have been mentioned including: Brief feedback, formal feedback that presented to the student for a period of 5 to 20-minute and major feedback that are given to students in planned sessions and in average lasts 30-15 minutes. Obviously, according to the above definitions, the concept of feedback is the formative feedback.

Ideally the effective feedback techniques in medical education and professional should be in a way that be presented in friendly atmosphere and free from fear and intimidation and with respect, has non-judgmental nature, specifically and focused on learner behavior and be enough, based on the observed facts and defined objectives, associated with presenting the proposals to improve the work. Before presenting the feedback, to the learner's thoughts and feelings about it should be won. Professor of medicine should be aware that presenting the feedback not only orient to the students and cause to increased self-confidence, motivation, self-esteem and learning in them, which causes personal and professional development in the professors and strengthen the interpersonal and clinical skills and ultimately increase satisfaction and improve the performance of professors.

Clinical professor should note that the presenting feedback doesn't always cause positive changes in learning. By presenting negative feedback, sometimes learner thinks that feedback is useless and it is for controlling them. Therefore, presenting feedback requires careful planning and the use of its presenting models. Despite the emphasis on the importance of presenting constructive feedback on the quality of learning and that after clinical competencies, presenting the feedback from the professors is the most important feature of their teaching quality, most of the medical students and medical residents have reported that do not receive effective and frequently feedback. While professors believe that they give feedback frequently and effectively. The causes of these inconsistencies are numerous between reports from students and professors. Including the lack of objective feedback for professors and students, inadequate space and time to present feedback,

lack of formal education or inadequate education of professors about feedback and inability of professors to change their observations to a constructive feedback or presenting feedback to an inappropriate form and overall to the students, so that they will not help to fix their performance and on the basis it is an effective strategy to present the effective feedback in the clinical environment, creating opportunities to improve skills and presenting feedback to the professors of university.

The role of professors is not uncovered and therefore improving skills of presenting feedback is a key component for presenting the effective feedback. Workshops can hold in an appropriate time for professors and professors can provide opportunities for learning rely on adult learning and group discussion of partners. The literature of review in which the student perspectives expressed about strategies of effective feedback and its role in increasing the learning can also be very helpful. Medical professors should know that, like other skills, feedback skill is learned and are strengthened by repetition and practice. By professors education and reflection skill education on the skills of presenting feedback that is a strong strategy in presenting effective feedback, also by emphasizing on feedback as an element of corporate culture which is also effective in presenting feedback to other strategies, can be a long step taken in this direction

Therefore, this study aimed to evaluate the effectiveness of skills education for feedback on their application by professors.

MATERIALS AND METHODS

This study is a before and after intervention study that was carried in Medical Sciences University of Birjand in 1393. The target group of this study was professors of Medical Sciences University of Birjand. That from the professors of various parts, internal professors of university selected randomly and all the professors was recruited census training rounds. They were 17 people and 13 people were participating from beginning to the end. Totally, 39 rounds before the intervention and 39 rounds after the intervention

were evaluated in this study. To collect data for the study, the checklist was used. The number of items in the checklist was 8, which was obtained on the basis of texts and to investigating the validity of the checklist, instruments were given to the ten people of medical professors familiar with the medical education and based on expert's opinion, their views were given to them again to confirm the validity. To ensure the reliability of the device because of the interval scale, and also the scale of the Likert in responding to questions, internal consistency of questions was evaluated with Cronbach's alpha coefficient 82/0 percent respectively. The completion of checklist in this study was carried by one of the medical student at the local outpatient rounds over two months. Before, this student was fully aware of the items in this instrument during a meeting. Exam questions cover aspects of effective feedback and questions were graded base on four options of Likert, from strongly disagree to strongly agree. After data collection, analysis software Spss (version 16) was conducted in two parts: descriptive and analytical statistics. Data was done by using the Central Statistical Indicators (Average) index and dispersion (standard deviation) index and due to the nature of before and after of study, the pair T test was used to compare the mean scores of professors before and after the intervention.

Findings

There were 13 professors in the training rounds outpatient part, 9 people (2/69%) were male and 4 people (8.30%) were female. 11 people were assistant professors and 2 people were associate professor. The average age of the professors who participated was 3.44 in the study and in the age range of 32-56 years. In terms of teaching subjects, 8 people (8/53%) with a history of under 5 years, and four people (8.30%) with a record of 6-20 and two people (4.15%) were more than 20 years of teaching experience.

This study showed that use of any of the items related to effective feedback after the intervention on before significantly increased. In other words, education has been effective at a significance level ($P < 0.05$) in improving the skills utilization of presenting feedback

DISCUSSION AND CONCLUSION

The purpose of this study is skills education of presenting the effective feedback to the medical professors on the level of their using from these teaching methods in clinical education. The results showed that the skill education of presenting the effective feedback to professors with the high significant level ($P < 0.05$) has caused that professors present feedback after the education than before it repeatedly, explain about the right or wrong of students work and give some proposals to improve his work, based on observed facts and descriptive, without judgment, at the appropriate time and place give feedback. Given feedback is on student behavior and also to improve clinical skills and frequently. Also, Mr. Salerno showed that education in presenting the feedback with the level of significance ($P: 0.06$) cause increasing the presenting feedback to students, but this difference was not significant before and after the intervention and it is inconsistency with our the outcome. In our study, education with the level of significance ($P: 0.000$) cause improvement in presenting feedback

to the students. In Salerno's study, the impact of education about presenting feedback about the clinical skills of students was significant ($P: 0.009$) which is consistent with our results. ($P: 0.000$). The result of Salerno's study on the impact of education on presenting feedback on specific behavior of student with significant level ($P: 0.04$) is consistent with the results of the present study. ($P: 0.000$)

Mr. Furney in his study also showed that teaching microskills education in the form of one minute teacher that a microskill of it related to presenting feedback with the level of significant ($P < 0.01$) cause the presenting feedback frequently to students that is consistent with this studies. ($P < 0.05$) in order to develop the results, we continue the results of Miss Ekstrom that showed one minute preceptor education to professors with the significant level of ($P: 0.08$) cause the correction of student errors which is not statistically significant and is opposite with the results of the present study. ($P: 0.000$)

The results of this study, professor's education have had an effective role in improving presenting feedback to students. But what important is continuing education to professors

Table1. Comparing the mean score of items related to effective feedback before and after education

Variable	Group	Mean	The standard deviation	t	df	p
Frequent feedback to students	Before Education	1.92	0.76	7.479-	12	0.000
	After Education	3.23	1.013			
Explaining about the right or wrong of student work to him	Befor Education	2.23	1.092	4.629-	12	0.001
	After Education	3.38	1.044			
Proposals to improve the work of student	Before Education	2.08	0.862	-5.516	12	0.000
	After Education	3.38	1.193			
Feedback on the observed facts by students	Before Education	2.223	0.927	-6.121	12	0.000
	After Education	3.46	1.050			
Descriptive and non judgmental feedback	Before Education	2.15	0.987	-5.516	12	0.000
	After Education	3.46	1.050			
Feedback at the appropriate time and place	Before Education	2.15	0.899	-6.278	12	0.000
	After Education	3.46	1.050			
Feedback on student behavior and not generally to all of them	Before Education	2.15	0.899	-7.675	12	0.000
	After Education	3.54	0.877			
Feedback to improve the clinical skills of students	Before Education	3.54	0.877	-10.156	12	0.000
	After Education	1.85	0.801			

who are an effective strategy in improving the teaching skills of professors especially rare professors in clinical education. It is necessary that the evaluation of professors alongside their evaluation is done by students and compare our results together and implement the strategies that fill the perspective distance between professors and students. To achieve better results in other studies, they should be evaluated in two groups that in this study it was not possible due to lack of professors of the department of internal medicine. It is necessary to plan in universities that students and professors realize the importance of feedback in clinical education and students also learn strategies and get feedback and in crowded clinical environments, especially in the outpatient setting, they seek feedback from professors and perform on their reflection and thereby strengthen their learning.

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REFERENCES

1. Moaddab N, Mohammadi E, Bazrafkan L. The Status of Feedback Provision to Learners in Clinical Training from the Residents and Medical Students' Perspective at Shiraz University of Medical Sciences, 2014. *Magazine of Elearning Distribution In Academy*. 2015; **6**(1):58-63
2. Branch Jr WT, Paranjape A. Feedback and reflection: teaching methods for clinical settings. *Academic Medicine*. 2002; **77**(12, Part 1):1185-8.
3. DinMohammadi MR, Jalali A, Bastani F. Feedback: The Basic element of clinical education. *Iranian Journal of Medical Education*. 2010; **9**(3):278-82.
4. Ramani S, Krackov SK. Twelve tips for giving feedback effectively in the clinical environment. *Medical teacher*. 2012; **34**(10):787-91.
5. Algiraigri AH. Ten tips for receiving feedback effectively in clinicalpractice. *Medical education online*. 2014; 19.
6. Nicol DJ, Macfarlane Dick D. Formative assessment and self regulated learning: A model and seven principles of good feedback practice. *Studies in higher education*. 2006; **31**(2):199-218.
7. Hewson MG, Little ML. Giving feedback in medical education. *Journal of General Internal Medicine*. 1998; **13**(2):111-6.
8. Van de Ridder J, Stokking KM, McGaghie WC, Ten Cate OTJ. What is feedback in clinical education? *Medical education*. 2008; **42**(2):189-97.
9. Bienstock JL, Katz NT, Cox SM, Hueppchen N, Erickson S, Puscheck EE. To the point: medical education reviews—providing feedback. *American journal of obstetrics and gynecology*. 2007; **196**(6):508-13.
10. Wittich CM, Mauck KF, Mandrekar JN, Gluth KA, West CP, Litin SC, et al. Improving participant feedback to continuing medical education presenters in internal medicine: a mixed-methods study. *Journal of general internal medicine*. 2012; **27**(4):425-31.
11. Clynes MP, Raftery SE. Feedback: an essential element of student learning in clinical practice. *Nurse Education in Practice*. 2008; **8**(6):405-11.
12. Chowdhury RR, Kalu G. Learning to give feedback in medical education. *Obstet Gynaecol*. 2004; **6**(4):243-7.
13. Salerno SM, O'malley PG, Pangaro LN, Wheeler GA, Moores LK, Jackson JL. Faculty Development Seminars Based on the One Minute Preceptor Improve Feedback in the Ambulatory Setting. *Journal of general internal medicine*. 2002; **17**(10):779-87.
14. Furney SL, Orsini AN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. Teaching the one minutepreceptor. *Journal of general internal medicine*. 2001; **16**(9):620-4.
15. Eckstrom E, Homer L, Bowen JL. Measuring Outcomes of a One Minute Preceptor Faculty Development Workshop. *Journal of general internal medicine*. 2006; **21**(5):410-4.