FEEDBACK OF THE MEDICAL TEACHERS PARTICIPATED IN TRAINING WORKSHOP ON ASSESSMENT IN HEALTH PROFESSIONS EDUCATION

Rano Mal Piryani,[1] Nasir Ali Afsar,[2] Suneel Piryani[3]

ABSTRACT

INTRODUCTION

Faculty development is a key component for smooth implementation of various curriculum strategies, including assessment in health professions education. A training workshop is one of the common faculty development programs to train teachers about tools and the process of assessment. Evaluating the training workshop is essential to know its impact. The objective of the study was to assess the feedback of participants at New World Kirkpatrick' Model (NWKM) level 1 & 2.

MATERIAL AND METHODS

This was a cross-sectional study conducted in November 2022 at Bilawal Medical College, Liaquat University of Medical and Health Sciences to assess the participants' feedback of Training Workshop on Assessment in Health Professions Education at NWKM level 1 & 2. A valid self-administered questionnaire was used for feedback.

RESULTS

The teaching and research experience of the participants (n= 17; Male 41%, Female 59%) were 5.12±4.63 years and 2.71±3.94. years respectively. The ratings of the participants overall as well as on the usefulness, content, relevance, and facilitation were remarkable. The significant positive change ($p < 0.001$) i.e. enhancement in the level of confidence of the participants in developing Multiple Choice Questions (MCQs); doing their item analysis; developing Objective Structured Clinical Examination (OSCE)/ Objective Structured Practical Examination (OSPE); developing Task Oriented Assessment of Clinical Skills (TOACS); and about screening research proposal was revealed by the participants.

CONCLUSION

Based on the immediate feedback of participants at NWKM level 1 and 2, this training workshop was successful in educating health professions education teachers about the common assessment tools of knowledge, skills and attitude.

KEYWORDS

Assessment, Feedback, Health professions education, Teachers, Training workshop

1. Department of Pulmonology, Bilawal Medical College, Liaquat University of Medical and Health Sciences, Jamshoro, Sindh, Pakistan.
2. Department of Pharmacology, Bilawal Medical College, (BMC) Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro, Sindh, Pakistan
3. Public Health Professional, Karachi, Sindh, Pakistan

https://doi.org/10.3126/jucms.v13i02.83785

For Correspondence
Dr. Rano Mal Piryani
Professor of Pulmonology and Medical Education &
Director Medical Education
Bilawal Medical College,
Liaquat University of Medical and Health Sciences,
Jamshoro, Sindh, Pakistan.
Email rano.piryani@gmail.com

INTRODUCTION

Assessment is a process for determining the progress in the performance of learners over time, inspiration of the learners to study, the assessment of teaching strategies, and grading the learners' capabilities.[1] Faculty development is a principal component of human resource development for the implementation of various strategies in health professions education (HPE) including assessment.[2,3] Capacity development of teachers of HPE in assessment strategies is indispensable as assessment is a basic component of teaching/learning and curriculum.[4,5]

Faculty development programs (FDPs) have shown to be constructive in developing health professions teachers' competencies and enriches the efficacy of their performance as professionals.[6] Training workshop is one of the common faculty development programs (FDPs). Evaluating the training workshop is vital to know its impact.[3] Feedback of the participants helps in updating the training program in future.[7]

Bilawal Medical College (BMC) is a relatively new public sector constituent medical college of Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro, Sindh, Pakistan, that has adopted modern pedagogical learning strategies and has focused on capacity development of her faculty. To meet the goals of faculty development, a two-day training workshop on assessment in health professions education (HPE) was organized. The objective of the study was to assess the feedback of participants at New World Kirkpatrick' Model (NWKM) level 1 and 2.[8]

MATERIAL AND METHODS

This descriptive cross-sectional study was conducted at Bilwal Medical College (BMC), Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro, Sindh Pakistan after institutional approval. The key objective of the study was to assess the feedback of the medical faculty members who participated in training workshop on assessment in health professions education (HPE) at New World Kirkpatrick's Model (NWKM) level 1 and 2. NWKM Level 1 is participants' reaction (such as the training being constructive, engaging and relevant to their jobs) and Level 2 focuses on learning (achieving the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training workshop). The level 3 and 4 are related to workplace-based performance: the level 3 is linked to behavior (application in the practice) and the level 4 to results (occurrence of desired outcomes).[9,10]

The two-day training workshop on "Assessment in HPE" was organized by the Medical Education Department of BMC, LUMHS, on November 8 and 10, 2022. The general objective of the training workshop was to enable the participating faculty members of BMC to enhance their skills in assessment. The specific objectives of the workshop were to 1) explain the fundamentals of assessment 2) update skills in writing/developing multiple choice questions (MCQs); 3) Describe the Item Analysis of Multiple-Choice question 4) update skills in constructing objective structured clinical examination (OSCE) / objective structured practical examination (OSPE) 5) describe task oriented assessment of clinical skills (TOACS) and 6) explain screening process of research protocol. The training workshop was facilitated by first and second authors as resource persons. The methods used for conducting the training workshop were interactive tutorials with brainstorming and group work and hands-on exercises. A total of 17 participants from basic and clinical sciences attended the training workshop.

At the end written feedback from the participants was obtained on a valid self-administered questionnaire which consisted of three parts as follows:

Part-1: Demographic characteristics of the participants: Information was taken for age, gender, teaching experience and research experience of the participants.

Part-2: Rating of the participants on attributes of training workshop: Self-reported rating on scale 1 to 10 (1=poor, 10=excellent) was obtained on usefulness, content, relevance, facilitation, as well as an overall global scoring.

Part-3: Feedback on skills learned in specific sessions of training workshop: This part contained a retrospective post-then-prequestionnaire having five questions on the level of confidence of participants before and after participation on a Likert scale 1 to 4 (1=not confident; extremely confident). The questions were: level of confidence in developing multiple choice questions; level of confidence in item analysis of MCQs; level of confidence in developing OSCE/OSPE; level of confidence in developing TOACS; and level of confidence about screening research proposal

All 17 participants filled up the questionnaire after an informed consent. The data collected was entered in SPSS version 23; checked for completeness, accuracy and consistency. It was analyzed for the central tendency (mean and standard deviation; median and interquartile range). The data being normally distributed, was analyzed through Student's t-test comparing means of the level of confidence of participants before and after training workshop. A p-value less than 0.05 was considered significant.

RESULTS

All the 17 participants returned the filled-up questionnaire. There were seven males (41.2%) and 10 females (58.8%). Out of them 8 were from basic sciences and 9 were from clinical sciences. The mean (±SD) teaching experience was 5.12 (±4.63) years (minimum one-year, maximum 16 years), while mean research experience was 2.71 (±3.94) years (minimum zero year, maximum 14 years).

Rating of the participants on attributes of training workshop:
The findings of participants' rating on attributes of the training workshop on assessment in HPE at scale 1-10 (1=poor, 10=excellent) are mentioned in the Table 1.

Table 1. Rating of the participants on attributes of training workshop on assessment in HPE

Item	Score
a. Usefulness (1-10)	8.65±1.22
b. Content (1-10)	8.65±0.99
c. Relevance (1-10)	8.65±1.17
d. Facilitation (1-10)	8.76±1.09
e. Overall (1-10)	8.88±1.11

Level of the confidence of participants of training workshop on skills learned in specific sessions:

The level of the confidence of the participants on skills learned in specific sessions of the training workshop on assessment in HPE assessed through a retro-pre-then-post questionnaire is presented in Table 2.

Table 2. Participants' level of confidence before and after participation in specific sessions of the training workshop on assessment in HPE

Item	Before workshop	*After workshop*	*p-value*
level of confidence in developing Multiple Choice Questions	2.35±0.6	3.59±0.51	< 0.001
level of confidence in item analysis of MCQs	2.06±0.83	3.47±0.62	< 0.001
level of confidence in developing OSCE/OSPE	2.12±0.69	3.41±0.71	< 0.001
level of confidence in developing TOACS	2.00±0.71	3.12±0.78	< 0.001
level of confidence about screening research proposal	2.06±0.96	2.94±0.75	< 0.001

DISCUSSION

The main objective of this study was to assess the feedback of the participants to know the immediate impact of the training workshop. Participants' responses were assessed on some of the items of NWKM level 1 (reaction) and level 2 (knowledge, skills and confidence). Participants' ratings on the usefulness, content, relevance, facilitation and overall were remarkable. There was significant ($p < 0.001$) positive change i.e. enhancement in the level of confidence of the participants in developing multiple choice questions; item analysis of MCQs; developing OSCE/OSPE; developing TOCAS; and about screening research proposals revealed by the participants.

The findings of this study are consistent with the findings of other studies reported in the literature. Khan AM et al in their study "Evaluation of a faculty development workshop for competency based medical education", mentioned that participants were satisfied with content covered, facilitation and overall, in teaching/learning and assessment methods sessions of workshop.[11] Mahsood N et al in their study "teachers' perception on faculty development workshop" documented positive perceptions of the participant faculty members. Participants were overall satisfied; agreed that contents of learning assessment were relevant; and their understanding in developing MCQs and OSCE improved.[4] The participants of the teachers' training workshop revealed that the workshop has helped to learn skills in developing MCQs/OSCE/OSPE reported by Baral N et al in their study.[12] Beg MA et al reported significant improvement in the capacity of faculty members in development of multiple-choice questions in writing item (in writing stems, lead in questions, choosing options, sequencing distractors) and identifying flaws and correcting the same.[13]

In our study, confidence of the participants improved in developing task oriented assessment of clinical skills (TOACS), a modified OSCE. The structure of TOACS is like that of OSCE and is based on various clinical tasks. The College of Physician and Surgeons Pakistan (CPSP) has utilized this tool of assessment for postgraduate clinical examinations for many years in medical and surgical specialties. So, many faculty members have been trained in taking postgraduate exam of various discipline with TOACS tool but none of the study found in the literature documenting perceptions of teachers regarding TOACS.[14]

This descriptive cross-sectional study has certain limitations. The findings of this study cannot be generalized as this study was conducted only for one training with less than 30 participants from the same institution. Further, only NWKM level 1 and 2 were used for this study and the data of this study is perceptual i.e. based on the immediate perceptions of the participants, so, the long-term impact of the training cannot be deduced but may be anticipated. However, it has been argued that even the subjective evaluation or feedback by experienced faculty has certain objectivity in it and can be a reliable evaluation.[15]

Based on the constructive findings of the assessment of immediate feedback of participants at level 1 and 2 of NWKM[10] this training workshop was successful in imparting education to medical teachers about the assessment skills, specifically the common tools utilized for assessing the knowledge, skills and attitude. For the reinforcement of the assessment skills, continuous professional development is required in order to strive in the era of technology and artificial intelligence.

ACKNOWLEDGEMENT

Authors would like to acknowledge the participants for their active participation in a training workshop and providing written feedback on self-administered questionnaire.

CONFLICT OF INTEREST

None

REFERENCES

1. Saiyad S, Bhagat P, Virk A, Mahajan R, Singh T. Changing assessment scenarios: Lessons for changing practice. Int J App Basic Med Res 2021; 11:206-13.
2. Mokkapati A, Mada P. Effectiveness of a Teacher Training Workshop: An Interventional Study. J Clin of Diagn Res 2018 ; 12(2) : 09-12.
3. Heydari, M.R., Taghva, F., Amini, M. et al. Using Kirkpatrick's model to measure the effect of a new teaching and learning methods workshop for health care staff. BMC Res Notes 2019; 12:388.
4. Mahsood N, Ahsan A, Khan Na, Aziz S. Teacher's perception on faculty development workshop. KJMS January-April 2018; 11 (1): 129-32

5. Ferris H, Flynn DO. Assessment in Medical Education; What Are We Trying to Achieve? International Journal of Higher Education 2015; 4 (2): 139-44

6. Haider A, Omar N, Ghafoor K, Mahmood F, Ali M, Mudassar S. Faculty development: Need assessment survey in a newly established Medical College of Lahore. Professional Med J 2024; 31(08):1235-241.

7. Allen LM, Hay M, Palermo C. Evaluation in health professions education—Is measuring outcomes enough? Med Educ. 2022; 56(1):127-36.

8. Kirkpatrick J, Kirkpatrick WK. An introduction to The New World Kirkpatrick Model. Available at: https://www.kirkpatrickpartners.com/wp-content/uploads/2021/11/Introduction-to-The-New-World-Kirkpatrick®-Model.pdf Accessed on May 18, 2025

9. Liao S-C, Hsu S-Y. Evaluating A Continuing Medical Education Program: New World Kirkpatrick Model Approach. Intl J Manag Econ Soc Sci. 2019; 8(4):266–279.Availableat:https://files.eric.ed.gov/fulltext/ED605969.pdf Accessed on October 16, 2023

10. Piryani RM, Zeba N, Piryani S, Soomro AG. Training Workshop on Assessment for faculty members of Bilawal Medical College, Jamshoro: Feedback of participants at New World Kirkpatrick' Model Level 2. Journal of Universal College of Medical Sciences 2023; 11(1):73-76.

11. Khan AM, Gupta P, Singh N, Dhaliwal U, Singh S. Evaluation of a faculty development workshop aimed at development and implementation of a competency-based curriculum for medical undergraduates. J Family Med Prim Care 2020; 9:2226-31.

12. Baral N, Nepal AK, Paudel BH, Lamsal M. Effect of Teachers Training Workshop Outcomes on Real Classroom Situations of Undergraduate Medical Students. Kathmandu Univ Med J 2015; 50(2):162-6.

13. Beg MA, Tabassum A, Ali S. Role of faculty development workshop for improving MCQS quality in basic medical sciences. Biomedica. 2021; 37 (1): 51-5.

14. Shaikh SH, Memon SI, Abbasi SZ. Task Oriented Assessment of Clinical Skills (TOACS): A Modified Form of OSCE. J Coll Physicians Surg Pak 2024; 34(05) :614-16.

15. Inayah AT, Anwer LA, Shareef MA, Nurhussen A, Alkabbani HM, Alzahrani AA, Obad AS, Zafar M, Afsar NA. Objectivity in subjectivity: do students' self and peer assessments correlate with examiners' subjective and objective assessment in clinical skills? A prospective study. BMJ Open. 2017;7(5) : e012289.