SHORT COMMUNICATION

Assessing the impact of faculty development workshops:
A change initiative in medical education in Pakistan

Tabassum Zehra[1], Sana Saeed[2], Marib Ghulam Rasool Malik[3], Rahila[4], Amber Sultan[5], Muhammed Tariq[6]

Abstract

Faculty development is pivotal to enhancing pedagogical skills among health professionals. The current cross-sectional study was planned to evaluate satisfaction as well as short-term and long-term impacts of faculty development workshops on academic practices through a continuous faculty development programme. Data was collected through post-workshop evaluations, and follow-up questionnaires. Over four years, 28 workshops engaged 164 participants. High satisfaction was reported, with 65(76.5%) to 76(89.4%) strongly agreeing on factors, like gaining new knowledge, clarity, relevance and participation. Most respondents of the follow-up questionnaire reported fair to great eagerness for further learning 44(91.7%). Perceived challenges included preoccupation with work commitments 30(62.5%) and lack of institutional support 18(39.6%). Positive correlations highlighted the link between workshop satisfaction and self-reported change.

Keywords: Health professional education, Medical education, Medical educators, Teachers.

Introduction

The process of faculty development encompasses a range of educational initiatives designed to bolster pedagogical prowess of educators. Traditionally, proficiency in a specific discipline is deemed adequate for teaching, but it is now accepted that educational training is vital to produce effective teachers.[1,2] Faculty development is crucial for improved teaching, better learning outcomes and innovation.[3] Yet, while there is consensus on its importance, there remains paucity of data on its efficacy in specific contexts, and only a few studies have designed and evaluated programmes tailored in line with specific

[1,4,5]Department of Educational Development, Aga Khan University, Karachi, Pakistan; [2]Department of Paediatrics and Child Health, Aga Khan University, Karachi, Pakistan; [3]Aga Khan University, Karachi, Pakistan; [6]Department of Medicine, Aga Khan University, Karachi, Pakistan.

Correspondence: Sana Saeed. e-mail: sana.saeed@aku.edu
ORCID ID: 0000-0001-6157-6327

academic environments.[4-6] Needs assessments conducted regionally at institutions in Pakistan highlight areas that require attention, emphasising the importance of structured programmes tailored to these needs.[7-9]

A continuous faculty development programme (CFDP) was introduced for basic science (pre-clinical) and clinical science faculty at the Aga Khan University (AKU) in Karachi and other healthcare centres. The current study was planned to determine the participants' satisfaction with the workshops, to discern the immediate usability of the imparted knowledge, and to evaluate the impact on teaching practices.

Methods, Results and Discussion

The cross-sectional implementational study was conducted at the AKU, Karachi, involving delivery of faculty development workshops over 4 years, from July 2018 to July 2022, and had a two-step evaluation process to assess satisfaction as well as short-term and long-term effects on the participants' educational practices. The workshops were designed by the AKU Department of Educational Development as part of the CFDP. These workshops, each spanning three hours, incorporated faculty-led discussions, and application-based approaches, focussing on domains identified during needs assessment that preceded the workshops, such as fostering pedagogical expertise, refining assessment strategies, innovative teaching methodologies, enhancing research acumen, and leadership and administrative proficiency.[8] Each workshop was delivered in both online and in-person formats in order to improve participation. While both these formats may have notable differences in delivery, workshop facilitators aimed at ensuring uniformity across both formats by equally engaging the participants in each format and utilising modalities (for example, slideshows and group discussions) accessible to both groups of participants equally. All faculty members who attended at least one workshop and provided informed consent for participation in the study at the time of workshop registration were included. Those who did not consent to participate, or did not complete the survey were excluded.

Data collection employed a pre-validated questionnaire[10] involving two stages: immediate post-workshop

evaluation, and a four-month follow-up questionnaire. After each workshop, the post-workshop evaluation was administered, requiring the participants to rate their agreement with each item, with responses categorised as "Strongly disagree", "Disagree", "Agree" and "Strongly Agree". The items focussed on content relevance, clarity, pacing, interactivity and applicability of concepts.

Four months post-workshop, the follow-up questionnaire was administered to assess long-term effects on participants' academic practices. This comprised items rating the extent to which the participants had changed their practices or gained confidence through the workshops, and evaluated potential barriers to implementing change.

Data was analysed using SPSS 23. Quantitative data was analysed using descriptive statistics. Categorical data was presented as frequencies and percentages. Items of the evaluation form and follow-up questionnaire were analysed using Pearson's correlation to evaluate relationships between initial evaluations of the workshop and responses to the follow-up questionnaire.

A total of 28 workshops were delivered to a total of 164 participants from institutions across Pakistan. The workshops were divided according to their content of focus into six sub-groups; "Assessment and Evaluation" 96(58.6%) participants, "Professional Development" 19(11.5%), "Collaborative Learning" 5(3%), "Feedback and Supervision" 24(14.6%), "Teaching and Learning Methods" 17(10.4%), and "Research" 3(1.8%). A total of 85(51.8%) post-workshop evaluations were completed, while the follow-up questionnaire was completed by 48(29.3%) participants.

The participants reported high satisfaction across most dimensions of the workshops (Table 1). Specifically, 65(76.5%) to 76(89.4%) subjects strongly agreed that they gained knowledge, were provided basic understanding, found concepts clearly explained, topics relevant to their work, had ample participation opportunities, and had questions adequately addressed. Administrative support was well-received by 70(82.4%) participants.

In response to the follow-up questionnaire, the majority reported that the workshops enhanced confidence in their educational practices 34(70.8%), and felt reassured about their current practices 33(68.8%). Most reported to have brought about changes in practice by applying the acquired concepts 28(58.3%). Attempts towards collaborative initiatives were also noted, as 23(47.9%) subjects reported making collaborative efforts to a great degree to bring about change in their practices. Most participants were not faced with barriers in the form of lack of colleague support, as only 3(6.3%) reported challenges in persuading their colleagues. This was in contrast to perceptions regarding institutional support, as only 19(39.6%) participants reported seeking approval from their departments or institutions to implement change. Furthermore, this lack of support was recognised as among the most important barriers towards change by 22(45.9%) subjects (Table 2).

Among the factors that restricted change, preoccupation with work-related commitments was noted to be most important 30(62.5%). When asked what respondents thought would drive greater change in academic practices, 18(37.5%) indicated implementing changes at institutional levels as the most important factor.

Items of the post-workshop evaluation form (E1-E13) and follow-up questionnaire (Q1-Q19) were analysed using Pearson's correlation to evaluate relationships between initial evaluations of the workshop and participants' self-reported measures of change. Respondents' self-reported

Table-1: Responses to the post-workshop evaluation form (n=85).

Prompt: Rate the extent of your agreement with each of the following statements.	Strongly disagree (rate: 0) n (%)	Disagree (rate: 1-2) n (%)	Agree (rate:2-4) n (%)	Strongly agree (rate: 4-6) n (%)
E1 I gained new knowledge	0 (0.0)	1 (1.2)	19 (22.4)	65 (76.5)
E2 Workshop provided me basic understanding	0 (0.0)	1 (1.2)	18 (21.2)	66 (77.6)
E3 Concepts were clearly explained	0 (0.0)	3 (3.5)	9 (10.6)	73 (85.9)
E4 Topics presented were relevant to my work	0 (0.0)	0 (0.0)	12 (14.1)	73 (85.9)
E5 Opportunities for active participation were provided	0 (0.0)	0 (0.0)	9 (10.6)	76 (89.4)
E6 Questions/clarifications were adequately addressed	0 (0.0)	1 (1.2)	10 (11.8)	74 (87.1)
E7 Group activity during the workshop was well-planned	3 (3.5)	2 (2.4)	16 (18.8)	64 (75.3)
E8 I would recommend the workshop to others	0 (0.0)	1 (1.2)	13 (15.3)	71 (83.5)
E9 Expectations from the workshop were met	0 (0.0)	1 (1.2)	21 (24.7)	63 (74.1)
E10 The workshop was useful	0 (0.0)	1 (1.2)	17 (20.0)	67 (78.8)
E11 Admin support was available throughout the workshop	0 (0.0)	2 (2.40	13 (15.3)	70 (82.4)
E12 How well will you be able to use what you learned during the workshop?	1 (1.2)	2 (2.4)	40 (47.1)	42 (49.4)
E13 I shall be able to apply the concepts in my teaching practices	0 (0.0)	1 (1.20	18 (21.2)	66 (77.6)

Assessing the impact of faculty development workshops: a change initiative in …..

1443

Table-2: Responses to the follow-up questionnaire four months post-workshop (n=48).

Prompt: Rate the extent of your agreement with each of the following statements.	Strongly disagree (rate: 0) n (%)	Disagree (rate: 1-2) n (%)	Agree (rate:2-4) n (%)	Strongly agree (rate: 4-6) n (%)
As a result of this workshop:				
Q1 I gained confidence about my own educational practice(s)	1 (2.1)	1 (2.1)	12 (25.0)	34 (70.8)
Q2 I was reassured and gained confidence about my practice	1 (2.1)	2 (4.2)	12 (25.0)	33 (68.8)
Q3 I was inquisitive to find out more about the issues in current educational practices locally/internationally	3 (6.3)	1 (2.1)	19 (39.6)	25 (52.1)
Q4 I have changed some practice in collaboration with colleagues	0 (0.0)	4 (8.3)	21 (43.8)	23 (47.9)
Q5 I have changed some of my own educational practice(s)	3 (6.3)	0 (0.0)	17 (35.4)	28 (58.3)
Q6 I have applied some of the concepts/strategies learnt in the workshop	1 (2.1)	2 (4.2)	19 (39.6)	26 (54.20)
Q7 I have initiated /changed some of the educational practice(s) within the institution in collaboration with my colleagues	2 (4.2)	3 (6.3)	17 (35.4)	26 (54.2)
Q8 I have sought approval from my department/ institution for some changes to be made in my teaching practice	9 (18.8)	5 (10.4)	15 (31.3)	19 (39.6)
The reason I have not changed more:				
Q9 I was applying most of the concepts/strategies suggested already	2 (4.2)	18 (37.5)	18 (37.5)	10 (20.8)
Q10 There were not sufficient useful/relevant ideas or examples in the workshop	10 (20.8)	23 (47.9)	11 (22.9)	4 (8.3)
Q11 I tried to change some educational practices, but it did not work	13 (27.1)	15 (31.3)	14 (29.2)	6 (12.5)
Q12 I have been occupied with other work-related commitments	4 (8.3)	14 (29.2)	20 (41.7)	10 (20.8)
Q13 The concepts/strategies learnt in the workshop were not relevant to my practice(s)	16 (33.3)	18 (37.5)	9 (18.8)	5 (10.4)
Q14 I was not able to convince colleagues to change their educational practice(s)	12 (25.0)	22 (45.8)	11 (22.9)	3 (6.3)
Q15 Department/ institutional support was not available/provided	0 (0.0)	26 (54.2)	13 (27.1)	9 (18.8)
I would have changed my practice more if there was:	n (%)			

change in educational practices (Q5) was significantly and positively correlated with their overall perceived usefulness of the workshop (E10; $r=+0.55$, $p<0.05$) and their satisfaction with clarity of concepts (E3), opportunities for participation (E5), explanations of questions (E6) and administrative support (E11) ($r=+0.64$, $+0.64$, $+0.69$ and $+0.66$ respectively, $p<0.01$). Similarly, participants' self-reported initiation of changes in educational practices in collaboration with colleagues (Q4) was positively correlated with their perceived usefulness of the workshop ($r=+0.577$, $p<0.01$). This collaborative effort was most strongly associated with respondents' rating of participation opportunities (E5) and the quality of group activities (E7) in the workshops ($r=+0.83$ and $+0.73$ respectively, $p<0.01$), highlighting the potential role of interactive activities during workshops.

Conclusion

The importance of faculty development in health professions education, and the crucial role of faculty development workshops in promoting continuous growth and innovation in academic practices were highlighted. The high satisfaction with the workshops underscored their significance in encouraging greater changes in teaching practices. However, to encourage faculty to initiate and implement changes at larger scales, institutional support is paramount. Additionally, collaborative efforts among faculty from diverse disciplines are vital for fostering multidisciplinary approaches to education and healthcare delivery.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

References

1. Steinert Y, O'Sullivan PS, Irby DM. The role of faculty development in advancing change at the organizational level. Acad Med 2024;99:716-23. doi.org/10.1097/ACM.0000000000005732

2. Al-Eraky MM, Taylor DCM. Faculty development through higher degrees: AMEE Guide No. 180. Med Teach 2025;21:1-11. doi.org/10.1080/0142159X.2025.2458293

3. Bilal, Guraya SY, Chen S. The impact and effectiveness of faculty development program in fostering the faculty's knowledge, skills, and professional competence: a systematic review and meta-analysis. Saudi J Biol Sci 2019;26:688. doi.org/10.1016/j.sjbs.2017.10.024

4. Jerez O, Antúnez M, Müller M, Kemmerling U, Marinkovic B. Latin American framework for faculty development in health education. Med Teach 2024;11:1-9. doi.org/10.1080/0142159X.2024.2438786

5. Knox S, Sindelar A, Bell JG, Dobbins K, Atabaki A, Moulton K, et al. A framework for teaching development at a specialized graduate institution. J Allied Health 2020;49:129-34.

6. Amin S, Muhammad SA, Yasmeen R. Evaluating the impact of faculty development programs at the workplace by using reflective critique writing technique. BMC Med Educ 2025;25:43. doi.org/10.1186/s12909-025-06647-4

7. Shah N, Tabassum A, Shah N. A needs assessment for faculty development at two medical colleges of Dow University of Health Sciences, Karachi. Pak J Med Sci 2018;34:1386-91. doi.org/10.12669/pjms.346.16302

8.   Zehra T, Saeed S, Ali R, Sultan A, Hussain A. Needs assessment for faculty development in health professions education at a medical university in Karachi, Pakistan. J Pak Med Assoc 2023;73:147-9. doi.org/10.47391/jpma.5229

9.   Khan MJ, Sethi A, Khan S, Lajber M, Hayat Z, Asim N. Experiences, perceptions, and recommendations for faculty development programs in health professions education: a qualitative study. J Ayub Med Coll Abbottabad 2024;36:72-7. doi.org/10.55519/jamc-01-12873

Author Contribution:
TZ & MT: Concept, design, critical review, final approval and agreement to be accountable for all aspects of the work.
SS: Concept, design, data acquisition, critical review, final approval and agreement to be accountable for all aspects of the work.
MGRM: Data analysis, interpretation, drafting, final approval and agreement to be accountable for all aspects of the work.
RA & AS: Design, data acquisition, critical review, final approval and agreement to be accountable for all aspects of the work.