

Needs assessment for faculty development in health professions education at a medical university in Karachi, Pakistan

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Abstract

Faculty Development (FD) embraces all educational activities used by teachers to improve their knowledge and skills for enhancing their academic competencies. This study aimed to identify the areas in Health Professions Education (HPE) in which formal faculty development is required. A needs assessment survey was conducted from among the faculty members at the Aga Khan University (AKU), Karachi, Pakistan, and the French Medical Institute for Mother and Children, Afghanistan. Data was analysed using SPSS 20.0 and reported frequencies and percentages according to various academic tracks. Competency-based curricula (51%), providing effective feedback (51%), developing Objective Structured Clinical Exam (51%), and clinical supervision (48%) were identified as significant areas for faculty development. Faculty in clinician teacher and clinician educator track require advanced training, i.e., Masters and PhD in HPE. The needs assessment facilitated prioritising the areas for FD. This will contribute to enhancing academic practices and inculcating the culture of lifelong learning.

Keywords: Faculty development, Needs assessment, Health professions education.

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Introduction

Faculty Development (FD) plays a vital role in the quality and delivery of healthcare at many medical institutions and continues to evolve through research and intervention. The term 'Faculty Development' embraces all those educational activities in which teachers participate to improve their knowledge and skills as teachers, educators, and leaders to enhance their academic competencies.¹ In response to the new

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educational trend in teaching and assessment, medical schools are now offering various educational programmes such as Diploma in Health Professions Education (HPE), Master's in HPE, standalone courses, and workshops to refine the educators' teaching skills.

Despite all the educational significance of implementing the Faculty Development Programmes (FDP), there are significant barriers to the successful implementation of FDP at independent academic medical centres, as most faculty are voluntary and are significantly restrained by time and productivity demands. Lack of interest by the faculty along with significant resistance to change, lack of incentives, a shortage of trained facilitators, and lack of follow-up activities were identified as the major barriers to the implementation of faculty development initiatives. Lack of scheduled educational activities and protected time often prevents faculty from attending capacity development programmes.² A Canadian study on ER faculty and senior trainees and a recent study in an Egyptian medical school highlighted the importance of feedback in the results of other needs assessments.^{3,4} In our context also, faculty development has been identified to have a vital impact on the quality of education, contributing to substantially uplifting the education system in Pakistan.⁵ Instructional development was found to have the highest degree of need followed by organizational and professional development.⁶

A needs assessment study conducted locally at the Dow University of Health Sciences in Karachi explored the current self-perceived assessment of pedagogical skills of participants and the domains they felt needed further improvement, which were course and curriculum planning and assessment of professional behaviour.⁷ The objective of our study was to identify the perception of faculty members about faculty development in the field of medical education as per their tracks, to understand what their needs and expectations are regarding which tracks should lead career development and which tracks require further relevant training through workshops, or additional medical education. Our study also assessed and reported the need for advanced level courses, PhD, and masters in various faculty tracks.

In order to successfully implement the faculty development initiatives and ensure the sustained engagement of faculty members, needs assessment is the key.²

Methods and Results

This observational study was conducted at the Aga Khan University (AKU), Karachi, Pakistan, in 2019, with approval from AKU Ethical Review Committee (ERC).

The Aga Khan University offers various training programmes, including Bachelor's in Medicine and Bachelor's in Surgery (MBBS) programme, postgraduate residency, fellowship, master's programme, nursing, etc. In addition, the Department for Educational Development (DED), AKU, offers educational courses and workshops in HPE. These educational workshops and courses are also extended to the faculty at the French Medical Institute for Mother and Children (FMIC), Afghanistan.

The university has variable academic tracks for faculty members based on the percentage contribution to clinical service, research, and education, including

Clinician Practitioner, Clinician Teacher, Clinician Educator, Clinician Researcher, Educator Researcher, Research Educator, etc. A needs assessment tool was developed by a group of educational experts comprising various FD areas in Health Professions Education (HPE). The tool was piloted, and necessary adjustments were made. The survey was subsequently emailed to the department chairs, co-chairs, undergraduate clerkship coordinators and co-coordinators, postgraduate programme directors and associate directors, and educational committee chairs at AKU Medical College Karachi, Pakistan, and FMIC Afghanistan to assess their perceived needs. The data was analysed using SPSS 20.0.

Forty-four responses were received from academic leadership of various specialties from AKU and FMIC. Professionalism (n=23, 56%), mentoring (n=19, 46%), and leadership (n=18, 44%) in HPE were perceived as crucial for capacity building for faculty members in all tracks (Table-1).

Four (10%) participants recommended advanced level

Table-1: Assessment of needs in Health Professions Education according to faculty track.

Areas in HPE*	Faculty track						All % (n)	All educator tracks%(n)	Total %	Total n
	Clinician Teacher %(n)	Clinician Practitioner %(n)	Clinician Educator %(n)	Educator Researcher %(n)	Researcher Educator %(n)	Clinician Researcher %(n)				
Competency Based Curricula	15 (6)	5 (2)	7 (3)	0 (0)	0 (0)	2 (1)	10 (4)	12 (5)	51%	21
Interprofessional Education	10 (4)	2 (1)	2 (1)	0 (0)	0 (0)	2 (1)	10 (4)	5 (2)	32%	13
Effective and Timely Feedback	10 (4)	5 (2)	2 (1)	0 (0)	2 (1)	5 (2)	17 (7)	10 (4)	51%	21
Constructing Test Blueprint	0 (0)	0 (0)	7 (3)	5 (2)	0 (0)	2 (1)	5 (2)	5 (2)	24%	10
OSCE* Development	10 (4)	5 (2)	5 (2)	2 (1)	0 (0)	2 (1)	20 (8)	7 (3)	51%	21
OSCE* Result Analysis	7 (3)	0 (0)	7 (3)	5 (2)	0 (0)	0 (0)	10 (4)	7 (3)	37%	15
Standard Setting	10 (4)	0 (0)	5 (2)	2 (1)	0 (0)	0 (0)	7 (3)	10 (4)	34%	14
Emotional Intelligence	0 (0)	5 (2)	7 (3)	2 (1)	0 (0)	0 (0)	0 (0)	2 (1)	17%	7
Technology Based Teaching	5 (2)	5 (2)	2 (1)	0 (0)	2 (1)	2 (1)	10 (4)	7 (3)	34%	14
Critical Appraisal of Literature	10 (4)	0 (0)	5 (2)	0 (0)	0 (0)	2 (1)	20 (8)	12 (5)	49%	20
Teaching Portfolio	5 (2)	0 (0)	2 (1)	2 (1)	0 (0)	0 (0)	10 (4)	7 (3)	27%	11
Moulage in Simulation	0 (0)	0 (0)	5 (2)	2 (1)	0 (0)	0 (0)	5 (2)	5 (2)	17%	7
Competency Based Clinical Supervision	7 (3)	7 (3)	2 (1)	0 (0)	0 (0)	2 (1)	20 (8)	10 (4)	49%	20
Unconventional Learning	5 (2)	0 (0)	3 (1)	0 (0)	0 (0)	0 (0)	8 (3)	5 (2)	20%	8
Experiential Learning	5 (2)	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	10 (4)	5 (2)	22%	9
Reflective Practice	5 (2)	2 (1)	2 (1)	2 (1)	0 (0)	2 (1)	5 (2)	7 (3)	27%	11
Innovation in teaching and learning	7 (3)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	7 (3)	5 (2)	32%	13
Personal Effectiveness	5 (2)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	22%	9
Mentoring	5 (2)	5 (2)	5 (2)	2 (1)	2 (1)	5 (2)	12 (5)	10 (4)	46%	19
Professionalism	7 (3)	7 (3)	5 (2)	5 (2)	5 (2)	5 (2)	15 (6)	7 (3)	56%	23
Communication Skills	5 (2)	2 (1)	5 (2)	2 (1)	0 (0)	0 (0)	15 (6)	5 (2)	34%	14
Leadership	5 (2)	5 (2)	5 (2)	2 (1)	2 (1)	2 (1)	15 (6)	7 (3)	44%	18
Manuscript Writing	7 (3)	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	15 (6)	5 (2)	29%	12
Problem based learning	5 (2)	0 (0)	5 (2)	2 (1)	0 (0)	0 (0)	2 (1)	5 (2)	20%	8
Faculty Appraisal	7 (3)	2 (1)	2 (1)	0 (0)	0 (0)	0 (0)	5 (2)	7 (3)	24%	10
One Best question development	7 (3)	2 (1)	2 (1)	2 (1)	0 (0)	0 (0)	20 (8)	12 (5)	46%	19
Flipped Classroom	5 (2)	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	7 (3)	5 (2)	20%	8

*OSCE: Objective Structured Clinical Examination.

*HPE: Health Professions Education.

Table-2: Advanced training and education in Health Professions Education.

Intervention	Clinician			Faculty track			All tracks %(n)	All educator tracks %(n)	Total %	Total n
	Teacher %(n)	Practitioner %(n)	Educator %(n)	Educator %(n)	Researcher %(n)	Clinician Researcher %(n)				
Advance level course - teaching and learning	7 (3)	0 (0)	2 (1)	2 (1)	0 (0)	0 (0)	10 (4)	7 (3)	29%	12
Advance level course - Programme Evaluation	7 (3)	0 (0)	2 (1)	2 (1)	0 (0)	0 (0)	7 (3)	7 (3)	27%	11
Advance level course - Curriculum Development	7 (3)	0 (0)	2 (1)	2 (1)	0 (0)	0 (0)	17 (7)	7 (3)	37%	15
Advance level course - Leadership in HPE	7 (3)	0 (0)	2 (1)	2 (1)	0 (0)	0 (0)	7 (3)	10 (4)	29%	12
Masters in HPE	3 (1)	0 (0)	5 (2)	3 (1)	0 (0)	0 (0)	3 (1)	3 (1)	16%	6
PhD - Medical Education	3 (1)	0 (0)	5 (2)	3 (1)	0 (0)	3 (1)	3 (1)	3 (1)	19%	7

[HPE: Health Professions Education, PhD: Doctor of Philosophy].

training and education in leadership in HPE for all faculty in the educator track. In comparison, 7 (17%) participants identified advanced level training and curriculum development education for faculty members in all tracks (Table-1). Faculty development through master's and PhD in HPE was identified for faculty members in the Clinician Educator track by only 3 (5%) of the study participants (Table-2).

Conclusion

There is a need to develop a formal faculty development programme for AKU and FMIC faculty based on assessing the perceived needs and evaluating its impact. Our study identified a crucial need for further improvement and development in feedback, professionalism, OSCE, and curriculum development. We also identified the need to explore this in detail through interviews or focused group discussions to comprehend the reasons behind selecting a particular track and its need for development, which could be an area of future research. This will help prioritise the faculty development initiatives to address the emerging needs of healthcare professionals and academic programmes. This study also lays down a framework for future research on workshop development and a re-evaluation of needs after respective interventions.

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