DOI: https://doi.org/10.53350/pjmhs2115103469

ORIGINAL ARTICLE

Mounting Need Assessment of Medical Faculty: to Shift from Tradtional to Integrated Curriculum

NAJMA NAZ[1], ASIF MAHMOOD[1], NASRULLAH KHAN[1], SHAN E ZOHRA[1], TARIQ SAEED[1], SABA IQBAL[1]
[1]Department of Pharmacology, Avicenna Medical college,
Correspondence to: Najma Naz, Email: najmanaz1@yahoo.com

ABSTRACT

Introduction: FDP is an integral part of any organization to improve the expertise and skills of the faculty that is needed to indorse educational excellence. It is an important tool to enhance student learning and ultimate patient care. To get maximum benefit it must be well formed, properly executed and evaluated. Needs of faculty and institution play important role in organizing faculty development program.

Aims & Objective. Current study was conducted to explore professional needs of medical faculty required for implementation of integrated curriculum in various medical colleges of Lahore.

Material & Method: This is a descriptive cross sectional study conducted during the period of August to October 2019. Online google form was developed to identify the area of concern. It has two parts, demographic and faculty need assessment. Need assessment questionnaire having six domain (teaching and learning, assessment, curriculum, research, publication and community services) that comprises of 38 items. Each item has five point Likert scale (Strongly disagree to strongly agree). Link of this form was share with the medical faculty through whatsApp and email. Medical teaching faculty were asked to fill the survey form.

Result: The response rate was 73%. All Participants exhibited more interest in areas especially teaching competance(70%), publication competence(78%), community services(69%). Whereas express comparatively less interest in research competence(63%), curriculum(63%) and assessment(60%).

Conclusion: Need assessment is basic and fundamental part of any FDP. This survey enabled us to identify the concerns of our faculty and areas that needs enhancement in faculty development program.

Keywords: Faculty development program, integrated curriculum , need assesssment

INTRODUCTION

The faculty is the backbone of any organization.[1] To be effective teachers the faculty needs various expertise, for instance, the ability to build a compassionate learning environment, improve or develop curriculum, assess students and mentoring etc.[2] The continuous professional development of faculty plays an important role in the development of excellence of teachers, researchers and leaders.

Faculty development program (FDP) is required to offer a broad variety of learning opportunities intended to improve the efficiency of academic personnel for their pertinent roles.[3] Faculty development comprises of the activities that are designed to recommence or prepare faculty in their diverse roles. It includes a wide assortment of interventions to facilitate individual staff members to improve their expertise. Furthermore, it can also be used as an instrument to involve faculty in the development of institutional change.[4]

Medical teachers need various kinds of training at different positions in the institute. Like at the rudimentary level, training on development of teaching and evaluation skills is obligatory. Coordinating position requires training on curriculum development and management positions need training for educational leadership.[5] In recent years all efforts of health care professional were directed towards patient-centered health care, which needs more emphasis on ethics, values and professional behavior along with knowledge and skills acquisition.[6]

In the recent years, there is paradigm shift from traditional to integrated in various medical institution. Productive FDP can be a strong tool for appealing faculty in making significant changes in institutional teaching and learning culture. The faculty has to address a diversity of educational goals to teach medical students, therefore health professionals need to have various teaching expertise to cater the needs of educational environment.[7, 8] In the health profession, an educator's motivation to participate in professional training would arise from needs i.e. recognized during his experience of teaching and clinical practice.[9] Yvonne Steinert, highlighted the needs of all stakeholders (faculty, student, patient, society and organization) for designing FDP and survey is commonly used to identify the wishes of professional.[10] A number of other research article assess and highlighted the importance of need assessment. Guglielmo et al, specified that faculty members would be highly encouraged to participate when the program contents are according to their essential.[11]

Discipline based curriculum is still being followed by many medical universities of Pakistan. In 2019 university of health sicience decided to shift from traditional to integrated curriculum. To implement intgrated curriculum faculty needs various expertise that fullfill the requirement of integrated curriculum.

In very few medical colleges, formal need assessment has been carried out to organize FDP. The aim of current study is to identify faculty shortcomings for the implementation of integrated curriculum in relation to their role as a teacher, facilitator, assessor and curriculum developer etc. Information about faculty needs will be helpful in organizing meaningful faculty development program.

MATERIAL AND METHOD

This is a quantitative, descriptive cross sectional study. This study was conducted to recognize faculty needs for faculty development program in three private medical colleges of Lahore Pakistan. This study was carried out during August to October 2019. A total of 300 participants were enrolled through nonrandom convenience sampling technique. Ethical approval was taken from Institutional Ethical Review Board (IERB). In current study, we used faculty need assessment survey to identify the faculty need in various medical collages of Lahore, after taking permission from the author. Faculty need assessment questionnaire was developed by Mohd Z. Nor.[12] This questionnaire has six domain (teaching and learning, assessment, curriculum, research, publication and community services) that comprises of thirty-eight items. Each item has five point Likert scale (Strongly disagree, disagree, neutral, agree and strongly agree). The survey form has two parts. First part is demographic and second part have specific survey questions. The validity of the questionnaire was assessed through experts' views and its reliability was calculated by using Cronbach's alpha coefficients (α=0.86).

Medical professionals involved in teaching from professor to demonstrator irrespective of their age and experience were included. Medical professionals not involved in teaching were excluded. Written consent was taken prior to attempt the questionnaire.

Procedure: A first page of the google survey form highlighted the purpose and significance of the study, and used as the informed

consent. After giving consent, next page was opened. The survey was voluntary and anonymous, it assured the respondent that the information obtained would be kept confidential and only the cumulative results will be showed.

Data were obtained by using an online google form that comprises of two parts. The first part included bio-data (gender, post, work experience and institution), and the second part was related to faculty needs. Brief background and purpose of the study was elucidated in the commencement of survey form. Link of survey form was shared through email and WhatsApp to three hundred faculty members of three medical colleges of Lahore. Reminder emails were sent. Data were analyzed by using SPSS software.

RESULTS

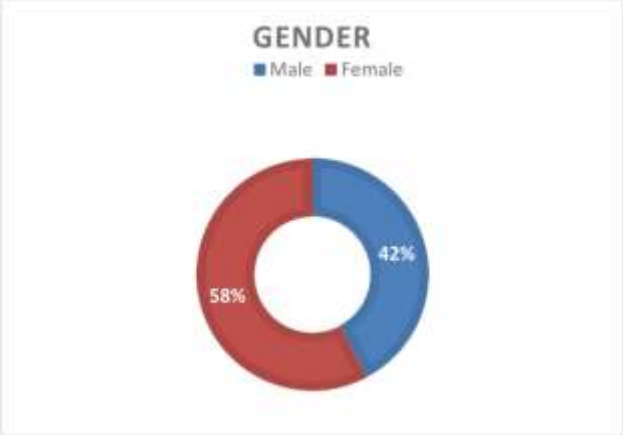

Figure 1: Demographic characteristics of participants

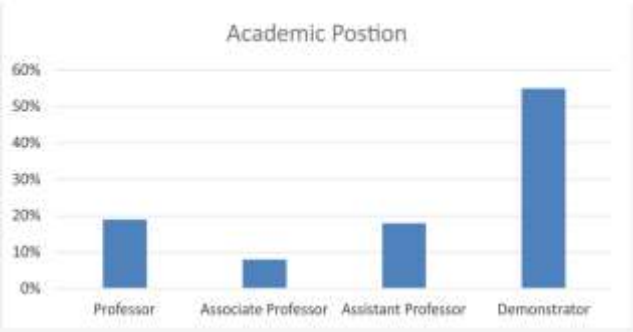

Figure 2: Academic Position of Faculty

Table 1: Work experience of faculty

	Frequency	Percentage
Work experience		
More than10 years	19	8.6%
5-10 Years	15	6.8%
2-5 years	55	25%
Less than 2 years	130	59%

A total of 219 out of 300 medical teaching faculty completely filled the questionnaire. Therefore overall response rate was 73%. Out of 219 female 126 (58%) and male were 93(42%).

All level of faculty from professor to demonstrators were participated. Majority of the respondents were demonstrators that were (n=120) 55%. Other participates included Professors (n=42) 19%, Associate professors (n=18) 8 %, and assistant professors (n=39) 18 %. Regarding their experience in medical teaching institutes, 19(8.6%) participants had experience more than 10 years, 15(6.8%) participant had experience between 5-10 year, 55(25%) had 2-5 year experience while 130 participant had less than 2 years of experience.

Participant's response was measure through 5 point Likert scale. Results are discussed under three column (1.stronglyagree + agree 2. Neutral 3.Stronglydisagree+ disagree). Need assessments of medical faculty were identified in six domains. In teaching and learning, participants were eager to learn about adult learning principle (78%), student centered learning (73%), instructional methods (83%). 30- 40% respondents have adequate knowledge of Problem base learning (PBL), case base learning (CBL) and team base learning (TBL). In the field of assessment approximately40- 50%, participants had sufficient knowledge to construct MCQS, multi true false and OSPE/OSCE. Even though 64 % respondent desired to learn, Formative assessment, Direct Observation Clinical Encounter Examination (DOCEE), and 67 % agreed to learn standard setting. Participants (65%) were also interested in curriculum development, 69% concerned with accreditation matters and 67% wanted to map intended learning outcome with program outcome. Faculty of medical institutes were curious to learn and enhance their abilities regarding different types of research like qualitative research (72.6%), quantitative research (59%), they wanted to learn about research related soft wears SPSS (74%) and Atlas Ti (72%). In area of publication, competencies 76% were willing to learn "how to publish a research" 86% and 83% of faculty keen to learn about collaborative research partnerships nationally and internationally respectively. 69% desired to know about plagiarism issues. Participants were more enthusiastic to learn about community services including management of community clinic (71%), disaster management (79%), and public awareness campaign (65%).

Table 2: Need assessment of faculty

Fields	Questions	Strongly agree + agree	Mean	Neutral	Strongly disagree + disagree
1. Teaching competence	Q1.principles of adult learners	78%	70%	16.4%	5.6%
	Q2. student centered learning	72.6%		19.2%	8.2%
	Q3. instructional model	83.6%		13.7%	2.7%
	Q4. (Problem Based Learning) PBL	60.3%		21.9%	17.8%
	Q5. Case Based Learning) CBL	68.5%		15.1%	16.4%
	Q6. (Team Based Learning) TBL	69.3%		15.1%	15.6%
	Q7. E-learning	64.3%		15.1%	20.6%
2. Assessment competence	Q8. formative assessment	64.4%	60%	17.8%	17.8%
	Q9. summative assessment	58.4%		23.6%	18%
	Q10. Multi Choice Question (MCQ)	56%		13.7%	30.3%
	Q11. Multi True False Question (MTF)	50.7%		27.4%	21.9%
	Q12. objective structured clinical examination (OSCE) / objective structured practical examination (OSPE)	63%		23.3% 26% 26.4%	13.7% 7% 9.6%
	Q13. standard setting				
	Q14. Direct Observation Clinical Encounter Examination (DOCEE)	67% 64%		19.2% 28.8%	19.1%
	Q15. structured oral exams (SOE)				10.9%

	Q16. workplace-based assessment	61.7% 60.3%			
3. Research competence	Q17. qualitative study approach Q18. quantitative study approach Q19. SPSS Q20. Atlas-Ti, N-Vivo Q21. Proposal writing Q22. Selecting research topic	72.6% 59% 73.6% 72.2% 59.7% 45%	63%	20.5% 27.4% 15.3% 19.4% 26.4% 32.6%	6.9% 13.6% 11.1% 8.4% 13.9% 12.4%
4. Curriculum competence	Q23. curriculum development Q24. documents on medical curriculum Q25. curriculum revision Q26. accreditation matters Q27. intended learning outcomes Q28. map ILOs with unit/program outcomes Q29. Students feedback	65.3% 52.8% 59.7% 69.4% 65.7% 67.5% 66.6%	63%	25% 30.6% 29.2% 22.2% 23.9% 22.2% 22.2%	9.7% 6.6% 11.1% 8.4% 10.4% 10.3% 11.2%
5. Publication competence	Q30. plagiarism issues Q31. research published Q32. National collaborative research Q33. International collaborative research	69.4% 76.4% 85.9% 82.8%	78%	22.2% 16.7% 11.3% 14.3%	8..4% 6.9% 2.8% 2.9%
6. Community service competence	Q34. manage community clinic Q35. public awareness campaign Q36. disaster management Q37. academic activities Q38. non-government organization (NGO)	71.8% 65.2% 79.1% 63.9% 69.5%	69%	23.9% 27.8% 15.3% 23.6% 22.2%	4.3% 7% 5.6% 12.5% 8.3%

DISCUSSION

To acquire maximum benefit, FDP should ponder needs of faculty as an integral part and should be assessed accordingly. Organizations can get help from such researches by identifying what specific expertise are needed for the faculty, as a result FDP concentrate on that targeted professional needs, therefore available resources utilized effectively.[12]

In any program design, the objective of that program/institution plays an integral role. Needs of all stakeholders arise from those objectives therefore transition from traditional to integrated may arise certain needs and FD activities will revolve around the aims and objectives of the program.

Yvonne Steinert, highlighted the needs of all stakeholders (faculty, student, patient, society and organization) for designing FDP and survey is commonly used to identify the wishes of professional.[10] A number of other research article assess and highlighted the importance of need assessment. Guglielmo et al, specified that faculty members would be highly encouraged to participate when the program contents are according to their essential.[11]

In this research study subjects eager to learn about publication competence especially national and international collaborative research. FDP in most of the institute give more emphasis to research competence and publication.

Participants also showed interest in teaching competence. However, 30- 40% respondents have adequate knowledge of Problem base learning (PBL), case base learning (CBL) and team base learning (TBL). Because in recent years medical education department give more emphasis on these areas. These strategies were introduced and practiced in numerous medical institutions. A study conducted by Lori Graham in 2015 also shows almost similar finding. They find these areas e.g. Developing educational goals and objectives (51%); teaching and clinical/research productivity (44.1%); developing evaluations (43.8%); interactive teaching strategies (43.8%); and collaborative mentoring (43.6%) to be facilitated.[13]

In the field of assessment approximately 40- 50%, participants had sufficient knowledge to construct MCQS, multi true false and OSPE/OSCE. Since these were the hot areas initially in faculty development program and lot of workshop for MCQS and OSPE/OSCE development have been conducted for the training of faculty in various institutes. However, they are still interested to learn about formative assessment & standard setting.

A study conducted in Saudi Arabia in 2020 by Hussein Algahtani to assess the perceived needs of faculty. They initially identify 49 needs out of that 13 were very important that mainly includes teaching, assessment.[14]

Needs can be dissimilar of novice and in senior faculty as it is shown in a study conducted in Mount Royal University by Boman et al., that identified the different need of newly hired and senior faculty for the redevelopment of an institutional support program to meet the changing institutional context.[15]

In research area, participants showed more interest in qualitative research and wanted to learn different software (SPSS, Atlas-Ti, N-Vivo etc.). A study conducted by Pololi, L. also highlighted the need of research.[17] It is a time to identify the shortcoming of the teaching faculty that will be imperative for the successful implementation of integrated curriculum.

CONCLUSION

Need assessment is basic and fundamental part of any FDP. It is crucial for the development of meaningful FDP. It may vary from time to time depending on the necessity and changing trend in medical education. This survey enabled us to identify the concerns of our faculty and areas that needs enhancement in faculty development program.

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