

Faculty Development Needs Assessment at Kuwait Institute for Medical Specializations, Ministry of Health, Kuwait

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ABSTRACT

Objective: To assess the faculty development needs of medical educators at the Kuwait Institute for Medical Specializations, Ministry of Health, Kuwait.

Methods: A cross-sectional electronic needs assessment survey was conducted in January 2021 among faculty and administrators affiliated with residency programs at the Kuwait Institute for Medical Specializations. The anonymous survey was distributed by email to all eligible participants. The survey assessed perceived faculty development needs across four domains: program-related topics, clinical teaching, assessment, and research.

Results: A total of 320 faculty members from 50 KIMS postgraduate specialization programs responded to the survey, giving a response rate of 39%. The overall mean perceived faculty development need score was 8.23 ± 5.17 , with the highest need reported in the clinical teaching domain (2.64 ± 2.02) and the lowest in the research domain (1.26 ± 0.76). Major areas of need included competency-based design, leadership, resident wellness, short essay questions, and research-related training. Perceived needs did not differ significantly across specialty programs; however, overall needs were significantly higher among faculty in academic roles compared with leadership and examination roles.

Conclusion: This study identified important faculty development needs among faculty members at the Kuwait Institute for Medical Specializations, with the highest perceived need in the clinical teaching domain and comparatively lower need in the research domain. Key areas requiring attention included competency-based education, leadership, resident wellness, assessment methods, and research training.

Keywords: Needs Assessment, Faculty, Medical, Staff Development, Education

INTRODUCTION

Many institutions make every effort to develop academicians, researchers, and administrators to improve their current teaching and training responsibilities. Continuous professional development is mandatory to meet these requirements. Graduates from a professional school cannot be inherently considered expert in teaching. Teaching as a skill and an art needs to be developed and academicians require extensive training and support for the purpose. The need to develop the academic ability of health practitioners led to the initiation of ‘faculty development’, also referred to as ‘professional development’ or ‘staff

development’.¹ By definition, faculty development is, ‘Any planned activity to improve an individual’s knowledge and skills in areas considered essential to the performance of a faculty member (e.g. teaching skills, administrative skills, research skills, clinical skills)’.^{2,3} Faculty development (FD) activities are focused on planned program that prepare faculty members for their roles as teachers, educational researchers and educational administrators thereby ensuring their need of professional development.^{4,5} Faculty development takes into account all activities that enable faculty members to enhance their capacities and achieve educational excellence. It is a vital component for

every medical school for bringing in organizational changes.⁶

Faculty development needs to be systematic and it involves planning, implementation and evaluation.⁷ This, however, requires support from institutional leadership, adequate resource allocation and appreciation for teaching excellence. In the current scenario it is important to plan educational activities based on the identified needs of the target audience. Identifying the needs can enhance the acceptance and relevance among the target audience. Customizing faculty development activities by making it more relevant by designing new opportunities can eventually improve the quality of education. Conducting a need assessment would be ideal to identify the drawbacks in knowledge, skill, behavior, or attitude in the current teaching practices. It can also help to design the activities based on expected changes in health care needs.⁸ A need assessment can be defined as "a systematic process to identify gaps between current and desired performance to make informed decisions".⁹ Need assessment tracks future efforts and identifies the effectiveness of relevant happening activities. It extracts commitment from faculty as they self-identify their developmental needs, helps them gain insight and interest in newer evidence-based teaching and learning methodologies, and consequently enhances expertise as a faculty.

The purpose of this study was to conduct a needs assessment on interest and preferences related to program content and delivery among faculty and administrators involved in residency programs under Ministry of Health (MOH) Kuwait.

METHODS

A cross-sectional survey design was used to collect the data. In January 2021, anonymous electronic needs assessment survey was distributed by e-mail (with one reminder) to all faculty and administrators affiliated to the residency programs offered by Kuwait Institute for Medical Specializations (KIMS).

Kuwait Institute for Medical Specializations (KIMS) under the Ministry of Health, Kuwait, is responsible for the postgraduate specialization of doctors and dentists in Kuwait. Institute offers thirty plus postgraduate medical and dental specialization programs with 800 plus faculty members and an annual enrollment of 1200 plus residents. Faculty Development Office, KIMS, is responsible for systematically improving educational, leadership, and scholarly skills of enrolled clinical faculty in curricular design, learning methodologies, assessment, and evaluation. The survey was developed based on the extensive list of topics covered primarily as workshops by the Faculty Development Office over a period of last five years targeting various responsibilities of the faculty at Kuwait Institute for Medical Specializations. Many of these workshops were done in collaboration with the Royal College Canada in the last four years. Questions used for the survey aimed to extract the faculty perception of their faculty development needs. This included two questions that assessed respondent characteristics (Academic program involved and responsibilities involved) and the rest determined need assessment under the following domains:

Overarching domain (Program Evaluation and Accreditation, Competence by Design, CanMEDS introduction, and KIMS policies and procedures). Clinical teaching domain (teaching & learning, communication & collaborator skills, leadership, and constructive feedback). The assessment domain (SAQs, MCQs, OSCEs, exam standardization, and in-training assessment). Research domain (research and evidence-based medicine)

Respondents were categorized according to their job roles at KIMS (academic, examination and leadership) and similarly the programs were grouped as medical, surgical, dental and lab-based programs. Perceived need was defined based on the responses to each question which was scored as 0 for not having any perceive need and one as needed. Mean scores were taken for each domain separately and overall. Higher scores indicate more needs.

The study was reviewed by the institutional review board and deemed exempt. IBM SPSS version 19 Software (Armonk, New York), was used for statistical analysis to provide the descriptive findings. The data pertaining to the perceived needs under each domain were compared between respondents. Due to the non-normal distribution of data, the Kruskal-Wallis's test was used to determine the difference in perceived needs, between those in different academic roles and different specialties.

Internal consistency of responses within each topic was calculated via Cronbach's alpha for topics containing more than two items and via Pearson correlation coefficients for topics with two items.

RESULTS

The faculty development needs assessment survey carried out by the faculty development office at KIMS was responded by 320 faculty members enrolled with 50 KIMS postgraduate specialization programs (39% response rate). Based on their roles in KIMS, majority of the respondents were academic tutors (42.8%). Around 33% had leadership role and 24% were exam committee members. More than 60% of the respondents were from medical programs, only 6% from surgical specialties. Around 20% and 10% of the respondents were from lab-based and dental specialty programs respectively. In medical programs almost half of the respondents had academic title; similarly for the lab program around 45% were academicians. In dental program and surgical program more than 60% of the respondents were identified with leadership roles (Fig.1).

Overall mean score for perceived needs totaled for all domains was observed to be 8.23 ± 5.17 . among the respondents the perceived needs mean score was highest for the clinical teaching domain (2.64 ± 2.02) and lowest reported was for the research domain (1.26 ± 0.76) compared to the assessment and overarching domains (fig2). this result was relatable to the study published in 2010 that looked into professional development needs of faculty in the association of American veterinary

medical colleges' member institutions. most of the respondents expressed interest in attending training in topics related to teaching (e.g., effective questioning, giving feedback, principles of learning and motivation), than in research or administration related topics.¹⁰

Overall ratings for each of the topics under individual domains are listed in the table 1. It was observed that in the overarching domain, more than half of the respondent rated high needs for competency by design (53.1%) compared to the other topics within the same domain. in the clinical teaching domain, majority of the respondents reported no need or were fully satisfied with most of the topics listed, except for topics on leadership (47.2%) and resident wellness (44.7%). In the assessment domain 52.8% respondents had perceived need for short essay related topics. in terms of research domain, 250 (78.1%) expressed a need for research topics. The surgical programs rated higher needs on topics related to clinical teaching domain (2.95) compared to all other programs (fig3). The need for overarching domain topics was highest rated by medical programs (1.72) compared to all other programs that responded. Similarly, the highest rated areas differed on assessment domains as well. lab-based programs scored the topmost (3.15) as compared to surgical, dentistry and medical programs respectively (2.76, 2.73, 2.43). For the research domain the lowest need was expressed by dentistry program (1.12) followed by medical (1.24), lab-based (1.32) and surgical programs (1.52). however, there was no statistically significant difference in the perceived needs on any topic based on the programs ($p > 0.05$).

Table 2 shows the perceived needs for all domains based on the professional roles at KIMS. Over all perceived needs was highest for those in academic roles compared to those in leadership and examination roles and this difference was statistically significant. The overall perceived needs score was notably lowest among those involved with examination roles ($P < 0.05$). There was a

statistically significant difference in the perceived needs in all domains based on the specific roles except for research domain ($P>0.05$). In the research domain, perceived needs mean scores were almost similar among all the groups. There was a statistically significant higher perceived need raised for overarching domain and clinical teaching topics among those in academic roles (2.04 ± 1.48 , 2.99 ± 2.05 resp) compared to the other two groups. However, the need for assessment topics were higher from those involved with leadership roles (3.02 ± 2.05) than those in academic (2.96 ± 2.19) and examination (1.48 ± 1.75) and this difference was found to be statistically significant.

DISCUSSION

For an effective educational program planning, needs assessment strategies are essential. A needs assessment survey should be the first rational step any faculty development or medical education unit should do while designing its activities.¹¹ This study was focused on assessing the perceived needs of faculties involved with postgraduate training programs at KIMS and to customize the program development activities according to the requirements. Our results show that the faculty perceives a need for more training to improve their skills. Overall mean score of perceived needs was observed to be 8.23 which was fairly consistent with other published literature that quoted a need for improvements in all aspects of their jobs.¹²⁻¹⁴ Educators require a continuous skill overhaul to remain relevant and updated in order to equip the future learners with skills needed to solve modern healthcare challenges.¹⁵ This adds to the responsibilities of faculty development to customize the topics to fit to the requirements based on disciplines and individual roles.¹⁶ The perceived needs mean score was highest for the clinical domain (2.64 ± 2.02) which was in par with other published literatures¹⁷ and lowest reported was for the research domain (1.26 ± 0.76). The published evidence also showed a low scores on the perceived need for research domain.¹⁷ The study from Saudi Arabia by Algahtani H (2020), also found research-related aspect of perceived effectiveness to be less

important among faculty members.¹⁸ The results from our study was very similar to findings by Haden et al., wherein the respondents showed interest in learning more about matters related to teaching and examination related topics than the overarching organizational and research domains.¹⁹ Incorporating faculty development activities in healthcare institutions enriches the faculty's vitality in important areas of teaching, research, professional development, assessment, and administration, it also has a positive impact on student's academic performance and professional competence. This study also found that the type of programs that faculty were enrolled in was related to the need to develop certain competencies. For instance, faculty in lab-based programs felt the need to develop competencies in Assessment domains like In-training assessment, exam standardization, MCQs, OSCEs and short essays. However, this difference in perceived need did not show any statistically significant changes depending on the type of program. The overall perceived needs scores were statistically found to be higher among academic faculty compared to leadership and examination roles. This difference in need score was significantly different for overarching domain, assessment domain and examination domain. Our results was not completely in agreement with the past evidence that the perceived needs always reflects the faculty members' principal commitments.¹¹

Academicians who have underwent training through faculty development programs are reported to perform better than their peers in teaching and learning and were better able to use their knowledge in promoting student behaviors in any settings.^{5,20,21} Burdick et al. (2010)²² in his study found that healthcare professionals who participated in the faculty development programs had better knowledge in research methodology, organizational management, and educational leadership which was then applied in their teaching.

Most of faculty development programs in medical institutes focuses on improvement of teaching skills however, it will be ideal to give adequate emphasis

on developing leadership and management skills as well.^{23, 24} Evidence supports the fact that faculty development should move away from merely training faculty to be better teachers to other interventions such as exam standardization, quality assurance, group activities, and short courses.^{25,26} Faculty development should ensure that these topics are also included while designing their activities.

CONCLUSION

The results of this study specify that, in teaching institutes faculty development programs should be arranged regularly to improve the quality of education and training provided by the tutors. Faculty development needs assessment and evaluation of the effectiveness of faculty development activities is the critical function of the faculty development office and one of the strategic goals of Kuwait Institute for Medical Specializations. Based on the study results faculty development office KIMS have decided to customize the faculty enhancement activities in accordance to the interest and preferences related to program content and delivery. Need assessments should be performed on a regular basis to improve the link between learning and training, needs assessment can aid in personalizing the educational effort. Stakeholders' support is critical in this since it approves the likelihood of the stakeholders to accept the outcomes.

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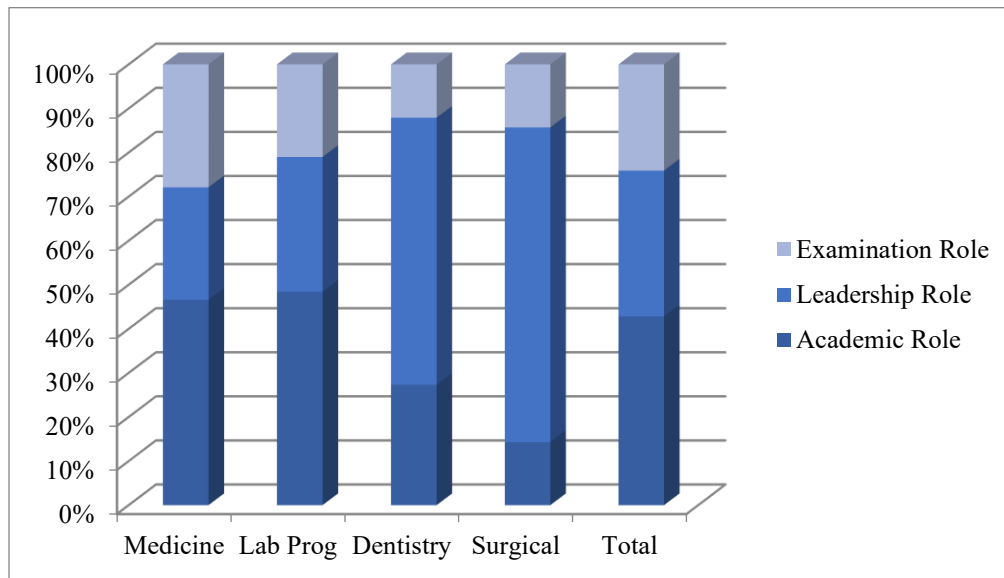


Figure 1. Role of faculty based on the program enrolled

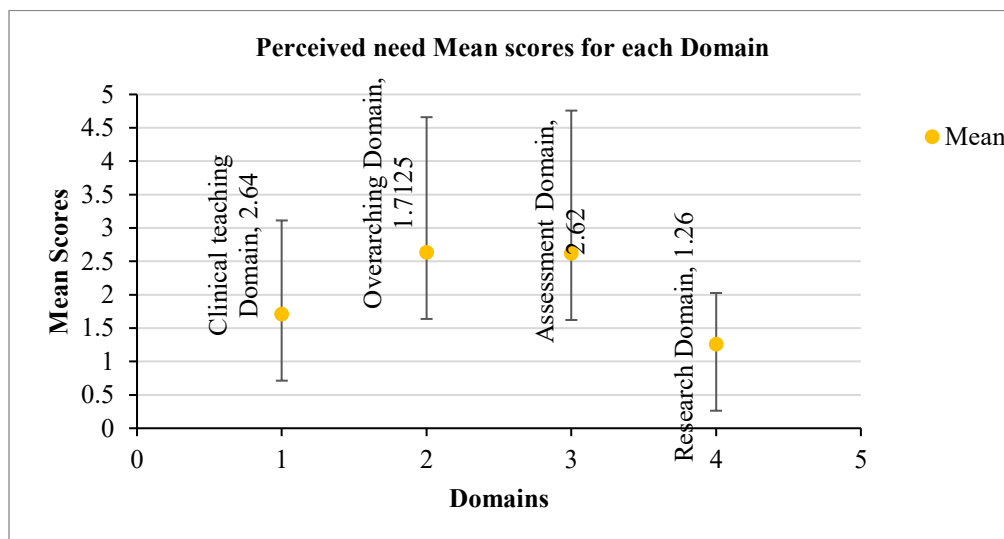


Figure 2. Domain wise perceived needs mean scores

Table 1. Overall ratings for each of the topics under individual domains

Domain	No Perceived need / Satisfied	Need for More/Perceived need
Overarching Domain		
Program Evaluation and Accreditation	178(55.6%)	142(44.4%)
Competence by Design	150(46.9%)	170(53.15%)
CanMEDS Introduction	202(63.1%)	118(36.9%)
KIMS policies and procedures	202(63.1%)	118(36.9%)
Clinical Teaching Domain		
Teaching & Learning,	195(60.9%)	125(39.1%)
Communication & Collaborator skills	194(60.6%)	126(39.4%)
Leadership	151(47.2%)	169(52.8%)
Constructive Feedback	196(61.3)	124(38.8%)
Resident wellness	143(44.7%)	177(55.3%)
Clinical teaching	197(61.6%)	123(38.4%)
Assessment Domain		
SAQs and Short Essays	151(47.2%)	169(52.8%)
OSCEs	193(60.3%)	127(39.7%)
MCQs	198(61.9%)	122(38.1%)
Exam Standardization	174(54.4%)	146(45.6%)
In training Assessment	179(55.9%)	141(44.1%)
ITER Policies and Forms	186(58.1%)	134(41.9%)
Research Domain		
Research	70(21.9%)	250(78.1)
Evidence-based Medicine	166(51.9%)	154(48.1%)

Table 2: Perceived needs mean scores for each domain based on role at KIMS

	Overarching Domain*	Clinical Teaching Domain *	Assessment domain*	Research Domain	Overall *
Role at KIMS					
Academic	2.04±1.48	2.99±2.05	2.96±2.19	1.29±0.76	9.28±5.42
Leadership	1.56±1.34	2.61±1.97	3.02±2.05	1.32±0.81	8.51±4.92
Examination	1.35±1.22	2.04±1.92	1.48±1.75	1.13±0.69	6.00±4.35

**pvalue>0.05 statistically significant*

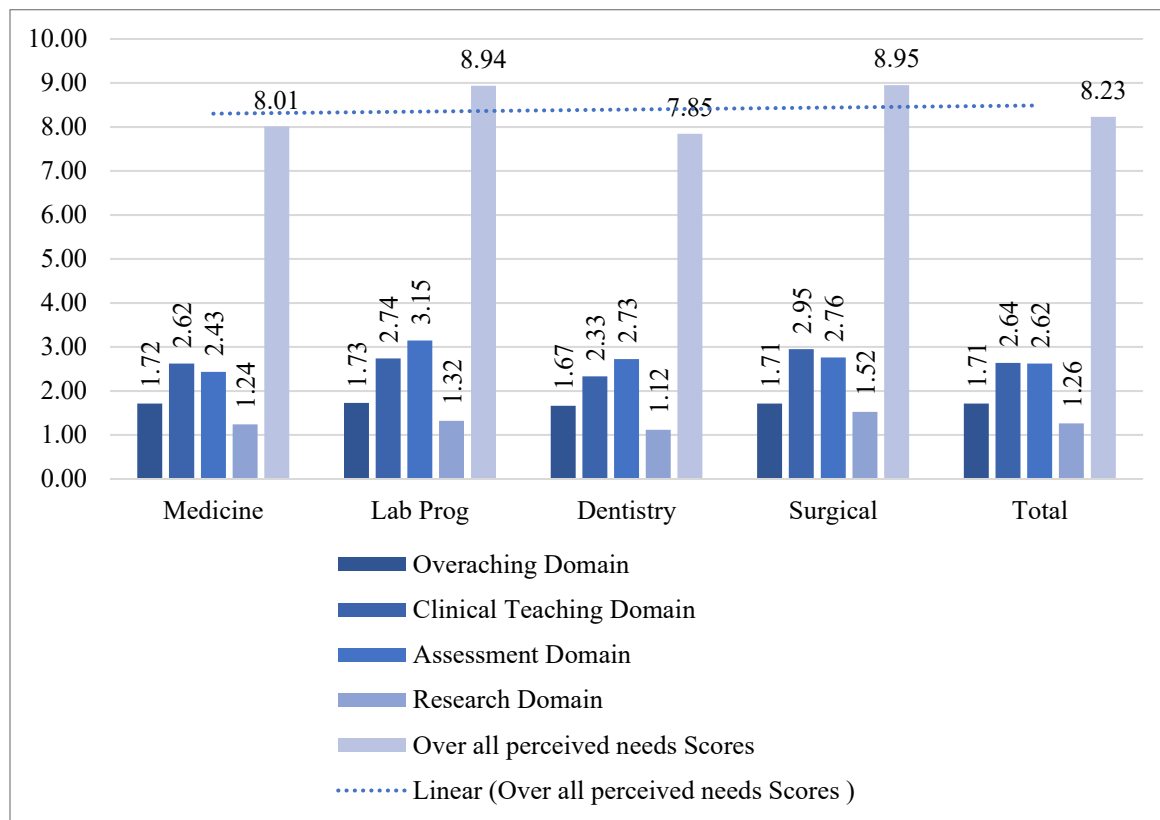


Figure 3: Program wise perceived needs scores overall and for each domain

Conflict of Interest:

The authors declare that there is no conflict of interest regarding the publication of this paper.

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Author's contribution:

Andleeb Arshad (First Author, Principal investigator) Contributed to study design, data collection, data interpretation, drafting of the manuscript, final approval, and accountability for all aspects of the work.

Haneen Alyaseen: Conception of the study, study design, methodology, overall supervision, critical revision, final approval, and accountability for all aspects of the work.

Amrita Geevarghese: Data collection, literature review, data organization, drafting of the manuscript, final approval, and accountability for all aspects of the work.

Dalia Alhannawi: Data analysis, interpretation of results, critical revision, final approval, and accountability for all aspects of the work.

Rasha Almubarak: Contributed to literature review, manuscript writing, formatting, final approval, and accountability for all aspects of the work.

All the authors have approved the final version to be published and agree to be accountable for all aspects of the work.



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