Review article

Kosin Medical Journal 2023;38(1):4-11
pISSN: 2005-9531 • eISSN: 2586-7024
https://doi.org/10.7180/kmj.23.109

KMJ
KOSIN MEDICAL JOURNAL

Faculty development: the need to ensure educational excellence and health care quality

Hyekyung Shin[1], Min-Jeong Kim[2]

[1]*Department of Preliminary Medicine, Seoul National University College of Medicine, Seoul, Korea*
[2]*Department of Medical Education and Neurology, Kosin University College of Medicine, Busan, Korea*

The definition of faculty development has been refined and expanded over the past few decades, and various definitions have been used in higher education. Initially, faculty development was defined as activities that help teachers improve teaching skills, design better curricula, and improve the organizational environment for education. Since then, as the focus of faculty development has shifted from individual professors to institutional needs, faculty development is now defined as the personal and professional development of professors, clinicians, researchers, and managers to meet institutional goals, visions, and missions in social terms and moral responsibility to the community. Faculty development in medical education is universally needed to recognize and cope with widespread changes in education, including the traditional role of professors, advances in pedagogical theory, changes in learning styles, innovative curriculum models, and evaluation philosophy. However, critics have pointed out that most universities could not actively implement faculty development or accept professors' various demands. In this paper, various reports related to faculty development are reviewed to summarize how faculty development has progressed and present future directions for accepting various opinions to improve educational excellence and the quality of health care.

Keywords: Educational excellence; Faculty; Medical education; Quality of health care

Introduction

Faculty development refers to a variety of activities and initiatives designed to support and enhance the skills, knowledge, and effectiveness of faculty members' roles as teachers, researchers, and members of academia. Bergquist and Phillips [1] define faculty development as a process that includes personal development, to enhance faculty competence and attitudes toward research and education; class development, to enhance teaching techniques to improve the quality of education; and organizational development. This is defined as an organized activity.

Professors' competencies are largely divided into basic and lecture competencies [2]. Basic competencies refer to work ethics, moral values, self-development, and the global mind. Lecture competencies include educational philosophy, pedagogical theory, knowledge in the field of specialization, development and operation of class, facilitation, communication, evaluation and feedback, diagnosis, and reflection. In the early studies of faculty development, most studies have defined the important competency of a professor as teaching competency and designed instructional development programs focusing on the teaching role in the class. At the 1988 World Federation for Medical Edu-

Received: March 6, 2023; **Revised:** March 14, 2023; **Accepted:** March 16, 2023
Corresponding Author: Min-Jeong Kim, MD
Department of Medical Education and Neurology, Kosin University College of Medicine, 262 Gamcheon-ro, Seo-gu, Busan 49267, Korea
Tel: +82-51-990-6484 Fax: +82-51-241-0145 E-mail: merritt329@hanmail.net

cation (WFME) meeting, participants vowed to pursue an agenda designed to improve medical education worldwide [3]. The Edinburgh Declaration made 12 recommendations, the fifth had an educator's focus: "training teachers as educators rather than content experts, and rewarding excellence in this area as well as excellence in biomedical research or clinical practice." Irby and O'Sullivan [4], citing the Edinburgh Declaration, asserts the need for a policy to ensure that all medical professors receive the knowledge and skills necessary to teach. The Edinburgh Declaration recommended that professors develop their skills and careers as educators beyond simply improving the content knowledge of their specialties. Since content knowledge in specialized fields is essential but insufficient for excellence in education, professors need knowledge of various educational roles, professional practice skills, and identity formation beyond teaching professional knowledge; therefore, faculty development is necessary. Cantillon et al. [5] also suggest that faculty development should strive to increase cooperation regarding environmental factors that form the identity of professors, beliefs, and practices. They emphasize the importance of establishing perceptible professor profiles within educational institutions to support the maintenance and development of clinical professors' identities.

As the new millennium began, education experts criticized the limitations of the program and called for various changes to foster faculty members. They emphasized that faculty development programs should aim for various goals and that the fields should become more diverse, especially supporting research capabilities, leadership, and career development requirements. This change can be said to reflect the evolving needs of faculty in response to the changing medical environment; it also means that, as the demand for faculty development programs at each stage of life increases, the contents and levels of the program should be diversified [6]. Steinert [7] suggested that the following tasks should be pursued by fostering faculty members in the future: broadening the scope of faculty development from teaching to academic development, expanding approaches to faculty development, utilizing a competency-based framework for faculty development, supporting teachers' professional identities, focusing on organizational development and change, and promoting research and scholarship in faculty development.

This study aims to determine how faculty development has progressed so far and propose directions for future development.

Faculty development: past and present

Generally, university professors are appointed in recognition of their outstanding research results in their major fields, and they are expected to be able to educate students through extensive knowledge in their specialized fields. Kim [8] argues that all professors in medical schools have adequate and sufficient education and training backgrounds in their fields of expertise and are researching steadily while separately making efforts to maintain and improve their research and patient care capabilities. However, regarding student education (which is the essential mission of the university), he expresses concern about a situation in which they are appointed as professors without additional education or research about education and teaching students without weight.

There is a saying that "the quality of education cannot exceed that of professors." The recent curriculum emphasizes a student-centered approach and students' active participation. Some may think that professors' teaching capabilities are less important than those of lecture-oriented classes, but in situations where team-based learning, problem-based learning, and task-based learning are frequent, professors must participate in various educational roles such as facilitators, role models, and resource developers. Medical school professors have the considerable burden of using new educational methods that they never experienced, while efforts to improve their class capabilities are insufficient. Many universities have introduced a professor evaluation system that allows professors to receive evaluation and feedback, but it is evaluated by students' preferences rather than actual evaluation and feedback. Son [9] indicated the reasons why university professors' efforts to improve their teaching capabilities—unlike those of elementary and secondary education teachers—were insufficient. First, in most universities, educational activities are considered less valuable than research activities. Second, professors generally think that students should work harder on their own rather than being well taught and guided. Third, while pursuing the excellence of education, evaluation of the educational field was considered less im-

portant in various university evaluations. Fourth, research achievements are a much more important factor than educational achievements in the promotion and evaluation of professors. In his review of educational situations in medical schools, professor Kang [10] argues that teaching methods have not improved because professors do not receive formal education or training related to teaching; professors and university authorities prioritize research and patient care over educational activities, and professors are not open to evaluating and providing feedback on their own educational activities. He claims it is important to develop various teaching and development programs to improve professors' interest in these areas.

In 1968, the World Health Organization (WHO) agreed on the need for in-service educational education for medical school professors to improve medical education and established Regional Teacher Training Centers (RTTC) in six WHO regions. In Western countries, such as Japan and Australia, some medical schools have established departments related to medical education to operate faculty development programs. While Korea founded the Korea Medical Education Association in 1970 and sought various directions to improve medical education, it agreed that Korea also needed an institution dedicated to medical education. The National Teacher Training Center for Health Personnel opened in 1975 with professors who completed their training at an RTTC overseas and has been striving for the development of professors through medical education seminars and workshops. Individual universities have also held faculty development programs with departments for teaching and development, such as teaching and learning centers and educational development centers.

Faculty development in medical education has been found to be effective in enhancing the teaching skills and knowledge of medical educators, ultimately improving the quality of medical education. Steinert et al. [11] investigated the effectiveness of faculty developments through a systematic literature review and found that, in most studies, professors showed favorable changes in their development and views on faculty. Professors' teaching skills and knowledge of teaching principles showed notable improvement and consistently reported changes in their teaching behavior, which had also been observed by students. It is also known that the effectiveness of faculty development is influenced by a variety of key characteristics, such as empirical learning, provision of feedback, strong peer relationships, interventions guided by well-designed teaching and learning principles, and integration of multiple teaching methods in a single intervention. Skeff et al. [12] state that professors share their perceptions of the merits and usefulness of faculty development, but their participation is low; their attitudes, misunderstandings, lack of institutional support, and relatively insufficient research on how to improve education are potential barriers. It was pointed out that the tendency to underestimate the need or the potential benefits of the programs, the lack of faith in the usefulness of educational technology, and the belief that teacher training is not related to teaching excellence are the reasons for low participation. To determine what kind of faculty development program medical school professors need, Na et al. [13] investigated the level of awareness of medical school professors' educational preparation, implementation, and evaluation and studied the contents that should be strengthened. In this study, professors recognized the importance of class preparation, execution, and evaluation, but the actual degree of performance was low. In particular, the frequency and performance of educational implementation and evaluation were found to be lower than the frequency of performance of educational preparation, and the professors emphasized the need for a steady teaching development program as they thought that their teaching lacked quality.

Steinert [14] summarized the overall characteristics of faculty development through a systematic literature review published in 2020, particularly recent trends. First, research on faculty development is becoming increasingly active in the field of medical education. Second, the field covered by faculty development is still limited to teaching development, and programs such as research capacity or leadership development are lacking. In addition, as programs for teaching improvement also concentrate on teaching and learning methods, it was recommended to develop programs related to evaluation and assessment. It was pointed out that the teaching and learning methods used in faculty development are limited to workshops and seminars, and more diverse methods such as simulation-based learning, interactive theater, peer observation, mentoring, and non-face-to-face online learning must be used. Third, Steinert found that research on various topics is being conducted in different countries: recommendations for more programs

and perspectives, as well as reflections on the role and importance of faculty development, frameworks for teaching and learning and document reviews are among the research topics.

Faculty development: in the future

Steinert points out that he has focused on improving teaching skills for faculty development and has urged in favor of various changes [7,14], on the following six topics: (1) broadening the scope of faculty development from teaching to academic development; (2) expanding approaches to faculty development; (3) utilizing a competency-based framework for faculty development; (4) supporting professors' professional identities; (5) focusing on organizational development and change; and (6) promoting research and scholarship in faculty development.

1. From teaching to academic development

While many authors have highlighted the role that faculty development can play in academic and career advancement, research, and leadership development [15-17], most faculty development efforts still tend to focus on strengthening the role of faculty as teachers and educators. Faculty focuses on personal and career development and can explore different ways to foster academic development, considering partnerships with other units and organizations. Song et al. [18] classify professors' competencies into basic competencies, management competencies, and teaching competencies and emphasize that university teachers' duties are not limited to lectures and teaching activities. They also recommend that professors play various roles related to education, research, and services according to their ranks and positions, and faculty development should support them. Park et al. [6] define the role of a professor as a professional educator, an expert in the relevant field, and a community leader and suggest faculty development programs for research and projects and programs related to continuous self-development in specialized fields to strengthen the necessary competencies according to their roles. Chun and Park [19] developed and operated a faculty development program based on the characteristics of medical school teachers and then published the results of investigating professors' responses. They argue that faculty development programs must go beyond education, such as instructional design or teaching methods, to improve simple teaching ability, strengthen various competencies required according to the teaching profession, and approach them from the perspective of lifelong learning. In fact, Duke-National University of Singapore (NUS) develops, operates, and implements various faculty development programs [20]. A separate curriculum is under way for instructors, assistant professors, and senior professors. For example, the Associate Consultant Readiness Programme (ACRP) for newly appointed professors consists of various programs to promote a high level of professional development (such as exploring the healthcare system, roadmap for future career options, and approaches to managing healthcare legal issues and challenging patient issues), providing a platform for networking and interaction with colleagues in other fields of expertise as well as time for conversation with senior professors. The Academic Medicine Education Institute (AMEI) for competency development as an educator is also a systematic and continuous faculty development program that operates using various teaching and learning methods [20,21].

2. Expanding approaches to faculty development

Barab et al. [22] define community of practice (CoP) as a "persistent, sustaining, social network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history, and experiences focused on a common practice and/or mutual enterprise." Professors dedicated to education often feel isolated within educational institutions and are incapable of fighting for changes that they believe are necessary. The CoP is an efficient strategy to bring together faculty dedicated to teaching and learning activities, while creating a safe and reliable environment. Yoo [23] stresses that cooperation with fellow professors and support at the university level must be provided to properly develop teaching skills at the individual level and that teaching capabilities can be more effectively strengthened if each major forms a common learning body and develops accordingly. de Carvalho-Filho et al. [24] outline 12 "ips" for implementing a CoP for faculty development, which include the following: articulating the goals and value of a CoP; starting with a specific project or task that unites the members; keeping the CoP open and inviting members with both expertise (memory) and fresh ideas (innovation); working to ensure institutional support; and

promoting sustainability.

3. Competency-based framework for faculty development

Steinert argues that most teaching development programs should be developed based on performance as teaching development pursues and that most teaching development programs are being conducted at the request of professors or curriculum developers at any time without a curriculum [14]. The United Kingdom Academy of Medical Educators has developed professional standards for medical educators that are divided into core values and five domains [25]. Core values include professional integrity, educational scholarship, equality of opportunity and diversity, respect for the public, respect for patients, respect for learners, and respect for colleagues. The five domains of educational practice identified by the Academy are the design and planning of learning activities, teaching and supporting learners, assessment and feedback to learners, educational research and evidence-based practice, and educational management and leadership. Although this does not have to be the outcome of the faculty development programs of all medical educational institutions, it is necessary to develop a program that reflects the agency's mission or the needs of its members to achieve the best results.

4. Support professional identities

Professional identity refers to the way an individual perceives themselves within a professional context, including the values, beliefs, attitudes, skills, and behaviors related to their chosen profession [26]. It encompasses a sense of belonging and identification with a particular professional group and commitment to the values, standards, and ethics of the profession. Professional identity is shaped by a variety of factors, including education and training, work experience, relationships with colleagues and mentors, and societal and cultural influences. It can also evolve over time as individuals gain new experiences and perspectives. A strong professional identity can contribute to a sense of fulfillment and satisfaction in one's work as well as promote professionalism and ethical behavior. People often implicitly consider their understanding of who they are or who they want to be when they contemplate what they should do or what path they should take. Identity is inherently social, in that it is formed in relationships with others, and people constitute their identity in relation to the communities in which they participate. Medical school professors play the role of clinicians, researchers, and educators. In a study where interviews were conducted with medical school professors, participants unanimously identified their primary identities as clinicians/scientists/researchers, with their identity as medical educators being seen as secondary without exception [27,28]. They felt significant temporal and physical pressures related to their prioritization of these identities and expressed confusion regarding the notion that their identity as a clinician/scientist was a prerequisite for fulfilling the role of an educator. For novice teachers, this can lead to difficulties in integrating their teacher role into their identity. Such difficulties or tensions can lead to identity dissonance involving negative emotions, such as low self-worth or frustration. Identity dissonance is problematic because it can prevent teachers from practicing with confidence. Crossed and fused identities are desirable because individuals with strong identities as teachers enjoy their roles more, are more likely to stay in health vocational education, and are willing to invest more in professional learning [27]. Through the existing faculty development program, one can explore one's identity and strengthen the value of the teaching role through questions, discussions, and reflections on identity. It was also said that the opportunity to continuously explore identity through a longitudinal program should be provided and that comparing oneself with others or sharing learning experiences with colleagues who are compatible through faculty development or mentoring programs and community building and networking will often provide important opportunities for professional identity and career development.

5. Focusing on organizational development and change

Medical schools have three missions, namely, education, research, and patient care. So far, university policies have been essential for their excellent achievements in conducting these missions. Faculty development can play an important role in promoting organizational change and development. As Swanwick [29] notes, faculty development should be "an institutional-level pursuit with the intention of specializing teachers' educational activities, strengthening their educational infrastructure, and building educational competence for the future." Faculty development should play various roles, such as promoting changes in

the educational curriculum in line with theoretical changes in education and establishing policies to improve professors' research achievements as well as medical school admission policies. To this end, it is possible to promote a culture of change by developing institutional policies that support and reward excellence, recognize innovation and scholarships, and provide learning opportunities. Resources should be available to junior and senior faculty members.

Faculty development not only provides an opportunity for professors to develop individual capabilities to run organizations and determine university policies, but it also creates an atmosphere of change in university policy and can help foster an environment that promotes critical exploration, adaptation, and growth. In other words, faculty development can help develop organizations, promote leadership and management, and support cultural change in the workplace.

6. Promoting research and scholarship

In 2018, Harden et al. [30] complimented the development of research and scholarships related to medical education in his contribution to the 40th-anniversary issue of *Medical Teacher*. However, research in the field of faculty development is limited. In Korea, many universities have departments for faculty development, such as teaching and learning centers and educational development centers. Regarding medical education, most medical schools, medical education societies, and medical education training centers operate various educational programs to improve the quality of education and students' learning achievements by supporting professors with the knowledge and skills necessary for education, such as teaching methods, educational skills, and learning psychology [31]. However, verification of the effectiveness of these teaching development programs is insufficient. Steinert et al. [32] make the following six recommendations for research in faculty development in their review of faculty development for medical teachers: (1) embed research in a theoretical or conceptual framework; (2) incorporate qualitative and mixed-method studies to conduct more rigorous research; (3) evaluate behavior and organizational outcomes using different methods and data sources; (4) evaluate changes over time; convert to practice; (5) analyze key functions of faculty development; and (6) explore the role of faculty development within a larger organizational context.

In the future, we must expand our focus beyond individual educational effects, develop programs that expand over time, promote workplace learning and community development, and secure institutional support based on the achievements of faculty development. Research should also be included in the theoretical framework, and more qualitative and mixed-method studies should be conducted to evaluate behavioral and organizational changes, evaluate transitions to practice, analyze key functions, and explore the role of faculty development in a larger organizational context.

Conclusions

Faculty development is important to support faculty in developing and applying long-term proficiency, and many universities offer programs that strengthen and develop faculty in teaching, learning, and assessment methods, skills and tools, and research methodologies. Continuous changes and developments in learning methods and educational skills, as well as changes in student needs and expectations, require universities to continue developing and applying the professional knowledge and skills of faculty members to provide students with the best education.

The educational community has emphasized the importance of teaching and development for decades, but education is still subordinate to universities' responsibilities, such as education, research, service to the community, and patient care.

Likewise, educational experts have long suggested the direction of faculty development. Teaching development should be expanded not only to educate students by listening to the needs of professors but also to more diverse fields such as research capacity development and personal development. Most teaching and development should be conducted in various efficient ways away from the center of the lecture, especially examples such as mentoring by senior professors, peer tutoring, and community formation. A competency-based framework should be applied to develop continuous and goal-oriented teaching competencies, away from single-step educational content. And above all, it can be said that it is necessary to support professors to build their identity as educators. In addition, teaching development should be expanded to promote not only

individual professors but also organizational change and development, for which research and support for faculty development is needed. In addition, in the field of faculty development, important directions for the future include digital technology utilization and respect for diversity, flexibility, and adaptability.

Faculty development is one of the most important challenges faced by universities. If faculty development is promoted in this direction, students' learning achievements can be improved, and a higher level of quality improvement can be achieved in the field of education. In addition, it will play an important role in promoting the personal development of professors and developing the university's capacity to fulfill its social responsibilities.

Article information

Conflicts of interest
No potential conflict of interest relevant to this article was reported.

Funding
None.

Author contributions
Conceptualization: HS, MJK. Writing - original draft: HS. Writing - review & editing: MJK.

ORCID
Hyekyung Shin, https://orcid.org/0000-0002-5826-9075
Min-Jeong Kim, https://orcid.org/0000-0002-1340-1060

References

1. Bergquist WH, Phillips SR. A handbook for faculty development. Dansville press; 1975.
2. Yang EH, Chung J. Needs analysis for improving teaching competency. J Educ Technol 2010;26:25–52.
3. World Federation for Medical Education. The Edinburgh declaration [Internet]. World Federation for Medical Education; c2023 [cited 2023 Jan 1]. https://wfme.org/download/the-edinburgh-declaration/
4. Irby DM, O'Sullivan PS. Developing and rewarding teachers as educators and scholars: remarkable progress and daunting challenges. Med Educ 2018;52:58–67.
5. Cantillon P, Dornan T, De Grave W. Becoming a clinical teacher: identity formation in context. Acad Med 2019;94:1610–8.
6. Park YS, Cha HJ, Song YM, Chun KH. Development of a life stage-based competencies empowerment program for the faculty members. J Korean Teach Educ 2015;32:137–62.
7. Steinert Y. Faculty development in the new millennium: key challenges and future directions. Med Teach 2000;22:44–50.
8. Kim YI. History of medical faculty developmental program in Korea. Korean J Med Educ 1991;3:1–4.
9. Son CK. A studies on the program development for teaching improvement of university faculty and the test of its effects. J Korean Teach Educ 2003;20:121–50.
10. Kang PS. Improvement of teaching. Korean J Med Educ 1995;7:11–9.
11. Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, et al. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. Med Teach 2006;28:497–526.
12. Skeff KM, Stratos GA, Mygdal W, DeWitt TA, Manfred L, Quirk M, et al. Faculty development: a resource for clinical teachers. J Gen Intern Med 1997;12(Suppl 2):S56–63.
13. Na BJ, Kang J, Kim JY, Yun J, Han S, Hwang W, et al. What do faculties need most in a faculty development program? Korean J Med Educ 2014;26:137–41.
14. Steinert Y. Faculty development: from rubies to oak. Med Teach 2020;42:429–35
15. Hodges B. Faculty development for research capacity building. In: Steinert Y, editor. Faculty development in the health professions: a focus on research and practice. Springer; 2014. p. 79–96.
16. Swanwick T, McKimm J. Faculty development for leadership and management. In: Steinert Y, editor. Faculty development in the health professions: a focus on research and practice. Springer; 2014. p. 53–78.
17. Leslie K. Faculty development for academic and career development. In: Steinert Y, editor. Faculty development in the health professions: a focus on research and practice. Springer; 2014. p. 97–118.
18. Song HD, Jang SY, Kim YK. An need assessment of faculty member's job competencies according to the level of teaching experience. Asian J Educ 2013;14:149–79.
19. Chun KH, Park YS. A comprehensive approach to design and quality management of a faculty development program for medical teachers. J Korean Teach Educ 2020;37:255–77.
20. Duke NUS Medical School. Faculty development program [Internet]. Duke NUS Medical School; c2023 [cited 2023 Feb 1].

https://www.duke-nus.edu.sg/academic-medicine/academic-development-department-(add)/faculty-development-resources/faculty-development-programme
21. Duke NUS Academic Medical Center. Data search [Internet]. Duke NUS Academic Medical Center; c2023 [cited 2023 Feb 1]. https://www.singhealthdukenus.com.sg/amei
22. Barab SA, Barnett M, Squire K. Developing an empirical account of a community of practice: characterizing the essential tensions. J Learn Sci 2002;11:489–542.
23. Yoo JA. Survey of awareness about faculty learning community program on teaching improvement. Korean J Teach Educ 2009;25:72–92.
24. de Carvalho-Filho MA, Tio RA, Steinert Y. Twelve tips for implementing a community of practice for faculty development. Med Teach 2020;42:143–9.
25. Academy of Medical Educators. Professional standards for medical, dental and veterinary educators [Internet]. Academy of Medical Educators; c2022 [cited 2023 Feb]. https://www.medicaleducators.org/write/MediaManager/Documents/AoME_Professional_Standards_4th_edition_1.0_(web_full_single_page_spreads).pdf
26. Steinert Y, O'Sullivan PS, Irby DM. Strengthening teachers' professional identities through faculty development. Acad Med 2019;94:963–8.
27. van Lankveld T, Schoonenboom J, Kusurkar RA, Volman M, Beishuizen J, Croiset G. Integrating the teaching role into one's identity: a qualitative study of beginning undergraduate medical teachers. Adv Health Sci Educ Theory Pract 2017;22:601–22.
28. Sabel E, Archer J; Early Careers Working Group at the Academy of Medical Educators. "Medical education is the ugly duckling of the medical world" and other challenges to medical educators' identity construction: a qualitative study. Acad Med 2014;89:1474–80.
29. Swanwick T. See one, do one, then what? Faculty development in postgraduate medical education. Postgrad Med J 2008;84:339–43.
30. Harden RM, Lilley P, McLaughlin J. Forty years of medical education through the eyes of Medical Teacher: from chrysalis to butterfly. Med Teach 2018;40:328–30.
31. Lee SS, Lee H, Hwang H. New approach to learning medical procedures using a smartphone and the Moodle platform to facilitate assessments and written feedback. Kosin Med J 2022;37:75–82.
32. Steinert Y, Mann K, Anderson B, Barnett BM, Centeno A, Naismith L, et al. A systematic review of faculty development initiatives designed to enhance teaching effectiveness: a 10-year update: BEME Guide No. 40. Med Teach 2016;38:769–86.