PEER REVIEWED

Faculty Development to Improve Teaching Skills of Optometric Educators: Experiences of a Healthcare Organization

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Abstract

Numerous studies demonstrate the impact of faculty development programs in health professions education, but few are in optometry. This paper describes the development of a three-hour faculty development clinical teaching skills workshop and its impact on federal service clinical optometric educators. Multiple teaching strategies were used in the workshop including lecture, role-plays and discussion (free and video-stimulated). To determine impact, participants responded to a short survey (18 of 34 responded, 52.9%). The positive impact we found mirrors that reported by medical and dental faculty despite the limitations of small sample size and only one organization involved.

Key Words: *faculty development, health professions education, optometry, teaching, clinical skills*

Background

Optometric educators are poised not only to care for patients but also to contribute to the profession by "guiding, developing and nurturing future generations of optometrists."[1] Like other health professionals, optometrists often become teachers based on past clinical expertise and have no specific training in education principles.[1] There are multiple types of faculty development to improve skills for optometric educators from personal reflection to group workshops to longitudinal programs and additional degrees.[2] The best type of program has not been elucidated and likely needs to include a variety of options.

Numerous studies demonstrate the impact of faculty development programs in health professions education. A systematic review of faculty development initiatives concluded that short courses have a high level of participant satisfaction, as well as self-reports of increased knowledge, skills, confidence in teaching and behavior changes.[3] Efficacy of faculty development in optometry has not been established as optometrists have not been participants in the studies cited. Furthermore, optometric literature has generally been silent on the topic of faculty development. Because optometry is a learned profession with a unique training pathway, this is a gap in the literature.

In the past decade, non-optometric accrediting bodies have started requiring programs to monitor faculty development. The Accreditation Council on Graduate Medical Education started in 2012 with the Clinical Learning Environment Review[4] requiring faculty training in areas such as quality improvement and patient safety. The recent Common Program Requirements, starting July 2019, have a more specific outline of requirements for faculty development in areas of education, wellness and quality improvement.[5] The Liaison Committee for Medical Education has specific language in its standards as of 2015 requiring medical schools to provide opportunities for professional development specifically citing instructional design and program evaluation.[6] The Commission on Dental Accreditation's 2019 standards

state dental schools are required to have ongoing faculty development for dental educators outlining multiple domains such as curriculum design, working with students and use of technology.[7] In contrast to dental and medical accrediting agencies, the Accreditation Council on Optometric Education in its latest standards (July 2017) has no specific faculty development requirements.[8] The standards state "the program must allocate adequate time and resources for faculty to enhance their skills and leadership abilities in education, service, research and scholarly activity, and patient care." Even though the specific words "faculty development" are not written, enhancing skills in education and scholarship are often part of faculty development.

Faculty development was first discussed in optometric literature in 1980 when optometric educators recognized the need to enhance collaboration between educators, to keep current with changing teaching trends, and to implement faculty development locally.[9] With optometric clinical knowledge expanding and the number of colleges increasing, the need for modernizing teaching practices of the faculty is paramount. Educational degrees and national longitudinal faculty development programs are available. The Association of Schools and Colleges of Optometry offers two specific opportunities for faculty development: the Summer Institute for Faculty Development (SIFD) and the Future Faculty Program.[10] These programs include a variety of topics critical for optometric educators' personal development including scholarly work, developing curricula, academic promotion and many teaching concepts. The SIFD has impacted numerous educators since 2006, citing the majority of attendees reach personal short- and long-term goals.[11] However, these national programs are often expensive, not flexible with clinical schedules, and only a few faculty from a single institution can attend. Local institutional workshops and personal guided reflection are more flexible and cost-effective ways to increase faculty teaching ability.[2] Furthermore, local programs can deliver targeted faculty development to a larger proportion of teaching faculty. There are no current studies describing faculty development programs based at local optometry colleges across the United States. Optometric educators could benefit from strengthened health professions faculty development programs collaborating with local medical, dental or nursing schools to share knowledge about core teaching skills and academic life.

Despite the number of articles published on the impact of faculty development and best practices, very few are specific to optometry. This paper describes the development of an institutional faculty development workshop including curriculum and data from its participants.

Methods

A three-hour block of time was designated for a faculty development workshop at the March 2019 Armed Forces Optometric Society (AFOS) meeting at Southeastern Educational Congress of Optometry International and the October 2019 AFOS meeting at the American Academy of Optometry. Clinical teaching skills were identified as the target for improvement. Focused on optometric externship clinical educators, skills identified for the faculty development sessions were precepting, direct observation and role-modeling. The content development and facilitated learning was done by one of the authors experienced in delivering faculty development. All participants self-identified as clinical educators for optometry schools.

Kolb's Experiential Learning Theory was the underpinning of the session.[12] Kolb's theory describes using self-reflection on prior experiences, followed by the addition of abstract concepts, leading to direct application or planning of application in the future. For example, faculty learners reflected on prior clinical precepting experiences and defined the conceptual framework of the five microskills[13] (getting a commitment, probing for evidence, teaching a general principle, reinforcing things done well, and correcting mistakes). They then participated in a role-play for practice and ended with a debrief reflecting on that experience. This format based on Kolb's theory has been previously described in faculty development for medical and dental educators.[14] To create realistic examples for the audience, both for discussion and the role-plays, the authors facilitating the workshop spent several hours observing two

optometric educators actively educating externs in clinic. These faculty were iteratively queried about their experiences as educators, training as educators, and challenges in clinic. Externs were observed during patient presentations, responding to feedback from teachers and interacting with patients and clinic staff.

Multiple teaching strategies were used in the three-hour faculty development workshop including lecture, role-plays and discussion (free and video-stimulated). Lecture was used to define and give examples of key concepts faculty would use in the future. Role-plays were designed to improve faculty self-assessment of teaching[15] and allowed for faculty to have direct practice of the five microskills. Best practices of role-play use were applied including scripting, detailed instructions and realistic encounters.[16] Discussion is a common active teaching strategy,[17] and was employed, both free and video-stimulated, to guide faculty reflection of prior experiences and to plan for future teaching. Free discussion, defined as time when learners explore emotive features of teaching concepts,[18] was utilized to examine faculty's personal barriers. Discussion allows for immediate application of knowledge gained, understanding different perspectives of a topic, and higher cognitive analysis. Using videos for faculty development to stimulate discussion has been used with good success.[19] Intentionally developed videos of teaching encounters fueled discussions of direct observation and role-modeling to enhance planning for future behaviors. These strategies were chosen to increase retention moving from passive lecture to active discussion, to analysis of videos, to actual practice for planning for future behaviors.[20] **Table 1** outlines each portion of the block of faculty development to include which active teaching strategies were utilized.

Table 1. Click to enlarge

A survey was used to assess efficacy of the workshop. The project was approved by the Institutional Review Board at Joint Base San Antonio-Lackland as part of the faculty development program evaluation. Two months after each AFOS faculty development session, the survey was sent electronically to all attendees. The survey was open for one month, with an electronic reminder sent one week prior to the end date. The survey was anonymous, and results were collated by one author who was not involved in developing or delivering the content.

Results

Out of 34 attendees (12 the first meeting and 22 the second), 18 responded to the survey (52.9%) **(Table 2)**. All respondents felt the session affected how they approached teaching with 83.3% acknowledging this weekly (ranging from "at least once a week" to "daily" since the session). All respondents stated that the session caused them to reflect on their teaching, with two-thirds at least weekly. Seventeen of 18 (94.4%) respondents perceived increased confidence using the five microskills as a tool in precepting to both teach and assess students, with 83.3% rating their confidence "somewhat or significantly" increased. 100% felt the role-play was effective for improving their reflection on precepting as well as the use of the five microskills. Seventeen out of eighteen (94.4%) respondents felt the session changed their direct observation skills. The changes ranged from observing more often, to being more purposeful with the same frequency, to trying new ways to observe. All respondents stated they would attend another faculty development workshop in the future, with 9.1% clarifying it "depends on the topic."

Table 2. Click to enlarge

Two open-ended questions were included in the post-course survey, "How have you utilized the

information presented in the faculty development session since the meeting?" and "Do you have any other comments about the workshop?" Many comments were specific to precepting. Comments are listed in Table 2.

Discussion

To our knowledge, this paper adds to the optometric education literature by describing the impact of an institutional faculty development workshop for clinical optometric educators and uniquely describes an institutional program. Participants shared a change in their precepting and direct observation skills in their teaching encounters. It could be assumed the workshop was worthwhile to the optometrists attending as their attendance is voluntary and they answered they would return to another workshop in the future.

Impact is more than knowledge of educational principles, but also networking, creating community and sharing pearls and struggles with colleagues to improve reflection and experimentation. The impact we found mirrors that reported in medical and dental faculty.[3] Our results demonstrate that institutionally based faculty development can be effective by increasing confidence in optometry educators' teaching skills. Comments from the participants discuss impacts that cannot be assessed with a post-test, observation of teaching or specific assessment of skills. Having discussion with colleagues surrounding teaching as well as recognizing and valuing the team approach in health professions education imply a larger impact beyond the individual attending faculty development.

Limitations of our educational research include a small sample size and involvement of only one organization. However, because our faculty represent multiple clinical teaching sites in all areas of the United States, it is plausible the responses represent more variety than some single institution studies. Another limit often cited is that participation was voluntary adding possible selection bias.

Conclusion

Locally created and delivered faculty development can be effective, flexible and more cost-effective than programs overseen by national organizations. Additionally, it can increase the number of faculty exposed to core teaching concepts for immediate use. Leadership of academic institutions must value development of teaching skills of optometric educators to enhance effectiveness and promote participation.[2] If locally available, optometrists could attend faculty development for other health professions as the skills are shared. After all, when educators meet, the focus could be on principles of education and the skills of HOW to teach the clinical knowledge[21] – that is faculty development.

Disclaimer

The opinions herein are those of the authors. They do not represent official policy of the Uniformed Services University of the Health Sciences, the Department of the Air Force or the Department of Defense.

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