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Research Article

Needs Assessment for Faculty Development Activities in Medical Schools in Israel

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Abstract

Introduction: Faculty members at medical schools have diverse academic responsibilities, such as teaching, research and administration. The process of training faculty members is known as faculty development (FD).

Objective: To describe the perceived needs of teaching staff for FD activities, at two medical schools in Israel.

Methods: Faculty members at Ben-Gurion University of the Negev (BGU) and at the Technion were asked to complete a self-administered questionnaire that included: background information, formal FD training, perceived level of competence, and interest in participating in FD activities.

Results: At BGU 108 faculty members completed the questionnaire (15% response rate), and 129 at the Technion (28.6% response rate). Over 60% of respondents had never participated in any FD activity. Over 50% of respondents expressed interest in participating in most FD activities in most topics evaluated.

Discussion: The majority of teachers at medical schools in Israel lack formal training in areas considered essential to their academic performance. In spite of their high sense of competence they are interested in participating in FD activities. Medical schools should allocate resources to develop both national and locally- tailored, comprehensive FD programs, to develop the medical educator of tomorrow. Although the data is not easy to extrapolate to other international realities, it becomes part of the international database for others interested in comparisons between their local reality and the international one.

Keywords: Medical schools; Medical education; Faculty development; Needs assessment; Medical teachers

Introduction

Faculty members at many Medical Schools around the world are asked to take on academic duties without receiving formal training to do so. This was understandable in the first part of the 20th century when teaching expertise was seen as a part of content expertise [1]. Graduating in a discipline meant that the graduate could teach, without further preparation. But today it is becoming more obvious that preparation for teaching is essential and that teaching is a skill that, although associated with expertise, should be taught separately.

Instructors and teachers in the health professions of the 21th century must acquire knowledge and competencies that go beyond disciplinary expertise. This process which is needed to prepare graduates for their faculty duties and to help them gain these knowledge and competencies is known as faculty development (FD) or staff development. FD programs developed in the US around 1950 following the work of Miller [2] that changed the old premise of "graduate-equals-teacher". These programs have been developed not only to improve teaching but also to give teachers tools to develop an academic career. In addition, FD programs are essential educational tools for improving academic institutions by paying attention to all the needs of the teachers themselves, and the actual implementation of a policy that encourages academic excellence [1] Comprehensive FD programs deal with developing teaching skills (improving teaching training of colleagues , promotion and training guidance capabilities), professional development (i.e., the various roles of staff), leadership development and organizational development. These activities can design a variety of approaches and formats such as workshops, seminars, short courses or long-term programs, peer coaching, mentoring, and self-learning [3].

Organized FD activities are common in Canada, the US, the UK and the Netherlands, among other countries. Universities in those places have departments/ units/ centers of FD. Steinert et al from McGill University in Canada published in 2006 two articles that synthesize 20 years of evidence on the effects of FD interventions on the knowledge, attitudes and skills of teachers in medical education, and on their institutions [4, 5]. The review of the FD literature supported some outcomes: 1. A high overall satisfaction with FD programs; 2. FD programs were found to be consistently acceptable, useful and relevant to their objectives (by participants); 3. Participants reported increased knowledge of educational principles and gains in teaching skills; 4. Participants reported changes in teaching behavior that were also detected by students; 5. Participants of FD programs reported changes such as greater educational involvement and establishment of collegiate networks. The situation in Israel is such that although FD activities are conducted in every medical school under different departments/ units/ centers of medical education [6-9], and sometimes at the national level [10], this is done through

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individual /isolated workshops and not in an organized, stepwise manner, As a result most teachers are left with minimal or no formal training to take on academic duties.

The present study was designed to assess the perceived needs of faculty for FD activities, and their previous exposure to these activities at two medical schools in Israel. The Deans of the two medical schools studied gave their consent for the study and approved the referral to faculty members.

Methods

Setting

Faculty members of two Medical Schools in Israel were included in the study: 1. the Joyce and Irving Goldman Medical School at Ben-Gurion University of the Negev (BGU), in Beer-Sheva (South of Israel) and 2. the Ruth and Bruce Rappaport Faculty of Medicine at the Israel Institute for Technology (Technion) in Haifa (North of Israel).

Study population

All faculty members, ranked from instructor to senior lecturers, in the above setting were included in the study: 720 at BGU and 545 at Technion. A complete list of faculty members with personal details was obtained from the Education office of each medical school.

Tools

A self-administered questionnaire was developed. The questionnaire included:

1. Socio-demographic details (age, gender, education history, academic rank, area of academic specialty and seniority in the profession).
2. Academic activity (academic rank, clinical and preclinical teaching).
3. Formal faculty development training, perceived level of expertise, and interest in participating in this training in the future, in the following three areas:

- Teaching and learning: teaching methods, theories and concepts in learning, developing teaching resources, learning evaluation, assessment, Curriculum planning & development.
- Administrative skills/ management/ negotiation skills: management of meetings, team work, promoting organizational changes, leadership styles, developing leadership abilities.
- Research: quantitative and qualitative research methods, surveys development, writing research proposals, submitting article for publication.

Perceived level of expertise was measured using a 4-point Likert scale (1 = poor knowledge or skill, 4 = excellent).

Data collection

At BGU the questionnaire was distributed to all faculty members through the internal mail system. Up to three reminders were sent supplemented via email or fax as requested. At the Technion, the questionnaire was web based and emailed to all faculty members. Returned emails were corrected and resent. Reminders were sent every two weeks to all faculty on the list, five times, until saturation (no more replies were received for a week). Data collection took place between November 2009 and January 2010.

Results

A total of 237 completed questionnaires were included: At BGU 108 (15% response rate), and at the Technion 129 (28.6% response rate). In both groups the average age was about 50 years, and the majority of participants were male. Other characteristics were not found to be significantly different between the two places. Most of the responders in both sites (85% at BGU and 80% at Technion) reported that their major teaching activity is during the clinical years.

The results of the survey on different needs and issues of faculty development showed that in both schools, the majority of respondents have not participated in any FD activity (over 60% in most cases). In few specific areas notable differences were seen between the settings, whereby in most cases BGU faculty indicated significantly more activity than the faculty in the Technion. Another trend that emerges from the findings is that although the majority in both schools/universities did not participate in specific FD activities in the past, their perceived level of expertise in specific FD field was high. Perceived expertise was higher in "traditional" themes in the field of teaching and learning: teaching methods (giving a lecture, small-group instruction, teaching on the bedside), development of teaching resources (presentations, case studies), and assessment of learning (writing long questions default). However, on " innovative" themes such as learning theories and concepts , advanced teaching methods (e-learning , using audience response system), developing academic leadership skills and certain areas in research (qualitative research, surveys , research, medical education), percentage of respondents reporting high proficiency was low (less than 40% of respondents from each of the institutions).

In both settings a high desire for further knowledge was demonstrated (over 50% in each school indicated interest) in most topics evaluated. Faculties were also asked their likelihood of participation in FD programs if offered. Despite the high interest in all courses outlined (over 70% noted interest in both places), when it came to practice at BGU significantly more noted high likelihood and very likely than at the Technion (82% vs.23%, $p<0.001$). At BGU, interest was significantly less the higher the seniority, whereby instructors indicated more courses of interest on average than senior lecturers (30 vs. 20 courses on average respectively, $p<0.05$).

Discussion

A needs assessment is a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need [11].

The present study describes the "current condition" in Israel: most faculties at medical schools lack theoretical background in the common teaching/faculty tasks. In both schools, the majority of respondents have not participated in any FD activity. It also shows that despite a high perceived level of competence most respondents

expressed interest in participating in courses about most of the topics evaluated ("wants").

The information was obtained from two of the four medical schools in Israel (BGU and the Technion) in order to perform a comparative study that does not reflect only a local reality. The results, as predicted, were similar.

What information can we obtain from need assessments?

In 1997, McLeod et al published a needs assessment of members of the Faculty of Medicine at McGill University, Canada [12]. In their conclusions the researchers stressed the importance of needs assessment process as a way to target FD activities to specific responsibilities of academic staff members, and the need to check these needs over time. Other national surveys assessing FD among members of the academic staff of medical schools were published in the US [13, 14].

Although the information obtained in our study is important at a local level, why should we publish it in an International Journal? Simply because like in Canada and the US, a survey among faculty members of medical schools in this country may provide information about the "gaps" between current conditions and desired ones, becoming the basis for planning and implementing of FD activities both in the local and the national level. Although the data is not easy to extrapolate to other international realities, it becomes part of the international database for others interested in comparisons between their local reality and the international one.

There were several limitations in our study. There was a relatively poor response to the surveys (15% at BGU and 29% at the Technion) probably due to the difficulties in persuading busy faculty to take the time to fill out the survey. The survey relied on self-reporting of the faculty and did not validate their answers independently. In addition, the methodology did not allow for in-depth responses as would a more qualitative interview based study. The study also looked only at two out of the four medical schools in Israel. Although we did not replicate this study in the other two medical schools existing at the time the study was performed (Tel Aviv University and the Hebrew University in Jerusalem), based on informal information, we have no reason to believe that there are significant differences between the 4 medical schools.

In summary, our survey shows that, despite the described isolated FD efforts in Israeli medical schools (past and present), the majority of their teachers lack formal training in areas considered essential to their academic performance. Despite their perceived high sense of competence in the different FD areas, most teachers have not participated in any FD activity in the past and showed willingness to participate in more FD activities. So, based on the described needs, we suggest medical schools in Israel to create comprehensive FD programs, supporting leadership, allocating resources, and recognizing teaching excellence in order to develop the medical educator of tomorrow. We also advise medical schools around the world to assess the needs of their faculties and create FD programs according to those needs.

Lessons for Practice

1. Needs assessment (NA) are important for determining gaps between current conditions and desired ones.
2. Our NA shows that most faculties at medical schools in Israel lack theoretical background in the common teaching/faculty tasks.
3. NA for FD activities may become the basis for planning and implementing of Faculty Development (FD) activities both in the local and the national level.
4. We suggest medical schools in Israel and around the world to create comprehensive FD programs, supporting leadership, allocating resources, and recognizing teaching excellence in order to develop the medical educator of tomorrow.

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