Faculty Development Programming at Academic Medical Centers: Identifying Financial Benefits and Value

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Faculty and professional development programs at academic medical centers (AMCs) help to develop effective teachers, supervisors, researchers, mentors, and leaders [1]. While AMCs are required by accrediting bodies to provide faculty development programming (e.g., LCME Standard 4) [2], little literature exists examining the financial impact of faculty development programming on the AMC. One reason for this is that faculty members and AMCs may not appreciate the significant direct and indirect financial benefits, and both the upfront and the downstream positive impact, of faculty development programming to the AMC. This lack of appreciation may be due to the notion that, in the past, faculty development programming solely focused on improving teaching, which is perceived as an “add-on role,” relative to clinical and research roles [3], and is often marginalized [4].

It is our goal to highlight potential financial benefits of faculty development programs with the hope that faculty members use this information to advocate for increased AMC support and funding of faculty development programming, and for increased time to attend programming.

Faculty development is defined as a broad range of activities that “renew or assist faculty in their roles” [5] as teachers, researchers, administrators, and leaders [6]. Faculty development programming encompasses a broad range of topics,

including activities to promote faculty roles in teaching, scholarship, leadership, administration [1], and overall faculty career development [7].

AMC faculty members can benefit from all facets of faculty development, including instruction in teaching skills, training in research and scholarship, development of leadership skills, and mentoring for career development [1]. For example, many AMC faculty members lack formal training in pedagogic principles or in the learning sciences and need faculty development to improve teaching performance in small and large group settings, provide competency-based education, evaluate learning, provide meaningful feedback to trainees, use technology in education, and become more effective administrators, researchers, and leaders [1, 6, 8–10]. Faculty development programs can meet these needs.

Further, faculty members are satisfied with faculty development programs [6]. Program participation increases positive attitudes towards teaching, increases knowledge of educational principles, develops educator networks, and results in positive changes in teaching behavior [6]. Programming may include workshops, seminars, internships, and mentoring programs [11].

There are a number of aspects of faculty development programming that provide direct and indirect financial benefits to the AMC. While it is difficult to calculate exact monetary amounts due to the challenge of identifying, measuring, and assigning monetary values to the relevant variables [12], there are a number of ways to estimate the financial benefits.

Most notably, faculty development leads to increased faculty retention [13]. Faculty retention reduces the high direct and indirect costs related to turnover to the AMC. Faculty retention is relatively low, as the 10-year attrition rate of first-time assistant professors is 43 % [14]. Cost estimates for replacing one faculty member can range from \$250,000 [15] to \$400,000 [16] or from 32 % to 114 % of the annual

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salary paid to the faculty member leaving [17]. Reduction in turnover can lead to a financial benefit to the AMC. Specifically, a 10 % reduction in faculty turnover was estimated to save one AMC more than \$900,000 annually [16].

Direct financial costs to the AMC related to faculty turnover include lost clinical revenue related to the vacant position, recruitment costs (e.g., search committee time, interviewing costs), hiring costs, and start-up costs for the new faculty member [16]. Indirect costs to the AMC related to turnover include loss of patient referrals, reduced teaching and research opportunities, and potentially a negative impact on the reputation of the medical center [16]. Further, high employee turnover is linked to decreased employee morale and productivity [17], which can increase indirect costs to the AMC.

Faculty development programming can contribute to increased job satisfaction, thus decreasing turnover among faculty members [18]. Increased job satisfaction results in faculty members remaining at their institutions and practicing academic medicine [15]. Programming increases retention of female and minority faculty members, increases self-advocacy skills and self-confidence, increases networking opportunities and a sense of community, and allows participants to appreciate the institution's commitment to the success of its faculty members [18]. These benefits can last for 2 years following program participation [19].

A second direct financial benefit of faculty development to the AMC is the generation of increased external grant funding [18, 20]. Faculty development programs can provide seed grants for faculty members to start research programs [20], individual and group training and mentoring on writing research grants and articles, strategies to improve oral presentation skills, and skills to increase academic productivity [15, 18, 20, 21]. These initiatives can result in increased grant funding awarded to faculty at the AMC. As one author noted, if only 1 out of 100 faculty members who receive AMC funding to attend a grant writing workshop is successful in receiving a NIH R01 grant, the AMC will recoup its initial financial investment multi-fold through the NIH grant's institutional indirect cost rate [22]. Further, increased faculty publications raise the medical center's visibility and prestige, increasing grant funding, clinical revenue, and donor financial contributions [18, 23].

An indirect financial benefit of faculty development is increased patient safety and quality of care, and the potential for reduced malpractice claims. Faculty development programming can help faculty members effectively teach trainees strategies to better communicate with patients, resulting in increased patient adherence to treatment and to symptom reduction [24]. This can lead to higher quality patient care, increased patient satisfaction, decreased hospital re-admissions, reduction of unnecessary procedures and medications, and decreased medical errors [25]. A multicenter intervention study implemented both a handoff improvement program for

residents and a faculty development program to teach faculty to observe resident handoffs and provide feedback, and found significantly fewer medical errors and preventable adverse events [26]. Further, as patient dissatisfaction with communication from clinical providers may be associated with increased rates of malpractice claims [27], an increase in satisfaction may lead to decreased claims.

Direct financial costs of faculty development include the cost of staff time to organize and run the programming, lost clinical revenue when faculty members attend programming, cost of seed grants, and funding for physical infrastructure [3, 6, 28]. Indirect financial costs include physical space to hold programming and the cost of volunteer teaching [12, 29]. It is difficult to provide detailed financial figures related to cost of faculty development. However, it is estimated that continuing medical education for physicians (Category 1 credit), which shares some aspects with faculty development programming, cost \$4013 per physician in 2007 [30].

Faculty development programs can use several strategies to highlight financial benefits of programming to the AMC and to mitigate cost. As part of their mission statements, faculty development programs can aim to emphasize and directly measure the financial benefits to the AMC. Programs can strive to quantify the financial benefit of retaining faculty members and to assess the overall cost-effectiveness and value of programming [18]. To reduce costs AMCs might share administrative resources and programming, use online repositories of effective programming (e.g., MedEdPortal: www.mededportal.org) rather than developing their own, and integrate brief faculty development activities into already scheduled staff meetings. Further, social media can disseminate effective practices and build community in a cost-effective way [31].

Taken together, financial resources devoted to faculty development programming and professional development programming may result in significant financial benefits and overall value to the AMC. These benefits should be highlighted by faculty members to advocate for increased AMC support and funding of faculty development programming, and increased faculty time to attend programming.

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