

Using “educational handoffs” to improve curricular integration and overcome faculty disconnectedness

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In recent years, virtually every specialty under the medical education umbrella (e.g., medicine, pharmacy, veterinary, etc.) has placed a premium on designing integrated curricula. Although institutions have attempted a wide variety of strategies, most experience their share of struggles. Some challenges are of a substantive nature. For example, how to integrate curricula within and across a program year(s), how to cut content without compromising quality, and so on. Much literature has been published on these issues and offer a variety of potentially effective strategies and solutions. Other challenges, however, are equally daunting and to date have received relatively little attention in the literature. For example, how to get faculty who represents diverse disciplinary backgrounds and specialties to work effectively together?

Extant research has identified several factors associated with faculty teamwork that often thwart curricular integration attempts. These include 1) faculty unfamiliarity with the norms and values of other specialties; 2) disciplinary hegemony; and 3) selfish agendas and “turf wars” [1,2]. A commonality among each of these factors is lack of communication and teamwork. In this article, I propose a theoretical framework already well-understood by most medical educators and encourage the application of its principles to an educational setting. More specifically, I propose faculty view integrated curricular design much like the continuum of medical care in which handoffs are made, as handoffs emphasize communication and teamwork. I will introduce the concept of an “educational handoff” and argue how

this strategy can mitigate many of the challenges faculty in medical and health programs face, while simultaneously improving the learning experience for students.

The Patient Handoff

A patient handoff occurs when the care of a patient is transferred from one care provider to another. Patient handoffs may involve any number of health-care professionals working in different specialty areas, as well as different settings and environments. According to the Joint Commission [3], the objective of a handoff is to “provide timely, accurate information about a patient’s care plan, treatment, current condition, and any recent or anticipated changes.” Unfortunately, however, handoffs are laden with vulnerabilities. For example, miscommunication between care providers is routinely cited as the most common preventable source of error and adverse events [4]. Thus, healthcare providers in virtually every setting go to great pains to ensure handoffs are made effectively to promote patient safety, maintain continuity of care, and enhance and maintain professionalism through teamwork.

The Educational Handoff

Similar to medicine in which patients navigate a continuum of care and providers make handoffs to other care providers, an education program can similarly be conceptualized as a continuum in which educators handoff students to other education providers. In short, the educational handoff is

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a strategy for helping medical educators conceptualize the need for working together as it relates to matters of student instruction. This author contends that many faculty and medical education programs possess a “blind spot” with respect to healthy and functional educational teams. Because medical educators are already intimately familiar with patient handoffs, developing a conceptual understanding of an educational handoff should be quite seamless.

At the heart of an educational handoff is the typical “best practices” of modern education science and pedagogy. For example, across all levels of education, in recent years there has been a movement away from an assembly line model in which all students receive the same instruction and content, in the same way, and at the same time. Students in these models are expected to advance with their peers and earn a diploma/degree based on seat time and credits, as opposed to competency. In K-12 (primary school) education, the use of standards-based analytics is now the norm in many, if not most, countries. These models served as the impetus to mastery/competency-based models in other areas of education (e.g., higher education, health professions education, etc.) which require students demonstrate a certain level of proficiency before advancing to a subsequent level.

Of course, one of the key elements that underpin virtually all competency-based models is the notion of “backward design” [5]. That is, program planners begin by identifying the things learners should know upon completion of a program. Planners then generate various assessment tasks that will demonstrate acceptable levels of evidence that learning was successful. Finally, planners design learning events that lead to the development of the intended knowledge, skills, attitudes, and so on. Educational models based on backward design principles have been proven effective in virtually all areas of education, at all levels [6–10]. In fact, the recent “milestones” movement in medical education is essentially a spinoff of a backward design competency model dating back to renowned evaluator Ralph Tyler in 1949 [11].

Furthermore, the more progressive educational programs throughout the world have begun to focus on personalized learning as part of traditional education efforts. Educators have long used tools such as pre-tests to gauge the knowledge levels of learners upon entry into a course, and wise educators then adjust instruction based on where learners are along the knowledge continuum [12]. In fact, many educational programs throughout the

world already use personalized education in other ways. In the United States, the individualized education program (IEP) requires by law that special needs’ teachers continuously monitor each student with special needs and document various artifacts. In the United Kingdom and Saudi Arabia, similar programs are called the individual education system and the IEP, respectively.

Thus, a variety of educational models have proven successful in a wide range of educational environments. Thus, it would seem that in the context of medical and health professions education training programs that if faculty can endorse each of these well-evidenced models and tenets, then the structure for an educational handoff can easily be recognized and implemented. More specifically, an educational handoff process that is based on a backward design curricular model and incorporates the proven pedagogical models noted previously (e.g., standards/competency-based education, milestones, personalized learning, etc.) could effectively:

- Help faculty across disciplines identify how one another contributes to the goals, objectives, and outcomes (e.g., competencies, milestones, standards, etc.) of the educational program (teambuilding);
- Create a more purposeful curriculum by mitigating persistent problems such as courses that focus on excessive content and/or details (e.g., improved curricular and assessment alignment);
- Improve efficiencies in teaching and learning by meeting students where they are and targeting subsequent instruction accordingly (e.g., targeted and personalized instruction);
- Encourage faculty to try new pedagogical strategies (e.g., active learning);
- Encourage faculty to engage in educational scholarship (e.g., professional development).

Implementing an Educational Handoff

An educational handoff could be implemented in a variety of ways. One example might involve refocusing conversations during curriculum committee meetings to conceptualize the educational program as a pipeline in which educators interject at specific points in time. This would set the stage for understanding the linear nature of the program and could force faculty to consider the role of others in the educational process, and potentially bridge long-standing divides at many institutions between basic

scientists and clinicians by clarifying instructional goals and bridging communication. Conversations could then focus on substantive issues, such as what content is taught in the curriculum, where it is taught, and at what level of detail. Faculty at earlier stages in the pipeline could articulate the types of content they intend to cover and discuss how it will prepare students for subsequent training. Faculty at latter stages in the pipeline could articulate the types of instruction they intend to offer to build on the basic sciences, and discuss the types of preparation that is expected of upcoming students in order to maximize their potential for success. In addition, these open and collegial conversations could help lead the way for educators of vertically aligned courses to feel comfortable meeting with one another in subcommittees, small teams, or privately to discuss individual students and their learning needs, particularly those that appear to be struggling and at risk for academic dismissal. Because instructors in subsequent courses would be made aware of academically high-risk students, they could proactively help future students by suggesting specific resources and materials that could be reviewed prior to the start of the new course. Collectively, the educational handoff approach could delicately foster important conversations among faculty that otherwise may be potentially combustible if approached with the traditional fragmented perspective of the curriculum and faculty roles.

In the end, successful educational handoffs should yield similar benefits to successful patient handoffs. Much like the benefits of effective patient handoffs include patient welfare, continuity of care, and enhanced teamwork from care providers, the benefits of effective educational handoffs include maximizing student welfare (e.g., learning/development and wellness), targeted continuity of purposefully aligned instruction, and enhanced teamwork and relationships between faculty colleagues.

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