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EDUCATIONAL CASE REPORT

Longitudinal Faculty Development in Curriculum Design: Our Experience in the Integrated Care Training Program

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Teaching, including curriculum development, is one of the main expectations of faculty in academia. However, medical school faculty have reported a lack of training in how to develop curricula, as well as barriers to delivering high-quality educational content. These barriers include insufficient protected time to work on educational content and lack of exposure to learning effective teaching skills [1, 2]. Limited experience with curriculum development could lead to delivery of lower quality educational programs to learners and/or to dissatisfaction among faculty educators. Thus, there is a need to develop and describe strategies for teaching curriculum development skills to faculty [1, 2].

The need for faculty skills in curriculum development is most apparent when it comes to the creation of new educational programs. At the University of Washington, which is a large academic center focusing on community and population health, we faced the opportunity and challenge of creating a new fellowship program in integrated care, including a year-long didactic curriculum covering evidence-based clinical and system-based skills.

When we created this fellowship, there was no existing comprehensive curriculum for fellows that addressed these skills. The list of topics (Table 1) included in the fellowship didactic curriculum was based on the results of an educational needs survey of psychiatric consultants doing integrated care work and on the fellowship director's own experience with integrated care [3]. During the planning stages of the fellowship, we realized we would need to draw on the expertise of a wide range of faculty to teach fellows the complementary skills required to successfully practice integrated care [4]. Therefore, we invited over 20 faculty members doing integrated care work and interested in teaching to participate as educators in the fellowship.

Before starting the work of developing content, we completed a needs assessment survey of this faculty group regarding their prior experience with curriculum development to understand baseline knowledge and experience. Consistent with prior national data, we learned that almost all faculty lacked exposure to formal training in curriculum development [1].

We then faced two concurrent challenges: developing a novel fellowship curriculum in a relatively short time period (6 months) and rapidly teaching many faculty how to develop curriculum. Here, we describe our process for teaching faculty a strategy to develop curriculum.

Planning Curriculum Development and Initial Challenges

Our goal was to develop a high-quality didactic curriculum and learning experience for the fellows. To achieve this goal, the program leadership developed a longitudinal program design to improve the faculty knowledge base in curriculum design while simultaneously building the fellowship didactic curriculum.

We realized the likely challenges we would face working on the faculty development process and the didactic curriculum at the same time, with diverse faculty, in only 6 months included how to develop this longitudinal program design to teach faculty to be effective educators in a limited time, how to coordinate and monitor faculty progress, how to get faculty in different sites to be in one room, and how to address the lack of protected faculty time available to develop a curriculum (Table 2).

We addressed these challenges by [1] hiring key personnel with expertise in education, [2] utilizing tele-meeting platforms to facilitate faculty and staff interactions, [3] designing a shared website to communicate and share information, and [4] providing dedicated FTE to involved faculty to develop the curriculum (challenges and solutions are summarized in Table 2).

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Table 1 Didactic topics and number of faculty involved

Main topics thread	Topic in each thread	Number of faculty involved*
Transition to practice	Introduction to integrated care Implementation, hiring, managing	5
	Liability, leadership	
	Working on an inter-professional team	
	Contracting	
	Continuing Medical Education	
Tele-psychiatry	Introduction to models and practices Policy	4
	Models and best practices	
	Expanding opportunities	
	Advanced topics	
Basic collaborative care	Overview of assessment and treatment in collaborative care Mood disorder	4
	Anxiety disorders	
	Advanced mood and anxiety disorder	
	Safety assessment	
Advanced collaborative care	Substance use disorders Chronic pain	4
	Harm reduction	
	Difficult patients	
	Psychosis	
	Neuropsychiatry	
Quality improvement	Basics of QI theory QI vs. traditional research, IRB	4
	QI and EHR, publishing	
Brief behavioral interventions (BBI) for primary care	Core elements Basic skills and common elements	6
	BBI advanced topics	
	Motivational interviewing	
	Distress tolerance skills	
	Health behavioral changes	
Public health And health services	Introduction Financing	1
	Advanced topic	
Collaborative care for populations	Maternal mental health Geriatrics	8
	Child and adolescent	
	Advanced maternal and perinatal topics	
	Whole health	
	Primary care in mental health settings	
	Outliers	

*Some faculty members were involved in more than one didactic

Key Personnel and Curriculum Design Framework

We hired two staff members who had expertise in education, teaching, and technology to lead the curriculum development process with program leadership's support. A total of 1.0 staff FTE time (shared by the two staff members) was allocated to this project. The framework for the curriculum development process designed was based on an approach called "backward design" which focuses on developing goals of the course and how to assess those goals prior to working on the content [5]. Backward design is widely recognized within the field of education as an effective method for developing curriculum, and

Table 2 Summary of encountered challenges and solutions

Challenges	Solutions we used
To assess faculty knowledge for curriculum development	Doing a needs assessment early on helped to identify opportunity to work on faculty development
How to organize, coordinate, and track the progress of curriculum development of more than 20 faculty members	Use staff time: We hired 1.0 FTE staff (with teaching background) time to do tasks which were non-clinical like organizing, teaching, and monitoring progress
How to efficiently communicate, upload assignments, and store shared information and resources for all participants to access	Any web-based shared folders like learning management system (LMS) can allow storing and sharing files and coordinating efforts of faculty over time and across multiple sites
Limited faculty time	Infrequent synchronous monthly meeting was easier for faculty to attend and coordinate efforts; this was combined with asynchronous assignments Longitudinal curriculum with assignments: Supported the faculty to break down developing high-quality curriculum into steps that could be accomplished even with busy clinical responsibilities and created accountability Providing FTE for faculty based on the number of topics they were teaching
How to get faculty in different sites to be in one room	Use of video conferencing software for meetings allowed meaningful engagement and community building with minimal need for travel

the hired staff members had past experience with implementing this approach. After consultation with fellowship leadership, the staff members adapted the backward design model to meet the needs of the faculty development process. We also drew on the curriculum development process for medical education a six-step approach described by Thomas, et al [6]. This curriculum development process includes a focus on developing goals and objectives and aligning educational strategies to those objectives. We adopted this process because the methodology complemented the backward design approach and because it was specific to medicine.

Staff had several key roles including teaching brief monthly sessions for faculty based on the above framework, tracking overall progress of the curriculum, monitoring individual faculty progress, and supporting the faculty who needed more guidance and assistance to ensure adequate quality. Over the 6-month period, the staff, in coordination with the fellowship directors, oversaw and monitored all involved faculty members' work in an objective, incremental process: first, developing objectives and outcome measures; then, determining learning assessment strategies; and finally, developing instructional methods. Faculty were asked to complete monthly assignments for 6 months, providing a structure for staff member review of each part of the curriculum development for each faculty member.

Faculty and Staff Interactions

One challenge associated with including a wide range of faculty working in different geographic sites and clinical settings included finding time for a regular group meeting as well as for individual faculty meetings with staff or fellowship directors. We decided to hold monthly group meetings with a videoconferencing option to discuss the vision and objectives of the new fellowship and to provide a mechanism for faculty to receive peer feedback on curricula. Meetings were scheduled at noon when most faculty were able to attend for all or part of the meeting.

These monthly meetings occurred over six consecutive months. Each meeting started with 20 min of staff teaching a specific curriculum development topic, followed by discussion of the prior month's assignment and the next steps in the curriculum development process. Our meeting topics were based on the backward design framework [5], and Thomas et al.'s [6] process described above and over the 6 months included [1] goals of the curriculum, [2] learning objectives, [3] assessment of learners, [4] evaluation, [5] instructional strategies, and [6] developing the content. Meetings were recorded for faculty to review at a later time if they were not able to attend so that they will know what topic was taught and what the assignment for next month is.

After each meeting, faculty were assigned homework on their curriculum. The homework assignments were aligned with the above six monthly meeting topics so that faculty would complete incremental portions of their curriculum (assignment details available on request from the corresponding author). Faculty were asked to submit their homework prior to the next meeting to give staff and fellowship directors time to review. Faculty also presented their work on the assigned curriculum at the monthly meetings to provide an opportunity for peer review and feedback from other participating faculty. Additionally, the fellowship director met with each faculty member at least once in person or by videoconference in the 6-month period to review the design and content of their fellowship didactic topic. For each faculty needing additional support for their curriculum, additional meetings were scheduled with the fellowship director and/or staff.

To promote cohesiveness, provide a sense of group accomplishment, and have adequate time for complete review of the fellowship curriculum, for the final meeting, we planned a half-day session at a site on campus but outside of the medical center. At this meeting, we focused approximately 2 h on reviewing content, looking for and highlighting cross linkages, and eliminating redundancies. After this meeting, fellowship directors and staff reviewed the curriculum and made final edits.

As part of the development process we also identified a need to efficiently communicate asynchronously with faculty and store shared information and resources for all participants to access. Examples of resources included relevant educational readings, instructions, and templates to guide faculty to complete monthly assignments and recorded meetings with slide handouts. Since we were planning to use a learning management system (LMS) to distribute and store reading material for the fellows, we used the same system for the faculty development process.

Funding and Support

The fellowship leadership set high expectations for the quality of curriculum developed for this novel fellowship while also recognizing the relatively short time (6 months) available to create an entire fellowship curriculum. Leadership was aware that lack of available time for curriculum development is a significant issue for faculty in academic settings where clinical and perhaps unfunded teaching responsibilities can dominate faculty time. To overcome the dual challenges of high expectations for quality and short time, leadership allocated funding for faculty FTE to provide time for sustained effort on the curriculum. Funds came from the general fellowship budget which is funded and supported by the Washington State Legislature to expand access to psychiatric services in the state of Washington. The FTE allotted for participating faculty was based on the amount of content being developed by the faculty member but usually was in the 0.05–0.1 FTE range for 6–12 months. This protected time enabled faculty to sustain focus on curriculum development.

Evaluation

Several evaluations of our process occurred. Participating faculty completed an evaluation at the conclusion of the 6 months. Most of the faculty reported the curriculum development program as "very helpful."

Additionally, once the fellowship sessions began, the first cohort of fellows was invited to complete evaluations about the didactics after each didactic session. The average quality rating (which could range from 1(poor) to 6 (fantastic)) of each didactic (104 didactics in total) from the fellows (2 fellows in first cohort) was 5.88 (range of 5–6). A representative comment on one evaluation completed by a fellow was "It was a great interactive session. I am looking forward to the next session!"

Discussion

Our program strengthened curriculum development skills in faculty using an evidence-based strategy while simultaneously building the didactic content for the fellowship. Our stepwise approach included experiential learning and a longitudinal program design, which has been shown to be effective for faculty development [7]. Through monthly incremental knowledge and practicing skills over 6 months, faculty worked on assignments and gradually built their didactic material.

We recommend a similar process to groups developing novel curricula and suggest considering assessing faculty needs prior to assigning faculty the task of designing curricula to identify key challenges and possible solutions. This can create an opportunity for targeted faculty development and may improve the quality of the teaching curriculum. We realize funding is inconsistently available for curriculum development, though we argue that developing high-quality curricula takes real time and providing time can result in improved satisfaction and learning opportunities for faculty and trainees alike. We have found that short-term funding for faculty, hiring staff to help with the process, and employing technology for communication can be various ways to create a curriculum or modify an existing one in order to provide high-quality teaching to trainees.

We also recommend a combination of synchronous monthly meetings and asynchronous assignments to allow faculty to mostly work independently. A learning management system can also help faculty, staff, and leadership track progress and communicate asynchronously. Faculty sharing their work at each monthly meeting created opportunities for peer review. Working together in a group contributed to a sense of community and helped with developing didactic content by minimizing redundancies.

The evaluation by faculty and first cohort of fellows suggest that faculty perceived the curriculum development process as helpful and important, and participating fellows rated the didactic sessions as high quality.

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Compliance with Ethical Standards

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References

1. De Golia SG, et al. Faculty development for teaching faculty in psychiatry: where we are and what we need. Acad Psychiatry. 2019;43(2):184–90.
2. Clark JM, Houston TK, Kolodner K, Branch WT Jr, Levine RB, Kern DE. Teaching the teachers: national survey of faculty development in departments of medicine of U.S. teaching hospitals. J Gen Intern Med. 2004;19:205–14.
3. Ratzliff A, Norfleet K, Chan YF, Raney L. Perceived educational needs of the integrated care psychiatric consultant. Acad Psychiatry. 2015;39(4):448–56.
4. Ratzliff A, Sunderji N. Tele-behavioral health, collaborative care, and integrated care: learning to leverage scare psychiatric resources over distance, populations and time. Acad Psychiatry. 2018;42:834–40.
5. Bowen RS. Understanding by design. Vanderbilt University Center for Teaching; 2017. Last assessed: December 16 2019 from: https://cft.vanderbilt.edu/understanding-by-design/
6. Thomas PA, Kern D, Hughes M, Chen B. Curriculum Development for medical education: a six-step approach. Third ed. Baltimore: The John Hopkins University Press; 2016.
7. 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. J Med Teach. 2016;38(8):769–86.