

A Health Care Transition Curriculum for Med/Peds Residents

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Background: With a combined training in pediatrics and internal medicine, med/peds physicians are uniquely prepared to provide care for adolescents and young adults with chronic illnesses. Our residency program did not have a formal curriculum to educate residents about health care transition for this patient population. We hypothesized that a Powerpoint presentation in our pre-clinic conference would be an effective tool to educate residents about health care transition. Our specific objectives were to increase resident knowledge of health care transition, to improve resident competence in caring for youth with special health care needs during transition, and to familiarize residents with resources to support transition.

Methods: We completed a literature search for best practices in health care transition and incorporated our findings into a 30 minute Powerpoint presentation. This presentation highlighted the essential components of transitional care and resources available to assist health care providers. One of the authors gave the presentation to residents during our med/peds pre-clinic conference. Residents were surveyed via an anonymous electronic survey one week before the presentation and one week after the presentation. On the survey, residents used a scale of 1 to 5, with 1 being strongly disagree and 5 strongly agree, to rate their perceived knowledge of transitional care, their sense of competence in caring for patients during the health care transition, and their awareness of resources to aid in transition.

Results: The electronic survey was sent to all twenty-three med/peds residents. Twenty residents completed the pre-test survey. On the survey, thirteen of these twenty responded that they would attend the pre-clinic conference. The post-test survey was also sent to all twenty-three residents. Thirteen residents completed the post-test. The residents who completed the post-test all indicated they had attended the pre-clinic conference. The pre- and post-test results of the surveys from the residents who attended the conference were compared using an unpaired t-test (See table). For all three questions, there was an improvement from the pre-test to the post-test responses. The largest improvement was seen in resident awareness of resources to help with the transition process.

Discussion: A Powerpoint presentation during a pre-clinic conference is an effective educational intervention. After attending the conference, residents reported improved understanding of transitional care, improved sense of competence in caring for this population during transition, and increased awareness of resources to aid transition. We measured residents' perceived understanding, competence, and awareness, rather than evaluating actual knowledge or practice. Future projects could include knowledge-specific questions on the survey as well as chart audits which would more accurately assess resident knowledge and competence in caring for this population.

	Pre-test	Post-test	Difference	P-Value	95% confidence interval
I understand the concept of transitional care.	4.08	4.54	0.46	0.0289	0.05 to 0.87
I feel competent to assist in the health care transition of youth with special health care needs.	2.85	3.92	1.08	0.0004	0.54 to 1.62
I am aware of resources that can facilitate a successful transition	2.08	4.08	2.00	<0.0001	1.78 to 2.22

A Novel Curriculum to Educate Internal Medicine Residents in the Transition from Pediatric to Adult-Centered Medical Care

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The care of young adults with pediatric-onset chronic illness is a national concern. Every year, nearly half a million youth with special health care needs (YSHCN) transition from pediatric to adult providers. These YSHCN face a variety of barriers to care, including a lack of adult providers trained to treat childhood illness. Family practitioners and Medicine-Pediatrics physicians help to fill this gap, but general and subspecialty Internal Medicine physicians also must be involved. At present, there are no concrete guidelines for incorporating pediatric chronic disease into Internal Medicine residency training.

To lessen the barrier of physician knowledge as it relates to childhood illness, we created a novel curriculum to train Internal Medicine residents in pediatric chronic disease. The curriculum will teach basic management principles of 3 chronic pediatric diseases: Down syndrome, sickle cell disease and cystic fibrosis. Also, the curriculum will teach effective strategies to address the transition process: how to utilize available resources for effective transition problem-solving in various practice settings, and how to improve overall systems-based coordination of care to facilitate effective transitions. We hypothesize that a combination of video and interactive discussions with a facilitator in a small group environment will increase medical knowledge and provide Internal Medicine residents with greater comfort in dealing with transitioning patients, leading to better access to care for these patients.

The curriculum is modeled on the VISUAL Tutorials (Video for Structured Understanding and Learning) developed for Harvard Medical School in 2003. It incorporates the ACGME core competencies of Medical Knowledge, Patient Care and Systems-Based Practice. Adult patients with Down syndrome, sickle cell disease and cystic fibrosis were interviewed by an investigator to establish their experiences with transition as well as their ongoing health needs. Subsequently, more formal interviews will be videotaped at the Harvard media laboratory. These videos will be broken into segments and interspersed with Powerpoint presentations illustrating key facts about the patients' diseases. A fourth presentation will focus on general transition care, such as guardianship and vocation training. An investigator will lead small groups of categorical Internal Medicine residents through each of the presentations. The efficacy of the curriculum will be validated through case-based pre- and post-tests. A control group of first-year and third-year categorical Pediatrics residents also will take a case-based test, without having participated in the small groups. We anticipate that trained Internal Medicine residents will have test scores similar to third-year Pediatrics residents and higher than first-year Pediatrics residents.

Physician knowledge and comfort with pediatric chronic disease is a barrier to care, though not an insurmountable one. As patients with pediatric disease now live longer into adulthood, it is essential that their health needs be adequately understood and that they experience a smooth transition from pediatric to adult health care. Our curriculum can be adapted to address congenital heart disease, inflammatory bowel disease and other disease states previously confined to the pediatric realm. We anticipate that this curriculum will serve as a model for introducing pediatric chronic disease competencies into Internal Medicine residency training.

Table 1:

Tasks and their effect on Preparedness to Transition Adolescents

(Controlling for overall comfort level with all tasks)

TASK	OR (SE)	p
Developing Written Care Plans	1.34 (0.4)	0.27
Coordinating Care Amongst Multiple Subspecialists	0.66 (0.2)	0.22
Billing and Coding for CSHCN	1.11 (0.3)	0.71
Assisting Families in Accessing Community Resources	3.56 (1.0)	0.00
SUM OF ALL TRANSITION SPECIFIC TASKS	4.32 (1.0)	0.00

Pediatric Curriculum: Coordinating Transition for Youth with Special Health Care Needs

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Background: Pediatric residency training requires structured educational experiences to prepare residents for their role as advocates for the health of children within the community. At Indiana University, a two-rotation curriculum, called Community Pediatrics 1 & 2, was implemented in which residents work with community based organizations (CBOs). During the PGY2 experience, to address a lack of training in transition skills, pediatric residents attend a half-day session in a youth-to-adult transition support clinic to learn about the needs and resources available for youth with special needs in preparing for adult life.

Methods: The educational methods include a pre-clinic didactic discussion, an interprofessional team clinical experience and an optional service-learning project. The didactic focuses on the AAP-AAFP-ACP Transition Consensus recommendations, an overview of community resources, and an introduction to clinic methods which include observation of a medical history reconciliation performed by a nurse, a psychosocial and functional evaluation performed by a social worker, and an expanded disability-specific review of systems and accommodative physical exam performed by the resident. Residents participate in an assessment for one or two patients ages 11-22. In addition to the basic transition curriculum, some residents may choose to work with the transition support program, as one of four available CBOs, to develop a service-learning project. Residents work with community healthcare providers, transition team members and CBO leaders to develop transition resources. Projects are evaluated by both family team members and professionals, providing feedback and improvements.

Results: Despite spending only about four hours with the transition team, each resident is able to name three or more specific skills or pieces of important knowledge that they acquired within the experience. Categorization of the learned topics collected after clinic is in progress. Residents post-exposure are noted to refer their own continuity clinic patients for transition consults. Service-learning resources developed by residents have included 1) one page handouts for primary care providers related to specialized issues for youth with chronic disease, (i.e. vagal nerve stimulators, antegrade continence enemas), 2) high school teacher fact sheets addressing pertinent medical information to have in the classroom related to selected chronic diseases, (i.e. sickle cell, diabetes, eating disorders), and 3) patient handouts designed for youth with intellectual disabilities, (i.e. hygiene, menstruation, and oral health). Rotation evaluations by residents note the value in learning about new resources and access issues for youth with disabilities as well as the positive attitudinal effect of working within the community and feeling valued for their work.

Conclusion: Residents acquire usable skills in a brief educational exposure for caring for youth with special health care needs. They learn to adjust their communication to fit intended community audiences and to use available transition resources. Residents appreciate the current experience with a transition support program.

Transition to Adult-Centered Medical Care Conference: a Cross-Institutional Collaborative

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Background: More than 9 million children in the United States live with a chronic disease. Over 90% of these children will survive into adulthood and require adult-oriented healthcare. Unfortunately, there are many barriers for patients making the transition from pediatrics to adult medicine.

Methods: The Harvard Brigham and Women's Hospital/Children's Hospital Boston Internal Medicine-Pediatrics residency program instituted a multidisciplinary interest group for clinicians working to more effectively transition pediatric patients with chronic illness into adult care. Participants include physicians, nurses, social workers and research staff representing many departments within both pediatrics and internal medicine. Residents and other trainees are especially encouraged to attend. Each month, a different department or community group presents works-in-progress related to transitions. Attendees learn about best practices in transition, including up-to-date subspecialty guidelines and national policy initiatives. The conference facilitates new partnerships for research and clinical care between adult and pediatric providers.

Future directions: Although initially started as a collaboration between Brigham and Women's Hospital and Children's Hospital Boston, the conference is expanding to include clinicians from other centers in the region. Future goals include an interactive website where participants can pose questions and propose new research. Ultimately the conference should influence the delivery of patient care within the participating institutions, including formal policies related to transition of care.