

2016 Full Submission

Title: Developing, Implementing, and Evaluating a Case-Based Transition Curriculum at Duke

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Other Collaborators:

1. Gary Maslow, MD, MPH, School of Medicine, Departments of Pediatrics and Psychiatry and Behavioral Sciences, co-Director of the Duke Children's Transitions Program
2. Richard Chung, MD, School of Medicine, Departments of Internal Medicine and Pediatrics, co-Director of the Duke Children's Transitions Program and Director of Adolescent Medicine
3. Rebecca Sadun, MD, PhD, School of Medicine, Departments of Internal Medicine and Pediatrics, Divisions of Rheumatology, combined adult and pediatric rheumatology fellow

Focused Question: Will a transition curriculum enhance Duke trainees' skills and comfort with helping young adults successfully transition from pediatrics to adult care? Can we develop and validate an OSCE for the assessment of transition skills? Can we produce enduring educational materials to meet a national need for dedicated training in basic transition skills?

Background: Healthcare Transition

The transition from pediatric to adult healthcare is a vulnerable time for adolescents and young adults (AYA), especially those with chronic conditions (Lotstein 2015). In multiple disease states, patient outcomes worsen considerably when young adults transfer from pediatric care to the adult-oriented medical system (Lotstein 2013, Quinn 2010). Unlike the many disease conditions that have been shown to have increased morbidity and mortality at the time of healthcare transfer, cystic fibrosis (CF) patients do not show clinical deterioration when transferring, a fact that has been attributed to the coordinated process for transitioning patients in CF Centers (Tuchman 2013).

Over the past decade there has been an explosion in research and expert opinion guidelines regarding how providers can help young adults with chronic conditions be successful during healthcare transition. However, despite the availability of transition care best practices, few Graduate Medical Education (GME) training programs provide specific training in transition care (Nazarian 2010). Healthcare providers are tasked with teaching patients and families about the many differences between pediatric and "adult-oriented"

medicine (Reiss

adult care, and facilitating careful communication between pediatric providers and the accepting "non-pediatric"

providers (Cooley 2011), yet few receive an

Provider Training in Transition

A body of evidence suggests that neither pediatric nor adult providers feel adequately prepared to provide transition care to young adults with chronic conditions (Freed 2006, Hunt 2013, Okumura 2008), which has led to the question of what trainees need to learn to successfully care for this population (Mennito 2012, Peter 2009). A recent survey of housestaff in all of Duke's GME programs demonstrated significant insecurities amongst Duke trainees with regards to their transition skills. While trainees from diverse fields indicated that they interact with young adults with chronic conditions a median of 1-3 times per month, very few trainees said they felt prepared to support these patients through transition (manuscript in submission). Indeed, a quarter of trainees rated themselves as "not at all prepared"

trainees considered themselves "not at all prepared" to speak with patients and family about transition. Several educational factors strongly predicted higher trainee confidence in the ability to perform transition skills: formal instruction, role modeling of the skills, and opportunities to practice transition skills. A curriculum that includes these skills may improve training on care of AYA with special healthcare needs.

To address this gap in training, we aim to develop a "Trainee Transition Curriculum," appropriate for physicians, nurse practitioners, and physician assistants.

Investigators' Backgrounds & Qualifications

Dr. Criscione-Schreiber has extensive experience in assessing the efficacy of curricula using observed standardized clinical examinations (OSCEs). The proposed transition curriculum will be assessed with a rheumatology OSCE administered during the annual Carolinas Fellows' Collaborative (CFC) Conference, scheduled for February 2017 and attended by adult and pediatric rheumatology fellows from Duke, UNC-CH, Wake Forest University, Medical University of South Carolina, and Massachusetts General Hospital. Dr. Criscione-Schreiber has also developed enduring educational materials and is well versed in educational research methodology.

Drs. Maslow and Chung have collaborated on the Duke Children's Transition Program, which is both a highly successful transition clinic for AYA at Duke and an opportunity for participating residents to learn about transition care.

One year ago, Dr. Sadun helped to establish the Duke Rheumatology Transition Clinic, which brings adult and pediatric rheumatology physicians together to coordinate transfer of care. Medical and social barriers to care are assessed, patient transition milestones are assessed using validated tools, pediatric and adult providers collaborate on a medical plan, and patients and their families are provided with a "transition plan," including goals for them to work on between clinic visits. Patients have given positive feedback on the clinic, which also provides a fertile training ground for fellows to experience transition best practices.

The project described below represents a more formal curriculum than has existed at Duke to-date. This grant proposal is the first time the investigators have sought funding for the projects described in in this application.

Specific Aims:

1. Develop, implement, and evaluate an introductory transition skills workshop, paired with an OSCE, for the 2017 CFC Rheumatology fellows and NPs
2. Implement a transition curriculum for Duke rheumatology fellows and nurse practitioners to:
 - a. Integrate learners into Duke's Rheumatology Transition Clinic
 - b. Develop, implement, and evaluate an advanced transition skills workshop
3. Create and pilot a generalizable transition curriculum
4. Offer a transition curriculum to all Duke training programs
5. Create a plan for the development of enduring educational materials for broad dissemination

Methods:

Educational interventions and study methods:

1. CFC transition workshop and OSCE: We will administer a pre-test (assessing transition knowledge, skills, and attitudes) to 20 fellows and 4 NPs at the February 2017 CFC Conference. All learners will participate in a transition skills workshop (developed by Drs. Maslow, Chung, and Sadun) and a transition OSCE station (developed by Drs. Criscione-Schreiber and Sadun). The OSCE is administered twice consecutively, each time with half of the participants completing the OSCE and the other half participating in a concurrent didactic session. The group receiving the transition workshop after the OSCE will thereby serve as a control group. A post-test will be administered to all attendees at the conclusion of the conference. We intend to validate the transition OSCE station and make it available on MedEd Portal, where it will be the first OSCE script on transition skills.
2. Curriculum for Duke rheumatology fellows:
 - a. Following the CFC, Duke adult and pediatric rheumatology fellows and NPs will rotate through the Duke Rheumatology Transition Clinic, working in pediatric/adult dyads. In this setting, workshop principles will be reinforced. The highly successful Duke Children's Transition Program will serve as a model for trainee involvement in the Rheumatology Transition Clinic.
 - b. During the summer of 2017, the Rheumatology Core Curriculum will include a one-hour guided discussion of fellows' experiences applying transition skills, both in the Rheumatology Transition Clinic and with their individual patient panels. The focus of the workshop will be identifying challenges to transition best practices and strategizing solutions to those challenges. Following this workshop, Duke fellows will again complete the post-test, assessing sustained changes in knowledge, skills, and attitudes ~6 months after the initial workshop.
 - c. This data will be part of a publication discussing the impact of an introductory workshop, followed by skill consolidation via clinical practice, followed by an advanced principles workshop using reflective practice. We will submit this curriculum and results at the ACGME annual conference.
3. Pilot a generalizable transition curriculum: The above curriculum will be modified based on feedback and with the goal of making the curriculum generalizable, such that it is accessible to the spectrum of training programs. This curriculum will be piloted on several Duke training programs, including at least one adult, one pediatric, and one combined training program, as well as at least one surgical training program, and at least one NP or PA program. Pre-tests and post-tests will be administered to all participants in the curriculum.

4. Offer a generalizable transition curriculum to all Duke programs: The above curriculum will undergo further modifications based on participant feedback, after which the curriculum will be made available to all Duke fellowship and residency programs. The curriculum will also be shared broadly via MedEd Portal. In addition, we will apply to offer a workshop at the AAMC Annual Conference on how to implement this curriculum.

5. Create a plan for the development of enduring educational materials: We will work with media specialists to design: a 20-minute introductory video, a 20-minute complementary interactive module allowing participants to indicate how they would apply transition skills to different clinical scenarios, and a library of 5-minute videos demonstrating examples of transition best practices (some aimed at pediatric trainees, focusing on conversations prior to transfer, others aimed at adult trainees, focusing on conversations for after transfer). The final products may be beyond the scope of the 12-month timeframe, but will afford opportunity for the design of all modules and videos. Upon completion, the curriculum will be made available to residency/fellowship programs at other institutions. Pre- and post-test data from their experiences will form the basis of a submission to Academic Medicine. Ultimately, we intend to make these web-based materials broadly available via MedEd Portal and the national GotTransitions initiative.

Data management and analysis:

Data gathered from surveys will be de-identified, assigned a unique code, and stored on a secure drive behind the Duke firewall. Data analysis will use comparative statistics (primarily chi-square analyses).

Outcomes and measures:

1. MedEd Portal Submissions:
 - OSCE script
 - Curriculum consisting of a 1-hour introductory workshop and a 1-hour reflective practice workshop
 - Web-based modules and videos
2. 2 Manuscripts
3. 2 National presentations

IRB Status: Plan to submit

Challenges:

1. While the number of participants in the rheumatology OSCE study is small (12 intervention and 12 control), we expect it sufficient to detect a meaningful difference based on the results of the Duke GME Transition Survey.
2. Rigorous validation of an OSCE is always challenging. We have the advantage of being able to test the tool in several transition clinic settings and calibrate the grading rubric with the performance of uninvolved experts (such as Dr. Nirmish Shah from hematology/oncology).
3. Assessing what practitioners do (rather than know or can do) is always a challenge, but observing learners within the transition clinic will provide opportunity for assessing behavior.

Budget Template:

PI Effort		
Consult costs:	Administrative & data management support (50 hrs); DOCR/Statistician support (40 hrs); Multi-media support (20 hrs); Study design support w/ Dr. Edelman (10 hrs), and hiring of 2 standardized patients	\$5500
Equipment:	Video equipment rental	\$1000
Supplies:	xeroxing and binders	\$500
Travel:	AAMC Annual Meeting and ACGME Annual Educational Conference	\$2000
Total Requested:		

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