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Pediatric residents' attitudes and practice patterns regarding transition to adult-oriented care

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Abstract

Background: Most youth with chronic illness will survive into adulthood. The complexity of the medical history and care in these patients necessitates a well-planned and coordinated transition over several years as they move from pediatric to adult-oriented health care.

Methods: We assessed pediatric residents' practice patterns and attitudes regarding transition communication by administering a survey about transition to pediatric, combined internal medicine-pediatrics, pediatric neurology, and combined psychiatry-child psychiatry-pediatric residents.

Results: Among 110 residents who were contacted, 66 completed the survey, for a response rate of 61%. Surveyed residents report discussing transition with their patients when their patients are age 18 or older, when guidelines suggest a discussion should begin around age 12. Most residents felt that transition should be initially addressed one year prior to transfer. Residents also reported barriers such as lack of experience with transition and lack of role modeling by supervisors as barriers to providing transitional care.

Conclusions: The practice patterns and attitudes of pediatric residents in this study do not reflect the recommendations that have been published regarding transitional care services to prepare patients and families for transfer from pediatric to adult-oriented care. In particular, most residents report that they start transition discussions when a patient is near the age of 18, rather than the age of 12 as guidelines suggest and as families would prefer. Pediatric residents need further education regarding transition, with particular emphasis on the need for early and frequent discussions with patients and families regarding transition.

Keywords

transition to adult care; transition; pediatric transition to adult care; education; medical; graduate; pediatric resident; pediatric residency; medical education

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Conflict of Interest

The authors declare no conflicts of interest.

Introduction

Most adolescents, including those with chronic illness, will reach adulthood and require a medical transition [1–4]. **Transition** is defined as the ‘planned, orderly, and purposeful process of change from child-oriented to adult models of care [5].’ It ideally involves multiple conversations between patients, parents/guardians, and physicians over a period of years. **Transfer** is the discrete step within the transition process where patients establish in the adult-oriented healthcare system. Therefore, pediatricians play a critical role in ensuring a smooth transition and transfer through multiple guiding conversations over the adolescent and young adult years of their patients’ lives.

Because adolescents and young adults have poor health outcomes during the transition from pediatric to adult care [6–9], guidelines have been developed to assist pediatricians in their role in supporting transition for adolescents and young adults. The American Academy of Pediatrics (AAP) has published several statements jointly with the American College of Physicians and American Academy of Family Physicians regarding medical transition from pediatric to adult-oriented care. The most recent was published in 2011 and delineates the steps of transition as developed by expert opinion [10]. These steps are congruent with the Six Core Elements of Health Care Transition 2.0, published by gottransition.org, a collaboration between the Maternal and Child Health Bureau and The National Alliance to Advance Adolescent Health [11]. Key features include initiating transition discussions when patients reach age 12 and continuing discussions regarding transition throughout adolescence [10,11]. The guidelines emphasize early and frequent discussions of transition because patients and parents report significant stress in anticipation of the transfer to adult-oriented care and feel that more time and preparation would reduce this stress [12–14].

Relatively few articles have assessed providers’ approaches to transition. What has been shown is that many pediatric primary care providers do not provide transition support to patients, including only 9% of providers endorsing that they discussed different provider types (such as family medicine and internal medicine) with patients and only 2% of providers discussing differences between pediatric and adult health care with patients [15]. Those that do provide some transition support often do so in the form of providing a list of adult-oriented providers for patients to see⁸ or focus on children with special health care needs [16]. Many practicing pediatricians feel that transition discussion should be begin at or around the time of transfer [16,17], not in keeping with guidelines from several professional organizations [10, 18]. Residents report minimal experience in providing transitional care for youth with special health care needs [19].

Current gaps in the literature include a lack of understanding of when and how pediatric residents approach transition discussions with their patients, particularly in their continuity clinic experience, where they see patients on a regular basis for routine outpatient primary care. Because of the regular contact with patients, transition ideally should be the emphasis of patient care in continuity clinic because it allows for the opportunity to engage in the continued transition discussions called for in the guidelines.

The purpose of this study was to assess pediatric residents' practice patterns and attitudes regarding transition discussions in our institution to determine if residents' communication practices regarding transition are consistent with the transitional care guidelines.

Methods

Survey design

The authors developed a survey to assess residents' practice patterns and attitudes regarding transitional care using published guidelines and studies on pediatricians' approaches to transition as a guide in survey development.

In the survey, 'transition of care' was defined as a 'planned and orderly process of change from child-oriented to adult models of care.' Survey items included multiple-choice questions regarding residents' current practice patterns and opinions regarding transitional care. For practice patterns, residents were asked questions about their clinics' practice, e.g., presence of a clinic transition policy, with answer choices of yes, no, or unsure. To discern when residents started a transition discussion with patients, we asked, 'In your continuity clinic, at what age do you start discussing transition to an adult provider?'

We assessed attitudes regarding timing of initiation of transition with the following question: 'In your opinion, at what age do you feel that the transition process should begin?' (taken verbatim from *Burke et al.*) [17]. The final question of the survey asked about barriers to transition, including options to select potential barriers from a pre-specified list and to write in other barriers they perceived. See Figure 1 for full list of questions.

The Children's Hospital of Pittsburgh of UPMC (CHP) Pediatric Residency program director and associate program directors reviewed the survey to confirm face validity.

Participants and setting

CHP residents serve as primary care pediatricians for their panel of continuity clinic patients. In continuity clinic, residents are expected to provide transitional care to their patients, under faculty preceptor supervision. Sixty-one percent of residents have continuity clinic at sites administered by the Division of General Academic Pediatrics, and 39% are at community practices. The practices had set policies regarding age of transfer at 21 (general academic pediatrics) and 18 years (community practices) at the time of the study.

At CHP, transitional care education is limited to a single pre-clinic conference and to informal training, wherein attending (supervising) physicians role model transitional care in clinical settings. This informal modeling is a point of emphasis during the PGY-2 adolescent medicine rotation.

In January 2014, the survey was distributed via e-mail to the residents of CHP's pediatrics, combined internal medicine-pediatrics (MP), pediatric neurology (PN), and combined psychiatry-child psychiatry-pediatric (triple board or TB) programs. E-mail reminders were sent twice over the following three weeks.

Consent and confidentiality

This study was deemed exempt by the University of Pittsburgh Institutional Review Board. Responses were collected anonymously online to preserve respondent confidentiality.

Statistical analysis

Descriptive statistics were used to explore the data, including demographics characteristics of resident participants, responses to transition practice and attitude questions, descriptions of resident education on transition, and residents' reported barriers to transition.

Next, we sought to assess how resident demographics were associated with residents' practices and attitudes regarding transition. First, resident responses regarding the patient age at which residents reported discussion transition were dichotomized into those discussing transition on or after patients reached the age of 18 vs. those discussing transition before the patient reached the age of 18. We also dichotomized residents' responses regarding the ideal time to start a transition discussion into those reporting ideal time was either right at transfer or one year prior to transfer vs. those reporting an ideal time being in early adolescence or other. To compare these groups, chi-square tests were used to assess for differences by resident gender, resident age (those 28 and younger vs. those 29 and older), training type (categorical pediatrics vs. combined training types), training year (PGY-1 vs. PGY-2 vs. PGY3+), and resident report of receiving transition education. Descriptive statistics were calculated using Excel. Analyses were done using SPSS and Stata (version 14.1), with a significance level set at $p < 0.05$.

Results

Of 109 eligible residents, 66 completed the survey, for a response rate of 61%. Nearly three quarters (48) of the respondents were categorical pediatric residents, with the remaining 18 respondents being in combined (MP, PN, or TB) programs (Table 1).

Practice

Figure 2 shows the ages at which residents reported starting a transition discussion with patients. The majority of respondents (70%) reported beginning transition discussions with their patients when they were 18 years or older. No residents began the discussion with patients less than 14 years of age. Most residents (62%) were unsure if their continuity clinics had transition policy regarding the age at which patients needed to transfer to adult care.

Attitudes

Most residents (57%) reported that the ideal time to initiate a transition discussion was 1 year prior to transfer, and 35% reported that early adolescence was the best time to initiate a transition discussion (Figure 3).

Education

Most residents (76%) reported either not having previous transition education or were unsure (Table 1). Notably, a majority (54%) of residents PGY-3 or greater also reported

either not having previous transition education or were unsure. So, despite exposure to discrete educational sessions regarding transition, the participants did not recall them.

Barriers to the provision of transitional care

A majority of residents (81.8%) reported lack of knowledge of appropriate adult-oriented resources as a barrier. About half (51.5%) reported both patient resistance and parent resistance as barriers. Four residents provided comments regarding barriers, with three of those comments noting that supervisors were not addressing transition (e.g., ‘many of our attendings [...] never bring it up!’ and ‘[attendings are] unwilling to address the issue’).

Comparisons

Table 2 shows the comparisons of residents’ demographics and responses to transition practices and attitude questions. Most characteristics did not have significant effect on resident response. However, reporting some training in transition did have a significant effect on both reporting an ideal age of transition in early adolescence ($p = 0.03$) and on discussing transition with patients before the age of 18 ($p = 0.049$). Interestingly, year in training was associated with reporting an ideal age of transition in early adolescence ($p = 0.02$), but not with discussing transition before the age of 18 ($p = 0.78$).

Discussion

The pediatric resident participants of this study are not discussing transition as recommended by AAP guidelines. Participants initiate this discussion later than recommended, with most residents reporting that they start transition discussions around age 18, when guidelines recommend ages 12 to 14 as being optimal [10]. This late initiation of transition discussion has consequences for patients and their parents. Patients and parents report significant stress in anticipation of the transfer to adult-oriented care, and feel that more time and preparation would reduce this stress [12–14].

Many residents reported that the ideal time for starting transition planning is one year prior to transfer to adult care, that they had not received education regarding transition, and that they experienced multiple barriers regarding the provision of transitional care. Most notably, resident reporting of transition education was associated with both starting transition discussions before the age of 18 (consistent with guidelines) and reporting the ideal of starting transition in early adolescence (consistent with guidelines). This association, while not causal, suggests that transition education may contribute to residents’ addressing transitional care in a way more consistent with guidelines.

We believe that the late initiation of transition discussions by residents may be related to the other findings of this paper. That is, it is very possible that residents start discussions regarding transition around age 18 because they believe that the ideal time to begin a transition discussion is one year prior to transfer to adult care. Additionally, they may be starting transition discussions later than guidelines recommend because they feel they have not had enough education in this area to engage effectively in this discussion with patients, since those who reported having transition education more frequently reported having discussions when patients were younger. The barriers residents reported may also be

contributing to the late initiation of transition discussions. For example, many residents reported that a lack of time was a barrier to addressing transition, and thus residents do not engage in the discussion with patients who are younger.

Pediatrics residents may also be discussing transition and transfer at a later age than is recommended in guidelines due to the continued discussions among pediatricians about the best way to transition patients. Some have argued that patients with pediatric-onset conditions requiring pediatric specialty care should continue to follow with pediatric specialists for their whole lives [20]. Others have stated that this is inappropriate because nearly a quarter of children and adolescents have special health care needs, and keeping them in pediatric care would overwhelm the pediatric health care system [21]. Even at a policy level, disagreement exists. In Canada, for example, patients over the age of 18 cannot be admitted to pediatric hospitals [22], while the AAP's statement on age limits in pediatrics states that pediatricians may be the "optimal source of health care past the age of 21" [23]. Given these different approaches, residents may be hesitant to discuss the topic. The AAP guidelines and the Got Transition web site were developed to assist pediatricians in navigating this complicated topic [10,11], but residents may not be aware that such a resource is available.

Our residents' perceptions regarding timing of transition are similar to those of practicing pediatricians. A majority of study participants and practicing pediatricians feel transition should start at most one year prior to transfer [16,17]. Therefore, it is unsurprising that study participants, taught by practicing pediatricians, feel that transition can start at this time. This discrepancy between practicing pediatricians' approach to transition and current guidelines represents a barrier to effective transition education because residents continue to be taught according to past practices, rather than guidelines. While the current guidelines are based on expert opinion, they represent a starting point that should be emphasized in resident education on this topic.

Studies have assessed barriers to transition among pediatricians and pediatric residents. Practicing pediatricians have identified lack of training, lack of reimbursement, and lack of knowledge about resources as barriers [16,24]. Similarly, pediatric residents have identified lack of knowledge, lack of experience, and lack of familiarity with resources as barriers [18,25]. The barriers to transition noted in our study are similar to those published previously [16,24,25]. The free responses highlighted a lack of supervisors' role modeling of transition-related conversations as an additional barrier. Programs can identify and incorporate experiences with individuals and/or programs that model transitional care well to help with this.

Our study has several limitations, including limited generalizability since it was conducted at a single institution. However, the Children's Hospital of Pittsburgh of UPMC offers a comparable training environment to other free-standing children's hospitals around the country [26]. The findings are based on self-reported data, and therefore subject to recall bias; however this model has been used for previous literature on this topic. While the study is small, being a survey of 66 residents, it is larger than previously done surveys on

transition involving residents. Thus, we feel it adds important information to the understanding of resident needs regarding transition education.

Implications

We believe that the discrepancies between resident practice and the recommendations from guidelines noted in our study suggest that the current educational opportunities are insufficient for resident training in transition, which is supported by the lack of resident recollection of training in this topic. Increased education emphasizing the AAP guidelines [10] and tools available on the Got Transition website [11] should be implemented to ensure pediatric residents are prepared to provide transitional care upon completion of residency, as has been called for by others [27,28]. While the adolescent rotation is a clear starting point, any clinical encounter with a patient at least age 12 is an opportunity to include transition education for residents, leading to countless opportunities, in both inpatient and outpatient settings to address transitional care [29]. Previous literature suggests that transfer is a vulnerable period [6–9], and improvements in transitional care have the potential to improve patient outcomes after transfer [30]. Encouraging residents to consider transition in a variety of clinical encounters might lead to the improvements in patient outcomes that other interventions have seen.

We feel that transition education in the continuity clinic setting is important because it might allow residents to more effectively use the opportunities that the continuity clinic offers to a) prepare patients and families for the transfer of care with several years anticipation and b) help develop an adolescent's independence in self-management of medical issues. For this reason, we recommend a longitudinal transition curriculum in the continuity clinic curriculum, where communication skills involved in having the transition conversations are developed, and where residents provide longitudinal care and can revisit the topic throughout their training. Additionally, patient and families want more time to discuss transition and transfer with their providers [12–14]. A longitudinal curriculum, emphasizing the process of transition over the time-point of transfer might help more families feel that their questions about transition are being addressed as residents are encouraged to bring up the topic on many occasions.

Conclusion

The practice pattern and attitudes of our pediatric residents do not reflect the AAP or gottransition.org transitional care guidelines. In particular, residents initiate a transition discussion with patients and families much later than recommended by guidelines. More education around transition for residents is needed. Future curricula should emphasize the 1) development of the communication skills to have transitions discussions, such that residents feel confident to have the conversations upon completion of training, 2) importance of starting the transition process early with patients and families and the expectation that it will take years of preparation, and 3) use of the 2011 AAP guideline and gottransition.org to help support families through the transition process. Not only would we then maximize the impact residents have as primary care pediatricians, but also prepare the next generation of

pediatricians to appropriately guide adolescents such that they are well prepared to transfer care to adult-oriented providers as young adults.

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Abbreviations:

SHCN	special health care needs
AAP	American Academy of Pediatrics
MP	combined internal medicine – pediatrics
PN	pediatric neurology
TB	triple board
CHP	Children's Hospital of Pittsburgh of UPMC

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Introduction

The transition of care is defined as a “planned and orderly process of **change from child oriented to adult models of care.**”

The purpose of this survey is to assess resident opinions regarding the transition from pediatrics to adult-oriented medical care and to assess residents’ current practice patterns with regards to providing transitional care.

Demographic Information

What is level of training?

What residency program are you in?

What is your gender?

What is your age?

Practice Questions

Does your continuity clinic have a policy stating an age at which patients must transfer care to adult-oriented providers?

In your continuity clinic, at what age do you start discussing transition to an adult provider?

Attitude Question

In your opinion, at what age do you feel that the transition process should begin?

Education Question

Have you received any training in the transition of care to adult providers?

Barriers Question

Which of these barriers to transition have you encountered?

Figure 1:
Questions Included in the Survey of Residents

Figure 2:
Patient Age at Which Residents Report Starting a Discussion about Transition

Figure 3:
Residents' Perceptions Regarding Preferred Age to Begin Transition

Table 1:

Demographics of Residents who Completed the Survey

	Number (%) or Mean [range]
Residency Program	
Categorical Pediatrics	48 (72)
MP	10 (15)
TB	6 (9)
PN	2 (3)
Post-Graduate Year	
1	17 (26)
2	25 (38)
3	20 (30)
4	2 (3)
5	2 (3)
Gender	
Male	22 (33)
Female	44 (67)
Age	28.7 [26–33]
Previous Transition Education?	
Yes	16 (24)
PGY-1	0
PGY-2	5
PGY-3+	11
No	45 (68)
PGY-1	16
PGY-2	17
PGY-3+	12
Unsure	5 (8)
PGY-1	1
PGY-2	3
PGY-3+	1

Table 2:

Associations Between Resident Characteristics and Practice Patterns and Attitudes Related to Transition

Resident Characteristic	n	% reporting ideal transition starts in early adolescence	p- value *	% reporting transition discussion before age 18	p- value *
Age					
28 or younger	35	31	0.16	23	0.16
29 or older	31	48		39	
Gender					
Male	22	40	0.86	36	0.45
Female	44	39		27	
Training					
Categorical Peds	48	38	0.61	27	0.35
Combined	18	44		39	
Year in Training					
PGY-1	17	12	0.02	24	0.78
PGY-2	25	44		32	
PGY-3	24	54		33	
Reported Training in Transition					
Yes	16	62	0.03	50	0.049
No/Unsure	50	32		24	

* Calculated using a Chi-square test