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ORIGINAL RESEARCH

Transition of Care: What Is the Pediatric Hospitalist's Role? An Exploratory Survey of Current Attitudes

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OBJECTIVE: Survey of current attitudes of pediatric hospitalists related to transition of care.

METHODS: We developed and piloted a survey that was validated by an expert on transition. It was introduced it to the AAP/Pediatric Hospital Medicine Listserv using Survey Monkey™. Any participant who agreed to the informed consent was included in the survey.

RESULTS: Patients aged 16–17 with chronic medical conditions were taken care of by pediatric hospitalists 70% of the time. Patients aged 18–20 were cared for by pediatric hospitalists 36.8% of the time. Advantages of hospitalist participation in healthcare transition include improved continuity of care and quality of care. The biggest impediments might be lack of time and resources. Most surveyed would be interested in a web based educational module to develop their understanding of healthcare transition.

CONCLUSION: The survey provides a snapshot of current attitudes of pediatric hospitalist involvement in transition of care. Pediatric hospitalists are interested in participating in healthcare transition. Although more research is needed to compare current models of transition services and a hospitalist model, the perception for inpatients is that better quality of care can be expected. Targeted educational modules might provide a foundation for pediatric hospitalists to build their scope of practice to include transition services. *Journal of Hospital Medicine* 2012;7:277–281. © 2011 Society of Hospital Medicine

"Optimal health care is achieved when every person at every age receives health care that is medically and developmentally appropriate."[1] For healthy patients, medically and developmentally appropriate care is usually available, but for children with special healthcare needs (SHCN), receiving this care can be a challenge that is magnified as a child with SHCN grows into a teenager and then a young adult. For these children, simply transferring care, which is essentially a handoff of responsibility, to adult providers is insufficient to meet the needs of a special healthcare population.[1] Transition is the purposeful planned movement of adolescents and young adults with chronic medical conditions and disabilities from pediatric (child-centered) to adult-oriented providers and facilities.[2]

The 2005-2006 National Survey of Children with SHCN identified 4 component measures of transition which included discussions between the patient and the healthcare provider about: 1) shifting to adult providers, 2) adult healthcare needs, 3) health insurance, and 4) encouraging the patient to take responsibility for his/her care.[3–4] Overall, only 41% of youth with SHCN met the core outcomes.[4] The survey also found that those most affected by their health conditions were less likely to have transition discussions compared with less-affected youth.[3]

The importance of healthcare transition also resonates with pediatric hospitalists. The results of a 1988 National Health Survey revealed that 4% of all children with SHCN were hospitalized, and 2% of those with severe chronic conditions accounted for 27% of all hospital bed days.[5] Or, stated differently, a small percentage of patients are admitted most frequently and stay the longest in the hospital. Further, transition for those with significant cognitive delay was more difficult, because of the lack of adult-oriented providers who are willing to care for the patient and work collaboratively with the family.[6] This has a significant implication for pediatric hospitalists, because it increases the likelihood that a severely affected 21 to 25-year-old patient will be admitted to the pediatric hospitalist service having not yet made a successful transition to an adult-oriented provider.

Clearly, transition of care should have its roots in the outpatient medical home; however, often a patient with a chronic medical condition will spend extended periods of time in the hospital and away from their identified medical home. Although not a widely accepted concept, some may consider the pediatric hospitalist service to be an extension of the medical home for inpatients. The

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TABLE 1. Sample of Survey Questions

Who is primarily responsible for inpatient care of patients 16-21?
Please rate your knowledge of healthcare transition.
Are there healthcare transition services in your hospital?
How old are patients when they first receive inpatient-oriented healthcare transition services?
How beneficial are these services to the patient and the provider if available?
Does your hospital have a policy that mandates the age by which an adolescent/young adult patient must be transferred from Pediatrics to adult providers and facilities?
What factors determine age of transfer?
How big a problem is it transferring adolescent/young adult patients from Pediatrics to adult providers and facilities?
How prepared are adolescents and young adults in your institution for transition to adult services?
Should pediatric hospitalists be involved in providing healthcare transition services and supports to patients with chronic healthcare conditions in the inpatient setting?
How often have you been asked by a subspecialist to provide healthcare transition services and supports to patients with chronic health conditions in the inpatient setting?
Who is best qualified to provide healthcare transition services?
What are the biggest impediments and benefits to hospitalist involvement in healthcare transition services?
If there was an online educational training module about healthcare transitions, would you take it?

pediatric hospitalist is often the physician who cares for inpatients with SHCN because of their complexity. There are components of the transition process that specifically deal with hospitalization. Pediatric hospitalists should understand transition and their role in it, so that the process does not stop when patients are hospitalized.

Our hypothesis is that pediatric hospitalists are well poised to provide inpatient transition services, but insufficient understanding of the concepts and practical processes related to transition limit involvement. Through this exploratory survey, we hope to understand current attitudes and knowledge about transition. We survey the degree to which pediatric hospitalists want to participate in the process, the level of support that healthcare transition services receive from the institutions in which pediatric hospitalists practice, and potential barriers and benefits of their participation.

METHODS

Participants

After a review of current literature, we developed an exploratory survey for pediatric hospitalists that was approved by our institutional review board, and was reviewed for content and face validity by a qualitative expert on transition of care. Using Survey Monkey™, the survey was piloted with a small group of pediatric hospitalists for feedback regarding the clarity of the survey questions before it was introduced to the American Academy of Pediatrics (AAP)/Pediatric Hospital Medicine Listserv. The Listserv is available to any pediatric hospitalist that joins. The exact number of pediatric hospitalists is unknown. A reasonable approximation of Listserv members at the time the survey was introduced is 1800. A fraction of that number is active on the Listserv, as defined by multiple postings during the course of an academic year. Pediatric hospitalists were the targeted group because of their expertise in the care of the adolescent and, often, young adult, with SHCN. The survey was voluntary and anonymous, and was reintroduced 3 times to capture as many participants as possible. The purpose of the survey was to gauge the interest, attitudes, and understanding of healthcare transition in a cross section of pediatric hospitalists.

Definitions

For clarity, in this survey, transfer is defined as an event, a handoff of responsibility for the management of a patient from one physician to another. Transition is defined as the purposeful planned movement of adolescents and young adults, with chronic medical conditions and disabilities, from pediatric (child-centered) to adult-oriented providers and facilities.[2]

Survey

This questionnaire contained 33 items and included a mixture of open-ended questions, yes and no questions, and questions with responses that used a modified Likert scale. The survey questions were not adapted from another study or survey; they were developed in conjunction with 2 well-published experts on the subject of transition. The demographic questions were used to help determine whether patterns related to transition services and knowledge could be detected based on age, gender, or type of practice, whether academic or community. The survey content included several areas: 1) Who is responsible for the care of young adults and adolescents; 2) Hospital-based transition services; 3) Benefits or challenges for pediatric hospitalists who become involved in health care transition (HCT); 4) Knowledge of HCT and education opportunities. Informed consent was the first page; if consent was obtained, the participant could move forward in the survey (Table 1).

RESULTS

There were 131 participants who consented to participate in, and completed, the survey.

Demographics

Of all participants, 42.5% identified their primary practice site as a pediatric hospital; 40.8% identified their primary practice setting as a children's hospital within a general hospital, and 15.8% identified their primary practice setting as a general hospital with

TABLE 2. Demographics

	Male	Female
Age range	32–67 years	27–61 years
Boarded in Pediatrics/Pediatric subspecialty	92%	99%
Practice setting		
Pediatric hospital	51.4%	38.6%
General hospital with a pediatric hospital within it	27%	47%
General hospital with pediatric beds but no children's hospital designation	21.6%	13.3%
Other	8.1%	7.2%

TABLE 3. In Your Hospital, Who Is Responsible for Inpatient Care of the Majority of Patients Aged 16-17 and Aged 18-20?

	Patient Age	
	16–17	18–20
Inpatient care provider		
Pediatric hospitalist	70.1%*	36.8%
Adult hospitalist	0.9%	27.4%
Pediatric subspecialist	27.4%	25.6%
Adult subspecialist	0.9%	2.6%
Other/not sure	7.7%	0.9%

*Percentage indicates the number of times that answer was chosen by the respondents.

pediatric beds but no designation as a children's hospital. The participants came from nearly every state in the United States; 69.2% were women and 30.8% were men. The ages ranged from 27 to 67, with the majority of participants in their mid-30s and 40s. Most were boarded in Pediatrics and/or Internal Medicine with some subspecialties such as Physical Medical and Rehabilitation, Cardiology, Critical Care, Pulmonology, and Developmental and Behavioral Pediatrics represented. Although the sample size is small, it is representative of the larger population of pediatric hospitalists. There were no patterns detected based on demographics relative to the knowledge or participation in healthcare transition (Table 2).

Which Groups of Physicians Are Caring for Adolescent and Young Adult Patients?

Establishing whether pediatric subspecialists, adult providers, or pediatric hospitalists are the primary caregivers for adolescents and young adults with SCHN is important to determine whether the pediatric hospitalist is really well poised to deal with transition issues. If the pediatric hospitalist does not care for these patients, then developing modules to educate them about healthcare transition may not be necessary. As expected, pediatric hospitalists believe they care for adolescent and young adult patients with special healthcare needs in the vast majority of cases. Table 3 illustrates in more detail who is specifically responsible for their care.

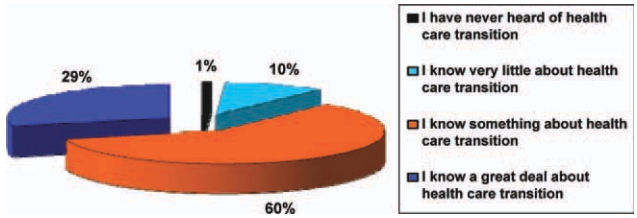

FIG. 1. Please rate your knowledge of healthcare transition.

TABLE 4. To What Extent Do You Agree or Disagree With the Statement "Pediatric Hospitalists Should Be Involved in Providing Healthcare Transition Services and Supports to Patients With Chronic Healthcare Conditions."

	Respondents, % (No.)
Strongly agree	28.6 (28)
Agree	50.0 (49)
Neither agree or disagree	12.2 (12)
Disagree	6.1 (6)
Strongly disagree	3.1 (3)

Knowledge of Healthcare Transition

Participants in the survey were provided definitions of healthcare transition; they were asked to rate their knowledge of healthcare transition on a modified Likert scale, given the definition provided. The results can be seen in Figure 1.

Transition Programs

Of all participants, 60.9% did not know if their hospital had inpatient-oriented healthcare transition services. Another 27.8% only had informal or unstructured services for some patients with a chronic condition, and less than 1% of all respondents said they had a formal or structured program at their institution for inpatients with *any* chronic medical condition. Eighty percent thought transferring adolescent or young adult patients from pediatric to adult providers was a moderate to major problem.

Of those who responded to the survey, 97.6% feel that inpatient-oriented healthcare transition services would be beneficial to adolescent and young adult patients, and 92.2% felt that these supports would be beneficial to pediatric providers. This is consistent with the data from another question in which respondents felt that only 1% of patients were "quite a bit prepared" for transition to inpatient adult providers, and that over half were only a little bit or not at all prepared.

Institutional Mandates

Nearly 40% of institutions have a mandated age by which adolescent and young adult patients must be transferred to adult providers and facilities. Additionally, only 5.2% of those institutions have a written procedure or protocol that describes how these

pediatric patients will be transferred to adult providers and institutions.

Pediatric Hospitalist Participation in Transition

Sixty-eight percent of respondents believe that the patient's primary care provider is the most qualified to discuss healthcare transition issues, followed by their pediatric subspecialists. However, more than 75% of respondents agree or strongly agree that pediatric hospitalists should be involved in providing healthcare transition services and supports to inpatients with chronic health conditions. Please refer to Table 4. Despite this, 58% of pediatric hospitalists are rarely, if ever, asked to participate in healthcare transition by their subspecialist counterparts.

Barriers to Pediatric Hospitalist Participation in Transition

The survey participants were given a list of potential barriers to participation in healthcare transition and were asked to rank 3 of the choices in order of significance, with 1 being the biggest perceived impediment and 3 being the least significant. Seventeen percent ranked lack of familiarity with healthcare transition resources as the biggest barrier in their setting. Thirteen percent indicated that lack of support from pediatric and adult subspecialists is the major barrier, and 13% felt that insufficient time to provide transition services and supports would be the most significant barrier to their participation in transition. Interestingly, billing and reimbursement issues were not seen as obstacles (see Supporting Information 1/Table 5 in the online version of this article).

Advantages to Pediatric Hospitalist Participation in Transition

The participants were given a set of potential benefits that might result from the pediatric hospitalist participation in transition of care. They were asked to rank 3 of the choices in order of importance, with 1 being the most important positive outcome to 3 being a lesser, but still positive, outcome. Twenty-three percent of respondents ranked improved communication between pediatric and adult providers and facilities as being the most significant advantage. Twenty-one percent ranked both better continuity of care in the inpatient setting, and better quality of care for adolescents and young adults with chronic healthcare conditions, as the most important potential advantages of pediatric hospitalist involvement in healthcare transition. However, most felt that improved cost effectiveness would not be an important result (see Supporting Information 2/Table 6 in the online version of this article).

Educational Process

If an educational module was offered, over half of the respondents would definitely or probably take the training, and another 22% might take the training.

LIMITATIONS

This is an exploratory study which is limited by the small number of participants. Although the demographics of the participants include both young and experienced hospitalists, as well as academic and community institutions, it is difficult to determine whether the results are truly representative of the larger pediatric hospitalist population. The survey was also too long which may have deterred participation. Given the lack of experience and literature on pediatric hospitalist involvement in transition of care, it is difficult to construct a concise survey that addresses all of the concerns of the diverse hospitalist population. This is a new area of exploration for pediatric hospitalists, and ideally new questions will arise out of these preliminary findings, despite the limitations in the survey. Future surveys should focus on singular issues related to transition, and every attempt should be made to increase participation in the survey.

DISCUSSION

The survey demonstrates that the majority of the pediatric hospitalists believe providing transition services is important, but that transition programs are, for all practical purposes, nonexistent. Hospitalists believe the primary care doctor or the subspecialists should direct the transition process, but most clearly believe that their participation in the process would be beneficial for their patients, as evidenced by a 97.6% positive response to that question in the survey. Transition of care should be handled predominantly in the medical home.[1] At this point, there is no literature that describes a pediatric hospitalist service as an inpatient medical home. However, pediatric hospitalists, not pediatric subspecialists, care for the majority of patients with SHCN in the transition age range while they are hospitalized; therefore, continuing the transition discussion while a patient is hospitalized may be a key component to its success. Better quality and continuity of care for the inpatient with SHCN is a potential advantage, as is coordination of services. Having the support of the pediatric subspecialists and the pediatric primary care provider is not only important, but it is critical in successful transition. Further, most pediatric hospitalists identify transfer of pediatric patients to adult providers as a major problem, and the perception is that only 1% of patients are adequately prepared for this transfer of care. Few institutions have a formalized process by which patients are transferred to adult care providers; however, many institutions have a mandated age at which they expect transfer of care to occur.

The literature about transition of care highlights the issues in the outpatient setting. Reiss and Gibson used focus groups comprised of caregivers, and youth and young adults with SHCN, to explore the issues related to transition of care.[7] They identified several factors associated with successful transition that are pertinent

to inpatient pediatrics. Involving the patient as a responsible member of the treatment team is important because it fosters independence and problem solving.[7] Advocating this in the inpatient setting gives the patient and caregivers confidence that the patient can participate in the healthcare process, thereby making it a habit.[7] A second important factor is attending to the patient's personal preferences and interpersonal dynamics.[7] Many adolescents and young adult patients prefer to be cared for by their pediatric providers on adult wards away from "crying infants and children."[7] This may be their first indication that they'd like to explore the adult medical world.[7]

Pediatric hospitalists should be prepared to meet the needs of adolescent and young adult patients with SCHN by becoming familiar with the components of the transition process. Saidi and Kovacs provide a checklist of practical transition strategies that are helpful to review, and many are quite pertinent to the practice of pediatric hospital medicine.[8] Education is a fundamental aspect of the identity of the pediatric hospitalist and is also the foundation of the transition process. Identifying established institutional transition resources, developing educational tools for faculty and residents to learn about transition, as well as adapting the transition checklist to inpatient needs are useful tools for developing a culture of effective healthcare transition. Simple strategies, such as speaking to young patients on their own, and displaying a public commitment to transition are other easy changes that can be made to the everyday activities of the pediatric hospitalist.[8]

Other key issues that would be important for the pediatric hospitalist to address are the adolescents' understanding of his/her disease, current treatments, long-term complications, and the impact of healthy and unhealthy behaviors.[9] Because these issues can directly affect his/her hospitalization, the pediatric hospitalist should play a role in discussing these issues and reaffirming their importance in the overall health of the patient. This affirmation will also support the process of transition, and will give further confidence to the patient and family that the patient is becoming a responsible member of the healthcare team.

Many of the strategies espoused by experts in transition are part of what the pediatric hospitalist does regularly. The pediatric hospitalist is a resource for patients, families, and subspecialists, because of their comfort and expertise managing complex pediatric patients and because of their understanding of the hospital and how it functions. The process of transition of care should be part of what pediatric hospitalists are prepared to teach, because of the numbers of adolescent and young adult patients that are in their care. The current knowledge base for most pediatric hospitalists seems to be a basic understanding of what transition of care means, but little knowledge about how to go about engaging in the process. More and more transition is relevant to primary care doctors and hospitalists, as the medically complex patient survives into adolescence and adulthood.

CONCLUSION

The survey provides a snapshot of the current attitudes and beliefs of pediatric hospitalists relative to involvement in healthcare transition. This article addresses what we believe to be important questions for the pediatric hospitalist to ask, prior to becoming involved in healthcare transition. Our hypothesis, that pediatric hospitalists are well poised to provide inpatient transition services but are limited by lack of understanding of the concepts and process, is supported by the responses in the survey which show that pediatric hospitalists are interested in participating in healthcare transition but feel impeded by time, support, and understanding of the process of transition. A larger sample size is needed to strengthen the data and lend support to these observations. Additionally, more research to compare current models of transition services and a hospitalist model could be important in realizing the potential positive outcomes predicted in this survey. Education and resources for transition of care are inadequate. Targeted educational modules might provide a foundation for pediatric hospitalists to build their scope of practice to include transition services. The next step for interested pediatric hospitalists might be developing a web-based module that addresses the unique needs of the inpatient provider and the chronically ill pediatric patient who spends a great deal of time as an inpatient. The measurable outcomes for such an intervention might well be the feeling of preparation that the family and patient have as they move into the adult provider world.

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