Home Visitation by Pediatric Residents – Perspectives From Two Pediatric Training Programs

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NATIONAL SUPPORT FOR HOME VISITATION

THE FUTURE OF Pediatric Education II emphasized the central role of future pediatricians to address child and adolescent health needs within the context of their family and community.[1] Increasingly, medical practitioners have been called upon to identify and provide evidence-based interventions to children in at-risk physical and psychosocial environments. In order to provide patient and family-centered care, physicians must assess the patient needs from the family and community-based perspective.

The Objectives of Healthy People 2020 echoed this sentiment stating that primary care interventions must play a central role in prevention by proactively addressing environmental and social-behavioral risk factors.[2] To do so, pediatricians must move the center of care beyond the office-based setting and create true integration with the home, neighborhood, and community.[3] Despite these calls to action, there currently are few educational interventions in pediatric residency curricula to train future pediatricians to address and meet these changing needs.

BENEFITS OF HOME VISITS FOR PEDIATRIC RESIDENTS AND THE FAMILIES THEY SERVE

Home visitation is an important opportunity for pediatric residents to learn to practice in the context of the family and community by improving partnerships with the families that they serve. Home visits by medical providers were once a standard of medical care in the United States, but have declined as a common practice. Yet, home visitation remains an important part of maternal and child health care in many other industrialized countries.[4,5] Current research has identified home visits as one method to address the under-availability and under-utilization of preventive health services, especially in lower income urban and isolated rural populations.[6,7] Perhaps, in part, because of such research, home visits are now being advocated as part of the "ideal" model of well-child care by the Commonwealth Fund and as a corner stone of the Affordable Care Act.[5,8]

With the national initiative to support patient and family-centered care, home visits provide the optimal opportunity to both better understand the perspectives of families and also to demonstrate that the family is central to health-care decisions. What better way can residents attempt to "walk in their shoes" than by observing and interacting with a patient and their familial supports within the home environment? Medical educators have the responsibility of cultivating humanism of residents. One approach to teach humanism is to adopt the framework suggested by Miller and Schmidt[9] involving three constructs: (1) to understand the perspectives of the different stakeholders including the patient, their family, and health care professionals, (2) to reflect on how the perspectives may converge or conflict, and (3) to practice altruism.

Participating in a home visit allows better insight into the perspectives of a patient and family by gaining understanding of their social supports, spirituality, cultural beliefs, and family dynamics. By viewing their home environments, residents can evaluate injury prevention needs, sleep environment, food security, and home conditions for health risks such as mold, allergens, and lead exposure. The home visit allows the resident to interact with the family within the context of their community and better identify the challenges for families to carry out medical recommendations, such as proximity to their health care facility, transportation needs, access to healthy food options, and safe environments for physical activities. Finally, home visitation provides the residents a window into the lifestyles, family-level and community-level strengths and solutions, and real-life priorities of their patient's families. By visiting their home and community environment, the physician can better recognize the social determinants of their patients' health. The providers' focus on ensuring a child's compliance with medications, for example, may take on a different light if basic food security and social support are found to be lacking during a home visit. By understanding the social context in which families strive to maintain their children's well-being,

the pediatrician will be more capable to make appropriate medical decisions and partner effectively with the family.

Since two home visits during residency are Accreditation Council for Graduate Medical Education (ACGME) program requirements for family medicine residents, home visitation has been integrated into the curriculum of the majority of family medicine residency training programs.[10] Family medicine residents perceive the important benefits of home visits to be higher patient satisfaction, more comprehensive patient care (particularly for the most vulnerable patients), and greater job satisfaction for the physician.[11,12] Additional benefits included understanding that social, familial, and environmental factors are powerful determinants of patient health.[13] Some residents found that the home visits transformed their perception of the provider-patient medical power dynamic to a "partnership" in which families serve "as educators for the conveyance of family-centered medical care."[14] Further, home visitation curriculum has been shown to address all six of the ACGME core residency training competencies including patient care, medical knowledge, practice-based learning, interpersonal and communication skills, professionalism, and systems-based practice.[15]

In contrast to family medicine, however, only 35% of pediatric residency programs offer home visits at any point in the training.[16] In the only pediatric study in which home visits were implemented and evaluated, residents report feeling that the home visits were a very worthwhile learning experience.[17]

HOME VISIT CURRICULUM DESIGN

THEORETICAL FRAMEWORK

In developing our theoretical framework of the role that home visits play in fostering a family and community based perspective that affects behavior change among physicians, we incorporated aspects of social learning theory. Social learning theory postulates that behavior is determined by the interaction between cognitive, environmental, and behavioral factors. This theory has been identified as a predictor of health-related behavior change and maintenance.[18–20] Drawing on the fundamentals of social learning theory, a home visitation curriculum can serve as a critical experiential educational experience to fill gaps in current pediatric education.

COMPARISON OF HOME VISITATION PROGRAMS

Home visiting programs can be designed to fit different program goals, patient populations, and levels of administrative commitment. The Table reviews key concepts in implementing a home visitation curriculum, factors to consider, and compares two home visiting programs: one that serves a culturally diverse, low-income population in Seattle, Washington, and another that brings pediatric residents to visit newborns and their families in their homes in inner-city Baltimore (Table).

Arranging home visits with continuity patients of the resident has served both sites well. It ensures that the experience is relevant to both the family and resident and avoids any sense that the visits may be a voyeuristic experience. Information gained is bidirectional and relevant to the future and ongoing patient-parent-physician relationship. A structured educational curriculum must be developed to enhance this experience for the residents. Components include a list of issues to address during the home visit and an etiquette guide of respectful ways to behave in the home, especially if they may view poor housing conditions. Additional components include reflection of differences in cultural perspectives, sensitive approaches to offer home safety checks and communicate concerns, and correct information regarding smoke and carbon monoxide detectors, cabinet latches, and stair gate installation. A key component to the success of each program is the identification of a faculty or resident champion to start up a program in a manner that can be sustained over time.

RESULTS

RESIDENT VALUE, REQUEST TO BE PART OF THE REGULAR REQUIRED CURRICULUM

In both programs, resident post-visit surveys have been overwhelmingly positive. Residents consistently reported improvements in understanding their patient's living circumstances and patient/family strengths[21] and also improved rapport and trust with the family.[22] Residents also consistently rated the visits as making a positive impact on their knowledge about the neighborhood and resources, as well as cultural background of the patient. Residents rated highest the degree to which the visit was a valuable experience for their education as a physician and for the care/supervision of the patient.[21]

Residents appreciated a variety of aspects of their home visits. Themes that arose from the resident surveys included an improved understanding of the humanistic aspects of medicine, gaining a more complete picture of the child's environment and their interaction in their home environment, and developing a greater appreciation for the resources in the community.

Resident participation in home visits may expose them to a home environment different from that in which they themselves grew up. Oftentimes this experience demonstrates to them the resiliency of these families and strengthens their respect for the families' ability to raise their children effectively with limited financial or social resources, as well as with limited English skills and educational background.

Families have also found the home visits to be a valuable experience. One comment was especially poignant: "It [the home visit] was a level of caring I had never felt before… Because they were in my home I could tell that it wasn't about the money anymore, it was about humanity. It took away the boundaries of where patients come from and where doctors are... it changed my perspective of the medical profession."

Table. Curriculum Design and Comparison of Two Pediatric Residency Program Home Visiting Programs

Curriculum Planning		Pediatric Residency Program	
		University of Washington Harborview	Johns Hopkins
Needs Assessment	General Educational Goals • What are the goals of the home visit program for the stakeholders? • Goals for residents, faculty, patients, families, and program/institution?	• Educate residents and faculty about life circumstances and strengths of families. • Understand social, familial, and environmental factors as determinants of patient health. • Address ACGME competencies.	
	Specific Goals	• Improve care of culturally diverse children with chronic conditions.	• Address newborn health and anticipatory guidance.
	Program History • Identify existing curriculum or resources	• Since 2006.	• Throughout 1990s then resumed in 2008.

	Target Populations
	• Who is your target population?
	  • Residents-Year? Rotation?
	  • Patients (ex. chronic vs acute, newborn vs older, f/u inpatient hospitalization vs outpatient)
		• All PGY-1s 1-2 visits.
		• Immigrant and refugee population.
		• Patients selected by residents from the continuity clinic panel.
		• Medically/socially complex.
			• All PGY-1s – one visit.
			• Low income, majority African American and Hispanic patients.
			• Healthy newborn visit.
			• Patients selected from newborn panel.
			• Infant will be in resident continuity panel – followed for 3 years.

	Administrative Commitment • Is there a program champion? • Is there institutional support for time for residents, supervisor, and coordinator? • Who are possible candidates for support and/or collaboration? • Ex. Social work, nursing, medical school, health department, home nursing	• Faculty supervisor. • Continuity clinic time blocked. • Support by clinic social work/administration. • Support from community house calls program and interpreter service. • Faculty champion to coordinate visits.	• PGY-3 or home visit nurse supervisor. • Integrated in acute outpatient rotation. • Interpreter support.

Program Planning	Funding
	• Are there institutional or outside funding mechanisms?
	  • Can you bill for time of visit?
	• What are the costs?
	  • Start-up costs? Salaries?
		• No external funding.
		• Home visit interpreter time billed.
			• Initially funded by external grant to fund home nurses for visits.
			• Sustainable by using residents as supervisors.

	Visit Participants • Who will participate in the visit?	• Continuity residents PGY-1-3 one site -Harborview Medical Clinic (15 residents/year). • Attending. • Interpreter. • Other health workers associated with family as needed – social worker, physical therapist, case worker, environmental home health specialist.	• Continuity residents PGY-1 (All residents 25-27/year). • Supervisor: • PGY-3 Resident trained in Program. • Home visit nurse. • Interpreter (if Spanish).
Implementation	Pre-visit Curriculum/Preparation • Will there be a pre-visit curriculum? • Development of customized goals for the resident?	• Orientation to home visit. • Review walkscore.com, ethnomed.org. • Select community resource site. • Packet: health education materials, evaluation forms, safety checklist.	• One hour small group lecture orientation to home visits and social determinants of health. • Review neighborhood census track statistics. • Packet: home visit format, community educational information, emergency contact, windshield survey.
	Visit Content/Activities • Visit logistics – transportation, equipment to bring? • What will happen during the visit? • Will there be documentation of the visit? What kind? • What is the safety plan for residents and staff during the visit? • Could you bill for the visit?	• Update history. • Focused physical examination. • Home safety checklist. • Refill prescriptions. • Visit community site: eg, library, park, community center, school. • Resident documents visit in medical record. • No billing for visit.	• Updated history since birth. • Physical examination. • Home safety check. • Maternal depression screen. • Inquire about neighborhood and community. • Driving community tour. • No formal documentation. • No billing for visit.

(*Continued*)

Table. Continued

		Pediatric Residency Program	
	Curriculum Planning	University of Washington Harborview	Johns Hopkins
Evaluation	Methods • Who will be evaluated? • What outcome indicators are important? • How and when will the evaluation take place?	• Resident post-visit survey. • Attending post-visit survey. • Parent phone interview.	• Resident pre- and post-visit surveys. • Taped debriefing interviews with small groups residents and faculty members. • Family survey at 2 months.
	Sustainability • What is the sustainability plan for staff support and financial support?	• Residency program changes continuity clinic structure. • Promotion of home visit program within residency. • Hospital budget cuts impact personnel.	• Training PGY-3s as supervisors. • Helpful to have a longitudinal relationship. • Formal 1 hour teaching module important part of visit curriculum.

ACGME = Accreditation Council for Graduate Medical Education; PGY = post-graduate year; ex. = example; f/u = follow-up.

Challenges to Conducting Home Visits

Scheduling of home visits can be challenging. Although many patients may benefit from a home visit, it is not feasible to schedule visits with all patients. One approach to address this challenge is to target specific groups who may benefit most from a home visit, such as children with special health care needs, newborns, or families from very different cultural backgrounds than the provider. Logistically, it can be difficult to identify the appropriate patient and family, determine that they are willing and interested to participate in a home visit, and schedule it at a time that is convenient for both the family and the resident. Resident availability can be challenging, but home visits can be scheduled during rotations when the resident has greater flexibility, or the curriculum may be prioritized as an activity to be carried out during a continuity block month or during community and advocacy rotations.

Personal safety remains an important issue, as the pediatric program is responsible for the resident's safety. We have addressed this by having the resident accompanied by a senior resident, a community nurse, faculty attending, or a security staff. This incurs both additional scheduling challenges and possible additional costs. Administrative support is also vital for a successful program. The level of support needed varies from minimal (less than an hour per visit) if they are only arranging visits, to greater support if evaluations from residents and families are included. To address some of these costs, some managed care organizations will now reimburse for home visits. Funds from one's own institution, community groups, or national organizations may also provide start-up funds, although it is important to design a long-term sustainability plan for home visitation programs. Finally, institutions must decide what documentation is needed. The richness of the information obtained is relevant to patient care, but electronic medical records often depend on registration of the patient, which does not take place in the home. We have addressed this by either not documenting, including a paper copy, or putting it in the electronic medical record as a summary note.

Conclusion

Home visiting programs provide graduate medical training as an ideal form of experiential and immersion learning in order to fulfill ACGME competencies for the pediatric resident. Home visits bring the patient, family, and provider closer together to reach a common ground of understanding. The dearth of structured home visiting programs described in the literature[16] and at national pediatric conferences, underscores the need for more programs to help identify the best practices for including home visits in the residency education setting. Hopefully, as more programs include home visiting in their continuity clinics, more work is needed to identify the impact that these programs have on patient outcomes and physician effectiveness.

The growing cultural diversity of the US population, continued health disparities, and rise in importance of behavioral modification to address chronic conditions amplifies the importance of strengthening the rapport between family and physician as they work together to improve the pediatric patient's health outcomes. Bringing the pediatrician to the home serves to bridge the gap in understanding the family's strengths and priorities for their children.

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