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Teaching social determinants of child health in a pediatric advocacy rotation: Small intervention, big impact

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Abstract

Background: Traditionally, medical education does not specifically address the social determinants of health or how to advocate for families' cultural, social or economic needs in spite of our increasingly diverse society.

Aim: This article describes a new social–legal curriculum added to a Pediatric Resident's Advocacy course.

Methods: Pediatric interns completed 'Memos To Myself' after the Advocacy rotation.

Results: The curriculum impacted residents' (1) realization regarding family circumstances; (2) reflections regarding self and personal practice; and (3) knowledge about advocacy issues and community partnerships for solutions.

Conclusions: This curriculum raised awareness about topics that are traditionally not covered in medical education.

Introduction

Medical students and residents are increasingly likely to encounter the culture of poverty in the academic continuity clinic experience. Globally, 2.5 billion people live on less than 2USD per day (Chen & Ravallion 2004). Although the degree of poverty is not as severe in the US compared to the rest of the world, the number of US families living in poverty has increased dramatically to 7.6 million in 2007, including 13.3 million children (DeNavas-Walt et al. 2008). Psychosocial problems related to poverty such as food insecurity, housing instability, inadequate parental education, and parental substance abuse are associated with higher rates of behavioral, developmental, and learning problems in children (Garg et al. 2007). In addition, substandard housing and homelessness have been linked to higher rates of diarrheal illness, ear infections, and health service utilization (Wood et al. 1990).

At the same time, preventative health care services are not meeting the needs of many families, especially families with the most vulnerable children (Schor 2004). A national survey of parents found that 94% of parents reported more than one unmet need for parenting guidance, education, or screening (Bethell et al. 2004). In studies of urban pediatric primary care clinics, parents report wanting broader children's health information from their health care providers than just medical information (Schultz & Vaughn 1999; Burklow et al. 2001). This suggests that parents are receiving children's health information from other sources in their communities and/or are "winging" it with regard to specific health concerns. Current preventative medical screening generally focuses on social factors related to behaviors, such as smoking, and less on social circumstances of parent's lives. Studies have suggested links between stress, housing conditions, homelessness, and a higher prevalence and severity of asthma (Kenyon et al. 2007); yet these topics are often not taught as routine social screening.

Health and well-being are increasingly viewed as related to factors such as poverty, inadequate housing, and income inequalities, all of which play a critical role in determining health status (Israel et al. 2001). This means that competing priorities for families living in poverty may undermine the

Practice points

- Medical students and residents are likely to encounter the culture of poverty and associated issues such as food insecurity, housing instability, inadequate parental education, and parental substance abuse in the academic continuity clinic experience.
- Medical students and residents often lack knowledge of the social determinants of health.
- Traditionally, the medical student and resident curriculum has not included how to advocate for families' cultural, social, or economic needs.
- A brief social–legal curriculum can positively have an impact on the residents in the aspects of their knowledge and sensitivity to family circumstances, encourage reflections regarding self and personal practice, and increase specific knowledge about advocacy issues and community partnerships for solutions.
- Changes in physician attitude and future intention result from a brief educational intervention on non-medical needs of families.

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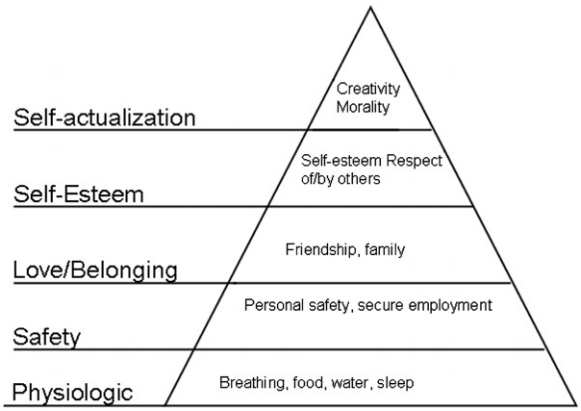

Figure 1. Maslow's hierarchy of needs.

instructions of the medical provider. If rent is due or a relative has a more urgent need for the funds which would have bought the prescription, the medication may never be purchased. In other words, the urgency of the moment may supersede the therapeutic plan. As Maslow explained in his hierarchy of needs (Maslow 1943), certain basic needs (safety, food, and shelter) supersede others (self-esteem), and an individual's ultimate potential cannot be reached unless basic needs are addressed and satisfied (see Figure 1 for Maslow's hierarchy). For instance, if a mother is concerned about food insecurity, housing or the safety of her family, she may not be able to concentrate on satisfying her children's other needs (e.g., administration of controller asthma medication twice per day) and the child's condition may worsen. A physician who is not screening for unmet social issues may interpret her not giving the medication as prescribed as "non-compliance," rather than her need to focus time and effort on satisfying her family's basic needs. If physicians can learn to partner with community agencies to help families meet their basic needs, families may be able to concentrate on meeting higher-level needs.

This concentration on basic needs may be an especially difficult concept for physicians to grasp. According to the (Association of American Medical Colleges, AAMC 2008), while efforts have focused on increasing racial and ethnic diversity in the US medical schools, there has been no improvement in the diversity of students from varying economic backgrounds. The percentage of medical students from the highest quintile (family income >$91,705) varies between 48% and 56.9% and the percentage of medical students from the lowest quintile (income <$19,178) has never been greater than 5.5%. In 2005, more than three quarters of medical students came from families in the top two quintiles of family income (Association of American Medical Colleges, AAMC 2008). This economic breakdown is similar in Canadian medical schools, where students are less likely to come from rural areas and more likely to have higher socioeconomic status, as measured by parents' education, parents' occupation, and higher household incomes (Dhalla et al. 2002). If we assume that our residents are representative of medical students from the US and Canada, then most of them did not grow up in the culture of poverty and will not be able to rely on their own prior experiences, but rather will need to be exposed to the lived experience of the families with whom they work.

Traditionally, medical school and residency curricula do not specifically address the social determinants of health or how to advocate for families' cultural, social, or economic needs in spite of our increasingly diverse society. Medical students and residents often lack knowledge of the scope of these needs and existing community resources that could address them (Doran et al. 2008). Residents have a variety of clinical encounters with families from different socioeconomic and cultural backgrounds. Residents may avoid asking about a family's issues due to lack of time and knowledge of the issues or available resources, discomfort exploring these issues, and the perception that these social determinants are not remediable.

Most medical student textbooks on history and physical exams traditionally include a paragraph on social history (Kenyon et al. 2007). In pediatric textbooks, social history includes a description of who the child lives with, marital status, parents work status, daycare, smoking, television, and extracurricular activities, but poor families' basic needs, such as food, safety, housing, access to health care, and education are typically overlooked (Kenyon et al. 2007). Because physicians may not be fully aware of the social issues or the possible solutions, they are likely to be uncomfortable and they may even avoid asking about social determinants of health. This is similar to domestic violence screening 10–15 years ago, when physicians did not routinely initiate discussions about domestic violence with their patients for fear of opening "Pandora's Box" (Sugg & Inui 1992). However, physicians who had domestic violence training or received educational interventions had a greater sense of competency and were more likely to screen than those who had not had prior training (Dubowitz & Black 1991; Erickson et al. 2001). Additionally, domestic violence educational interventions improved the health care providers' perceived level of knowledge and comfort which translated into practice as documented by chart reviews which revealed an increased rate of screening, suspicion, completion of safety assessments, and referrals after the education (Harwell et al. 1998).

Despite the lack of formal training in social determinants of health, pediatric residents are interested in learning about advocacy and community health. In one study, residents from three separate training programs were exposed to an advocacy curriculum and asked to develop an advocacy project. The majority of the residents reported a positive experience with the projects which covered a variety of topics and affected different levels including their communities, resident education, hospital systems, and public and health policy (Chamberlain et al. 2005). In a longitudinal advocacy educational intervention in the continuity clinic setting, residents demonstrated an increase in knowledge of the issues and resources and in the value of advocacy following the intervention (Roth et al. 2004). The AAMC, in its Medical School Objectives Project, recommends that graduating medical students make a "commitment to provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations" (Association of American Medical Colleges, AAMC 1998).

Resident education guidelines in the US require primary care programs to train future physicians to assess the community's health, provide culturally effective health care, and learn to be an advocate for patients (Accreditation Council for Graduate Medical Education, ACCGME 2007). Medical providers require the appropriate knowledge, skills, and attitudes to assess for these social and environmental risks and to engage families from a variety of economic and cultural backgrounds in a health care partnership (McGravey et al. 1996). It has been shown that physicians believe their roles should include community participation and advocacy, but to what level they are being prepared to assume these roles is uncertain, though perhaps changing for the better (Gruen et al. 2006). Learners in medical education need to gain an understanding of how different cultures and economic realities impact the intended medical treatment for their patients and how to respond appropriately.

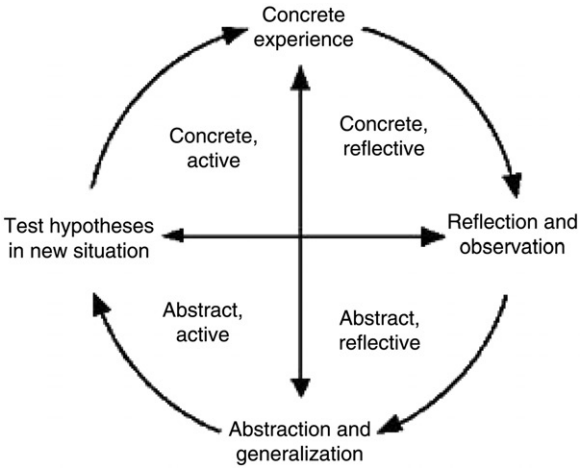

Figure 2. Kolb's experiential learning cycle.

Methods

The Advocacy Course at Cincinnati Children's Hospital Medical Center was created 12 years ago. It is a 2-week block rotation that is required, which is completed by the pediatric intern class annually. Historically, the rotation was created and run by the Pediatric Emergency Medicine physicians and focused mainly on injury prevention. In August 2008, a Medical Legal Partnership (Child HeLP Program) was started in the Pediatric Primary Care Center (PPCC) where approximately half of the categorical pediatric residents have their continuity clinic experience. Additionally, all interns rotate through the PPCC for a 2-week block for exposure to underserved primary care medicine. Due to the new resources, expertise and community contacts provided by the Child HeLP team, the Advocacy curriculum was expanded to include the section on poverty and the provision of health care to underserved populations.

The revised course started in October 2008 with 10% of the contact time dedicated to teaching a social–legal curriculum. The curriculum was designed to help residents better understand economically underserved families' issues and constraints in order to provide more informed and sensitive care for their children. This new educational experience combined experiential and didactic learning. The interns took an organized "field trip" to Hamilton County Jobs and Family Services (local public benefit organization) where they shadowed a case worker interviewing families for new applications or reapplications of benefits. They then visited the local Free Store Food Bank, where many of the clinic families go for assistance. The following day, the residents received interdisciplinary didactic information, co-taught by a pediatrician, 2–3 legal aid attorneys, a paralegal, and 1–2 social workers. The content included information on the Medical Legal Partnership, budgeting on a fixed income, public benefits, and housing and educational rights and laws. Following the entire experience, they were asked to write a "Memo-To Myself" (White et al. 2005) to reflect on 2–3 items that they had learned and how this new knowledge and experience would influence their subsequent practice. Of the 37 interns who completed the new Advocacy course, 33 (89%) completed the Memo-To-Myself reflection exercise.

The course curriculum was designed with Kolb's Experiential Learning model in mind (Figure 2). Kolb suggested that learning involves a cycle of four discrete steps: (1) Concrete experience which leads to (2) reflective observation on that experience, followed by the (3) development of theory through abstract conceptualization. The theory is then tested by (4) active experimentation that generates new experiences (Kolb 1984). The concrete active experience included the immersion trip to Jobs and Family Services and the FreeStore Foodbank (Step 1). This allowed residents to experience the waiting room, the application process, and the support documents (e.g., social security number, birth certificates, documentation of prior work experience, etc.) needed to apply and qualify for benefits or collect food. The residents were then asked to reflect on their learning experience and think of how it will influence them in the clinical setting (Steps 2 and 3). They were then able to test their hypotheses where they returned to clinic to care for families of lower socioeconomic classes (Step 4).

Upon completion of the course, the "Memos To Myself" were analyzed qualitatively for salient themes using a standard qualitative research procedure based on grounded theory. Two faculty independently reviewed the memos and developed broad conceptual categories/salient themes rather than imposing preconceived categories or models (Glaser & Strauss 1967). Both reviewers did multiple readings of the interviews and extracted the main themes, phrases, and meanings of the residents' reflections. The primary analytic technique was *constant comparison*, a process through which each piece of data is compared and contrasted with other data to build a conceptual understanding of the categories within the phenomenon of interest. This process permits the code structure to evolve inductively reflecting "the ground" (aka, the experience of the participants). After discussing and agreeing on the salient themes, the reviewers went back to the memos and underscored participant words or phrases that summarized their response to the broad categories and themes. Next, the codes were attached to segments of the text in a way that both organized and identified the relevant themes in the text (Glaser & Strauss 1967). As categories, themes, and linkages were clarified, unifying themes were identified and condensed into

a manageable number of broad categories (Bradley et al. 2007).

Results and discussion

Although the educational intervention was a brief 1-day experience, it had an extremely powerful impact on the residents. The impact of the social–legal curriculum can be grouped into three primary areas: (1) realization regarding family circumstances; (2) reflections regarding self and personal practice; and (3) specific knowledge about advocacy issues and community partnerships for solutions.

Realization regarding family circumstances

Residents recognized that the needs of the families are complex and social factors have a major effect on medical outcomes (e.g., school, living conditions, finances, transportation, violence, safety, housing, poverty, and abuse). For example, one intern was performing a well-child care visit for a young infant and the mother told him that she was co-bedding. The intern then discussed all the SIDS risks of co-bedding and advised her on safer sleep practices. After precepting the patient, it became apparent that the family was homeless and the mother–baby pair had been staying in different shelters every night. When asked about her housing situation, she related that in many of the shelters, holding her baby in the bed was the safest place for the baby and that she could not carry a crib with her. The intern was shocked by this subsequent discussion and had never thought that housing could so greatly impact routine anticipatory guidance issues like sleep. After that day in clinic, the intern consistently asked questions related to social issues since he realized their potential contribution to child health. Many pediatricians are unaware that housing is a leading cause of childhood morbidity and mortality as housing conditions are linked to three common pediatric public health issues – asthma, injuries, and lead toxicity (Sandel et al. 2004).

Interns and residents understood that families seriously need help, especially in navigating the health system and receiving legal assistance but there is no "quick fix." The majority of the residents recognized that for many of these families, the social aspects of their lives affect their health, development, and well-being. In addition, they appreciated the complexity of the challenges that families face and consequently every resident committed to ask about socio-cultural and environmental issues that are not traditionally components of the medical history.

Reflections regarding self and personal practice

Residents described a deeper awareness of and personal reflection about socio-cultural, environmental, and political problems different from their own childhood experiences. Since most resident physicians are from higher socioeconomic families (Dhalla et al. 2002; Association of American Medical Colleges, AAMC 2008), they may not be able to imagine the living conditions and situations of the families they care for. The immersion experiences (home visits, trips to community agencies, etc.), albeit brief, provided a powerful experience for the residents to live in their patients' shoes temporarily. These experiences gave them the framework to understand and empathize with many of the families for whom they will care in the future. The residents also realized that all family situations are different which highlights the importance of asking non-traditional social questions.

The residents described the need to enhance their interpersonal skills and approach to families by listening to small things, being non-threatening, asking about psychosocial issues, being informed about resources, offering hope, practicing non-judgmental listening in general, and trying not to get frustrated (*I will try not to be frustrated* [*with families*] *during clinic recognizing that I do not understand the social issues that my families face.*). As a result of the course, residents understood the need for non-traditional physician roles (e.g., knowledge about resources and whom to call for assistance, advocacy role, social work role, etc.). One resident reflected, *I will listen for the more subtle clues in the room when I see families and ask about the small things* (*spoken and unspoken*)*... then I will be their advocate.* Other residents noted that this experience made them consider who they are and the privileges they've been afforded in life both of which contributed to a greater empathy for the families.

Specific knowledge about advocacy issues and community partnerships for solutions

Residents acquired specific knowledge about advocacy from the course and as a result they shifted their perspective about family adherence and compliance. Residents gained knowledge regarding social factors and health including navigating the educational system for children with disabilities, poverty guidelines and their effect on working families, laws governing public housing, and basic public benefits, and available resources. Residents learned about the laws that regulate the responsibilities of schools for children with disabilities and how to guide families in applying for services for their children. Many residents realized for the first time the need for an individualized education plan (IEP) and the difficulties in obtaining an IEP especially for families with low literacy. In addition, residents recognized that in general they need to ask parents how children are doing in school and how satisfied they are with their current placement and services.

Residents learned that poverty is complex, persistent, and ubiquitous. They also came to understand that in our community, *$21/hour is needed to support a family of three, but that minimum wage is much less than this, which necessitates that many working families need to seek benefits to survive.* Some of the residents anecdotally expressed surprise that some of the Medical Assistants with whom they work in clinic would qualify for public benefits. Most residents wanted to empower parents to finish high school, but recognized the difficulty of doing it if the parent has children. Residents were initially unaware of the daycare vouchers and were enthusiastic when they learned that they could recommend them to family members who wanted to complete their education.

Residents also learned about laws governing public housing and the major link between health and safe, affordable housing. They understood the differences between Section 8 housing and vouchers, local options for housing, how families can qualify for public housing, family's rights to obtain repairs for unsafe housing, and laws and regulations regarding evictions. In general, residents gained tremendous knowledge about basic public benefits and resources available to their families including federal, state, and local benefits. For example, residents were exposed to the specifics of obtaining medical insurance, cash assistance (TANF, welfare), food stamps, emergency funds (prevention, retention, and contingency; PRC), and daycare vouchers. They learned of the resources available through local community agencies such as Hamilton County Jobs and Family Services, Legal Aid Society of Greater Cincinnati, Freestore Food Bank, and the Child Help program (medical – legal partnership in PPCC). Knowing about these resources and how to access them for families made the residents much more comfortable talking to families about these issues and many residents committed to incorporate advocacy questions into their routine social screening at future clinical encounters.

Conclusion

Pediatric residents spend a small amount of time (1 day of internship) learning about the social determinants of child health; yet this limited educational experience raised awareness about topics that are traditionally not covered in medical education. As a result of this experience, residents indicated that they wanted to ask and learn about non-medical needs and possible solutions/help available from community partners. We recognize that this educational experience involved only a small number of pediatric interns at one site and thus generalizations cannot be made to other sites. Additionally, the impact of the intervention was seen immediately after the learning experience, and it is not known how long these attitudinal changes will last.

However, this educational experience certainly impacted our pediatric interns at least in the short term. Further study is needed to examine if these types of experiences impact patient care and have a lasting effect on resident practice. Future studies could include videotaping patient interactions and parent surveys to see if these topics were addressed in the clinical setting. Because the impact of such a small intervention was large, we anticipate expanding this learning experience to resident immersion experiences with vulnerable populations such as making home visits to interview parents with medically complex children or immigrant populations, so that residents can experience a "day in the life" of families from a variety of vulnerable populations.

***Declaration of interest*:** The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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