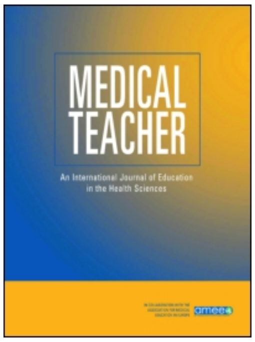

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Persistent influence of a narrative educational program on physician attitudes regarding patient care

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ABSTRACT

Purpose: Educational approaches involving patient stories aim at enhancing empathy and patient-centered care; however, it is not known whether the influence of such programs on physician attitudes persists beyond medical school.

Materials and methods: The Family Centered Experience (FCE) paired preclinical medical students with patient families over two years and engaged students in reflective dialogs about the volunteers' stories. This study examined possible long-term influences on attitudes toward medicine and doctoring. Interviews were conducted with former students at the end of or after post-graduate training. All had completed the FCE between 4 and 10 years before the study. Thematic analysis was informed by a constructivist Grounded Theory approach.

Results: Several themes were identified. The FCE made graduates aware of the patients' perspectives and impacted their clinical practice in specific ways, such as developing collaborative partnerships, conducting family meetings, and breaking bad news. The course had influenced career choices and interest in teaching. Finally, the FCE enhanced appreciation of the human dimensions of medicine, which graduates had drawn upon in subsequent years.

Conclusions: A program based on longitudinal interactions with individuals with chronic illness can have persistent influence by stimulating reflection on the patient's perspective and humanistic approaches to patient care.

Introduction

An awareness and appreciation of the human side of medicine, including providing patient-centered care with compassion and justice, is increasingly recognized as an integral part of clinical excellence. Medical educators have sought ways to incorporate this perspective in medical school curricula, and much of these efforts have involved the introduction of the humanities (Jones et al. 2014; Bleakley 2015; Crawford et al. 2015) reflective writing (Shapiro et al. 2006; Wald and Reis 2010; Wear et al. 2012), creative art (Baruch 2013; Kumagai 2012), and performance studies (Kohn 2011; Skye et al. 2014; Bleakley 2015) into the education of health professionals. Over the past 20 years, an important new field of inquiry, narrative medicine (Coles 1989; Frank 1995; Hyden 1997; Charon 2001), has advocated exploring stories of illness and doctoring to inform professional and personal development.

One approach related to narrative medicine focuses on the role of the patient-as-storyteller/educator. In this context, an individual with chronic illness teaches medical students with the authority of lived experience, and the act of teaching develops into an ongoing dialog between patient and student about what it means to have a chronic medical condition and to seek medical care (Kleinman 1988; Johnson et al. 2006; Hanson and Randall 2007; Kumagai 2008; Johnson 2016). The underlying principle with this approach is that there is a difference between disease – conceptualized as abnormal physiological processes based on theories of pathophysiology – and illness – the subjective experience of living with a medical condition (Kleinman 1988). By understanding the patient's perspective, including her or his explanatory models of illness (Kleinman 1988), health care professionals may practice in ways that preserve and celebrate individual autonomy, dignity, and humanity.

From 2003 to 2016, the University of Michigan Medical School implemented a required learning activity, *The* Family Centered Experience (FCE), during the first and second years of the pre-clinical curriculum. In the FCE, pairs of medical students were matched with individuals and families in the community who lived with chronic illness for a series of scheduled home visits over two years. The home visits were devoted to ongoing conversations between the students and volunteers about their experiences in living with chronic illness and focused on different themes, such as the impact

Practice points

- Patient stories aim at teaching patient-centered care; however, the long-term effects on students are unknown.
- Qualitative research suggests that longitudinal conversations with patients may enhance appreciation of patients' perspectives, skills in collaboration, and reflection on the human dimensions of health care, even years after the intervention.
- This approach may reinforce humanistic approaches to clinical practice.

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Supplemental data for this article can be accessed here.

of illness on self and family, the interactions between doctors and patients, stigmatization of illness, and breaking bad news. The students were strictly prohibited from attempting to provide medical advice or medical care to the volunteers and were asked to avoid approaching them in any way that would represent the volunteers as objects for learning history-taking or physical exam skills. Instead, the students were instructed to focus on being fully present to hear the stories the volunteers would tell of their illness and its care. Following each home visit, the students would return to the medical school for small group-based interactive discussions designed to stimulate reflection on the stories they had heard (Kumagai 2008). In order to enhance an environment of familiarity and safety and to encourage ongoing dialogs over time, the medical student small groups remained the same during the first two years of the FCE, as well as during a series of four follow-up small group discussions during the clerkship year. These longitudinal dialogs were supplemented by readings, reflective writing, interactive theater and role-playing with professional actors, as well as interpretive art projects, all of which were designed to foster reflection, empathy, and humanistic perspectives on patient care (Kumagai et al. 2007; Kumagai 2012; Kumagai and Wear 2013; Skye et al. 2014; Jones et al. 2017).

Previous studies have reported that the FCE program had a meaningful impact on students' understanding of, and appreciation for, the patient's perspective and the doctor-patient relationship (Kumagai et al. 2005; Kumagai 2008). The program encouraged perspective-taking and empathic identification with others and broadened students' perspectives about chronic illness through challenging preconceived ideas and assumptions (Kumagai et al. 2009; Kumagai 2008). These studies, however, demonstrated a relatively short-term impact of this educational approach, since the studies were conducted during or shortly after the participants' involvement in the FCE. It is not known whether such an impact on perspectives and values persists beyond the preclinical years. Studies demonstrating the longitudinal impact of programs in the development of students' professional identities or attitudes regarding patient-centeredness are rare (Boudreau et al. 2014; Gaufberg et al. 2014). Determining whether programs such as the FCE have long-term effects is particularly important in light of the challenges the clinical environment poses to the preservation of empathy (Albanese 2000) and students' exposure to the more deleterious aspects of the "hidden curriculum" (Hafferty 1998; White et al. 2009).

This qualitative study was performed to assess the possible sustainable influence of a longitudinal, narrative-based course focused on the experience of illness and its care. The over-arching research question guiding these efforts was: "what is the long-term impact of the FCE on medical students?" A qualitative, interview-based, rather than a quantitative, survey-based study was conducted in order to allow participants to have maximal freedom to reflect on and articulate their understanding of the meaning of their experiences with patient volunteers.

Methods

Participants

In the summer of 2013, graduates of the University of Michigan Medical School (UMMS) who had taken the two-year FCE course were sent email solicitations inviting their participation in the study. A convenience sample of potential participants was initially identified by random selection from a list of UMMS graduates in the process of completing or having completed postgraduate training in the University of Michigan Health System (UMHS) and who were still working in the UMHS at the time of the study. Additional participants were identified through snowball and convenience sampling methods, including recommendations by interviewees or potential participants becoming interested via word-of-mouth among UMMS graduates. Written informed consent was obtained from all participants. All interviews were conducted in the summer and fall of 2013.

Data collection

Two of the investigators (Jennifer N. Stojan and Eleanor Y. Sun) conducted individual face-to-face interviews using open-ended questions. Neither had teaching nor supervisory responsibilities over any of the participants. Interviews were held in a location that was convenient to the participant and ensured privacy and confidentiality. The questions focused on the general impact of the FCE program on the graduates as they progressed in their career (Supplemental Appendix 1). The question format was deliberately left open-ended in order to fully explore participants' recollections, thoughts, and feelings, and participants were encouraged to reflect on their experiences with their FCE volunteer families, their own life experiences, perspectives, and personal values. The interviews were audiotaped and transcribed with identifying information omitted before distribution to the investigators. Participants were emailed a copy of their transcript to review and edit, and additional comments and insights were solicited.

Data analysis

Thematic analysis of the transcripts was informed by a constructivist version of Grounded Theory (Strauss and Corbin 1998; Charmaz 2006). A constructivist approach explicitly acknowledges that data are interpreted through the lens of each investigator's personal experiences and worldviews (Charmaz 2006). Nonetheless, reiterative attempts were made to look at the data "with fresh eyes" in order to avoid the introduction of preconceived ideas or conclusions prior to interpretation. In this study, investigators read each transcript line-by-line and independently identified overarching themes (open codes), which were agreed upon by consensus after discussion and repeated readings of the transcripts. Following the generation of general themes, the transcripts were reread, and axial coding was performed to identify the relationships and variations among the general themes. This process was reiterated several times in order to ensure that the themes authentically captured the participants' thoughts and expressions. Additional questions were posed in interviews to "flesh out" understanding of emerging themes. Saturation of the data was achieved when analysis of additional interview data revealed no new information (Creswell 1998). Finally, selective coding was performed in order to develop a narrative summary of the impact of the experience on the study's participants.

This study was approved by the University of Michigan's Institutional Review Board.

Results

At the time of the study an estimated 1700 students had completed the program over 10 years (170 student per year), and approximately 110 graduates were working within UMHS. Among those, 35 were randomly selected and invited via email invitations to participate in the study. A total of 20 individuals accepted and of those, 19 completed the interviews. Of the participants, 13 were woman and 6 were men. They ranged from two to seven years out of medical school, with seven residents, four fellows and eight attending physicians at the time of the interviews. The mean number of years from medical school graduation was 4.3 years. Specialties included internal medicine, pediatrics, family medicine, surgery, obstetrics and gynecology, anesthesia and psychiatry. Each interview lasted between 20 and 90 min. Thematic coding revealed four major themes (Table 1).

Theme 1: the FCE heighted awareness of the patient's perspective

Program graduates found the program to be a useful way to gain awareness of a patient's perspective of illness, as opposed to the pathophysiological disease-based view taught in medical schools. Participants commented that this was the only opportunity in medical school where they got to "be in a patient's shoes," a perspective that they found valuable as they progressed in their careers. They also commented on the lack of emphasis on this awareness in other parts of the medical school curriculum.

> That was the only time in medical school which we identify with people who are suffering while the other time in medical school is really a cerebral and intense experience. So, this is the only time we get to talk to people about their illness and their suffering in specific times … every few weeks. We get together and get to be a person, which is really valuable throughout medical school.

Sub-themes were identified under this category, with former students reporting that they had developed a unique impression of disease from their volunteer family (Table 1). Program graduates were reminded that an illness affects not only a patient, but also the family in a very profound way and that patients and families often developed unique ways of coping with their disease in an effort to live happy and fulfilling lives. Several participants stated that their interactions with family in the FCE course allowed them to recognize the financial impact of illness. It was also the place where they realized what it is like to live with a disability or to be stigmatized for being "different." Several graduates found that exposure to patients' experiences early on in the preclinical years were particularly important for their perspectives as physicians.

> The experience is early in the medical students' training to give them a good context of what this is that they will be dealing with for the rest of their career and what the patients and the family's story is and not just what the doctor's story of what illness is. You spend your whole medical career learning the doctor's story of illness … I think the program gives you a chance to see the patient's perspective.

Theme 2: the program impacted my style of patient care

Program graduates reported that the FCE influenced, not only their perspectives, but specific ways in which they delivered patient care. They drew upon lessons learned from their conversations with their volunteer families and small group discussions in their clinical work as they advanced in their career.

> My experience was invaluable and the interactions with my FCE family are very clearly imprinted in the way that I practice medicine today. Mostly, in terms of understanding what my impact and actions as a physician have on the patient and family that I am taking care of because I was able to see it from the other side of things before I knew anything about the medical aspect of it.

Another theme identified was how the interactions influenced the importance with which the program graduates viewed communication, empathy and compassion. Several participants commented on how the interactions influenced their approaches to deliver bad news to a patient and family. Others emphasized how the course influenced the way in which they created partnerships with patients, from collaborative relationships in chronic disease management to organization of family conferences. This awareness also contributed to attempts to recognize obstacles that need to be addressed in order to ensure optimal patient care.

> I certainly found it useful, talking to families and knowing that there are people behind the illnesses that we treat. It also made us think a little bit more about what it means when people go home; questions that may pop up at home; questions about accessibility to doctors … Things that are said in clinic can easily be forgotten. And that kind of brought it home for me.

Theme 3: the FCE influenced teaching styles and career choices

Some participants reported that the interactions with volunteers and peers had a significant impact on their teaching about patient care, particularly in their approaches to patients and role modeling. Program graduates recognized the importance of emphasizing the patient perspective to their learners and showing them the clinical relevance on the wards.

> [N]ow as a resident I can remind those students "Hey remember this," you know. And particularly having gone here for med school and staying for residency I knew what they had in their FCE so I could harken back, "Hey, do you remember reading that book? What did that mean to you?" or "Do you remember those conversations?" because that's what you're seeing here on the wards or in the clinic.

Several program graduates felt that the course had an impact on their career choices. They felt that the relationships with their patients gave them a unique understanding of the disease process and sparked their interest in a particular field of medicine. For instance, one graduate who had a volunteer with cerebral palsy became a developmental pediatrician and another who had a volunteer with Crohn's Disease became a gastroenterologist. Interestingly, the participant who became a gastroenterologist initially denied that the FCE program had a significant impact on the way she viewed medicine: it was only during the

Table 1. Major themes and subthemes.

Major themes	Representative examples
1. Enhanced my awareness of the patient's perspective	
a. Developed a unique impression of a volunteer's condition	"The most striking thing about the Family Centered Experience was seeing the patient in the context of their home. I began to … realize how their illness was just something that we as physicians view as something that defines the person. And in fact, that was not the main thing … in her life"
b. Reminds me that a family is involved	"To this family, this child is the center of their world. She has a room in the middle of their living room and everything they do is about her and her care. They have another daughter who has helped with her sister's care and she has decided to become a nurse. So I say, "how do you argue with that?" A lot of people would make judgments, such as "why would you continue care for a child who is unable to interact?" But to this family she is not a burden at all. She is their daughter and they love her and her siblings love her. This is something that you always have to remember when you are in that situation because you think, "oh this is futile and what kind of quality of life does this person have?" But this girl, I mean she has this great life, right? The family seems very fine and they would be lost without her"
c. Learned about coping and enjoying life differently with a chronic disease	"For example, she was sensitive to the sun so when they'd go on vacations they wouldn't want to go to the beach and sit in the sun … So they'd do indoor stuff all day and go to the beach at night they would kind of tell the girls, "gosh isn't this cool that none of your friends … you get to go to the ocean at night time?" Found ways to make it exciting and enjoyable for the family to … live with the illness. So not only was it great to see people who were succeeding and doing well with the illness but it really opened my eyes with the second family to how the illness that one person has can affect everyone. So I think from that I really gained a lot of insight"
d. Learned about the financial impact	"Just like their daily struggles. You know that Dad worked full time at some sort of IT job. He had good insurance but it was still really hard to make ends meet. And I remember being surprised at how much insurance didn't cover. And for their house like wheelchair ramps and things like that. They just couldn't. It was just a struggle and it kind of surprised me too because part of it is I'm Canadian. So, our health care coverage isn't perfect but it is different. That might have been my first exposure talking with someone in the American system with, with … like really struggling"
e. Learned about disability	"I think it was the first time I had interacting with a kid with CP. And if you would have just read about her on paper, it didn't sound so good. But to see how much they included her into the family and how much they loved her, and how much she brought to the table; I think it really was my first experience with that … .their house is filled with all this PT equipment. You know walkers … .and they always tried to include her and they just really tried to make everything as normal as possible"
f. Learned about social stigma	"So for a type 1 diabetes patient he was very fit and very active. He did not look like a type 2 diabetic at all. People would tell him or you are not exercising enough or you are not eating right. So it was almost like he brought this on himself and we talked about that stigma. He would cope with it by trying to educate other people and he would not try to take it so personally while not getting so upset about it. So I guess that is a lesson I learned to. With autism there is a ton of stigmatism that goes with that disorder. Glaring looks from other people in the community if the child was acting up. I think that the family dealt with it more by also educating people with what was happening but also just letting it roll off your back"
g. Exposure to diverse backgrounds	"to just sit down with someone of a different way and sit down and tell me in a very non-confrontational way of what it is like to be a young African-American female going through a healthcare system where they felt not always included as they would have liked to have been" "this family was very different than me. They were incredibly religious and their faith was very important to them and their values were different. It was important that I do not impose any of my values on them and I think I saw people who are different than me"
2. Impacted my patient care	
a. Importance of communication	"I think about patients and clear communication; not being afraid to say words like death or dying were really important. But then just little things: not standing and talking to somebody but sitting down; allowing them to express their feelings, their questions, their anger; asking them if they understood and not just saying 'Do you understand but can you tell me what you understand?'"
b. Importance of empathy	"[As an anesthesiologist] I find the patient interaction very rewarding because you get to see patients as people, and as people at their most vulnerable and they are most scared. You are about to put them to sleep and you are about to cut them open and do all sorts of nasty things to them. And so, I think that being able to connect with them on a personal level and very quickly assure them that it will be okay and that they will wake up again and that someone will be sitting there and taking good care of them and that it is natural to feel scared … I am always very careful when I am taking a patient back to the operating room to say that it is not time for their loved ones to say goodbye but to say 'see you later'"

(*continued*)

Table 1. Continued

Major themes	Representative examples
c. Gave me more compassion	"It certainly gave me a lot more compassion for kids with chronic diseases. And you know I think it was a cool opportunity … to see the kids when they're not sick, when they're in their element at home and just being like crazy, wild kids, ya know. Because when we see them here they don't look so good and it's easy to forget that part. So I try to ask now. Like, "What does so and so like to do at home? ", and things like that. Just to try and get to know the kid, not just … the patient"
d. Skills in delivering bad news	"I guess I don't know how I would have learned this without the course. You first figure out what the family's perception is and you try to figure out their goals and values are before you say anything. They will remember everything about those conversations and it is so important that you establish a good relation and provide them support because for the most part no one chose to be in the situation. But they are and our job is to help relieve their suffering and to cause more suffering would be a horrible situation and it would not be fair to the family. This is really one of my main goals is that we leave the conversation on the same page and although it is not a happy situation always but to ensure that their needs are being met is important. We need to understand where they are coming from"
e. Skills in recognizing barriers at home	"That is the other part of inpatient medicine is the disposition and trying to find the safest and best place for someone to go. So after the acute issues are solved we spend a lot of the time trying to facilitate that and I do spend a good amount of time trying to figure out how someone is going to do when they do go home. I think about what is their home situation is like and how are they going to follow up and how are they going to get their medications. I ask if we have scheduled this person for too many appointments because they have a life they need to live and they may have bills they need to pay and if they have a job they must continue to work. So unfortunately I don't reflect on that every day and because things can be very busy. But I do try to bring that experience into the situation and think about how that patient is going to do when they go home and what are their social resources and how are they going to deal with all of this at home"
f. Seeing myself in their shoes	"I really don't think that we can understand our patients unless we try to put ourselves in their position. If we are asking our patients to do different things such as taking different medications or undergo procedures, I don't think it is fair for us to not try and empathize with them. I really believe that we should provide the care that we would want for our family members and so I will always put myself in the shoes of that patient or that family member and say 'if this were my dad, what would I want?'"
3. Influenced my future career	
a. Teaching	"I think it is important to make sure that my students ask all those social questions. I think that if we quit talking about the social side of medicine and patient perspectives, we will start to forget about it"
b. Role modeling	"I hope that as a role model I am seen as a good clinician for all the right reasons which go with being able to provide patient care and being an advocate for patients. I want to really be more than just someone who makes a diagnosis and recommends treatment"
c. Career choice	"And you know I carry the story of the first family [with a child with cerebral palsy] very … they are very near and dear to my heart … I was thinking about that the other day … I remember thinking it was kind of funny because I'm doing developmental behavior peds, and like, 'oh wow, the CP Specialist!'"
4. Gave me a sense of the "big picture"	"And I think that seeing patients outside of the hospital when they are just normal people helps ground you and remind that you that these are not just the next person in the operating room or the next piece on the assembly line. It is a real person who is just happening to be intersecting with your day." "You know you can't be a doctor without learning physiology and pathology and all of this. But you can't learn to be a doctor without understanding what it means to be a patient"

course of the interview did she make the connection between her original FCE volunteer's condition and her final career choices. Others credited the program for their research interests.

> It is actually one of my research interests, involving improving communication about end-of-life situations … actually because of watching my FCE family … limit the care they wanted to provide their [dying] daughter.

Theme 4: the FCE gave graduates a sense of the "big picture"

During the interviews, program graduates expressed their belief that the interactions they had with their FCE volunteers were an important step in their evolution to becoming a physician. They reported that the program helped them to be more in tune to the humanistic side of medicine, to remember that medicine was about people and not diseases and that the doctor/patient relationship was a partnership.

> It is usually not about how great your physical exam skills are or how quick you get to a diagnosis because that often does not make much of a difference in the patient's life. So, you getting to know them and you being able to understand what it is you are able to do to help care for them. It is not always being able to make the diagnosis and it is not always offering them treatment. I am a firm believer in that and I see myself as an ally who is willing to help them along the way … … We are there to work with them and be a partner in that brief period

> of time … which can be very difficult.

When asked what the main theme of the FCE program was, one graduate responded:

> The main theme? (long pause) So I think the main theme is there are people, personalities, interests, passions like beyond the illness; beyond the diagnosis.

Discussion

Engaging patient stories to teach patient care represents a powerful means to prompt perspective-taking, reflection, and personal and professional growth (Charon 2001; Kumagai 2008; Kumagai et al. 2009). However, the critical question is whether lessons learned from stories told during the preclinical years persist in memory and influence into the rest of medical training and beyond. Given the encounters with the more dehumanizing influences of the "hidden curriculum" (Hafferty and Franks 1994) in the clinical years and the conflicts between humanistic goals and clinical realities (White et al. 2009), can the naïve sense of wonder and idealism of the preclinical years survive the hard-edged cynicism often engendered by the rigors of medical training? The present study's goal was to capture the reflections of physicians about the influence a required two-year narrative-based program may have had on their views of themselves and their profession long after the completion of the program.

Although program graduates occasionally struggled to remember the names of their volunteers or the details of their volunteers' lives, they nonetheless were still able to recount the stories and insights that they had learned from the families many years after the original interactions. Often during the interviews, participants reported being surprised at their realization of how much they had gained from the experience and how much it had shaped the physicians that they had become. In fact, two of the participants had started out the interviews by stating that they did not believe the program had any impact on themselves or their clinical practice. Several participants reported that they were able to acquire a greater appreciation of the course and its purpose years later through the interview process itself. These "after-the-fact" realizations appeared to play a role in the richness of responses because participants were able to use the interview process as a time to reflect on their past experiences and impressions. As one of us (AKK) has proposed elsewhere (Kumagai 2008), the knowledge derived from stories is a different way of knowing than that learned through the study of the biomedical sciences; reflective insights often "go deep" and come to dwell within the tacit knowledge individuals have of themselves, each other, and the world (Polanyi 1966; Kumagai and Wear 2013). The open-ended questions and the dialogical nature of this form of qualitative inquiry is, we believe, uniquely capable of prompting reflection and of fostering construction of meaning of the experience through recollection and by bringing hidden "lessons" to conscious awareness (Kumagai and Naidu 2015).

When recalling and recounting their experiences, participants reported developing an awareness of the patient perspective. Participants often described how the interactions gave them a sense of the "big picture" of what it means to be a doctor; however, the changes they reported were not only on the level of awareness but also in *action*. From breaking bad news and working in end-of-life situations, to planning a family conference to working with families of children with special needs, participants reported how their interactions with the FCE families had informed their practices as health care professionals and how it had impacted their patient care in subsequent years. For some, these interactions even went so far as to affect their career choice.

What became apparent from the interviews was that the interactions the participants had had with their FCE volunteers – and the stories that they had heard – impacted the way in which they saw themselves and their profession. In this sense, we believe that the program played an important role in their identities as physicians and contributed to a more humanistic worldview.

There are limitations in this study. The study was limited to a specific program at one institution with a convenience sample of participants. Therefore, its conclusions cannot be generalized to narrative-based programs in general. Furthermore, the participants of the study may not have been representative of the experience of all students who completed the program over the 13 years of its existence, and the reported impact is through self-report rather than observation of actual clinical interactions of graduates with patients. Solicitation to participate in the study was limited to a convenience sample of UMMS graduates who were training or working in the University of Michigan Health System (UMHS), and not all those graduates in the UMHS were involved in the study. Possible selection bias was therefore possible through the convenience and "snowball" sampling techniques. Nonetheless, qualitative research by design does not generate generalizable, statistically significant observations; in contrast, it emphasizes the authenticity and range of possible responses to a given experience or event (Creswell 1998; Charmaz 2006). Other potential study limitations were the possibility that the study participants responded in such a way as to please the interviewers, and that the investigators' preconceived opinions influenced the gathering or interpretation of the data. Furthermore, it is possible that the humanistic approaches adopted by the former graduates of the FCE were acquired through activities other than those of the program. We believe that the open-ended questions and dialogical approach to the interviews reduced the perception that there was a "correct answer" to any given question, and although congruent with the constructivist version of Grounded Theory, we acknowledged that each investigator brought her or his own background, values, and worldview to the project, we attempted to be meticulous in "bracketing" our own assumptions (the *epoché*) (Moustakas 1994) and continually returning to the original transcripts to avoid over-interpreting the data based on our own perspectives. Although it is probable that other interactions and factors played a role in shaping participants' perspectives toward doctoring and patient care, it was apparent from participant comments that "lessons" learned from the interactions with volunteers at an early stage in their careers did persist in memory (albeit, frequently tacit) and found resonance and alignment in their later clinical approaches. Indeed, in their responses, many participants explicitly traced the origins of their perspectives on, as well as specific approaches to, patient care (e.g. breaking bad news, working with families with children of special needs, arranging family conferences) directly to the "lessons" that they learned from their volunteer families in the FCE.

From the study's themes and findings, we make the following theoretical proposal. An educational program early in health professions training that is founded on narrative interactions with individuals with chronic illness and learners may influence the ways in which physicians-in-training come to see themselves and their profession. This influence may persist in memory beyond the years of medical school and for some, beyond the years of clinical training and may exist often at a tacit level, which subsequently comes to awareness through reflection and dialog. We suggest that the opportunity to meet and interact with patients and their families in their homes, to listen with respect and openness to their stories of illness and its care, to participate in the creation of educational spaces in which fellow students and clinicians engage in reflection and dialog about the human dimensions of medicine in a safe and creative manner (Kumagai and Naidu 2015) may all contribute to the formation of a professional worldview – a sense of physicianship (Boudreau et al. 2011) and practical wisdom (*phronesis)* (Kumagai 2014) – that encourages compassionate, patient-centered, humanistic practice.

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Glossary

Tacit knowledge: This is knowledge that is implicit, unrecognized and normally inaccessible to consciousness. For example, the familiarity of a friend's or relative's facial features. The phrase comes from Polanyi's concept of tacit knowing: "we know more than we can tell." (Polanyi M. 1966. The tacit dimension. Chicago: University of Chicago Press)

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