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How patient educators help students to learn: An exploratory study

Phoebe T. M. Cheng and Angela Towle
Faculty of Medicine, University of British Columbia, Vancouver, Canada

ABSTRACT
Introduction: Benefits of the active involvement of patients in educating health professionals are well-recognized but little is known about how patient educators facilitate student learning.
Method: This exploratory qualitative study investigated the teaching practices and experiences that prepared patient educators for their roles in a longitudinal interprofessional Health Mentors program. Semi-structured interviews were conducted with eleven experienced health mentors. Responses were coded and analyzed for themes related to teaching goals, methods, and prior experiences.
Results: Mentors used a rich variety of teaching methods to teach patient-centeredness and interprofessionalism, categorized as: telling my story, stimulating reflection, sharing perspectives, and problem-solving. As educators they drew on a variety of prior experiences with teaching, facilitation or public speaking and long-term interactions with the health-care system.
Conclusions: Patient educators use diverse teaching methods, drawing on both individualistic and social perspectives on learning. A peer-support model of training and support would help maintain the authenticity of patients as educators. The study highlights inadequacies of current learning theories to explain how patients help students learn.

Introduction
Patient involvement in health professional education is a response to health-care systems that aim for more active patient participation in their own care (Towle et al. 2010). In this new educational paradigm, described by Bleekey and Bligh (2008) as an authentic patient-centred model for medical education, the patient plays an active role as educator rather than a passive role in educational activities initiated by physicians. There are direct benefits to students when they learn with and from patients as educators. Educational experiences provided by patients are often more engaging, powerful, and transformative than those that students encounter in the regular curriculum (Rees et al. 2007; Kumagai et al. 2009).

Much has been written about student attitudes towards, and educational benefits of, patient involvement. However, little attention has been given to what patient educators do, intentionally or otherwise, to facilitate student learning. Studies of the patient experience have mostly enquired about their feelings, or perceived benefits and challenges. Benefits include empowerment, validation, increased understanding of their illness, development of a coherent illness narrative and improved relationships with health care providers (Walters et al. 2003; McKeown et al. 2012; Watts et al. 2015). Challenges include anxiety and distress, stigma, lack of knowledge of the educational context, lack of preparation and support, and “not being allowed to be real” (Walters et al. 2003; Rees et al. 2007; Speed et al. 2012; Hatem et al. 2003). Few studies have focused on patients as autonomous educators – what are their goals, strategies, and prior experiences that assist their educational roles? There is little in the literature to inform decisions about how they might be selected, prepared or supported.

This is surprising. The prevailing opinion in the literature is that patients need to be trained, or at least prepared, before they take on a teaching role. Training has been proposed to help them adapt to academic culture and lend legitimacy to their role (Owen & Reay 2004) and to transform teaching from individual messages to universal lessons (Hatem et al. 2003). Patients themselves identify the importance of preparation, training, and support (Muir & Laxton 2012; Webster et al. 2012). Patients who teach and assess clinical skills are frequently trained by faculty or clinicians (Jha et al. 2009, 2010). Training for other educational roles typically involves courses on the “nuts and bolts” of teaching, such as working in small groups, presentation skills, giving and receiving feedback, and student engagement techniques (Hanson & Mitchell 2001; Owen & Reay 2004; Cranton 2009; Moss et al. 2009). However, training may lead them to develop engineered or standardized responses (Davies & Lunn 2009). Faculty and community members have different conceptualizations of learning and professional education. Patients have their own understandings of learning, and what they can contribute to learning. Patient involvement in education is inherently different from the traditional model of education, and training to become patient educators is needed.
knowledge (Bacon 2002). Typical academic training may lead patients to act as “quasi academics”; they may lose the authentic voice and unique world view that distinguishes them from professional educators (Towle & Godolphin 2011). In order to design training that supports patient educators, but maintains their autonomy and authenticity, we need to understand how they perceive their roles as teachers and the prior experiences that prepare them for these roles.

We have described a patient-centred educational intervention in which the patient is the teacher, not interview subject or co-tutor with faculty (Towle & Godolphin 2013); a successful translation of the theoretical conceptualization of Bleakley and Bligh (2008). This provides an opportunity to study how autonomous patient teachers facilitate student learning without the mediation or control of faculty. We undertook an exploratory qualitative study of patients who are the primary teachers in a longitudinal interprofessional Health Mentors program. Our objectives were to:

- examine the teaching goals and methods that patient educators use to facilitate learning in health professional students;
- determine what previous experiences prepare them for their roles, and how.

Methods

Context

The Interprofessional Health Mentors Program at the University of British Columbia is a 16-month elective program in which groups of four students from different health disciplines (audiology, dentistry, genetic counseling, kinesiology, medicine, nursing, occupational therapy, pharmacy, physical therapy, and speech-language pathology) learn together, with and from a mentor with a chronic health condition or disability, or a caregiver (Towle et al. 2014). After an orientation attended by all mentors and students, groups are self-managed; the overall intent of the programme, achieved through six themed meetings and a symposium, is to provide learning that is about living with a chronic condition and also relevant to interprofessional competency. The health mentor is the primary teacher; faculty are not present at the meetings but provide background support through setting broad topics and responding to student reflections written after each group meeting. The students are at the beginning of the first year in their respective disciplines with very limited clinical experience.

Participants

Thirteen mentors who had previously consented to be contacted for research and had mentored at least two cohorts of students between 2011 and 2015 were invited by e-mail to participate in one-on-one interviews. Eleven consented to be interviewed. See Table 1 for information about participants.

Design

Interview questions explored mentors’ teaching practice, including motivations, goals, methods, and preparation for the role. A semi-structured interview guide ensured that topics relevant to the study were covered (Table 2). Areas of interest that arose during interviews were probed to gather in-depth information. Questions were piloted with the first two participants for clarity and effectiveness in covering the objectives, and were not initially intended for inclusion in the study. However, amendments to the questions were not required, and because of the richness of information obtained, data from both pilots were included in the analysis. Interviews lasted 20–60 min, and were audio-recorded with participant consent. All audio-recordings were transcribed verbatim. Themes related to teaching goals, teaching methods, and relevant experiences were separately identified after repeated readings to develop a coding framework. In total, there were 11 codes in 6 categories for teaching goals, 10 codes in 4 categories for teaching methods, and 6 codes in 2 categories for relevant previous experiences. Each participant’s transcript was then re-examined to organize responses into appropriate coding categories.

Results

Teaching goals

Mentors’ teaching goals, derived from responses to the question “what are the most important things you want the students to learn?” fell into two categories: promoting patient-centeredness and encouraging interprofessional collaboration.

Table 1. Participant characteristics.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentors interviewed</td>
<td>11</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>30–39</td>
<td>2</td>
</tr>
<tr>
<td>40–49</td>
<td>1</td>
</tr>
<tr>
<td>50–59</td>
<td>4</td>
</tr>
<tr>
<td>60+</td>
<td>4</td>
</tr>
<tr>
<td>Primary condition*</td>
<td></td>
</tr>
<tr>
<td>Congenital</td>
<td>1</td>
</tr>
<tr>
<td>Neurological</td>
<td>2</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>1</td>
</tr>
<tr>
<td>Systemic</td>
<td>3</td>
</tr>
<tr>
<td>Mental illness</td>
<td>1</td>
</tr>
<tr>
<td>Caregivers</td>
<td>3</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
</tr>
<tr>
<td>Some post-secondary</td>
<td>10</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td>Lives alone</td>
<td>4</td>
</tr>
<tr>
<td>Does not live alone</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>4</td>
</tr>
<tr>
<td>Professional</td>
<td>3</td>
</tr>
<tr>
<td>Self-employed</td>
<td>1</td>
</tr>
<tr>
<td>Retail</td>
<td>1</td>
</tr>
<tr>
<td>Peer support worker</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td>Visible/invisible minority</td>
<td>3</td>
</tr>
<tr>
<td>Number of cohorts mentored*</td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>7</td>
</tr>
<tr>
<td>Three</td>
<td>4</td>
</tr>
</tbody>
</table>

*Most mentors have several chronic conditions.

§The rate of post-secondary education is mostly over 70% in our recruitment areas (Statistics Canada, 2011 National Household Survey).

*§A cohort lasts for 18 months.
Promoting patient-centeredness: all 11 participants said that patient–provider relationships are critical to better healthcare, and listed teaching goals related to helping students be more patient-centered in their future careers. Caregivers also emphasized care for the patients’ families.

Interprofessional collaboration: Six participants stated goals associated with promoting interprofessionalism. Mentors tried to facilitate interactions between students that would encourage positive relationships now and in the future. Sub-themes in each category are summarized in Table 3 with illustrative quotes.

Teaching methods

Four main teaching methods were described. In descending order of frequency, we have named these as: telling my story, stimulating reflection, sharing perspectives, and problem-solving. We further classified these methods by the source of the learning content (provided by either mentor or students) and by the intended learner (individual student or the group). When mentors were the source of content, learning occurred through listening to their story or problem-solving about the mentor’s challenges.

Table 2. Interview question guide.

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did you volunteer to be a Health Mentor?</td>
</tr>
<tr>
<td>What does being a health mentor mean to you?</td>
</tr>
<tr>
<td>What are the most important things you want the students to learn?</td>
</tr>
<tr>
<td>Tell me about a moment that you felt was particularly powerful in helping students learn some of those things.</td>
</tr>
<tr>
<td>How would you describe the approach you used?</td>
</tr>
<tr>
<td>What was it about that approach that made it so effective?</td>
</tr>
<tr>
<td>How did you know it worked well?</td>
</tr>
<tr>
<td>How did you decide to use that approach with the students?</td>
</tr>
<tr>
<td>Can you describe what other strategies you have used that have been particularly effective in helping students to learn?</td>
</tr>
<tr>
<td>How did you decide to use those approaches?</td>
</tr>
<tr>
<td>What previous experiences were most important in helping you to be effective in helping students to learn?</td>
</tr>
<tr>
<td>Have you changed the way you mentor the students since you first became a mentor? If yes, in what ways? Why did you make those changes?</td>
</tr>
<tr>
<td>Can you describe some strategies you’ve tried that didn’t work very well?</td>
</tr>
<tr>
<td>What was it about those strategies that didn’t work?</td>
</tr>
<tr>
<td>What advice would you give to new mentors to help them be good mentors for the students?</td>
</tr>
<tr>
<td>Is there anything else you would like to say about your experiences of helping students to learn?</td>
</tr>
</tbody>
</table>

When students were the source of the content, learning was through facilitation of reflection on their individual experiences or through sharing perspectives and ideas with the group. Learning directed at the individual describes methods by which students can learn independently of other group members without peer interaction. In teaching methods directed at the group, students are engaged collectively and insights arise through working together. All mentors reported using multiple teaching methods, with at least one derived from their own experience and one from the experiences of the students.

Telling my story

All 11 participants described how they shared experiences and insights with students as observers or listeners. Mentors recognized that their authentic experiential understanding of the health-care system and chronic illness would be novel to students and important to convey. Their main techniques were verbal and visual.

Verbal description was most common (8 participants), sometimes supplemented with printed notes or illustrations to highlight major life events or decision points. Mentors consistently said they needed to be open and honest in sharing personal, often intimate and emotional, experiences for students to fully understand what they had gone through or how they felt.

I would get very personal with my groups and really talk about what my experience was … really talk very personally about how my illness affects my life, and really connect on an emotional level. And I think that made them understand more of what living with a disabling chronic illness is like. [Mentor 5]

Some mentors agreed that sharing was important, but also emphasized maintaining a balance between what they were comfortable discussing and what students needed to know.

Four participants described using visual techniques. Photos were a powerful way to illustrate their lives and health journeys.

I really wanted them to understand how the advances in technology really benefited me and so what I did is I compiled a picture of photographs throughout my life … at the same time they were seeing me basically with my family, at school,
at university, at work, and just various significant events throughout my life. [Mentor 3]

This mentor also gave students her resumé showing accomplishments in her education and career, and an outline of her medical history for students to appreciate “the medical definition of [her] disability and the ongoing impacts of the disability.” Other visual aids included diagrams, timelines, and maps representing their lives.

**Stimulating reflection**

Ten mentors used methods based on student experiences. Since students typically lacked lived experiences as patients, mentors focused less on themselves, and encouraged students to talk about experiences that they could relate to in a more personal, engaged way. Some mentors directly prompted students to reflect on observations in their personal or professional lives.

Making sure that they’re thinking about what they’re seeing in their work places would be the other thing that a mentor can do to effectively integrate the learning for the students. [Mentor 10]

Six mentors created experiential activities for students to learn through active engagement. Most commonly, mentors brought students to their homes to see support systems and modifications that had been made to accommodate their challenges.

They were able to come into my home and they saw what adjustments and adaptations had to be made for me to do everyday living, and what I used. My occupational therapist had recommended how things were to be arranged so my friends came in and arranged things to the level that I could reach … just simple things like that … [Mentor 7]

One mentor said she believed that engaging students physically would facilitate learning “in a different way and in a deeper way.” In one of her exercises to illustrate the difference between experiential and intellectual understanding, she first asked students to engage their senses in touching, peeling, and eventually tasting an orange while verbally describing the experience.

The question is, if you met someone who had never seen an orange, never tasted an orange, had no concept of what orange was, and you used all those words like tangy, sweet, juicy, rough texture, smells fruity to describe it, do you think they’ll have the same understanding of what eating an orange is that you do? And the answer is, of course not. ‘Cause they haven’t had the experience. So the point of that exercise is that no matter how much a patient tells you, this symptom or this feeling, you have no idea. [Mentor 5]

However, she also noted that the effectiveness of her exercises depended on the receptiveness of students in the group.

For two caregivers, having students meet or speak to the individuals in their care was an important learning experience.

I get [my son] on the telephone and speaker phone and he talks to them and they just kind of get a chance to see who he is and what his personality is like, and for the first group that I did I invited [my son] to come to the last session … I think for them to put a person to the face of who we’re talking about, it was good [Mentor 8, caregiver]

**Sharing perspectives**

Nine mentors used methods to promote group dialog and interaction. They focused not only on the content of discussions, but also on creating an environment that would encourage students to share viewpoints, learn from each other, and generate insights collectively. Discussions were not always based on the suggested pre-set objectives but flowed according to student interests. As one mentor explained, if students could share their knowledge and viewpoints with the group, “it may produce insight that’s helpful for all.” However, mentors consistently reported needing to adjust their involvement in discussions according to how active students were in contributing.

One technique that mentors used was to engage as participants in discussions. Rather than teaching about their experiences, they contributed perspectives on topics that arose while encouraging students to do the same. Interactions between mentors and students were described as exchanges of insights and ideas, which were guided by individual perspectives and experiences. Some mentors described learning about and from their students through the discussions.

I try and get them to learn from each other through me … So I can be an example, but they talk about it from their own perspectives and they often share details of their own lives. [Mentor 4]

Other mentors were facilitators or moderators of discussions, encouraging students to recognize and share the relevance of topics in their own lives. One mentor ensured equitable contribution from all group members as follows:

If the other two students haven’t really said anything, just ask them, ‘Well how about you? What’ve you seen, in your practice or maybe even in your own personal life, when this was a situation that happened?’ So getting them to answer the same question that everybody else has already engaged with. It’s not about making them answer something that nobody else has, it’s about simply getting them on equal footing with everyone else. [Mentor 10]

**Problem-solving**

Three mentors described methods to promote interaction and discussion focused on generating solutions to problems or hypothetical situations related to the mentor’s experiences. The mentors’ questions gave students opportunities to integrate their knowledge with real-life applications. One mentor described challenges that she had faced with her health condition and asked students how they would handle them, which helped them understand the patient’s perspective and facilitated dialog. Another mentor prepared materials for student collaboration.

I prepared a chart of all the different disciplines … of all the services and the clinical areas that were involved, and then produced a matrix and we sort of walk through it and talk. I asked the students to fill in who do you think should be talking to each other? [Mentor 11]

**Preparation for role**

There were two categories of prior experiences that helped mentors to be teachers.
Career or community experiences
All participants reported relevant prior experiences as part
of their paid employment or volunteer activities in the
community. The range was diverse and included teaching
two had been professional educators, supervising students
was about, and included teaching
mentors (two had been professional educators, supervising students
on placements, peer mentoring, group facilitation, and pub-
lic speaking. Examples of how mentors drew on these
experiences include one mentor who said his teaching
experience enabled him to be more succinct with students,
and another who said her teaching career helped her
engage students in discussions. A mentor who had facil-
tiated groups as part of his work referred to specific skills
that were relevant.

Active listening, picking up on nonverbal cues... When you
have a small group of five, a mentor and four mentees, you
need to know who’s engaged and who’s not engaged, and if
you can see somebody is zoning out, then you bring them
back to the conversation by asking them questions, and
keeping them involved. So you have to be able to read the
group a bit. [Mentor 10]

Another mentor said that speaking in the community
and to students about similar issues guided her teaching
approach, since “it was the only thing [she] knew how to
do.” A caregiver mentor noted that public speaking
“boosted [her] self-confidence” and prepared her emotion-
ally to mentor.

Once I was in a safe place, mentally, then I could kind of
venture into teaching others, it’s not for everybody because
what you’re basically doing is you’re reliving... I’m reliving
from the beginning to now of our journey, and for a parent,
just describing all those emotions that you’ve kind of put aside,
it’s tough. [Mentor 2, caregiver]

Experience with the health-care system
Personal experiences with illness, navigating the health-
care system, and interactions with health professionals
were identified as helpful preparation by six mentors. One
benefit of having lived experiences of illness was develop-
ing greater self-awareness.

Having been sick, having all these years of coping with it ... having spent 30 years practicing Buddhism and developing the ability to look at myself in situations and understand clearly, what was happening. [Mentor 5]

One mentor described feeling comfortable communicat-
ing with his students because of his experience with health professionals over the years.

Part of its probably that I’ve been doing it for 15 years, as part of just interacting with the health-care system myself anyway and so... when you have a pretty firm idea on how you should interact with somebody and you’ve professionally interacted with them in that way in a hospital or whatnot, then you get used to just doing it that way. [Mentor 6, caregiver]

Discussion
The teaching goals identified by mentors in our study, with
their focus on promoting patient-centeredness and inter-
professionalism, are consistent with the literature. Doucet
et al. (2013) identified four key messages that patient edu-
cators in their interprofessional Health Mentors program
wanted to convey to students: health professional
collaboration, with patients at the center; recognizing
patients are people first; putting the pen down and listen-
ing to the person; understanding the visible and invisible
impacts of chronic conditions.

Our study identifies the range and creativity of teaching
methods used by patient educators. These methods are
student-directed, constructivist and participatory, creating
learning environments that encourage sharing of experi-
cences and ideas. Some of the individual methods used are
similar to those employed by faculty who have involved
patients in their teaching, e.g. storytelling (Kumagai et al.
2009), home visits (McKinlay et al. 2009), collaborative
group discussions (Solomon et al. 2005), and reflection on
emotional experiences (MacLeod et al. 2003). The power of
the patient’s narrative is well-recognized but these patient
educators recognize the potential for student learning
beyond merely telling their stories, through experiential
and interactive techniques that engage the individual stu-
dent while maximizing group sharing.

Although we did not ask the mentors directly about
their theories of learning, we follow Bacon’s (2002) assump-
tion that participants’ talk offers a reliable basis for infer-
ces about their ideas and beliefs, and permits us to
uncover their working theories of learning. The mentors
identified aspects of their teaching methods that fit a
model of collaborative knowledge production, in which
learning occurs through participation rather than acquisi-
tion (Sfard 1998), encouraging teamwork and reciprocal
learning. However, they also addressed individual student
needs, particularly through application, emotional engage-
ment, and helping them to construct meaning.

Our patient educators speak of teaching and learning in
a way that is consistent with the emerging attention in
medical education to socio-cultural learning theories. They
demonstrate a shift in focus from the isolated individual
to the socio-cultural context of learning, of particular re-
vance to contemporary team working (Bleakley 2006). They
illustrate all three approaches to increasing the social
dimensions of learning identified by Mann (2011): maximize
participation, maximize learning from others and build on
natural community processes to ensure both collective and
individual learning.

However, in the context of medical education, experien-
tial learning, and socio-cultural learning theories are almost
exclusively applied to clinical, workplace settings, and pro-
fessional communities of practice (Yardley et al. 2012),
where students are novices (legitimate peripheral partici-
pants) who gradually learn how to become full members of
the profession through greater participation in their com-
unity (situated learning). References to Communities of
Practice (CoP) or workplace learning in the literature hardly
mention the patient at all, or only as a passive participant.
Egan and Jaye (2009), for example, make the presence of a
patient the feature that distinguishes clinical CoP from all
other CoPs, with the patient’s role being “the focus of activ-
ity where participants interact.” Outside of the workplace,
Zimitat (2007) describes a classroom-based simulated CoP
where the (voiceless) pregnant patient is represented in a
web-based case “informed by the literature and elaborated
through interviews with midwives and an obstetrician.”
Perhaps Bleakley and Bligh’s “authentic patient-centred
model for education” may be a CoP in which health profes-
sionals are absent and the learning community is an
interprofessional group of students and a patient as an active and expert educator.

If patients are to play more autonomous roles as educators, it is important to identify what prior experience is helpful in these roles. Our mentors are selected not only for their expertise in their health condition and health care, but also for relevant prior experiences such as making presentations to students, mentorship, group facilitation, or advocacy. In facilitating student learning, the mentors drew on a variety of career or community-based experiences (formal and informal), as well as their extensive interactions with the health-care system. Though our mentors were carefully selected, our experience is that these prior experiences are widespread among patients with long-standing chronic conditions, especially those involved in peer support or advocacy activities.

Solomon et al. (2005) noted that experienced patient educators began to experiment with creative teaching and facilitation techniques following initial training. The findings of our study suggest that to maximize the authenticity of patient educators, training or support should use a peer-led approach with experienced educators mentoring newcomers, rather than a faculty-led model. An example is the “patient learning journey” approach at the University of Leeds (Morris et al. 2010). Training should be based on participatory learning methods, and acknowledge and build on prior relevant life and professional experiences.

There are several limitations to this study. First this was a single institution study with a small number of participants. They do, however, represent a diversity of ages, health conditions (including caregivers), ethnicity, employment, and prior experiences. Second, this was an interview study; mentors gave self-reports of their teaching practices. We did not interview the students of these mentors about their perceptions of the effectiveness of the mentor’s teaching. However, the information we do have from student reflective journals, interviews and focus groups is consistent with the results reported here. Direct observation of the groups would interfere with the natural dynamics of the groups and alter both mentor and student behavior. We only studied experienced mentors in a specific educational initiative and we cannot generalize to other patient-educator programs. Similar inquiries from other institutions are needed to build a theoretical framework appropriate to the authentic and autonomous patient educator.

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Ethical approval

The study was approved by University of British Columbia Behavioural Research Ethics Board.

Disclosure statement

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Notes on contributors

Phoebe T. M. Cheng, BSc is a third-year medical student at the University of British Columbia (UBC). She received her BSc from UBC with a major in biology and minor in arts.

Angela Towle, PhD is Co-Director of Patient & Community Partnership for Education in the Office of UBC Health, University of British Columbia. She is an associate professor in the Department of Medicine and senior scholar in the Centre for Health Education Scholarship in the Faculty of Medicine.

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