Creating a Toolkit to Reduce Disparities in Patient Engagement

Shimrit Keddem, MS,*† Aneeza Z. Agha, MA,*† Judith A. Long, MD,*†‡
Rachel M. Werner, MD, PhD,*†‡ and Judy A. Shea, PhD*†‡

Background: Patient engagement has become a major focus of health care improvement efforts nationally. Although evidence suggests patient engagement can be beneficial to patients, it has not been consistently defined, operationalized, or translated into practice.

Objectives: Our objective was to develop a toolkit to help providers increase patient engagement and reduce disparities in patient engagement.

Research Design: We used qualitative interviews and observations with staff at primary care sites nationally to identify patient engagement practices and resources used to engage patients. We then used a modified Delphi process, that included a series of conference calls and surveys, where stakeholders reduced lists of engagement practices based on perceived feasibility and importance to develop a toolkit for patient engagement.

Sampling: Sites were selected for interviews and site visits based on the concentration of minority patients served and performance on a measure of patient engagement, with the goal of highlighting practices at sites that successfully serve minority patients.

Results: We created a toolkit consisting of patient engagement practices and resources. No identified practice or resource specifically targeted patient engagement of minorities or addressed disparities. However, high-performing, high–minority-serving sites tended to describe more staff training opportunities and staff feedback mechanisms. In addition, low-performing and high–minority-serving sites more often reported barriers to implementation of patient engagement practices.

Conclusions: Stakeholders agreed on feasible and important engagement practices. Implementation of this toolkit will be tracked to better understand patient engagement and its effect on patient-centered care and related disparities in care.

Key Words: health care disparities, patient-centered care, Delphi technique, qualitative research, veterans affairs

(*Med Care* 2017;55: S59–S69)

In 2010, with the introduction of the Affordable Care Act, patient engagement became a major focus of health care improvement efforts nationally.[1] Patient engagement falls under the umbrella of patient-centered care and definitions of patient engagement focus on the idea of promoting active patient involvement in health care by supporting patient participation in decisions related to their health in an educational and supportive environment.[2] Growing evidence suggests that patient engagement can aid in accomplishing the Institute for Healthcare Improvement's Triple Aim[3]—improving the patient experience of care, improving population health, and reducing health care costs. However, patient engagement has not been consistently defined, operationalized, or translated into practice.[1]

Even with inconsistencies in definition and operationalization, literature suggests minority populations tend to be less engaged with health care[4,5] and physician communication with minority patients is less patient-centered.[6] Attempts to implement technology-based interventions such as patient portals and personal health records to enhance engagement have been less successful with minority patients.[7,8] In addition, quality improvement (QI) efforts intended to target health disparities using patient-centered approaches have not been effective at decreasing disparities in health care quality[9] or outcomes.[10] There are a number of potential benefits to improving patient engagement in clinical settings. Patients who are more engaged tend to make better use of resources, and have a better awareness and understanding of their conditions and health outcomes.[11] Patient engagement has also been shown to improve health care quality and safety.[12]

There are many obstacles to successful implementation of patient engagement practices.[2] Providers face challenges that include limited time and resources, and in some cases inadequate skills. Compared with whites, minority patients often have disproportionately lower health literacy and higher distrust of the health care system.[13] In addition, the uneven power differential between patients and providers is wider for minority patients compared with the general population.[14] These various challenges highlight the need for

more robust tools to support patients, providers, and organizations in improving patient engagement, particularly among minority populations.[15,16] Kilbourne and colleagues' model of health disparities identifies key determinants for understanding inequities at the individual, provider, and health care system levels. In this model, organizational culture, attitudes, and communication are important to successful implementation for reducing disparities.[17]

A core tenet of the Patient Centered Medical Home (PCMH) model is engaging patients through the delivery of patient-centered care. The Veterans Health Administration (VHA) began implementing its PCMH model, known as Patient Aligned Care Teams (PACT), in 2010.[18] Patient engagement is central to PACT, which aims to "meet patients where they are," by creating partnerships with patients, improving access to care, and utilizing a team-based approach to care.[19] The medical home model focuses on improving care delivery for the sickest patients most in need of care coordination (a population with significant numbers of low income and racial and ethnic minority patients) as well as addressing social determinants of health. However, to date there is little evidence that the medical home model has been successful in either engaging patients or in reducing disparities in patient engagement.[20]

Our objective was to develop a toolkit to help VHA providers increase patient engagement and reduce disparities. We sought to understand the universe of practices that primary care clinicians and leadership use for patient engagement and, using a Delphi process, narrow the universe by examining how important and feasible these practices were to implement. To achieve this objective we conducted observations and interviews in facilities that serve large minority patient populations. Here we describe the process of creating this toolkit and the practices identified.

METHODS

Overview

We began with a series of qualitative interviews and site visits at VHA primary care sites serving large minority populations to identify patient engagement practices and resources currently in use. We interviewed clinic staff and leadership and shadowed patients to identify facility culture, policies, and activities related to patient engagement. Interviews were coded and analyzed with the goal of compiling a list of patient engagement practices. We then used a modified Delphi process, conducting a series of conference calls and surveys in which key stakeholders helped to narrow down practices to develop a toolkit. This evaluation project was reviewed by the Michael J. Crescenz VA Medical Center Institutional Review Board and deemed to be a QI effort. Evaluators did not interview patients directly regarding their experiences; however, 2 patient representatives participated in the Delphi meetings.

Sampling

We used a positive deviance approach, stratifying site selection by the concentration of minority patients served and facility performance on a measure of patient engagement.

The positive deviance approach, in which high performers are contrasted with low performers, seeks to identify unique practices of positive deviants.[21]

We categorized sites as high–minority-serving based on the proportion of nonwhite patients served at the site. Sites with at least a 15% nonwhite patient population (the national median) were considered high–minority-serving. To measure patient engagement at each site, we used a modified version of the PACT Implementation Index, a measure developed to assess the implementation of PACT across the VHA.[22] This modified measure consists of 4 patient engagement components from a VHA-specific PCMH Survey of Healthcare Experiences of Patients[23,24]: care comprehensiveness, self-management support, patient-centered communication, and shared decision making. Sites were assigned a 1 or −1 for each domain for which they are in the top or bottom quartile nationally and 0 otherwise. Scores were summed across items resulting in a 9-point scale from −4 to 4.[25] Sites with scores above 0 were considered high performing and those 0 and below were low performing.

We included a national sample of sites. In preparation for implementation of a regional patient engagement intervention, we oversampled sites located within the regional VHA service network which includes parts of Pennsylvania, Delaware, New Jersey, Ohio, and West Virginia. We selected 32 sites, evenly split in terms of performance, for telephone interviews (20 medical centers with outpatient clinics and 12 community-based outpatient clinics). Half of all sites selected were high–minority-serving. At each site the following people were targeted for interviews: the physician director of primary care services, the nurse director of primary care services, and the patient customer service representatives. In addition, from the 32 sites, 6 regionally diverse sites from across the United States were selected for site visits. Five of these sites were high–minority-serving. Half of the 6 sites visited were high performing on the performance measure while the other half were low performing. At each site visit, we shadowed patients through their appointments and interviewed a wide range of frontline staff including providers on primary care teams (teams are made up of a primary care provider, nurse care manager, clinical associate, and administrative clerk) and ancillary staff.

Interviews

The interview guide was tailored to the role of the participant and included a definition of patient engagement,[26] defined as any practices, policies, or procedures that: (1) involve and support patients (and their families and representatives) as active members of the health care team; and (2) encourage collaborative partnerships between patients, health care providers, and the organization as a whole.[27] Respondents were asked to describe the patient engagement efforts occurring at their facilities as well as any barriers and facilitators to implementation. These open-ended, semistructured interviews were confidential, and each lasted approximately 30 minutes. During site visits, additional data were collected through the direct observations of patients and staff interactions. Observations included patient shadowing, patient group visits, staff meetings, public space

observations, and guided tours. Observations were used to obtain a more complete picture of activities happening on the ground. Interviewees may not have been aware that they were using a patient engagement practice but it was noted as such if observed by the evaluator.

Data were audio recorded, transcribed, and analyzed using NVivo 10.[28] A total of 204 data points were imported into the qualitative database including: 155 interviews, 22 field notes of patient observations, 8 field notes of class observations, and 19 field notes of facility tours and site observations. Four qualitative evaluators used an applied thematic analysis approach[29] to formulate a codebook, capturing the activities, policies, and procedures that support and hinder patient engagement. The codebook was used by each coder independently on no more than 3 transcripts at a time before testing for inter-rater reliability and resolving discrepancies with the group. A total of 20% of the transcripts was double coded by the 4 evaluators. Estimates of inter-rater reliability produced an average κ statistic of 0.86 with a range of 0.61–1.0.[30] Coding discrepancies were resolved through discussion and consensus. The evaluation team initially organized the data into programs or resources and when and how patient interactions occurred. The data were further scrutinized to select items that demonstrated actionable patient engagement practices. Once an initial list of practices emerged from the subcodes, they were separated into 2 lists: patient engagement practices or patient engagement resources. Patient engagement practices were activities that engaged patients directly in their care; patient engagement resources were activities or assets that helped to facilitate patient engagement practices at a facility.

The Modified Delphi Method

To narrow the universe of patient engagement practices and resources identified through qualitative analyses, a modified Delphi method was used, a technique used to build consensus through surveys and group communication.[31] The Delphi method utilizes experts on a particular topic to guide researchers on how to address a problem. As the modified Delphi method does not require group members to be physically present at one location,[32] participants called in to an online meeting to view shared content and provided input via confidential online surveys accessed from a survey link.

Participants for the modified Delphi meetings were selected through a purposeful sampling strategy.[33] Ten participants were providers of patient-centered health care from our national sample of facilities described above. These included 2 physician directors of primary care services, 3 nurse directors of primary care services, 3 patient customer service representatives, a health behavior coordinator and a health promotion disease prevention coordinator. Two participants were patients who received their primary care at a VHA facility in an urban location. The group participated in three, 90-minute modified Delphi calls to pare down the practices and resources to final lists based on importance and feasibility.

For the first modified Delphi meeting, participants completed confidential online surveys rating each practice and resource. Respondents were first asked "How important

is this practice or resource to help patients be more engaged in their health care?" and then "How feasible is this practice or resource to implement?" Items were rated on a scale that ranged from 1 (extremely important/extremely feasible) to 5 (not important at all/not feasible at all). Importance and feasibility groupings were separated into 4 groups: high importance and feasibility, medium importance and feasibility, low importance and feasibility, and polarized. Items in the high group were retained and not discussed further. Items in the low group were removed and not re-considered. Items that were rated medium or were polarized were kept for further discussion and ratings in the second round.

For the second modified Delphi meeting, participants were presented with the first round survey results and asked to review and discuss the items that were polarized. After the discussion, participants were asked to rerate the polarized items and then asked to either "keep" or "remove" the items that had previously fallen into the medium group. Polarized items reclassified as high in importance/feasibility remained on the list as well as any medium rated items that were selected as "keep" by at least 50% of the respondents.

For the third modified Delphi meeting, participants were asked to select their preferred items from all of the "high" rated practices and resources from calls 1 and 2 and the "keep" practices and resources selected in call 2. These remaining practices and resources were randomly sorted into groups of approximately 10 for consideration by the participants. Participants were asked to select their "top 3" items from each group. A team of evaluators reviewed the outcomes of the final survey and removed items on the practices list that received a median score of <5 "keep" votes or items on the resources list with <4 "keep" votes.

RESULTS

Qualitative Interviews and Site Visit Results
Patient Engagement Practices

Coding resulted in 5 categories of practices: engagement with a patient that occurred right before the visit (previsit), during the visit (visit), right after the visit (postvisit), in between appointments (between visits), and in group settings (classes & clinics). Exemplary quotes discussing practices are included in Table 1.

Before the visit (or "previsit") respondents described communicating with patients in a way that would make the actual visit more productive. One such practice was to call the patient before the visit to discuss the upcoming appointment and elicit the patient's visit priorities. To improve the patient wait-time experience, one facility monitored the clinic flow and communicated any delays in real-time. Other practices required the staff to spend some time preparing for the visit by reviewing patient records before the visit, and asking the patient about the primary goal for their visit. At some facilities, patients were provided with summary sheets of information from their last visit to be reviewed while they waited and check-in sheets that asked about questions they may have for their provider.

TABLE 1. Patient Engagement Practices Quotes

Previsit

"Whenever they're checking in at the front desk, they'll give them a copy of their last lab … It gives them something to do while they're sitting there … They'll also give them a copy of their med sheet so they can check it out …" (Nurse Manager)

"If you're a walk-in patient … you come directly to the desk in Primary Care. And we have a little half sheet of paper that people complete, basically stating who they'd like to see and the purpose of their visit" (Nurse Manager)

"Let's say that someone is coming in today because … they can't walk on their ankle. … we'll look at the ankle and take care of that, but before they get here we'll look at the chart, see what their labs are, see what they need help getting involved in …. We'll get him hooked up with whatever he needs to fix other problems—his blood pressure, his diabetes. Is he controlling that?" (Registered Nurse)

Visit

"If a provider is behind, really focusing on communicating with the veteran that, you're going to be here a few more minutes than we anticipated. Is there anything you need while you're here? That way, they're not frustrated right off the bat" (Nurse Manager)

"… we have changed the layout of our exam rooms. The patients actually now see our screens as well as us seeing the screens. So instead of the patient feeling like our nose is in the computer, and they don't know what we're writing … they actually can see the screen, and they have input into what we're putting into their chart …" (Primary Care Physician Leadership)

"And I try to invite them into the process, even when it comes to documenting the note. That screen is facing the veteran. And say, 'Okay, is that the right thing? Did I get this right? Now here's the plan. Is that okay with you?'" (Primary Care Physician Leadership)

"And then, I always ask them do they live alone, do they have family close by, do they have a lot of friends. When I do my nurse visits, just to see if they have a support system and who it is and if there's anything they need, can they—do they have somebody they can talk to, that help them. Like a ride or medications or anything, just to see what their support system is like" (Registered Nurse)

"We set up goals, mutual goals, because it makes no sense if I have an uncontrolled diabetic, to tell them that I want their A1C to be a 6.5, and first of all, he may not understand what an A1C is, but that may not be his goal. So I have to see what his goals are in life, what his support group is, and try and engage, you know, everything and everyone in his care, so that we get a good outcome" (Registered Nurse Care Manager)

Postvisit

"And then we have a special form that has some embedded health factors that you might be interested in. And it's a daily visit sheet. So what happens with that sheet is that—it's like after-care instructions. So it prints out the purpose of your visit today, all your medications for your medication reconciliation, any next steps that you have, follow-up appointments, if you're going to physical therapy, if you—all the things that you need to know about your visit today are printed on this. The provider goes over that with them" (Nurse Manager)

"And any new programs that are happening at the VA, I think the veterans need to be informed about. One thing that we came up with … is called the [healthcare guide] that we did just specifically for [Name of VA Medical Center]. And … that book has basically all of our programs that we offer here at [Name of VA Medical Center] … And we keep updating that book as much as possible to stay up to date …" (Patient Advocate)

Between visits

"I know for the [Pharmacist], the two pharmacists we have down there, they do a lot with blood pressures and diabetes and they'll give them calls, say 'How are you doing? How's your blood pressure readings? Do you mind sending them in, walking them in? How's your sugar readings? What are they like? What's going on?' I know that—and then the dietician, she also will give them little booklets of 'How are you eating? What are you eating each day?' and she'll go over them … in their next visit" (Medical Support Assistant)

"I tell them to use the [online messaging platform] as a communication tool as well as a research tool, because there's plenty of things on there to help them manage their healthcare at home, or wherever they are throughout the country or the world" (MyHealtheVet Coordinator)

"… since PACT [Patient Aligned Care Team Program] began, we started handing out [an] informational sheet to new patients and to patients who were already a part of the VA that provided them with the numbers to the nurse's stations so that they could a hold of their provider in between visits if they had issues—medications, medication side effects, the response of treatment was not occurring at the appropriate time, if they were getting sicker—anything, even med refills … handing out phone numbers was very, very, very—it helped significantly, and it was not being done prior" (Primary Care Physician Leadership)

"So, a lot of the times … I'm just scheduling their appointments and I'll tell them make sure you're monitoring your blood pressure. Put it on the log and bring it to the nurse when you come in so then not only the nurse can see it but the doctor is going to see it too" (Medical Support Assistant)

Classes and clinics

"I do some quarterly—I do what we call new patient enrollee orientation, where we bring in recently re-enrolled veterans and give them about a two hour overview of the services we provide and try to help them navigate through the system, if they have any questions, I bring people from different services to speak. And we also do video conference all of our CBOCs [Community Based Outpatient Clinics] in our area, that way they don't have to travel to [Name of VA Medical Center] they can get to the clinic closer to them. So we broadcast that to them" (Patient Advocate)

"And again, and we created some additional PACT [Patient Aligned Care Team] brochures for new patient orientations … So, this is more of a larger picture of what the PACT experience should be. So … this just talks about exclusively PACT … And what it is, what it should be … it takes the brochure to the next level, basically" (Health Promotion and Disease Prevention Coordinator)

"And then the other thing that we've done is what we call our [wall] … Our HPDP [Health Promotion and Disease Prevention] staff here locally, they rallied for this, and it took a lot of work to get it up, between Public Affairs and release of information and what not, but what we were able to do is, we were able to get photographs of veterans who had successfully made a lifestyle change. And so for instance, I have a picture of Mr. [Veteran], holding up sort of Jenny Craig style, a pair of pants that he could probably fit three of him in now, in a photo. And then right next to that photo, in the same frame, is his story about the 200+ pounds that he lost, and that sort of thing" (Nurse Manager)

"I mean, there are all sorts of things going on all the time that are a part of primary care. I mean, our clinical pharmacists are various times are running like group types things. Like at one point, they had a hypertension group where they—patients could come in. And not only receive sort of advice and counseling and discussion about hypertension, but learn from sort of what the other patients in the group were going through" (Primary Care Provider)

"And below it are the different classes that we offer, all the information, so you can pick them up. All of these classes are on a walk-in basis. The diabetes boot camp is one of them, the smoking cessation class is one, we have a cardiovascular basic training for congestive heart failure patients, and then, of course, MOVE! [name of exercise class]. And so patients can see, and be inspired by, the stories of other veterans who have allowed us to use that …" (Nurse Manager)

VA indicates Veteran Affairs.

TABLE 2. Patient Engagement Resources Quotes

For patients

"Well, I think a lot of the more electronic media is being used to reach out to patients and make sure they know that we want them to be engaged. We have the video boards, e-boards around the facility, and we get healthy living messages posted there" (Primary Care Nursing Leadership)

"in the facility here we have the Veteran Learning Center, again downstairs, which has all the educational material including interactive videos and all that" (Primary Care Physician)

"We do a lot of patient education. We'll bring them in, like I said, if somebody is having an issue with their blood pressure, I'll bring them in. Let's talk—are you taking your medications? We do a lot of education. Provide them with pamphlets, follow up with them" (Nurse)

"In the corner between the chemotherapy clinic and the release of information area is a booth that has a large sign next to it reading 'What is your health age?' along with information on how to use [patient portal] to assess one's health age online. There are also several pamphlets to educate patients on how to maintain their own safety. In the center of the room are several rows of chairs comprising the patient waiting area on this floor" (Observation Notes from Guided Tour)

For staff

"… with the advent of that [blood pressure] clinic, the LPNs [Licensed Practical Nurses] were going to be running it and they wanted to make sure that they were equipped with necessary tools to be able to facilitate health behavior change, and so I was able to get them trained in MI [Motivational Interviewing]. And that's also stressed in that, coming up with SMART [Specific, Measurable, Achievable, Relevant, Timely] goals on meeting patients where they're at and respecting any change, any degree of change that they would like to make, even if it's small or not consistent with what [nurses] think [the patients] should be doing." (Health Behavior Coordinator)

"Usually … motivational interviewing was only given to the RNs [Registered Nurses]. We found that having motivational interviewing given to the healthcare techs and the LPNs [Licensed Practical Nurses] that are usually the ones that are prepping the patients had a huge impact on the ability to really get patients engaged right from the beginning and focused instead of kind of all over the place" (Primary Care Nursing Leadership)

"I think it also would be helpful for me to have like an MI [Motivational Interviewing] session once a year or twice a year … because it really changed my practice, and I'm… so early in my career …—I think it's really gonna end up helping people. And it's really helped me be more effective. I think it's gonna prevent burnout" (Primary Care Provider)

"So in doing this new healthcare center, the PACT [Patient Aligned Care Team] teams are … gonna sit and all go to the patient. So in our one area, we're gonna have providers, nurses, mental health providers, social workers and sometimes even specialists in one pod, if you will. And we'll all be able to engage that patient and go to the patient and see them and work in teams. So we know that's coming. And we're all working in teams to do that" (Primary Care Physician Leadership)

"We have to really change the mindset of our team members in the PACT [Patient Aligned Care Team], in terms of how they approach patients to make it more patient-centered. So a lot of our efforts over the last—past year have been to set the foundation for the successful implementation of patients being more engaged in their healthcare. And that began with educating the staff on motivational interviewing and TEACH [patient centered communication class] training for a hundred percent of our staff. Joint Commission requires it for the nurses' service, but we're actually looking to … have our healthcare providers complete it as well." (Primary Care Lead)

For patients and staff

"We also have a customer service representative … and we have a PACT [Patient Aligned Care Team] steering committee that we developed—it's been a few years now—but we meet every other week. And she actually does what's called the Voice of the Veteran Survey where she does reports. She will call patients and ask them—it's like a satisfaction of the veteran on their healthcare experience, and there are different facets of it. One is provider satisfaction, and one thing that she likes to do is if they're not happy with their experience that they had, she'll drill down on the reason why" (Primary Care Nursing Leadership)

"The first item was a review of the number of patients that were 'no shows' in a one-week period … After the data review, the group began to brainstorm on ways to improve the "no show" rate … The next topic of discussion for the group was an update from the [Health Promotion Disease Prevention Coordinator] on an upcoming event. There was additional discussion on the desire to get all of the staff 100% trained and to teach refresher courses for eligible staff … the group moved on to discuss their plans to reach out to high risk patients" (Observation Notes from a PACT Steering Committee Meeting)

"We also asked real veterans to audio record their visits. And then we listen to those audio recordings and look at the notes. So, for example, the veteran came in and their hemoglobin A1C has gone way out of control, you know, loss of control diabetes. Did the physician ask why, like what happened, how come your diabetes was so well controlled; now it's not? Because usually that's a sign they stopped taking their meds or their diet's changed. And what we didn't want to see—what we don't want to see is just the physician adding on more meds, oh, we're just going to go up on your insulin we're just going to add another medicine because that's not really figuring out why that person is having trouble. And it's not going to really solve the problem. And so we call that contextual error because it's really an inappropriate kind of care. It looks good on paper. Like on paper in the note CPRS [Computerized Patient Record System] veteran's diabetes was poorly controlled so we went up on their insulin. But if in fact the reason it went up—out of control is because the veteran is now working as a truck driver and he can't take his insulin the way he used to, adding more insulin isn't going to fix that problem." (Primary Care Provider)

During the visit, staff asked patients if all of their needs had been met and gathered information that helped with understanding the patients' health contexts—for example, by asking open-ended questions about self-care, making small talk about family and home life, and asking about non–health-related concerns such as food and housing security. To promote patient agency, staff would assist patients by setting SMART (specific, measureable, achievable, realistic, time-related)[34] goals with them and asking about their opinions on the available treatment options. To help make patients feel more at ease, staff described paying attention to patient body language, avoiding jargon, actively listening, providing opportunities to ask questions, and personally introducing patients to other providers for warm hand-offs.

At the end of the visit (or "postvisit") respondents discussed ensuring the patient was clear on the decisions that were made during the visit and any required next steps. This included summarizing everything that happened during the visit, discussing medication changes, providing information on when medications needed to be refilled, and confirming follow-up appointment dates. These practices were either performed verbally or by providing an appointment and medication information sheet during check-out. Anticipating the patient's needs going forward and educating them about the available programs to meet those needs were also postvisit practices.

In between appointments (or "between visits") respondents discussed strategies for remaining in contact with

patients to keep them engaged. Collaborating and scheduling follow-ups with the extended health team members (such as pharmacists, behavioral health, and social workers) helped patients resolve issues with self-care and medication adherence and also provided opportunities for health education.

To remain in communication with the patient after the visit, staff talked about conducting postdischarge follow-up calls, promoting the use of secure online messaging to reach staff with questions, and utilizing telehealth services where available. Providing patient support materials, such as educational resources on a patient's chronic conditions, home logs to track health care progress, and contact information of the health care team, were other ways to keep the patient engaged in their care.

Group activities for patients under "classes & clinics" revolved around establishing support groups, group clinics, and group classes for specific target areas such as mental health, homelessness, chronic pain, hypertension, or diabetes. Clinics and classes were held by social workers, nutritionists, mental health workers, and other staff. The group sessions included shared medical appointments which would be logged in patients' charts and provide an opportunity to share experiences, talk to specialists, review lab results, and promote success stories.

Patient Engagement Resources

The initial coding cycle yielded a list of resources that was divided into 3 categories: resources for patients, resources for staff, and resources for both patients and staff. Exemplary descriptions of resources are included in Table 2.

Resources for patients included educational, outreach, and promotional materials. Respondents described a variety of educational materials, in both paper and electronic versions, which could be disseminated to patients. Electronic materials included customized waiting room televisions and electronic bulletin board, tutorials about the patient portal, and online patient health libraries. Some clinics also promoted their facility's social media pages to encourage patients to get more involved and provide access to educational materials. Paper materials placed in visible locations and common areas and given directly to patients to make them more aware of their health were also discussed. Some facilities had an in-house "learning center" staffed with employees or volunteers to help patients find educational materials, sign up for the electronic patient portal, and participate in classes. Other venues for providing patients with information included new patient orientations and health education outreach fairs.

In addition to education, some facilities provided patients with opportunities for giving feedback. These "talkback" sessions and "town hall" meetings were designed to allow patients to ask questions, share their experiences, and discuss complaints. At one facility, patients were invited to participate in quarterly departmental meetings, and at another the center director would field patient complaints through phone meetings.

Resources for staff consisted primarily of training and supports for training. At many facilities, customer service training was made mandatory for all incoming staff. At other sites, customer service training was targeted at departments with a high volume of complaints. Motivational interviewing (MI)[35] and TEACH[36,37] trainings were implemented widely across most sites and were mentioned by most respondents. MI is designed to motivate patients to make health behavior changes that are congruent with their lifestyle.[35] TEACH trains clinicians to coach and educate patients to improve their health outcomes by exploring their preferences and needs and honoring them as equal partners.[36,37] Various sites reported different types of patient-centered care training, typically lasting several days.

In addition to training, facilities also addressed staffing, culture, space, and time constraints. Some sites found new, creative ways to utilize staff. For example, clinics would assign a "float staff" whose job it was to manage the unexpected or unscheduled needs of patients. The main goal for most sites was to create a more collaborative team-based approach including extended team members (eg, social workers, pharmacists, psychologists.) Many sites discussed creating protected time for training, meetings, huddles, and other administrative tasks. Respondents also discussed the issue of addressing space constraints through innovative design, renovation, and organization to support the PACT model.

Many of the resources that would impact both patients and staff were efforts aimed at QI. In some cases, these QI initiatives involved larger, nationwide surveys, and programs to respond to feedback from those surveys. In other cases, facilities generated their own QI programs. For example, one site started a "mystery shopper" initiative using "unannounced standardized patients" who arrive clandestinely and role-played various scenarios to look for potential gaps in providers' practices. At various facilities, respondents also described "steering committees" aimed at monitoring patient satisfaction and discussing improvement.

Modified Delphi Results

Figure 1 provides an overview of the project from the qualitative data collection, to qualitative results, to the pre-Delphi lists, through the modified Delphi process, to the final toolkit. The 128 item practices and 94 item resources (222 items total) lists were shortened during 3 modified Delphi meetings. After the first round, 74 highly rated items were put aside to remain on the list and 32 low rated items were eliminated. There were 60 items where respondents were polarized on importance and/or feasibility and an additional 56 items that were rated as medium in importance and/or feasibility. In the second meeting, of the 60 polarized and 56 medium rated items, 57 items were kept and 59 items were removed. In total, 131 items remained on the list (74 from round 1 and 57 from round 2); 90 were patient engagement practices and 41 were resources.

At the third meeting, participants rated and selected what they viewed were the top practices and resources from the 131 remaining items. During this meeting each participant selected their 3 preferred practices or resources from 13 randomly sorted sequential groups of 10–11 items. A total of 76 items were eliminated after this step. Items that received a score of 5 or above in practices and 4 or above in resources
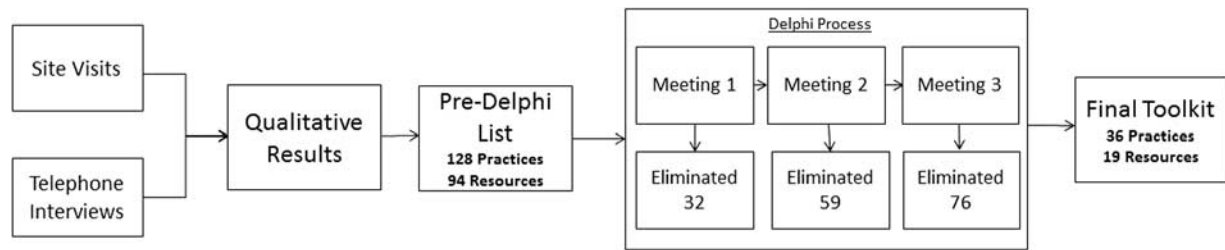
FIGURE 1. Project steps.

remained on the list. The final patient engagement lists for the toolkit contained 36 practices and 19 resources.

Post Delphi Toolkit

Table 3 depicts the postmodified Delphi practices toolkit. The 3 practices in the previsit category were activating patients for a visit by providing summary information and check-in sheets and preparing providers for a visit by reviewing patient's records before the visit. The visit section was the largest with 17 items including such activities as building rapport with patients through clear and transparent communication. The 2 postvisit items were related to summarizing the visit and establishing some next steps. The 8 items in the between-visits section included such activities as scheduling follow-ups with extended care team members. The 6 items remaining in the classes and clinics section of the practices list included offering a new patient orientation and other group activities.

Table 4 depicts the postmodified Delphi resources toolkit. With a reevaluation of the remaining items, the structure of the toolkit was altered to the following categories: environment, training, communication, and feedback. The environment section included 9 items, such as improving phone access and responsiveness. The 5 items in the training section included requiring staff trainings on such topics as interpersonal communication and MI. The 2 items in the communication section included providing customized programming for patients on televisions or electronic bulletin boards. Finally, the 3 items in the feedback section included audio or video recording clinical encounters as a feedback opportunity for staff, establishing a primary care advisory committee, and appointing a patient advocate to manage complaints. This final list of 36 practices and 19 resources was assembled into an online tool (www.visn4.va.gov/VISN4/CE PACT/PE_practices/PE_tools.asp) for dissemination.

We found no differences in patient engagement practices between high-performing and low-performing sites. However, high-performing sites tended to describe more training opportunities and staff feedback mechanisms. Specifically, high-performing sites were more likely to describe requirements for training and refresher training in motivational interviewing. High performers were also more likely to describe feedback mechanisms and QI initiatives at their facilities. In addition, when examining barriers to patient engagement, all sites faced the same barriers. These included communication barriers, care coordination issues, organizational constraints, patient care barriers, space constraints, staffing constraints, and time constraints. However, low-performing and high–minority-serving sites more often reported barriers to implementation of patient engagement practices. No identified practice or resource specifically targeted patient engagement of minorities or addressed disparities.

DISCUSSION

This paper demonstrates the use of qualitative methods and a modified Delphi approach for the development of a toolkit aimed at increasing patient engagement and reducing disparities in engagement. Use of qualitative interviewing and observations provided a rich data source from clinical staff and observations at VHA facilities and allowed the evaluation team to assemble comprehensive lists of practices and resources that were successfully used at high–minority-serving institutions with high patient engagement ratings. These exhaustive lists were then narrowed and prioritized using a modified Delphi method, an effective means for building consensus to create a toolkit that is concise and digestible for a target audience.

The elements in the toolkit comprised of patient engagement practices and resources are not unexpected. Many of the items on the list are fundamental, routine activities related to patient care, most taking place during the visit. Patient engagement activities occurred at various levels within all the organizations we evaluated regardless of performance; however, those with high performance scores were more likely to describe training opportunities, feedback mechanisms, and a focus on motivational interviewing. We also found that specific resources, such as training and QI initiatives, support and may be necessary for successful implementation of patient engagement practices. Barello et al's review of over 1000 articles on patient engagement revealed that definitions of patient engagement tend to be narrow, missing components that may hinder or facilitate patient engagement.[38] We captured a broader range of activities related to patient engagement, creating a toolkit of both practices and resources, that is translatable to any health care setting.

Many of the identified patient-engagement practices centered on providing patients with agency over their own care. These types of activities can be crucial to promoting patient activation, an important step that has been shown to improve health outcomes.[39] Patient activation has been found to be particularly important for minority patients.[40–42] Activating patients requires providers to fundamentally

TABLE 3. Postmodified Delphi Toolkit—Patient Engagement Practices

	No. Items
Previsit	
1. Activate patients for visit	2
a. Provide patients with a summary of information from their most recent visits	
b. Have clerks provide patients with a check-in sheet that asks them to provide the reason for their visit	
2. Prepare providers for visit	1
a. Clinicians who will be seeing the patient should review patients' records before the visit	
Visit	
3. Build rapport with patients	3
a. Communicate clearly, honestly, and transparently with patients	
b. When looking at the computer screen, explain to the patient what you are reading or typing	
c. During conversations, turn your body to face the patient and maintain eye contact	
4. Elicit visit priorities	2
a. Ask the patient if you have met all of their needs	
b. Listen to your patients, allowing them to drive the conversation	
5. Give patients agency	2
a. Elicit patients' opinions about treatment options or other issues related to their health care	
b. Find out what is important to your patients by providing them the opportunity to ask questions throughout a visit	
6. Gather information from patients and understand health contexts	4
a. Involve social workers when patients need assistance with non–health-related concerns	
b. Ask open-ended questions of patients to better understand what they understand about their health and health care	
c. Ask patients who in their lives could assist them with their self-care and involve those people in the patient's health care decisions	
d. Ask about the whole person (physical, emotional, family/social, spiritual) to make effective and realistic health plans	
7. Set goals with patients related to their health or health care	2
a. Ask and assist patients with setting and achieving specific, measurable, attainable, relevant, and time-bound goals (SMART goals)	
b. Give patients positive feedback for meeting health goals	
8. Patient education	4
a. Educate patients on how or why clinical decisions are made as you make them	
b. Educate patients on how to take care of administrative aspects of their health care	
c. Inform patients about barriers they may encounter to help manage their expectations	
d. Educate patients about the PACT model of care, what it means, and what the roles and responsibilities of all team members are, including patients	
Postvisit	
9. Summarize visit and next steps	2
a. Provide the patients with an information sheet that lists newly scheduled appointments and changes to medications or other treatments that were made during the visit	
b. Anticipate patients' needs by educating them about the programs or services available to them	
Between visits	
10. Extended PACT members (pharmacist, social worker, behavioral health personnel, dietician)	1
a. Schedule more frequent follow-ups with extended PACT members between PCP visits	
11. Patient follow-up calls	3
a. If the clinician cancels the appointment, make sure to involve the patient when rescheduling	
b. Have RNs use the postdischarge follow-up call to provide education to patients about their conditions and any new medications resulting from their hospitalization	
c. Utilize RN follow-up visits to bring back high risk patients for more frequent goal-setting and check-in activities	
12. MyHealtheVet/secure messaging	1
a. Ensure patients understand the many uses for secure messaging and provide instruction on how to access and understand the records available to them on MyHealtheVet	
13. Patient support materials	3
a. Ensure patients are provided with necessary items for self-care such as blood monitors as well as educational tools for self-care	
b. Provide patients with sheets listing the names of all of their core PACT members and their direct contact information	
c. Require patients to keep home logs of their blood pressures, blood glucose levels, or other important vital statistics and require LPNs, RNs, or PCPs to review them with the patients during visits	
Classes and clinics	
14. Use classes and clinics to support patient engagement	6
a. Offer a New Patient Orientation that educates patients about available resources	
b. Establish a new patient orientation committee and have that committee work with the Health Behavior Coordinator and the Health Promotion and Disease Prevention coordinator to promote it	
c. Incentivize attendance of the New Patient Orientation	
d. Publicly display veteran success stories and the VA resources/programs that helped them achieve their goals	
e. Establish a "Wellness" group	
f. Include peer discussion/education, patient education, and multidisciplinary presentations from expert staff in all group classes and clinics	
Final number of practices	36

LPNs indicates Licensed Practical Nurses; PACT, Patient Aligned Care Teams; PCP, Primary Care Provider; RN, Registered Nurse; VA, Veteran Affairs.

TABLE 4. Postmodified Delphi Toolkit—Patient Engagement Resources

	No. Items
Encourage a supportive environment for patient engagement	
1. Phone access	1
a. Improve telephone responsiveness and provide direct phone access to their care team	
2. Protected time	2
a. Create protected time for telephone and secure messaging follow-ups	
b. Create protected time for administrative tasks	
3. Promote teamwork	3
a. Employ a team-based approach within PACT including extended PACT members	
b. Establish and keep stable teams	
c. Have daily PACT team huddles with all team members	
4. Provide staff support	3
a. Create opportunities for leadership to hear and respond to the needs of frontline staff	
b. Support the professional, personal, and emotional needs of frontline staff	
c. Give frontline staff autonomy and a voice	
Patient engagement training	
5. Interpersonal communication skills	1
a. Require training and refresher training for all staff that addresses interpersonal communication skills related to empathy, compassion, and respect	
6. Motivational interviewing and/or TEACH for success	1
a. Require training and refresher training for all staff that addresses motivational interviewing and/or TEACH for success	
7. Patient-centered care	1
a. Require training and refresher training for all staff that addresses patient engagement/patient-centered care.	
8. PACT model	1
a. Require training and refresher training that educates all staff on the PACT model and their role in PACT implementation at the facility	
9. Training support	1
a. Create a culture that prioritizes training, including protected time for training, relevant training, and refresher courses	
Resources for patient communication	
10. Provide customized programming	1
a. Provide customized programming on TVs and electronic bulletin boards in the waiting rooms to educate patients on health topics and services available at the facility	
11. Provide patient program guide	1
a. Provide a program guide for patients and staff with details about all of the programs available at the facility	
Quality improvement and feedback to increase patient engagement	
12. Audio or video recording	1
a. Audio record and/or video record clinical encounters to provide feedback to staff	
13. Establish advisory committees	1
a. Establish a primary care advisory committee with primary care leadership, core and extended PACT members, and a patient advocate to discuss and plan process improvement	
14. Provide patient advocacy	1
a. Appoint Patient Advocate Liaisons in each department to help manage department-specific patient complaints or concerns	
Final number of resources	19

  PACT indicates Patient Aligned Care Teams.

change the way in which they communicate with patients,[43,44] using methods such as motivational interviewing to foster a "collaborative relationship" with patients.[45] Collaborative relationships can reduce distrust, which among minority patients can stem from prior experience of racial discrimination in a clinical setting.[46] Building trust has also been shown to be a key factor in health care utilization.[47]

We identified a number of system and local barriers to patient engagement that came up more often at low-performing sites. Similar barriers have been identified in other studies including a concern among staff about disruption to daily routines,[48] time constraints,[14,49] and staffing shortages.[50] Key facilitators that have been identified for promoting patient engagement include clearer communication, maintaining staff satisfaction, building staff capacity, and a flexible culture dedicated to learning.[51] Given the barriers expressed by our respondents, it remains to be seen whether this toolkit will lead to noticeable improvement on

performance measures. Kilbourne et al[17] emphasizes the importance of taking multiple steps to apply, evaluate, and further refine interventions to translate them into practice and reduce disparities. To fill the gaps that currently exist in patient engagement, we plan to translate this toolkit into practice by evaluating a small-scale implementation to learn about the best way to disseminate it.

The methods used in the development of this patient engagement toolbox have inherent strengths and weaknesses. While the modified Delphi approach allows for consensus building among diverse stakeholders, it is also possible that pressure from group members may stifle some unique perspectives. It was not possible to anonymize the participants during the online meetings, but complete anonymity cannot be guaranteed in most modified Delphi processes.[52] It is also possible that a number of items may have fallen off the list because of limited opportunity for discussion. However, on the whole, the modified Delphi approach is a rigorous and

systematic method for contributing to the limited body of knowledge about patient engagement.

We are now disseminating the toolkit created in this process across a local network of facilities. Implementation of these practices is being tracked on an ongoing basis along with facility performance on measures of patient-centered communication, self-management support, mental health support, and shared decision making. As sites implement the toolkit, our evaluation team will connect with them individually and in group settings to provide coaching and monitor progress. This will enable the development of a final set of "best" practices that will have been listed, prioritized, and vetted by clinical staff on the ground.

ACKNOWLEDGMENTS

REFERENCES

1. Frosch D, Dardess P, Baade S, et al. Moving from mandate to reality: a roadmap for patient and family engagement. 2015. Available at: http://Healthaffairs.Org/Blog/2015/01/20/Moving-from-Mandate-to-Reality-a-Roadmap-for-Patient-and-Family-Engagement. Accessed October 1, 2016.
2. Carman KL, Dardess P, Maurer M, et al. Patient and family engagement: a framework for understanding the elements and developing interventions and policies. *Health Aff (Millwood)*. 2013;32:223–231.
3. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)*. 2008;27:759–769.
4. Hibbard JH, Greene J, Becker ER, et al. Racial/ethnic disparities and consumer activation in health. *Health Aff (Millwood)*. 2008;27:1442–1453.
5. Nelson LA, Mulvaney SA, Gebretsadik T, et al. Disparities in the use of a mHealth medication adherence promotion intervention for low-income adults with type 2 diabetes. *J Am Med Inform Assoc*. 2016;23:12–18.
6. Johnson RL, Roter D, Powe NR, et al. Patient race/ethnicity and quality of patient-physician communication during medical visits. *Am J Public Health*. 2004;94:2084–2090.
7. Yamin CK, Emani S, Williams DH, et al. The digital divide in adoption and use of a personal health record. *Arch Intern Med*. 2011;171:568–574.
8. Jhamb M, Cavanaugh KL, Bian A, et al. Disparities in electronic health record patient portal use in nephrology clinics. *Clin J Am Soc Nephrol*. 2015;10:2013–2022.
9. Hicks LS, O'Malley AJ, Lieu TA, et al. Impact of health disparities collaboratives on racial/ethnic and insurance disparities in US community health centers. *Arch Intern Med*. 2010;170:279–286.
10. Trivedi AN, Grebla RC, Wright SM, et al. Despite improved quality of care in the veterans affairs health system, racial disparity persists for important clinical outcomes. *Health Aff (Millwood)*. 2011;30:707–715.
11. O'Connor AM, Bennett CL, Stacey D, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev*. 2009.
12. Hinkin J. Hand decontamination: what interventions improve compliance? *EDTNA-ERCA J*. 2002;28:134–137.
13. Shea JA, Micco E, Dean LT, et al. Development of a revised health care system distrust scale. *J Gen Intern Med*. 2008;23:727–732.
14. Grande SW, Faber MJ, Durand M, et al. A classification model of patient engagement methods and assessment of their feasibility in real-world settings. *Patient Educ Couns*. 2014;95:281–287.
15. Say RE, Thomson R. The importance of patient preferences in treatment decisions–challenges for doctors. *BMJ*. 2003;327:542–545.
16. Burns KK, Bellows M, Eigenseher C, et al. "Practical" resources to support patient and family engagement in healthcare decisions: a scoping review. *BMC Health Serv Res*. 2014;14:175–189.
17. Kilbourne AM, Switzer G, Hyman K, et al. Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health*. 2006;96:2113–2121.
18. Rosland AM, Nelson K, Sun H, et al. The patient-centered medical home in the veterans health administration. *Am J Manag Care*. 2013;19:e263–e272.
19. Chokshi DA, Schectman G, Agarwal M. Patient-centered innovation: the VA approach. In: Healthcare. Vol. 1, Elsevier; 2013:72–75.
20. Belue R, Degboe A, Miranda P, et al. Do medical homes reduce disparities in receipt of preventive services between children living in immigrant and non-immigrant families? *J Immigr Minor Health*. 2012;14:617–625.
21. Marsh DR, Schroeder DG, Dearden KA, et al. The power of positive deviance. *BMJ*. 2004;329:1177–1179.
22. Nelson KM, Helfrich C, Sun H, et al. Implementation of the patient-centered medical home in the veterans health administration: associations with patient satisfaction, quality of care, staff burnout, and hospital and emergency department use. *JAMA Intern Med*. 2014;174:1350–1358.
23. Dyer N, Sorra JS, Smith SA, et al. Psychometric properties of the consumer assessment of healthcare providers and systems (CAHPS(R)) clinician and group adult visit survey. *Med Care*. 2012;50(suppl):S28–S34.
24. Scholle SH, Vuong O, Ding L, et al. Development of and field test results for the CAHPS PCMH survey. *Med Care*. 2012;50(suppl):S2–10.
25. Hausmann LR, Canamucio A, Gao S, et al. Racial and ethnic minority concentration in veterans affairs facilities and delivery of patient-centered primary care. *Popul Health Manag*. 2016.
26. Rockville MD, Maurer M, Dardess P, et al. Guide to patient and family engagement: environmental scan report. 2012. Available at: http://www.ahrq.gov/research/findings/final-reports/ptfamilyscan/ptfamilyscan.pdf. Accessed January 17, 2015. [WebCite Cache].
27. Maurer M, Dardess P, Carman KL, et al. *Guide to Patient and Family Engagement: Environmental Scan Report*. Rockville, MD: Agency for Healthcare Research and Quality; 2012.
28. Ltd QIP. NVivo qualitative data analysis software; QSR International Pty Ltd. Version 11. 2014.
29. Guest G, MacQueen KM, Namey EE. *Applied Thematic Analysis*. California: Sage; 2011.
30. Landis JR, Koch GG. The measurement of observer agreement for categorical data. *Biometrics*. 1977;33:159–174.
31. Hsu C, Sandford BA. The Delphi technique: making sense of consensus. *Pract Assess Res Eval*. 2007;12:1–8.
32. Mitchell TR. People in organizations: an introduction to organizational behavior. New York: McGraw-Hill; 1982.
33. Patton MQ. *Qualitative Research and Evaluation Methods*, III ed. Thousand Oaks, CA: Sage; 2002.
34. Doran GT. There's a SMART way to write management's goals and objectives. *Manage Rev*. 1981;70:35–36.
35. Rollnick S, Miller WR, Butler CC, et al. Motivational interviewing in health care: helping patients change behavior. 2008:203.
36. Zapatka SA, Conelius J, Edwards J, et al. Pioneering a primary care adult nurse practitioner interprofessional fellowship. *J Nurse Pract*. 2014;10:378–386.
37. VA Centers of Excellence in Primary Care Education (CoEPCE). Available at: www.va.gov/OAA/coepce/. Accessed March 29, 2017.
38. Barello S, Graffigna G, Vegni E, et al. The challenges of conceptualizing patient engagement in healthcare: a lexicographic literature review. *J Particip Med*. 2014;6:e9.
39. Hibbard JH, Greene J. What the evidence shows about patient activation: Better health outcomes and care experiences; fewer data on costs. *Health Aff (Millwood)*. 2013;32:207–214.
40. Alegria M, Polo A, Gao S, et al. Evaluation of a patient activation and empowerment intervention in mental health care. *Med Care*. 2008;46:247–256.
41. Alegría M, Sribney W, Perez D, et al. The role of patient activation on patient–provider communication and quality of care for US and foreign born latino patients. *J Gen Intern Med*. 2009;24:534–541.
42. Katz ML, Fisher JL, Fleming K, et al. Patient activation increases colorectal cancer screening rates: a randomized trial among low-income minority patients. *Cancer Epidemiol Biomarkers Prev*. 2012;21:45–52.
43. Frosch DL, May SG, Rendle KA, et al. Authoritarian physicians and patients' fear of being labeled "difficult" among key obstacles to shared decision making. *Health Aff (Millwood)*. 2012;31:1030–1038.

44. Entwistle VA, Watt IS. Patient involvement in treatment decision-making: the case for a broader conceptual framework. *Patient Educ Couns*. 2006;63:268–278.
45. Graves E, Watkins RW. Motivational interviewing: patient engagement as the key to healthy practices, patients, and practitioners. *N C Med J*. 2015;76:175–176.
46. Armstrong K, Putt M, Halbert CH, et al. Prior experiences of racial discrimination and racial differences in health care system distrust. *Med Care*. 2013;51:144–150.
47. LaVeist TA, Isaac LA, Williams KP. Mistrust of health care organizations is associated with underutilization of health services. *Health Serv Res*. 2009;44:2093–2105.
48. Elwyn G, Scholl I, Tietbohl C, et al. "Many miles to go…": a systematic review of the implementation of patient decision support interventions into routine clinical practice. *BMC Med Inform Decis Mak*. 2013;13:S14.
49. Gravel K, Légaré F, Graham ID. Barriers and facilitators to implementing shared decision-making in clinical practice: a systematic review of health professionals' perceptions. *Implement Sci*. 2006;1:526–535.
50. Weiss ME, Yakusheva O, Bobay KL. Quality and cost analysis of nurse staffing, discharge preparation, and postdischarge utilization. *Health Serv Res*. 2011;46:1473–1494.
51. Luxford K, Safran DG, Delbanco T. Promoting patient-centered care: a qualitative study of facilitators and barriers in healthcare organizations with a reputation for improving the patient experience. *Int J Qual Health Care*. 2011;23:510–515.
52. Keeney S, Hasson F, McKenna HP. A critical review of the Delphi technique as a research methodology for nursing. *Int J Nurs Stud*. 2001;38:195–200.