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Building a Patient-Centered Medical Home in an Integrated Healthcare System: A Survey of Patient Preferences and Needs

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Abstract

Background: While the transformation of a primary care practice into a patient-centered medical home (PCMH) has the potential to improve care, there is a dearth of data on patient perspectives. This study was conducted to assess patients' opinions related to current patient-centeredness, focusing on aspects of coordinated care, communication, accessibility, and management of care.

Methods: A cross-sectional survey of English-speaking patients aged >18 years who had a scheduled appointment to see a primary care provider (PCP) at four Baylor Scott & White Health (BSWH) primary care clinics was conducted. The survey instrument included Likert-scale questions based on 5-item choices and data analysis focused on descriptive statistics. The study was approved by the BSWH Institutional Review Board.

Results: Of 316 patients approached, 204 (64.6%) returned completed surveys. Their mean age was 47.4 years (SD=16.0; range 18-89) and they were predominantly white (84.4%), female (67.0%), employed (60.2%), and married (57.0%). More than half had at least some college education. Most of the positive responses pertained to patient-provider communication (e.g., provider and staff treating patient with courtesy and respect; provider and staff listening to patient's questions and answering them directly) and management of patient healthcare (e.g., patient thinking it is important to be proactive in their own healthcare; patient belief in playing an active role in their healthcare).

Conclusions: A PCMH model appears to be an attainable goal that can better meet the needs of our patients in the ambulatory setting of our integrative healthcare system. Our patient sample endorsed survey items related to satisfactory patient-provider communication as well as those related to quality of participation in their treatment planning and self-management, concepts compatible with the tenants of the PCMH model. In addition, the study suggests that eliciting patient opinions can provide guidance for the initial planning and execution of PCMHs specific to a patient population.

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Abbreviations

PCMH: Patient-Centered Medical Home
PCP: Primary Care Provider

Introduction

The current healthcare evolution toward meeting the growing patient demand calls for maintaining or initiating high quality patient-centered care [1]. The Patient-Centered Medical Home (PCMH) has evolved as a model of care that seeks to place patients at the center of healthcare and is supported by the major primary care organizations in the United States, including the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association [2-6]. The Agency for Healthcare Research and Quality has described the functions and attributes of the PCMH as mainly comprising: 1) comprehensive care; 2) patient-centeredness; 3) coordinated care; 4) accessible services; and 5) commitment to quality and safety [7]. This concept of PCMH has been touted as a model of care with the ability to provide a rejuvenation of essential primary care services, while maintaining or reducing healthcare costs and improving access, quality, equity, and patient experiences as well as provider satisfaction [8-10].

The transformation of a primary care practice into a PCMH appears to be a worthwhile endeavor, but requires changes in the use of resources and clinic processes. Currently, there are numerous primary care practices that have been designated as PCMHs across the United States, although different definitions and standards have been used to develop them [11]. Several measures of patient-centeredness and patient satisfaction have been created to assess these aspects after PCMH implementation, but few studies have investigated patient perspectives regarding their specific preferences and needs. A notable exception is a survey of patient opinions about the fundamentals of PCMHs conducted in United States academic medical centers [12]. The authors of that landmark study concluded that care coordination, patient self-management, and improved access to care are most important to patients [12]. While results from that study and ours might seem then to provide guidance about where to begin in developing and executing any PCMH, a recent study by Solberg and colleagues, while recognizing that success in the transformation process required multifaceted strategies, suggested that clinics may need to find their own unique paths to this transformation by assessing their own situation to identify initial changes that make sense for their patients [13]. Therefore, while the study conducted in United States academic centers emphasized the importance of different features, the more recent study by Solberg and colleagues focused on the pathway to getting to those important features including consideration of such items as information technology, organizational culture, and leadership [12,13].

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Our integrated healthcare system recognizes the national transition to a more patient-centered healthcare system and is in the PCMH transformation process. In our quest to build viable PCMHs that meet the patient population preferences and needs in our ambulatory care clinics, we conducted this study to assess our own patients' opinions related to current patient-centeredness focusing on aspects of coordination of care, patient-provider communication, patients' use of technology, access, and management of care.

Materials and Methods

Study Design, Setting, Participants, and Recruitment Procedure

This study used a cross-sectional survey design to elicit information from English-speaking patients scheduled with primary care providers (PCPs) at four Baylor Scott & White Health primary care clinics belonging to a large integrated, university-affiliated, multi-specialty healthcare system associated with a 220,000-member Health Maintenance Organization in Central Texas. The study sites were selected proximal to each other. The study participants were aged >18 years and were recruited via speaking with them in waiting rooms, explaining the purpose of the study to them, and inviting those willing to participate to check an implied written consent. The study protocol was reviewed and approved by the Institutional Review Board of Baylor Scott & White Health.

Data collection

The survey instrument, which was designed to be completed in approximately 5-10 minutes, included Likert-scale questions based on 5-item choices that ranged from strongly agree to strongly disagree, and was written at the 4th grade level to ensure readability for most patients. The questions focused on coordination of care provided to patients (q=4), communication between patients and providers/staff (q=11), patient use of technology for communication with their providers (q=5), patient access to their providers (q=9), and management of patient health (q=8). These particular aspects of PCMH or scales were chosen in line with the National Council for Quality Assurance recommendations on obtaining feedback from patients on their experiences with their practice and their care [14] and also due to their emphasis in prior research [15-17].

The questions on coordination of care comprised four items that covered the broader healthcare system including patient's PCP, specialists, and pharmacists as well as community services and supports, e.g., "My family medicine provider informs me of relevant community resources (e.g., senior center, places to be physically active)." The questions related to patient-provider communication consisted of eleven items on the breadth and quality of communication between the patient and providers, e.g., "My provider and staff listen to my questions and answer them directly." The five questions on patient use of technology for communication with their providers asked about their preferences in communicating by phone or using the U.S. mail, e-mail or the Internet for services as well as the timeliness, e.g., "I feel comfortable utilizing the Internet for filling prescriptions, making appointments, or accessing other online health resources." The nine questions on patient access to their providers covered patient's ability to access their providers and needed services with shorter waiting times, e.g., "I have utilized the available after-hour urgent care." The questions on management of patient health comprised eight items focused on patient partnership with family members and providers to ensure that decisions respect patients' wants and preferences as well as involve patients as participants in their own care, e.g., "I think it is important to be proactive in my health care." In addition, there were questions about patient socio-demographic information (q=11).

Data analysis

Descriptive statistics were used to summarize baseline demographic characteristics of the study population. The timing and purpose of the clinic visit were also analyzed descriptively, along with the timing of completing the survey. Strongly agreeing and agreeing responses were combined to represent positive perspectives by the study participants, while strongly disagreeing and disagreeing responses were combined to represent negative perspectives by the participants. All analyses were conducted using IBM SPSS Statistics version 22 [18].

Results And Discussion

Study participants

Of the 316 patients approached, 204 (64.6%) returned completed surveys. Table 1 provides a summary of the participants' profile. Their mean age was 47.4 years (SD=16.0; range 18-89). They were predominantly white (84.4%), female (67.0%), employed (60.2%), and married (57.0%). Blacks and Hispanics comprised 11.8% and 12.8%, respectively. More than half had at least some college education.

Variable	N*	%
Age Group (years)		
18 – 30	46	23.2
31 – 45	84	42.4
46 or older	68	34.3
Gender		
Male	66	33.0
Female	134	67.0
Hispanic		
Yes	25	12.8
No	171	87.2
Race		
White	157	84.4
Black	22	11.8
Native American/Alaskan Indian	7	3.8
Education		
Less than high school graduate	11	5.6
High school graduate	49	25.0
Some college/vocational school	75	38.3
College graduate	40	20.4
Graduate school	21	10.7
Employed for wages or self-employed		
Yes	118	60.2
No	78	39.8
Income		
< $20,000	41	22.5
$20,000 - $59,000	84	46.2
$60,000 - $99,000	36	19.8
$100,000 or more	21	11.5
Marital status		
Married	114	57.0
Separated/divorced/widowed	55	27.5
Never married	31	15.5
*May not add to total due to missing data		

Table 1: Socio-demographic Characteristics of Study Participants (n=204)

The clinic visit was the first for 4.7% of the participants. The reason for the clinic visit was for sickness (28.9%), other (27.4%), follow-up (26.9%), wellness (14.4%), or for lab work (2.5%). While the majority (55.8%) completed the survey in the clinic waiting room before their exam, 35.5% completed the survey in the exam room while waiting for their doctor, and only 8.6% completed the survey in the clinic after seeing their doctor.

Perspectives of participants

As summarized in Figure 1, most positive responses (strongly agreeing and agreeing on the 5-point Likert scale) provided by the participants pertained to satisfactory patient-provider communication and patient management of their healthcare. For example, the vast majority strongly agreed or agreed that their healthcare team treats them with courtesy and respect (96.1%) and that their provider and staff listen to their questions and answer them directly (96.0%). Similarly, the vast majority strongly agreed or agreed that they think it is important to be proactive in their own healthcare (97.0%) and believe that they play an active role in their healthcare (95.5%).

Most negative responses (strongly disagreeing and disagreeing on the 5-point Likert scale) pertained to aspects of patient use of technology for communication with their provider as well as patient access to their provider and coordination of patient healthcare. Only 18.2% endorsed a preference for utilizing the Internet for filling prescriptions, making appointments or communicating with my healthcare team, while 24.7% endorsed a preference for communication with provider by phone and 35.5% by email. Also only 18.9% had utilized the available after-hour urgent care, while only 13.6% had been informed of relevant community resources by their provider (Figure 2).

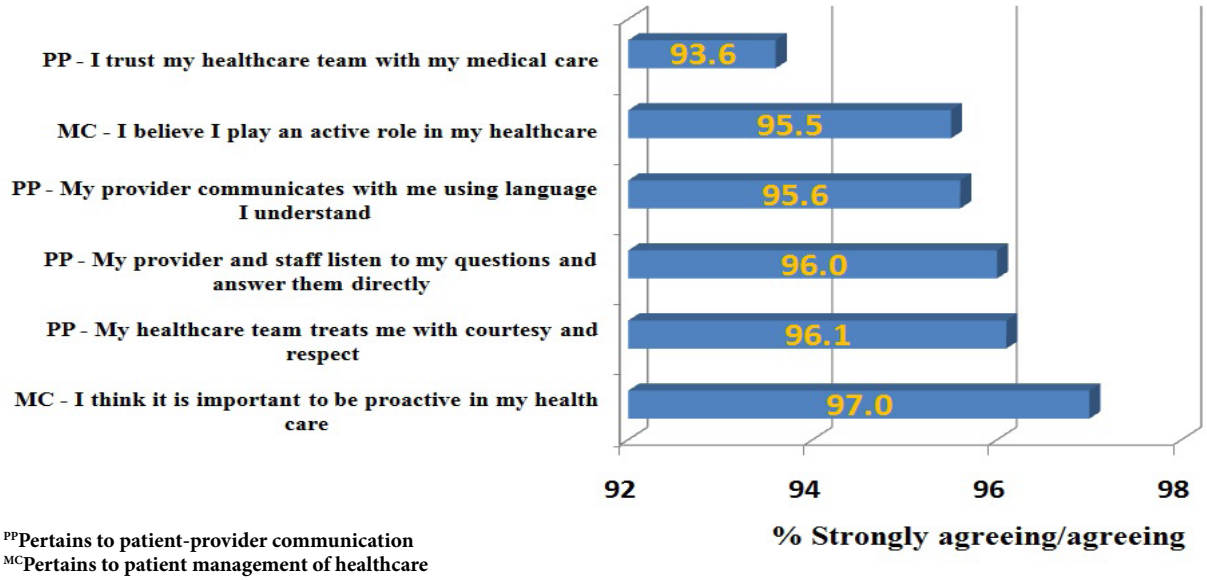

Figure 1: Positive Perspectives of Study Participants.

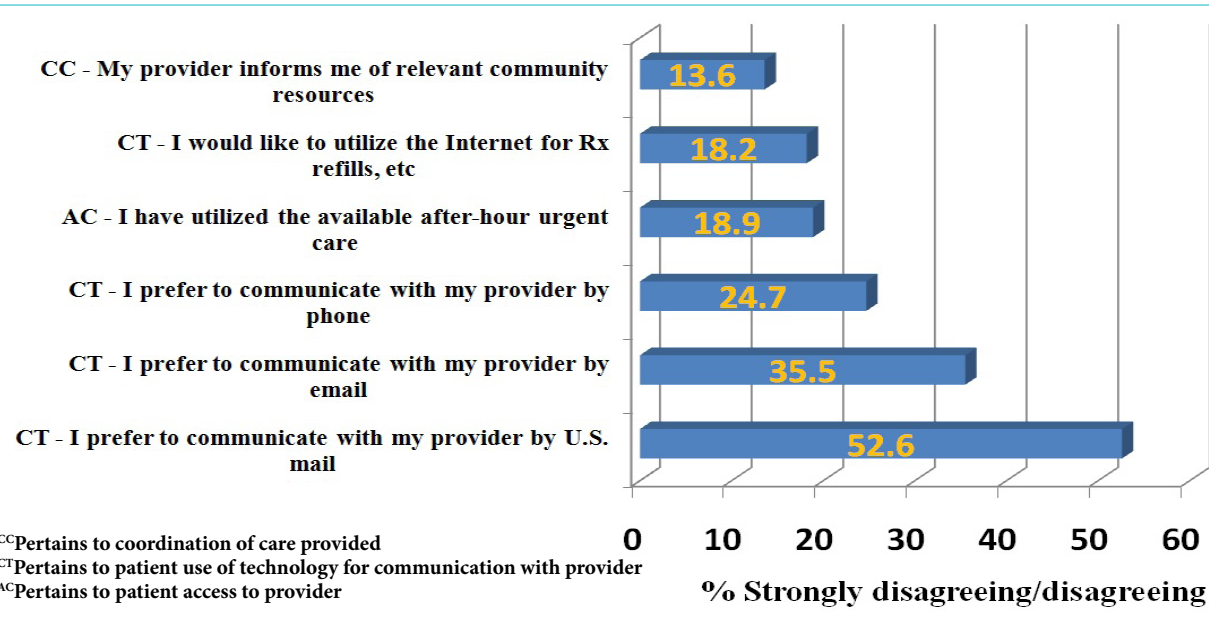

Figure 2: Negative Perspectives of Study Participants.

Discussion

The medical home has been described by the Patient-Centered Primary Care Collaborative as a model or philosophy of primary care that is patient-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety [2]. Indeed, a patient-centered medical home (PCMH) model offers opportunity to better meet the needs of patients in the ambulatory setting of our integrative healthcare system. According to the findings of our survey, our patients want our providers and staff to treat them with courtesy, to listen to them and respond directly, and to use language they can understand, consistent with previous findings [16]. They also want to be proactive and to participate in their treatment planning. These concepts are compatible with the tenants of the PCMH [9,11,14] and can inform initial planning and execution of our PCMHs. The results may also imply the need to assess or provide training on patient-provider and patient-staff communication as well as on how to include and empower patients in their treatment planning and self-management. Subsequently, all our medical providers and senior staff, including physicians, physician assistants or nurse practitioners, nurses, and medical assistants have now been required to complete courses on communication specific to health literacy as well as motivational interviewing to promote self-management and health behavior change. Contrary to a study of Geisinger PCMHs that patients seem to be somehow content with their access to care [19], however, our survey findings indicated that our patients want more access to their providers.

Since our survey focused on aspects of PCMH that differed from the aspects covered in surveys reported in previously published articles, for example the article by Wexler et al. [12], and since each patient population may have different needs, generalizing our study findings to other healthcare settings may not be appropriate. We, nonetheless, corroborate the recommendation of Solberg et al. [13] on the need for any clinic transforming to PCMH to assess its own situation before choosing the aspects of PCMH on which to focus initially. In that regard, we recommend that patients be surveyed regarding their specific needs and preferences.

Our study had a few limitations that must be taken into consideration in the interpretation of the findings. First, we excluded non-English speaking subjects because our survey instrument was available only in English since our budget did not permit translation into Spanish, for example. Our sample was also small, convenient, and not representative of our healthcare system's total population. Moreover, the survey may not have represented the practice population including all relevant subpopulations due to the convenient small sampling. Therefore, our findings may not be generalizable.

Nonetheless, and despite limited resources, this is the first study on PCMH in our ambulatory healthcare setting to capture important data regarding patient opinions related to current patient-centeredness in the PCMH model. It definitely serves to provide important exploratory data on PCMH conversion as we strive to put our patients at the center of their own healthcare, increase the quality of care provided to them, improve their access to providers and clinics, and enhance the integration of their overall healthcare services.

Conclusions

In conclusion, we believe that a PCMH model is an attainable and worthwhile goal in our ambulatory healthcare setting. Furthermore, based on the results of our survey, it appears that the opinions of our patients are consistent with the tenets of the PCMH model, specifically the focus on provider and staff communication with patients and on patient self-management and participation in treatment planning. However, despite the great promise held by PCMHs for improving patient experiences and healthcare and potentially improving healthcare processes, currently there is insufficient evidence to determine the effects of PCMHs on clinical outcomes [20]. Patient survey results, such as reported in this study, can provide guidance for the initiation and execution of the PCMH and may point to possible training needs of members of the medical team. Further research is needed to show whether patient opinions, as communicated in this survey, are better met now in our current version of the PCMH, and whether meeting these opinions affects clinical outcomes. Further studies ought to include sampling from all clinics and from all potential patient subpopulations, including non-English speaking patients, in order to enhance generalizability of findings.

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Competing Interests

The authors declare that they have no competing interests.

Author Contributions

SNF: Study conception, fund acquisition, supervision, data interpretation, manuscript preparation, and final review.
JE: Data interpretation, manuscript preparation, and final review.
MDR: Study conception, fund acquisition, data interpretation, manuscript preparation, and final review.

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