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Qualitative Inquiry of Patient-Reported Outcomes: The Case of Lower Urinary Tract Symptoms

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Abstract

Background—Patient-reported outcomes are a valuable tool for assessing healthcare, particularly for symptom-based conditions that lack definitive physiological measures of treatment efficacy.

Objective—To explore the value of qualitative methods for understanding and developing patient-reported outcomes of medical care for symptom-based conditions by examining the case of lower urinary tract symptoms.

Method—Semi-structured interviews were conducted with a diverse, community sample of 90 respondents who had spoken with a provider about their urinary symptoms. Content and thematic analyses were conducted for the areas of symptom relief, patient adherence, and satisfaction with care according to gender, race or ethnicity, and socioeconomic status.

Results—Across social groups, most patients experienced either no symptom relief or partial relief, reported that they adhered to recommendations, and were satisfied with the care received. The primary reason for no symptom relief was not receiving a treatment recommendation. For patients, even partial relief made symptoms more manageable both physically and emotionally. Satisfaction with care was mediated by the quality of the patient-provider relationship as well as expectations other than symptom relief, particularly for patients of low socioeconomic status.

Discussion—Patients' assessments of the outcomes of seeking medical care for this symptom-based condition broadened the criteria for quality of care beyond providing a cure. For health care providers, this can widen the path for meeting patient needs, even without complete symptom relief. For providers and researchers, as the evidence base expands to include patient reports, the context provided by a qualitative approach can enhance understanding of patients' perspectives and the ability to construct meaningful quantitative measures.

Keywords

patient outcomes assessment; qualitative research; urinary tract symptoms

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Emphasis on evidence-based medicine calls for providers and researchers to incorporate patients' perspectives as one source of evidence. As such, patient-reported outcomes complement traditional physiological measures of the quality and effectiveness of care (Gatchel & Theodore, 2008; Korolija, Wood-Dauphinee, & Pointner, 2007; Lipscomb, Gotay, & Snyder, 2007). Clinical trials, health care providers, and health researchers have used patient reports for a variety of outcomes, including symptoms, functioning, overall quality of life, treatment preferences, patient adherence, and satisfaction with care (Doward, Gnanasakthy, & Baker, 2010).

Current work on developing patient-reported outcomes has been focused on validating self-administered questionnaires for use in clinical trials and clinical practice (Cella et al., 2007; Coyne, Tubaro, Brubaker, & Bavendam, 2006; Jackson, N'Dow, & Pickard, 2010). The intent of standardized, quantitative measures is to ensure content validity for provider use and to allow for comparison across large samples. However, as McClimans (2010) argues, different contexts and purposes for asking the same question leads to varied interpretations of that question. As a result, qualitative examinations of patient-reported health outcomes are an important complement to standardized measures because qualitative methods allow respondents to explain the context and meaning of their responses (McClimans, 2010).

This study was focused on three widely accepted outcomes of care: adherence to providers' recommendations, symptom relief, and satisfaction with care (Brubaker, Chapple, Coyne, & Kopp, 2006; Safran et al., 1998; Shah & Nitti, 2009). Adherence to providers' recommendations is an important outcome of a medical encounter, but accurate measurement of adherence is difficult. Studies across types of conditions show that patients often overestimate adherence (Bender et al., 2007; Cassidy, Rabinovitch, Schmitz, Joober, & Malla, 2010; Zeller, Ramseier, Teagtmeyer, & Battegay, 2008). However, providers can be even less reliable than patients in assessing adherence (Macintyre, Goebel, & Brown, 2005; Zeller, Taegtmeyer, Martina, Battegay, & Tschudi, 2008), and providers cannot ascertain evidence about adherence to lifestyle or behavior recommendations. Moreover, a patient's perceived adherence may be as meaningful as objective measures for interpreting health status and satisfaction. Patient assessment of symptom relief is an essential component of evaluating health-related quality of life. This is particularly the case for conditions without definitive physiological measures of treatment efficacy, such as lower urinary tract symptoms, chronic pain, and other symptom-based conditions.

Satisfaction with care is an important outcome but, similar to adherence, raises conceptual and measurement challenges. The concept refers to a combination of various dimensions, including not only technical competence but also provider interpersonal skills, ease of access to care, and expense (Kane, Maciejewski, & Finch, 1997). Research shows that patients employ *mediating filters* (Atkinson & Medeiros, 2009), such as perceptions of the provider's duty and culpability for addressing the problem (Williams, Coyle, & Healy, 1998), when assessing their satisfaction with care received. The complexity of the concept of satisfaction likely has contributed to the well-documented difficulties in accurately measuring satisfaction with standardized survey questions.

Persistent disparities in United States health care suggest that patient-reported outcomes may differ across social groups. Regarding satisfaction with care, evidence to date is mixed as to whether patients of different social groups report disparate levels of satisfaction (Jayadevappa, Johnson, Chhatre, Wein, & Malkowicz, 2007; Sanda et al., 2008; Taira et al., 2001). Among Hispanic people, prior research suggests that trust in one's doctor is important for help-seeking (Larkey, Hecht, Miller, & Alatorre, 2001), and the element of trust also may affect satisfaction with care received for this group. For adherence, one study focused on overactive bladder suggests that medication adherence does not differ by sociodemographic characteristics (Benner et al., 2009), but a broader evidence base is needed to draw generalizable conclusions.

The Case of Lower Urinary Tract Symptoms

Lower urinary tract symptoms (LUTS) encompass a range of symptoms related to urinary storage, voiding, and postvoiding that may or may not be accompanied by pain. This set of symptoms provides a useful case for several reasons. First, LUTS are common symptoms that can have a significant negative impact on quality of life (Coyne, Sexton, et al., 2009; Nicolson, Kopp, Chapple, & Kelleher, 2008), carry a social stigma (Elstad, Taubenberger, Botelho, & Tennstedt, 2010; Paterson, 2000), and are associated with depression and anxiety (Coyne, Wein, et al., 2009).

Second, research on LUTS shows a lack of concordance between physician and patient assessments of subjective indicators, including symptom severity (Melville et al., 2003; Wei & Montie, 2000) and impact on quality of life (Rodriguez, Blander, Dorey, Raz, & Zimmern, 2003; Srikrishna, Robinson, Cardozo, & Gonzalez, 2009). Since LUTS is a symptom-based condition, the discordance in perception between providers and patients strengthens the need for incorporating patient perspectives when assessing outcomes (Brubaker et al., 2006).

Third, research about treatment outcomes for LUTS is limited, particularly among nonclinical populations. Most knowledge comes from clinical trials comparing specific treatments rather than care provided to the general population. In addition, existing research about patient-reported outcomes has been focused mainly on one symptom: urinary incontinence. These studies show that only 60–77% of those who seek treatment receive it (Harris, Link, Tennstedt, Kusek, & McKinlay, 2007; Shaw, Das Gupta, Williams, Assassa, & McGrother, 2006). Even among those who receive treatment, studies show that recommended guidelines often are not followed (Shaw et al., 2006), and continued daily urine leakage occurs for about half of patients (Harris et al., 2007). These results suggest a need for more information about patients' perspectives on treatment efficacy and satisfaction with care for incontinence as well as other LUTS.

The current study adds to existing literature by using qualitative research to examine patient-reported outcomes of seeking medical care for a symptom-based condition and examining differences across social groups. The analysis expands the evidence base for the case of LUTS; utilizes a diverse, community-based sample; and highlights the value of employing qualitative methods to elicit patient-reported outcomes more generally.

The purpose of this qualitative descriptive study was to elicit respondents' perceptions of their experiences with LUTS and outcomes from seeking health care for their symptoms. Thematic analysis within content areas of interest was conducted for the full sample and by social group.

Method

Sample

Respondents were a subsample of participants in the Boston Area Community Health (BACH) Survey. The BACH is a community-based, random sample epidemiologic survey (*n* = 5,506) of a broad range of urologic symptoms. This parent study utilized a multistage stratified cluster design to recruit a diverse sample of men and women from three major U.S. race or ethnic groups (Black, Hispanic, and White). The BACH study design and implementation have been reported previously (McKinlay & Link, 2007).

For purposes of this qualitative study, stratified random sampling was used to recruit a diverse subsample of BACH respondents who reported at least one urinary symptom. Sampling continued until at least 25 respondents in six subgroups (men and women from the three BACH race or ethnic groups) were recruited. In interview-based studies, little new information typically is gleaned after conducting 20–25 interviews per subgroup when addressing a relatively narrow research question (Green & Thorogood, 2009), as with the current study. The final sample (*n* = 151) consisted of approximately equal numbers of men and women who identified themselves as Black, Hispanic, or White across a broad age range (34–85 years).

Determining socioeconomic status (SES) for BACH respondents followed a modification of a method previously validated as a predictor of health behaviors (Green, 1970). The measure was constructed from standardized income and education variables for the Northeastern US. Scores for this two-factor index ranged from approximately 30 to 85 and were reclassified into low (bottom quartile), middle (second and third quartiles), and high (top quartile). This SES index is intended to optimize the prediction of family health actions from SES information.

Data Collection

As previously reported (Welch, Botelho, & Tennstedt, 2011), semistructured interviews were conducted to elicit respondents' experiences with urinary symptoms, beliefs and attitudes about those symptoms, coping and management strategies, and histories of care-seeking for LUTS. A semistructured interview guide was developed from a literature review and refined through eight focus groups stratified by gender and race or ethnicity. Fifty-eight respondents participated in a total of eight 90-minute focus groups. All focus groups occurred prior to beginning the one-on-one interviews, and data from the focus groups was used only to refine the interview guide.

Five data collectors (three women and two men) were trained in one-on-one semistructured interviewing techniques and conducted the interviews. To facilitate participant openness during the interview, interviews were conducted in respondents' homes and in their preferred language (English or Spanish), and interviewers were trained to build rapport with respondents. As part of the study protocol, interviewers emphasized that they were not connected to a health care institution or doctor but rather were interested in learning from the respondent about his or her experiences and viewpoints.

Both the parent (BACH) and the qualitative studies were approved by the Institutional Review Board of New England Research Institutes, Inc. All respondents provided written informed consent prior to the interview and were assigned a study number to protect confidentiality.

The current analysis was focused on symptom relief after seeking medical care, adherence to providers' recommendations, and satisfaction with care. Symptom relief was elicited with the question: "Did the treatments/recommendations help your symptoms? Why or why not?" Adherence was elicited with: "Did you follow any of the recommendations offered by the doctor for your urinary or pelvic problems?" Satisfaction with care was examined with: "How do you feel about the care you received for your urinary or pelvic symptoms? Was there anything in particular that you liked or did not like about your care for your urinary or pelvic symptoms?" Interviewers used probing techniques to draw out open-ended responses.

Analytic Strategy

Interviews were recorded digitally and transcribed verbatim by a professional transcription company. Spanish-language interviews were transcribed and then translated into English by a certified translator. To protect confidentiality, audio files and transcripts were stored on a secure computer drive, and access was restricted to study staff members. Transcripts were imported into ATLAS.ti qualitative analysis software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany) to facilitate data organization and coding.

Analysis was inductive and began by developing an initial code list of categories that emerged from the full interview, a process known as “initial coding” (Lofland & Lofland, 1995). To enhance the validity of results, three analysts participated in developing the initial code list. During this process, the analysts individually coded a subset of transcripts and met to discuss their coding. Differences among analysts were resolved through discussion and consensus. A codebook with the initial codes and their definitions was stored in ATLAS.ti, and the analysts applied these codes to another subset of transcripts. Again, analysts met to compare their coding and resolve disagreements through consensus, adding and revising codes as needed. This process was repeated until the analysts agreed on a code list with definitions and they were applying the codes consistently. The initial code list included codes related to seeking health care for LUTS as well as the other areas raised during the interviews (e.g., attitudes and beliefs, social support, stigma).

After the initial code list was established, analysts individually coded the remaining transcripts for the full sample of 151 respondents, using ATLAS.ti. One of these analysts also conducted a portion of the interviews. For cases in which the existing code list did not capture the meaning of the data in a transcript adequately, analysts met to discuss the data and the code list. When codes were added or revised, the process used for developing the initial code list (i.e., multiple analysts discussing the coding and coming to consensus) was repeated until agreement was reached.

Following initial coding, a single analyst developed and applied detailed subcodes. Since this analysis was focused on outcomes of seeking health care for LUTS, subcodes were focused on the subsample of respondents who reported that they had “talked with a doctor, nurse, or some other kind of health care professional” about their symptoms ($n = 90$) to identify patients’ views on providers’ recommendations, symptom relief, adherence to the recommendations, and assessment of the care received. At this stage, the analyst engaged in *focused coding* (Lofland & Lofland, 1995) by elaborating the codes that were being used more often. A single analyst engaged in developing subcodes and doing focused coding to enhance consistency.

The level of symptom relief was coded as complete, partial, or no relief. The code for *complete relief* was applied when a respondent reported that a provider’s recommendation “worked” or was effective, or when a respondent reported following a provider’s recommendation and was no longer experiencing symptoms. The code for *partial relief* was applied when a respondent reported that the symptoms remained but were less severe or less frequent after following a recommendation. The code for *no relief* was applied when a respondent reported not receiving a recommendation from a provider or that the recommendation was not effective.

The analyst who conducted subcoding and focused coding proceeded with content and thematic analyses. For the identified content areas of interest, the frequency of the most commonly occurring codes were identified and compared across gender, race or ethnic group, and SES. To develop themes within content areas, corresponding quotations were examined thoroughly to elicit the meaning of each category. A draft of the manuscript was circulated to project staff members, including one of the interviewers, for review and comments.

Results

Ninety participants reported that they had spoken with a provider about their urinary symptoms (Table 1). This sample of those who had sought medical care represented a range of ages and urinary symptoms. The sample consisted of roughly equal numbers of men (*n* = 49) and women (*n* = 41) as well as race or ethnic backgrounds (33 Black, 29 Hispanic, and 28 White respondents); respondents in the low SES group were overrepresented.

More than one-quarter of the sample (*n* = 25) reported that at least two types of providers (primary care and specialist) considered their symptoms. Compared to Black (24%) and Hispanic (15%) respondents, White (46%) respondents more often had at least two types of providers consider their symptoms. White (54%) respondents more often saw a urologist, gynecologist, or other specialist about LUTS than Black (30%) and Hispanic (26%) respondents. For most respondents across social groups (83%), a primary care provider was involved in considering the symptoms.

Symptom Relief

After seeking treatment, 14% of respondents experienced complete symptom relief, 39% experienced partial relief, and 47% reported no symptom relief (Table 2). The most common reason for no symptom relief was not receiving a treatment. More than one-quarter of respondents did not receive a treatment, a percentage similar to prior research about treatment-seeking for urinary incontinence (Harris et al., 2007; Shaw et al., 2006). This group included those who reported receiving no diagnostic tests or treatment (*n* = 10, 11%) and those who reported undergoing diagnostic tests but not receiving treatment (*n* = 15, 17%). The remaining respondents who experienced no symptom relief either did not adhere to a recommended treatment even partially or adhered to a treatment that had no effect.

Patients perceived no treatment as a message that their symptoms were not serious—Respondents who received no treatment for LUTS perceived their providers to believe that their urinary symptoms were not serious relative to their other health conditions or were a normal part of aging. For example, a 55-year-old Black man whose doctor did not offer a recommendation for LUTS explained, “I think because probably the blood pressure was the more important thing, getting that down, lowering it.” A 40-year-old Hispanic woman reported that her doctor said, “It’s not anything serious…it is normal in people because of their age.”

Respondents who underwent some type of testing perceived that the doctor intended to identify a specific cause of the urinary symptoms (e.g., enlarged prostate, urinary tract infection) or rule out a serious condition (e.g., cancer). In the absence of a test result indicating an identifiable cause or a life-threatening health condition, respondents perceived that their providers believed that LUTS did not warrant treatment. For example, a 79-year-old White woman who spoke to her doctor about incomplete emptying offered a typical interpretation of her doctor’s response: “So he tested me… He said, ‘Everything, the tract is good and everything. It’s just that you have a weak bladder.’ He said that’s part of being old.”

Women more often than men reported no symptom relief; in addition, the pattern of reasons for no improvement differed by gender. Among men who reported no relief, more than two-thirds did not receive a treatment. In contrast, slightly less than half of the women in this group did not receive a treatment, and a sizeable proportion (36%) received treatment that had no effect.

Even partial symptom relief enhanced patient well-being—Among respondents who received and adhered to recommended treatment for LUTS, most reported partial relief in symptoms (58%), meaning that symptom severity was more manageable in daily life. For example, a 50-year-old Black woman with urinary frequency and urgency explained that following her doctor's advice to change the types of fluids she was drinking did not completely relieve her symptoms but "made me be able to be more manageable with it." Respondents taking medications for LUTS explained, "I can hold it a little more than, you know, before I couldn't hold it period" (68-year-old White woman), and "I don't know if I would say it makes me better; it's contained it" (74-year-old White man). Similarly, a 58-year-old Hispanic woman with incontinence explained the impact of surgery: "The difference is that before I got really wet. Now, I don't get wet unless I'm really, really holding it; that I need to hold it for a long time, then I do get wet. It just comes out."

Reducing symptom severity in turn lessened the emotional impact of symptoms. A 79-year-old Black man with frequent urination explained: "Not all the times I could run to the thing [bathroom]. Like, today I'm all right. I can stay…, so I never worry about it anymore." Similarly, a 56-year-old Black woman with diabetes who experienced incontinence said that the recommended combination of medications, muscle exercises, and changing fluid intake "stopped me from being embarrassed with water shooting out of me."

Although partial symptom relief may appear to providers to be a lack of success, it enhanced quality of life for patients. Patients perceived that those providers who did not offer treatment believed that their urinary symptoms were not serious or were a natural part of aging (i.e., not amenable to cure); however, from the patient perspective, partial relief was a desirable and valued outcome.

Adherence

Overall, four of every five respondents across social groups reported that they fully adhered to provider recommendations (Table 3). Although prior research suggests that both patients and providers can be unreliable assessors of adherence, perhaps a more important point is that the patients across social groups believed they adhered to the best of their abilities to provider recommendations. For most respondents across social groups, lack of adherence did not explain continuing symptoms.

Lack of adherence can "make sense" to patients—Recommendations most often not followed or partially followed were pelvic muscle exercises (4 of 11, 36%) and medications (9 of 33, 27%). Reasons for not adhering to a recommendation for muscle exercises were typical of barriers to exercising generally. Respondents reported that the exercises were "tiring" or that they viewed themselves as "not consistent on anything" or "lazy." This group of patients may have benefited from learning strategies for facilitating general exercise (e.g., scheduling specific times, setting up a motivational cue). In short, understanding patients' reasons for not following a recommendation can suggest a path for improving adherence.

Reasons for not adhering to prescribed medications included a preference to avoid medications when possible, bothersome side effects, and lack of significant symptom improvement. Respondents in this group typically weighed perceived harms and benefits of medicine in relation to their overall health, values, or alternative treatment options. For example, a 54-year-old Black woman explained: "Yeah, they did give me medication, which I threw in the drawer. …I'm not a medication taker. They're forcing me to take blood pressure medicines, …and I don't want to put too much in my body." Similarly, a 67-year-old Hispanic woman diagnosed with hyperactive bladder explained that she stopped taking the prescribed medication due to side effects and decided to treat her symptoms by fluid management instead. From patients' perspectives, these reasons were rational and in line with their broader values and needs. As with pelvic exercises, eliciting the reasons for not adhering to medications can provide physicians more information with which to formulate a care plan that patients are likely to follow.

Satisfaction With Care

Treatment effectiveness did not explain satisfaction with care. Although a minority of respondents experienced complete symptom relief, three-quarters responded affirmatively when asked if they *liked* the care they received. Men and those of low SES more commonly than their counterparts reported being satisfied with care. That more men than women reported satisfaction with care is explained partially by men less often reporting no symptom relief; however, variation in patterns of symptom relief did not explain the difference by SES.

Context of care mediated satisfaction—Two factors mediated the connection between symptom relief and satisfaction with care. First, patient-provider relationships consisting of trust and respect for patient agency yielded satisfaction despite continuing symptoms. Across the sample, respondents spoke of trust in their providers as an important reason for being satisfied with care. As a 65-year-old Black man who reported partial symptom relief for frequent urination said, "I put my trust in my doctor. I think she has given me super treatment whenever time I go there. It's excellent. It's a good rapport." The importance of trust for being satisfied was particularly common among those of low SES. For example, a 55-year-old White woman who reported no symptom relief explained why she considered the care she received to be *good*: "Because he [the doctor] has been with me every step of the way. …I trust him more than anything." A 68-year-old Hispanic man who experienced no symptom relief from medication prescribed for frequency and nocturia explained that "if the doctor didn't seek another solution, it's because he would not have found it."

For men, perceiving that providers respected their agency was an important aspect of the patient-provider relationship that led to satisfaction with care. As a 54-year-old White man with partial symptom relief said, "I like the fact that my doctors listen to me and that they included me in the conversation rather than talking over my head." Similarly, a 56-year-old Black man who opted not to take medication or undergo surgery said, "I think [the care] was pretty good. He gave me an option, you know, and I think I had a choice. It was up to my decision to do it."

Receiving care that was consistent with preferences and expectations other than symptom relief also yielded satisfaction. Respondents who preferred to limit medications, for example, were satisfied with less than complete symptom relief as long as the provider did not "just throw…some pills or something" (47-year-old Black woman). Others did not expect the provider to alleviate symptoms that were not serious or life-threatening, and this was most common among men who were concerned that their symptoms might indicate prostate cancer. For example, a 59-year-old Hispanic man with diabetes as well as urinary frequency, urgency, and nocturia experienced partial relief from a recommendation to reduce his fluid intake. He was satisfied with the care he received, explaining: "I was comfortable with the answer they gave me, and I understood everything at once. And that I didn't have to worry about it."

In short, the context of care--the patient-provider relationship and a patient's broader preferences and expectations--mediated satisfaction. This finding supports prior literature claiming that satisfaction with care extends well beyond technical competence (Kane et al., 1997; Williams et al., 1998). In fact, rather than no connection between symptom relief and satisfaction, it may be that enhancing people's abilities to manage LUTS opened a space for *mediating filters* (Atkinson & Medeiros, 2009) to enhance satisfaction.

Discussion

Results from this study enhance knowledge about patient-reported outcomes in three ways. First, findings demonstrate the importance of patients' perspectives on outcomes for symptom-based conditions. For the case of LUTS, patients benefited physically and emotionally from partial symptom relief that made the condition more manageable; a cure was not a necessary outcome to improve quality of life. According to patients' accounts, there was a disconnect between the response of some providers that symptoms did not require treatment and patients' views of the value of even partial relief. This disconnect is in line with previous findings of discordance between physician and patient assessments of LUTS severity and impact on quality of life (Melville et al., 2003; Rodriguez et al., 2003; Srikrishna et al., 2009; Wei & Montie, 2000). More research is needed to determine whether this disconnect as well as the impact of partial symptom relief extends to symptom-based conditions generally. Further study also is needed to understand the effect that the experience of disclosing symptoms but not receiving treatment has on patients and their future help-seeking patterns.

Second, results add to the evidence base concerning social group differences in patients' perspectives on health outcomes. There were no group differences in patient reports of adherence to recommendations, but women in this sample reported a different ratio of reasons for no symptom relief than did men. In addition, men and people of low SES more commonly than their counterparts reported being satisfied with care. Although gender differences in symptom relief may be explained partially by physiological variations, differences in satisfaction with care reflected variations in the mediating filters (Atkinson & Medeiros, 2009) of patient expectations and the patient-provider relationship. In light of the previous finding that trust in one's doctor is important for help-seeking among Hispanics (Larkey et al., 2001), the finding that trust mediates satisfaction for those of low SES suggests additional research to tease out whether the importance of trust for some patients reflects a cultural or a class-based pattern.

Particularly given the finding of differences in satisfaction for the low SES group, the small number of respondents in the high SES group is a limitation of this study. Future research to sample respondents of high SES backgrounds purposively is needed to draw conclusions for this group. This limitation notwithstanding, the stratified random sampling technique used by this study did produce a nonclinical sample of respondents from a range of ages, genders, and race or ethnic backgrounds. Since the findings regarding social group differences are mixed, future research using larger samples should investigate social group differences for individual endpoints or constructs rather than for a composite of outcomes.

Third, this study demonstrates that qualitative approaches for eliciting patient-reported outcomes deepen understanding of patients' perspectives. As McClimans (2010) argues, qualitative methods provide the flexibility needed to probe for more information about complex processes, such as patients' reasoning behind their perspectives. In the case of LUTS, patients' reasons for not adhering to treatment recommendations can provide insight for tailoring a treatment to a patients' values and needs. Findings also demonstrated that the context of care was of similar or more importance for satisfaction with care than was symptom relief. As such, qualitative approaches help to interpret structured *yes/no* or Likert-scale responses. In addition, the themes identified in this qualitative analysis can be used to inform the development of quantitative measures for use in larger samples and clinical practice. In these ways, a qualitative approach is an informative complement to quantitative measures of patients' perspectives on healthcare outcomes for LUTS and other symptom-based conditions.

Implications

This qualitative inquiry of patients' perspectives on the outcomes of seeking medical care for the symptom-based condition of LUTS has several implications. The value patients place on partial symptom relief and the patient-provider relationship broadens the criteria for quality of care beyond providing a cure. For health care providers, this knowledge can widen the path for meeting patient needs, even without complete symptom relief. Results show that patients who disclose LUTS to a provider but do not receive treatment assume that their symptoms are not serious or do not warrant treatment; as a result, they may continue to live with LUTS despite a negative effect on well-being.

The finding that satisfaction with care extends beyond technical competence to include the context of care--the patient-provider relationship and a patient's broader preferences and expectations--may extend beyond urinary symptoms to other health conditions. As this finding demonstrates, open-ended responses of a qualitative approach provide important context for interpreting patients' views. For providers and researchers alike, as the evidence base expands to include patient reports, a qualitative approach enhances understanding of patients' perspectives and the ability to construct meaningful standardized measures.

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Table 1

Sample Description[a]

	All	Men			Women		
		Black	**Hispanic**	**White**	**Black**	**Hispanic**	**White**
	***n* = 90**	***n* = 19**	***n* = 15**	***n* = 15**	***n* = 14**	***n* = 14**	***n* = 13**
Age (years)							
Mean	58.9	60.3	52.5	64.4	57.2	62.7	58.9
Range	37–84	40–79	37–73	39–84	43–81	40–75	36–80
Urinary Symptoms[b]							
Urinary incontinence	29 (32%)	4	2	1	5	8	9
Frequency	69 (77%)	17	11	14	7	10	10
Nocturia	38 (42%)	9	10	7	3	3	6
Urgency	38 (42%)	6	11	6	4	6	5
Incomplete emptying	7 (8%)	2	3	1	1	0	0
SES[c]	*n* = 87	*n* = 19	*n* = 14	*n* = 15	*n* = 13	*n* = 13	*n* = 13
Low	40 (46%)	9	7	2	7	11	4
Middle	39 (45%)	9	6	9	5	2	8
High	8 (9%)	1	1	4	1	0	1

Notes. SES = socioeconomic status

[a] Numbers (except those related to respondent age) are frequencies unless specifically labeled with a % sign.

[b] Some respondents reported more than one symptom.

[c] SES was missing for three respondents.

Table 2

Patient-Reported Symptom Relief by Gender[a]

	All ***n* = 90**	**Men** ***n* = 49**	**Women** ***n* = 41**
No Relief	*n* = 42 (47%)	*n* = 20 (41%)	*n* = 22 (54%)
No treatment received[b]	25	14	11
Recommended treatmentnot followed[c]	5	2	3
Behavior change and/or muscle exercises	3	0	3
Medication (alone or with behavior/exercises)	5	3	2
Surgery (alone or with other treatments)	3	0	3
Diabetes care	1	1	0
Partial Relief	*n = 35* (39%)	*n = 21* (43%)	*n = 14* (34%)
Behavior change, muscle exercises, or both	8	5	3
Medication (alone or with behavior/exercises)	11	10	1
Surgery (alone or with other treatments)	8	3	5
Diabetes/prostate care	8	3	5
Complete Relief	*n = 13* (14%)	*n = 8* (16%)	*n = 5* (12%)
Behavior change	3	1	2
Medication (alone or with behavior/non-surgical procedure)	4	3	1
Surgery (alone or with other treatments)	5	3	2
Diabetes care	1	1	0

Notes.

[a] Numbers are frequencies unless labeled with a “%” sign.

[b] Treatment can include testing plus treatments, multiple types of treatments, and medical care related to diabetes, prostate issues, or high blood pressure. Testing alone was not considered treatment.

[c] This number does not include respondents who partially followed the recommended treatment, which is the reason that this group is smaller than those who did not adhere fully (see Table 3).

Table 3

Patient-Reported Adherence and Satisfaction by Gender, Race, and SES[a]

	All	**Gender**		**Race**			**SES[c]**		
		Men	**Women**	**Black**	**Hispanic**	**White**	**Low**	**Middle**	**High**
Patient adherence[b]	*n* = 76	*n* = 40	*n* = 36	*n* = 29	*n* = 24	*n* = 23	*n* = 36	*n* = 31	*n* = 7
Yes/full adherence	61 (80%)	34 (85%)	27 (75%)	23 (79%)	18 (75%)	20 (87%)	28 (78%)	26 (84%)	5 (71%)
Satisfaction	*n* = 72	*n* = 38	*n* = 34	*n* = 30	*n* = 18	*n* = 24	*n* = 31	*n* = 32	*n* = 6
Yes/overall	54 (75%)	31 (82%)	23 (68%)	22 (73%)	15 (83%)	17 (71%)	27 (87%)	21 (66%)	4 (67%)

Notes.

[a] Numbers are frequencies unless labeled with a % sign.

[b] Sample sizes for patient adherence include respondents who both received a recommendation (for testing or treatment) and addressed the question of adherence.

[c] SES was missing for three respondents.