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Beyond satisfaction in person-centered pharmacy services

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ABSTRACT

Patient self-reported satisfaction is commonly used as an assessment of service experience and quality for community pharmacy services. This commentary discusses alternative foundational approaches to evaluating service experience and quality in patient-centered care. It describes historical and recent literature pertaining to the development and use of satisfaction measures for service design and patient experience assessment. It then highlights potential limitations of patient satisfaction as an assessment tool for patient-centeredness and patient experience identified in the pharmacy literature, which include criticisms that use of patient satisfaction may compromise accuracy in measuring quality due to factors such as patients having poor knowledge of and low expectations for quality and having a predisposition toward rating satisfaction highly when experiencing no-cost and/or unfamiliar services. Moreover, satisfaction measurements may change based on service exposure, with patient preferences for service offerings changing with increased service exposure and variation in patient-specific and environmental factors. After discussing limitations and criticism of patient self-reported satisfaction, we introduce alternative assessments methods which may facilitate more accurate assessments of patient experience and patient-centered pharmacy services such as patient-reported outcomes measures (PROMs), patient-reported experience measures (PREMs), and human-centered design techniques such as journey mapping, prototyping, and user testing to design and assess patient-centered pharmacy services. These alternative assessments are rooted in, or related to preferred implementation science approaches to establishing, evaluating, and sustaining pharmacy services.

Researchers and policy-makers for over a decade have been calling attention to person-centered care (PCC) and service design to improve healthcare quality and use resources more effectively.[1] Care that is person-centered prioritizes the whole person and their surrounding environments that impact health, meaning that individuals' values and preferences are identified and guide all aspects of their health care. Without understanding the values and preferences of individuals seeking care, healthcare interventions and services may not be acceptable or reflective of individual health needs or priorities.[2,3] Recently, focus on human-centered service design has been encouraged as a mechanism for facilitating person-centered care, resulting in federal and independent organization efforts focusing on developing evidence-based interventions that are tailored to the individuals they are intended for.[4–6] Human-centered design is an approach that focuses on engaging with and understanding the needs of all services users while retaining a systems perspective, using strategies like journey mapping, prototyping, and qualitative research.[3] Despite recent considerations for enhanced pharmacy services developed using concepts from human-centered design, services are frequently developed and offered based on pharmacist expertise or organizational initiatives, rather than an emphasis on patient need or preference.[7] This has prompted considerable debate surrounding the evaluation and assessment of person-centeredness and individual experiences with enhanced community pharmacy services, most notably on the concept of patient satisfaction.[8–11] In this commentary, we will describe how patient satisfaction has historically been developed and emphasized as a method for healthcare service evaluation, describe debate and limitations surrounding patient satisfaction as a means for service evaluation, and describe human-centered design and assessment methods which may more closely align with person-centered care.

Abbreviations: PCC, person-centered care; CAHPS, Consumer Assessment of Healthcare Providers and Systems; PREMs, patient-reported experience measures; PROMs, patient-reported outcomes measures; NHS, National Health Service; EBCD, experience-based co-design.

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1. Patient satisfaction: history and use in pharmacy services

Historically, person-centered care has been measured using items that represent a culmination of the care experience, such as patient satisfaction measures.[8,12–15] Originally proposed as an outcome of care by Donebedian,[16] existing research explores the assessment and composition of satisfaction, with the complexity of patient satisfaction as a construct increasing over time.[17,18] In the larger context of health care services, patient satisfaction has been measured using a multitude of instruments, with the initial measurements performed using the "Satisfaction with Physician and Primary Care Scale," developed by Hulka et al. in the 1970s.[19] Succeeding years saw development of the 'Patient Satisfaction Questionnaire" by Ware et al.[22,25] and the "Patient Satisfaction Scale," developed by Larsen et al. to test patient satisfaction with pharmaceutical care.[20,21]The scale developed by Hulka et al. relied on broad and sometimes vague interpretations of patients' experiences, combined with sensory perceptions not aligned with specific aspects of quality, such as expectations [or lack, thereof] that the doctor be "perfect" or that they will make you feel that "everything will be all right." Rather than evaluating content validity of the items, subsequent aims to improve the instrument dedicated efforts toward revising the response and scoring format.[22]Ware and colleagues' instrument accounted for patient perceptions of several structure and process measures, such as insurance coverage, availability of providers, and wait times for appointments, while Larson and colleagues included "Setting" in addition to caring relationships. More recently, patient satisfaction in the context of pharmacy and pharmacy service has been most thoroughly explored by Schommer and Kucukarslan, who proposed that patient satisfaction with pharmacy services is a result of four main conceptualizations: performance evaluation, disconfirmation of expectations, affect-based assessment, and equity-based assessment.[23,24] This has represented an advance in measure of quality, as patients evaluate provider performance against what they expect it"should" be, though this still assumes patients can adequately assess quality in the delivery of care.

Within pharmacy intervention evaluations, patient satisfaction has maintained its status as one of the most popular focuses for patient experience and service quality research, using patient satisfaction as a complement to clinical outcomes to assess service quality. In the review of enhanced community pharmacy services by Melton and Lai, fifteen of the fifty studies identified focused specifically on patient satisfaction with enhanced community pharmacy service.[10] Internationally, patient satisfaction has been to evaluate a variety of pharmacy services in community and hospital settings as recently as 2023.[25–28] Patient satisfaction, as a measure of humanistic rather than clinical outcomes, has important implications to pharmacy service quality and value. Higher levels of patient satisfaction increase the likelihood that patients will continue using services, maintain relationships with health providers, and adhere to the treatments and medications their providers prescribe.[29] As such, assessments of quality via patient satisfaction are not unimportant; however, over-reliance on these assessments or approaching assessments of service quality or person-centeredness around patient satisfaction has important limitations to consider.

2. Debate surrounding patient satisfaction measures

While clinical outcomes have been widely accepted as a measure of service quality and value, patient satisfaction has been subject to increased scrutiny, more specifically how it is measured and what it is measuring. The predominant patient satisfaction theories were originally published in the 1980s and quickly found a foothold in healthcare service evaluation.[17,18,30,31] Most notably, Donabedian proposed the *Healthcare Quality* theory, which postulates that satisfaction is the principle outcome of the interpersonal process of care, suggesting that the expression of a patient's perception of service quality is represented by patient satisfaction.[16,32] In the broader healthcare literature, there have been a number of critiques on the usefulness and accuracy of patient satisfaction measures as a reflection of service quality.[33–35] Despite this increased scrutiny, patient satisfaction measures continue to be among the most common form of evaluating the patient experience with healthcare and pharmacy services.[10]

While satisfaction may adequately summate an individual's experience, it may be limited in its effectiveness for measuring person-centered care.[8,36] Kupfer and Bond point out subtle but important differences between patient satisfaction and person-centered care.[8] The authors summarize that person-centered care requires shared decision making, "elevating the values, preferences, and needs of the patient" above those of the provider or organization. Conversely, patient satisfaction is a measure of "how services or products of a company meet or exceed the anticipated expectations of the customer."[8] As such, to achieve patient satisfaction, a service provider or service does not need to accommodate patient preference but rather meet expectations. For pharmacy services, patients may have little experience with enhanced services and services are often offered at no-cost. Limited experience and knowledge of often new and free services is an example of how patients experience services under the auspices of information asymmetry, where service users often lack knowledge pertaining to the intended outcomes and cost of interventions that healthcare professionals possess. As a result, information asymmetry makes interpretation of met expectations especially challenging, as satisfaction may reflect meeting low or nonexistent expectations for an enhanced service rather meeting patient needs or care preferences. Further, while multiple existing studies have reported person-centered care to be associated with improved satisfaction,[13,37,38] a number of studies have highlighted inconsistencies in the relationship between person-centered care and patient satisfaction, either failing to identify a relationship or finding person-centered care to decrease patient satisfaction.[39–41]Additionally, satisfaction or positive service experiences may not result in repeated use of enhanced pharmacy services, despite potential benefits to medication adherence and affordability.[42] In service industries, it is widely understood that meeting customer expectations does not confer loyalty.[43] As such, assessing person-centeredness merely through satisfaction measures may result in inaccurate assessments of patient experience and negatively affect redesign or readjustments of service delivery.[44]

Despite these limitations to satisfaction as an assessment of person-centered care and quality, a recent systematic review by Anufriyeva et al. concluded that the majority of self-reported patient satisfaction measures were valid and reliable despite the inherent biases and subjectivity of these measures when used to assess quality of healthcare.[45] The authors note that patient satisfaction may reflect personal expectations rather than quality of healthcare and may be influenced by patient-specific factors such as increased use of inpatient services, prescription medications, overall healthcare expenditure, and mortality risk. Despite reporting that most self-reported satisfaction measures were valid and reliable assessments of service quality, the authors refrain from making recommendations for the use of such measures and encourage the development of a unified satisfaction measurement standard.

All critiques of patient satisfaction emphasize that it is limited by inadequate conceptualization, that no universal definition is consistently applied to patient satisfaction, and inconsistencies in satisfaction measurement. Given the frequency with which satisfaction is used as a measure of enhanced pharmacy service quality, these criticisms have not gone unnoticed by pharmacy researchers, with much of the pharmacy-specific criticism coming from Panvelkar, Saini, and Armour and Melton and Lai.[9,46] Panvelkar, Saini, and Armour highlight two major concerns with existing literature on patient satisfaction related to instruments designed to measure satisfaction and how satisfaction is measured. First, patient satisfaction is lacking clear, theoretically informed instruments to measure the construct, drawing attention to concerns regarding satisfaction as a valid and reproducible measure of the patient experience with enhanced pharmacy services.[11,34] Additionally, satisfaction is frequently measured post-intervention, without a

baseline comparison group. The authors point out that in the few studies with available baseline measures, satisfaction was comparable before and after receiving a community pharmacy intervention.[11] These concerns suggest that existing measures of satisfaction may not only be inaccurate, but provide little information on the realized patient experience during and throughout a pharmacy encounter.

In addition to the criticism of Panvelkar, Saini, and Armour, Melton and Lai address the shortcomings of satisfaction in a number of studies focused on evaluating patient satisfaction with enhanced community pharmacy services.[10] In a study of pharmacist-consumer interactions surrounding complimentary medicines, patients reported high levels of satisfaction but had low expectations of their pharmacist, suggesting that patient expectations may have a greater effect on patient satisfaction than service experience.[51] In a study evaluating patient satisfaction with a community pharmacy-led asthma management service, patient satisfaction was the same for both service-naïve and service-experienced groups, despite service experienced patients with more specific service preferences and higher expectations of their pharmacist.[47] A third study evaluating the effect of a pharmacist intervention for patients who had initiated antidepressant treatment found that patient satisfaction did not improve, despite improvements in health related quality of life, suggesting that satisfaction may not be associated with clinical outcomes.[48] The authors of this review also discuss that as patient exposure to pharmacy services increases, patient expectations and preferences may become more well-defined or change based on previous experiences, influencing satisfaction without a change in service offering.[10] Lastly, patient satisfaction may not be associated with specific attributes or experiences within a service, as pharmacist accessibility and other environmental factors may be tied to patient satisfaction.[49] As a result, patient satisfaction may be heavily influenced by service experience and changes or variation in patient preferences and expectations. Melton and Lai conclude their review emphasizing the need for additional or alternative measures for patient experience evaluation associated with enhanced community pharmacy service offerings.

Summarizing these criticisms, patient satisfaction may not reflect patient experience with pharmacy services, but rather represent alternative factors like low patient expectations, bias toward high level of satisfaction, and naivety with service experience. Satisfaction measurements may change based on service exposure, with patient preferences for service offerings changing with increased service exposure and variation in patient-specific and environmental factors, such as cultural influences, experiences with complex services and different healthcare systems. Further, satisfaction has been described as a summary psychological state resulting when the emotions surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience, suggesting that satisfaction measures the specific experience with a singular interaction and not the value or quality of the service as a whole.[50] In exploratory work used to inform service quality evaluation tools, individuals illustrated satisfaction in a number of service experiences while reporting that the service was not of particularly high quality.[51] Given the existing concerns with patient-reported satisfaction measures, there may be solutions or alternative methods to evaluate the person-centeredness and quality of pharmacy services. In doing so, health service providers and pharmacists can collect information that is reflective of the patient experience with the services they provide and will inform intervention development and refinement to accommodate everchanging patient preference and context.

3. Alternatives to patient satisfaction

Acknowledging the limitations of patient experience measurement provided by satisfaction assessments, there are several recommendations to consider. Alternative and multi-method approaches to measuring patient experience could be based on expectations and preferences from the patient perspective within the context of the service they are receiving. More recent approaches have been proposed to assess the experiential outcomes and person-centeredness of health service interventions, such as Consumer Assessment of Healthcare Providers & Systems (CAHPS) surveys, which are designed to collect information on the patient experience with a range of health care services at multiple levels of the delivery system.[52–54] In the remained of this commentary, patient experience, human-centered design, implementation design, and experience-based co-design are described as alternative methods to evaluate patient experience and service quality.

Healthcare and pharmacy researchers have explored patient experience as a potentially more useful measure of service quality and expereince.[55–57] Bull (2021) underscores this point, stressing that the lack of objectivity associated with patient satisfaction minimizes its usefulness as a means of quality evaluation, and then encouraging the use of patient-reported experience measures (PREMs) for more objective evaluations of service quality and identification of aspects of healthcare service that patients truly value.[55] More recently, Bull and colleagues have emphasized the importance of PREMs and patient-reported outcome measures (PROMs) for evaluating quality and performance across health services and systems and supporting the provision of person-centered, value-based health care.[58] The authors provide two successful examples of system-level PREM and PROM programs, including the English National Health Service (NHS) PROMs program and the US Consumer Assessment of Healthcare Providers and Services (CAHPS) program.

In addition to PREMs and PROMs, much might be gained from use of human-centered design when creating interventions and evaluating person-centeredness in health services. Human-centered approaches to health service development and assessment emphasize a focus on health care that consciously adopts the perspectives of individuals, caregivers, and families into trusted health systems wherein care is delivered with dignity and compassion; is well coordinated; and enables people to take an active role in their own health care.[59] Using human-centered service design principles and methodologies can help providers and patients to collaborate, optimizing development, implementation, and sustainability of person-centered interventions. Tools frequently used in human-centered design include journey mapping (holistic visualization of patient experience from practical and emotional perspectives); prototyping (facilitates exploration of interventions quickly and at low cost); and user testing for formative evaluation. Journey mapping has successfully been used to assess patient experience with enhanced community pharmacy services.[3,57] Formative evaluation and user testing supports rapid iteration of prototypes to ensure that they meet patient and healthcare professional needs in a proactive rather than reactive manner in service design and delivery. Moreover, patient experiences might sometimes best be evaluated under a framework that considers patients' partners (e.g., romantic partners, friends, family caregivers), as those partners often undergo or share experiences with the patient, thereby influencing the patients' perceptions and the need for professionals to tailor service in a way that impacts the relevant parties experiencing it.[60] Within human-centered design methodologies, the use of patient and caregiver partners as a user representative early in the intervention design process may help to improve person-centeredness earlier in intervention development as opposed to including these perspectives during evaluation.

The human-centered design approach to person-centered care is further underscored in implementation science frameworks and experience-based co-design (EBCD), where patient input and involvement may play an important role in understanding of intervention feasibility, external forces, internal culture, and capacity for successful delivery of service. Further, the use of implementation science frameworks address important elements of the patient experience, helping drive empathy development, user-driven inquiry, ideation, and iterative refinement of care processes.[61] Similarly, EBCD is increasingly recognized as a collaborative approach to improving health services that places patients along with healthcare staff at the heart of service

evaluation.[62]

As such, when considering healthcare and pharmacy service development, using methodologies and frameworks focusing on a holistic appreciation of the patient experience may provide an opportunity to develop interventions that are more person-centered, as well as provide an opportunity to gain a deeper understanding of the patient experience, than those developed and assessed based on patient satisfaction alone, Patient experience measures, human-centered design, and implementation science framework provide intrinsically meaningful and appropriate complements to evaluate healthcare services in place of self-reported satisfaction.[63]

4. Conclusions

In summary, to effectively design and evaluate person-centered healthcare and pharmacy interventions, it is important that researchers and institutions explore and implement elements of service design and evaluation that focus on core pillars of patient experience, moving beyond self-reported satisfaction assessments. By focusing on holistic, proactive, and inclusive approaches to understanding patient preferences, expectations, and experiences with their care, we are more likely to engage patients and others concomitantly and in meaningful ways, meeting them where they are to deliver optimal person-centered care.

With patient experience, human-centered design, and implementation science paving the way, capacity and willingness to undertake self-directed quality improvement initiatives that involve patient input into more sustainable and long-lasting shifts in the paradigm of care become possible.[64] Health services researches focused on pharmacy intervention delivery and sustainability must consider the patient experience, perspective, and preferences in care, as patient acceptance for what might be voluntary services is tantamount to their success.[65]

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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