Development and validation of PSPSQ 2.0 measuring patient satisfaction with pharmacist services

Prashant Sakharkar, Pharm.D., M.P.H. a,*,
Mark Bounthavong, Pharm.D., M.P.H. b,
Jan D. Hirsch, B.Pharm., Ph.D. b,c,
Candis M. Morello, Pharm.D., CDE c,
Timothy C. Chen, Pharm.D., BCACP, CGP d,
Anandi V. Law, B.Pharm., Ph.D., FAPhA e

aDepartment of Clinical and Administrative Sciences, Roosevelt University, College of Pharmacy, 1400 N Roosevelt Blvd, Schaumburg, IL 60173, USA
bVeterans Affairs San Diego Healthcare System, San Diego, CA, USA
cUC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA, USA
dTobacco Cessation Clinical Resource Center (TCCRC), Veterans Affairs San Diego Healthcare System, San Diego, CA, USA
eDepartment of Pharmacy Practice and Administration, Western University of Health Sciences, College of Pharmacy, Pomona, CA, USA

Abstract

Background: The extant literature reveals a lack of psychometrically validated tools measuring patient satisfaction with pharmacist clinical services. The Patient Satisfaction with Pharmacist Services Questionnaire (PSPSQ 2.0) was developed to address this need using a mixed methods approach.

Objective: To assess the psychometric properties of the PSPSQ 2.0, an instrument developed to measure patient satisfaction with clinical services provided by pharmacists.

Methods: Validation studies were conducted in two Veterans Affairs (VA)-based and two community-based (diabetes and psychiatric care) disease management/medication therapy management clinics. The PSPSQ 2.0 consisted of 22-items related to three domains identified as quality of care, patient-pharmacist relationship and overall satisfaction using a 4-point, Likert-type scale. It was administered to participants following their session with a pharmacist at the clinics. Collected data were analyzed for descriptive statistics, internal consistency, and validity using exploratory factor analysis.

Results: A total of 149 patients completed the survey. Patients from VA clinics were on average 61 years old, mostly white (63%), and predominantly male (95%). Patients from non-VA clinics were on average 47 years old, mostly White (47%) and male (53%). Non-VA patients mostly had Medicaid (42%) and commercial health insurance (31%), whereas VA patients retained benefits with the US Department of Veterans Affairs. Reliability of the scale using internal consistency metrics revealed a Cronbach’s alpha of 0.98, 0.98 and 0.95 for VA, diabetes, and psychiatric care clinics, respectively, whereas the Cronbach’s alpha for the pooled sample was 0.96. Factor analyses resulted in a three-factor solution accounting for 91% and 69% variance for diabetes and psychiatric care clinics, respectively; however, VA clinics and
pooled sample yielded only 2-factor solution with 80% and 66% variance, respectively, with more items loading on patient-pharmacist relationship domain.

Conclusions: The results suggest that the PSPSQ 2.0 can serve as a reliable and valid tool for measuring patient satisfaction with pharmacists providing clinical services in VA- and non-VA settings upon further validation.

© 2015 Elsevier Inc. All rights reserved.

Keywords: Patient satisfaction; Satisfaction questionnaire; Survey validation; Pharmacy services; Disease state management

Introduction

Patient satisfaction with health care services has gained increased attention in the last two decades as a valuable indicator of perceived quality of care. Patient satisfaction is referred to as a humanistic or patient reported outcome (PRO) that, in addition to clinical and economic outcomes, serves as an important determinant of the success and sustainability of health care services.1 According to Linder-Pelz, satisfaction is mediated by personal beliefs and values about care as well as prior expectations about care, whereas Ware and colleagues postulated that patient satisfaction is a multidimensional function of patients’ subjective responses to experienced care mediated by their personal preferences and expectations.2,3 Patients with high health care satisfaction have been reported to value their relationship with health care providers, accept their advice, and adhere to treatment resulting in improved health outcomes.2–6

In recent years, patient satisfaction has also evolved as an outcome indicator in pharmacist-directed patient care services such as disease management (DM), Medication therapy management (MTM), oncology and pain management, and parenteral nutrition support services.7 Patient satisfaction with pharmacist-provided care directly reflects the patients’ positive (or negative) perception of pharmacists and the services provided by them; and was identified as a significant factor in determining the value of MTM in a survey conducted among pharmacist-run DM clinics.8

In 1983, Ware and colleagues developed the Patient Satisfaction Questionnaire (PSQ) to assess patient satisfaction with medical care, an instrument that has undergone psychometric evaluation.9–11 As a result, the PSQ served as a framework for the development of future patient satisfaction instruments. The PSQ had 55 Likert-type items related to 9 domains (i.e. technical and interpersonal skills of providers, waiting time for appointments, office waits, emergency care, costs of care, insurance coverage, availability of hospitals, and other resources and satisfaction with care, in general).9–11 Several items of the PSQ were adapted by MacKeigan and Larson in the development and validation of a multidimensional measure of patient satisfaction with pharmacy services.12 Dimensions included by MacKeigan and Larson were explanation, consideration, technical competence, financial aspects, accessibility, drug efficacy, over the counter (OTC) product availability, and quality of the drug product. Additional domains from this study requiring further validation included drug quality and OTC availability. This study was conducted two decades ago using convenience sampling with a large number (889) of low-income patients attending outpatient clinics (family practice clinics) to measure patient satisfaction, in general. Since then, with the further development of pharmacists’ clinical roles, dimensions of pharmacists’ responsibilities have evolved. The Pharmaceutical Care Satisfaction Questionnaire (PCSQ) developed by Gourley et al measured consumer satisfaction with pharmacy services.5 This instrument was developed to measure patient satisfaction with pharmacist services; however, its validation was conducted in disease-specific clinics in one practice setting (hyperlipidemia patients at Veterans Affairs medical centers), and no further validation of it was reported in other practice settings.

A literature review revealed that over the last 30 years, numerous instruments have been developed and used to measure patient satisfaction with pharmacist and pharmacy services in various health care settings including hospital, community, ambulatory care and specialized pharmacy services.4,13–30 However, these instruments suffered from various limitations: they were either a set of 3–4 questions developed to measure patient satisfaction with a specific clinic, with no