



Exploring and Comparing Patient Satisfaction Instruments in Pharmacy Services: A Systematic Review

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Abstract. Introduction: Patient satisfaction is a key indicator of healthcare quality, reflecting how well care meets patients' needs and expectations. Positive patient experiences improve health outcomes, treatment adherence, and healthcare utilization. Satisfaction data help identify factors to enhance patient-centered care and predict post-care health behaviors. However, patient-reported measures are influenced by subjectivity, health conditions, and recent experiences. Using validated instruments with clear, neutral wording can reduce these issues. This review examines questionnaires assessing patient satisfaction with pharmacist services, focusing on validity and reliability. Methods: This systematic review, following PRISMA guidelines, evaluated instruments measuring patient satisfaction with pharmacist services. A search in PubMed, Scopus, and Google Scholar (April–May 2025) identified peer-reviewed studies assessing tool validity and reliability. Screening, data extraction, and quality appraisal followed predefined criteria with consensus resolution. Results: Of 59,621 records, 7 studies met inclusion criteria, using 7 different instruments. Most instruments assessed domains like information provision and professionalism, with limitations in psychometric evaluation and cultural relevance. Conclusion: This review highlights the diversity of tools used globally, emphasizing the need for standardized, culturally adaptable instruments for accurate patient satisfaction assessment in pharmacy practice.

Keywords: Patient Satisfaction, Pharmacy Services, Patient-Reported Measures, Psychometric Evaluation, Questionnaire Development.

1 Introduction

Patient satisfaction is a fundamental and extensively utilized indicator in the evaluation of healthcare service quality. It encompasses the assessment of patients' perceptions regarding the extent to which the care delivered aligns with their needs and expectations

[1]. Assessing patients' experiences of care is essential for the delivery of high-quality healthcare services. Positive patient experiences have been consistently linked to enhanced health outcomes, including more effective utilization of healthcare services, greater adherence to treatment regimens, and reduced reliance on secondary care resources [2].

Data obtained from patient satisfaction surveys are instrumental in identifying key factors that inform the development and implementation of quality improvement initiatives aimed at enhancing patient-centered care. Moreover, patient satisfaction serves as a critical metric for healthcare providers and relevant stakeholders, offering predictive value concerning patients' health-related behaviors following clinical interventions [3].

Manary et al. identified several limitations associated with patient-reported measures. First, satisfaction ratings are inherently subjective, often reflecting the degree to which individual expectations are met, which can be shaped by factors unrelated to the healthcare encounter itself. Second, a patient's current health condition can influence their responses, regardless of the actual quality of care received. Third, patient feedback may be disproportionately affected by recent events, such as the administration of a specific medication. To mitigate these biases, it is recommended to utilize validated instruments, employ precise and neutral question wording and response formats, and include items that specifically evaluate whether certain aspects of care were delivered during interactions with healthcare providers and systems [4].

The selection of assessment instruments should be informed by both their psychometric soundness and their alignment with the survey's objectives and contextual setting. This emphasizes the necessity for countries to develop context-specific, valid, and reliable tools capable of accurately reflecting the dimensions of care that are most meaningful to the populations they serve. This review aims to explore and compare the questionnaires used to assess patient satisfaction with pharmacist services and the results of their validity and reliability testing.

2 Method

This systematic review was reported following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines [5]. Although this review was not registered in PROSPERO due to the initiation of data extraction prior to registration, all procedures adhered to the PRISMA 2020 reporting guidelines to maintain the integrity and transparency of the systematic review process. In accordance with the PICO framework, the population of interest in this review was patients who had received pharmacist-provided services. The intervention involved the use of instruments, such as questionnaires and surveys, designed to measure patient satisfaction. No direct comparator or control group was applied; instead, comparisons were made among different instruments identified across studies. The primary outcomes were the psychometric properties of these instruments, particularly their validity, reliability, and cultural relevance.

2.1 Study Searches and eligibility criteria

A thorough literature review was undertaken utilizing the following electronic databases: PubMed, SCOPUS, and Google Scholar on 29 April – 9 May 2025. The search strategy employed a combination of keywords, Boolean operators, and Medical Subject Headings (MeSH). Both free-text terms and MeSH terms related to the identified keywords were incorporated. The strategy was structured around five principal categories of search terms: (i) tool, instrument, survey, questionnaire, or scale; (ii) patient or client; (iii) patient satisfaction, patient experience, client satisfaction, client experience, or patient-centered care; (iv) pharmacist services, pharmaceutical services, or medication service. Eligible studies comprised peer-reviewed, English-language publications that investigated the theoretical or conceptual underpinnings, psychometric characteristics, or practical utility of instruments designed to measure patient satisfaction with pharmacist-provided services. Studies were excluded if they were specific to a medical condition or procedure; or reported only Patient-reported outcome measures (PROMs).

2.2 Study Selection

The initial screening of titles and abstracts was conducted by the first author based on predefined eligibility criteria, with subsequent verification by the co-authors. Full-text versions of the selected studies were obtained for comprehensive evaluation. Studies that fulfilled the inclusion criteria proceeded to data extraction and quality appraisal. Any discrepancies among reviewers were resolved through discussion to achieve consensus.

2.3 Quality Assessment, Data Extraction, and Analysis

Data were extracted by the reviewers utilizing a data extraction template, which encompassed the evaluation of study characteristics (Authors, years, title, setting, sample size, mode of administration). Subsequently, the authors conducted a quality appraisal of the included studies using the JBI (Joanna Briggs Institute) tool for cross-sectional studies. This instrument comprises 8 items that assess potential sources of bias and the overall quality of study design, including the clarity of aims and objectives, justification of sample size, methodological rigor, and the presentation of findings [6]. Authors conducted the assessments independently. In cases of disagreement, consensus was reached through discussion to finalize the quality ratings.

3 Results

3.1 Search Results

This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines [5]. The search strategy employed in this systematic review is illustrated in the PRISMA flow diagram (Fig. 1). A total of 59621 articles were initially identified through electronic databases, including 343 from

PubMed, 3278 from Scopus, and 56000 from Google Scholar. The relatively limited number of articles retrieved from PubMed ($n = 343$) was attributable to the use of a highly specific search strategy that incorporated both Medical Subject Headings (MeSH) and relevant keywords, combined with stringent filters. Following the application of predefined inclusion and exclusion criteria, studies published before 2021, those without free full-text access, and non-English language publications were excluded. Duplicate records were also removed. The decision to exclude studies published before 2021 was made to ensure that the review reflects the most recent developments in pharmacy services and the measurement of patient satisfaction. Since 2020, pharmacy practice has experienced significant changes driven by the COVID-19 pandemic, including the expansion of telepharmacy, increased emphasis on patient-centered care, and shifts in regulatory frameworks. Instruments and studies prior to this period may not adequately capture current service models or patient expectations. Therefore, restricting the review to studies published from 2021 onward enhances the relevance and applicability of the findings to contemporary pharmacy practice.

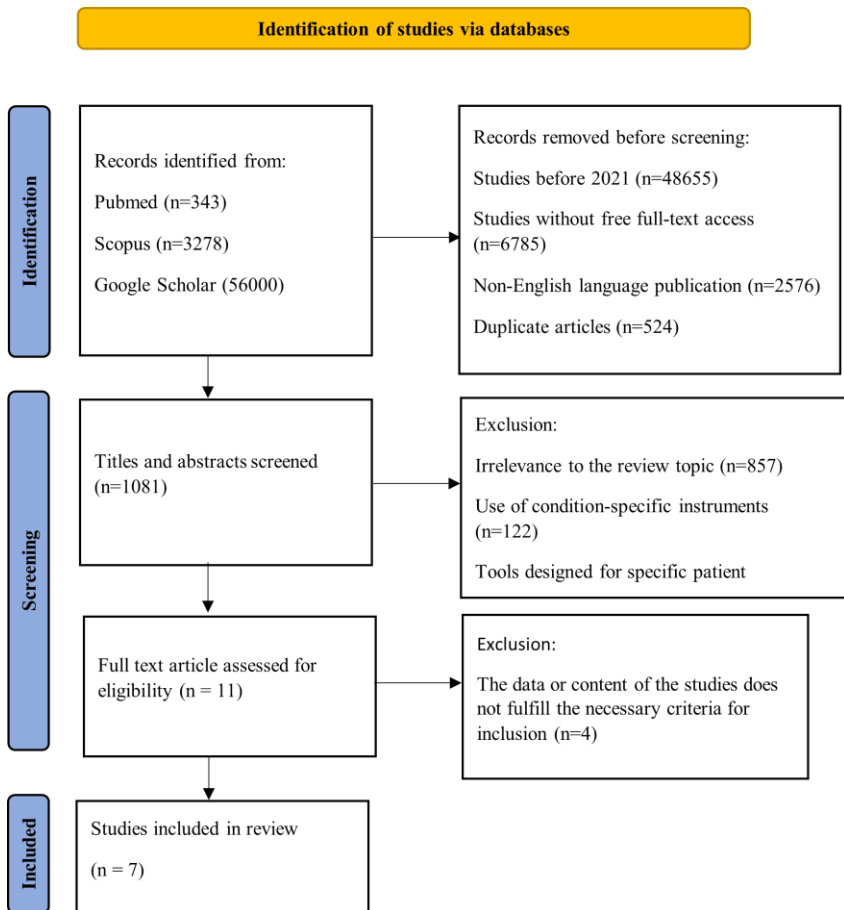


Fig. 1. PRISMA flow diagram of study selection process

The initial screening process yielded 1,081 articles, which were subsequently assessed for relevance based on their titles and abstracts. This step resulted in the exclusion of 1,070 articles due to various reasons, including irrelevance to the review topic, use of condition-specific instruments, tools designed for specific patient populations, or those only evaluating health system performance. Studies were excluded if they employed condition-specific instruments, defined as measurement tools designed to assess patient satisfaction within the context of a particular disease or clinical condition (e.g., diabetes, oncology, HIV/AIDS). Such instruments are typically tailored to capture satisfaction related to disease-specific treatments or management approaches and may not be applicable to the broader scope of pharmacy services. Similarly, studies utilizing tools developed for specific patient populations, such as pediatric patients, pregnant women, or individuals with disabilities, were excluded. These instruments often reflect the unique expectations, care pathways, and communication styles pertinent to those subgroups, thereby limiting their generalizability to the wider patient population. Given that the objective of this review was to evaluate generic patient satisfaction instruments that can be applied across various demographic groups and service contexts within pharmacy practice, the inclusion of condition- or population-specific tools was deemed inappropriate. The application of these exclusion criteria was intended to ensure the relevance, comparability, and external validity of the findings. Consequently, 11 articles proceeded to full-text evaluation. Following this final assessment, an additional 4 articles were excluded. Thus, a total of 7 articles were deemed eligible for inclusion in the qualitative synthesis of this systematic review.

3.2 Quality Assessment and Data Extraction

The results of our quality assessment are summarized in Table 1. All seven studies clearly outlined their inclusion criteria and provided adequate information regarding the study topic and setting [7–13]. One out of seven studies did not measure the exposure in a valid and reliable manner [7], and the standard criteria used for measuring the condition were unclear [7]. Subsequently, potential confounding factors were not clearly identified in two studies [7,13]. Nevertheless, among the five studies that did identify the presence of confounding factors [8–12], only two implemented strategies to address them [9,12]. All studies conducted statistical analysis [7–13].

From 7 studies, 7 instruments were obtained to be explored (Table 2). The studies were conducted in Poland [7], Qatar [8], Palestine [9], Saudi Arabia [10,12], and Ethiopia [11,13]. Sample sizes ranged from 401 to 9564 participants. Most instruments were administered through Self-administered questionnaire ($n = 4$), others by structured interviewer-delivered questionnaire ($n = 3$). The number of dimensions in the instruments ranged from 2 to 5. Most instruments covered similar dimensions such as counselling/information sharing, waiting times, privacy, and professionalism. Some encompassed aspects of trust, interpersonal relationships, therapy management, competency, and compassion. Other instruments assessed overall satisfaction or the general impression of pharmacist services.

Table 1. JBI Quality Assessment

	Andrzejewska et al., 2022 [7]	Al Zaidan et al., 2022 [8]	Altari fi et al., 2024 [9]	El-Kholy et al., 2022 [10]	Molla et al., 2022 [11]	Alotai bi et al., 2021 [12]	Berhanu et al., 2022 [13]
1. Were the criteria for inclusion in the sample clearly defined?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Were the study subjects and the setting described in detail?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Was the exposure measured in a valid and reliable way?	No	Yes	Yes	Yes	Yes	Yes	Yes
4. Were objective, standard criteria used for measurement of the condition?	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
5. Were confounding factors identified?	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
6. Were strategies to deal with confoundin	Not Applicable	Not Applicable	Yes	Not Applicable	Not Applicable	Yes	Not Applicable

g factors stated?							
7. Were the outcomes measured in a valid and reliable way	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
8. Was appropriate statistical analysis used?	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 2. Characteristic of The Included Studies

No	Author, Year	Setting	Sample Size	Mode of Administration	Dimensions
1	Andrzejewska et al., 2022 [7]	Place of residence in Poland	1435	Survey/ Questionnaire	• Trust to pharmacists • Counselling • Waiting time • Professionalism • Overall satisfaction
2	Al Zaidan et al., 2022 [8]	Primary Health Care Corporation's (PHCC) pharmacies in Qatar (27 health center)	9564	Survey/ Questionnaire	• Counselling/ Information sharing • Waiting time • Interpersonal relationship
3	Altarifi et al., 2024 [9]	Nablus, Ramallah & Al-Bireh, and Hebron health governorate directorate in Palestine	938	Survey/ Questionnaire	• Managing Therapy • Privacy • Waiting time • Professionalism • Trust, image, and role
4	El-Kholy et al., 2022 [10]	Al-Madinah Al-Munawwarah, Saudi Arabia	1000	Structured interview questionnaire	• Competency • Societal Acceptance • Overall satisfaction

5	Molla et al., 2022 [11]	Debre Tabor comprehensive specialized hospital in Ethiopia	401	Structured interview questionnaire	• Experiences • Counselling/ information sharing • Interpersonal relationship
6	Alotaibi et al., 2021 [12]	Departments of primary, secondary, and tertiary hospitals in Al-Jouf region of Kingdom of Saudi Arabia (KSA)	746	Survey/ Questionnaire	• Managing therapy • Counselling/ information sharing • Overall satisfaction • Overall satisfaction
7	Berhanu et al., 2022 [13]	Public health facilities located in Jimma zone, Ethiopia	439	Structured interview questionnaire	• Privacy • Compassionate • Waiting time • Counseling/ information sharing

3.3 The Strengths and Limitations of Each Tool

The questionnaire used in the study by Maja Andrzejewska et al. (2022), demonstrated several methodological strengths, including linguistic clarity and expert validation, which enhanced its reliability and usability. Ethical considerations were appropriately addressed, and the instrument covered a broad spectrum of public attitudes toward pharmacists. However, notable limitations include the absence of reported psychometric properties such as reliability and validity indices, potential sampling bias due to online-only distribution, and demographic imbalances in the respondent pool. Furthermore, the lack of a reported response rate restricts evaluation of non-response bias, and the reliance on a single data collection method may limit the depth and triangulation of findings. These factors suggest that while the instrument was functionally sound, future research could benefit from more rigorous validation and diversified sampling approaches [7].

The questionnaire employed in the study by Al Zaidan et al (2022) exhibits several methodological strengths that support its use in evaluating patient satisfaction. It was adapted from a previously validated instrument, which enhances its reliability and ensures methodological rigor. The structured Likert scale format provides a standardized approach to measuring satisfaction across key domains. Furthermore, the questionnaire was translated into Arabic and reviewed by bilingual experts to ensure linguistic accuracy and cultural appropriateness. A pilot test conducted with 15 patients further refined the clarity and relevance of the items, contributing to its overall validity. Despite these strengths, the instrument also presents notable limitations. Being self-

reported, responses are subject to recall bias and social desirability effects, potentially impacting the accuracy of the data. Moreover, the absence of objective clinical outcome measures limits the ability to validate patient-reported satisfaction with actual service quality. The exclusion of incomplete questionnaires may introduce selection bias, and the instrument's cultural specificity has not been tested beyond the original study context, limiting its broader applicability [8].

The questionnaire used in the study by Altarifi et al. (2024) demonstrates several methodological strengths including its adaptation from previously validated instruments, pilot testing for clarity, and a high level of internal consistency, which collectively enhance its reliability and content validity. However, the instrument is not without limitations. The use of self-reported data introduces the potential for response bias, while the reliance on closed-ended questions limits the depth of participant insights. Additionally, the cultural and contextual specificity of the tool may hinder its generalizability to other settings, and although efforts were made to ensure accurate translation, semantic discrepancies remain a concern. Furthermore, the use of convenience sampling may affect the representativeness of the results, thereby influencing the external validity of the findings [9].

The questionnaire used in the study by El-Kholy et al. (2022) demonstrated several methodological strengths. It was comprehensive in scope, addressing both perceptions and satisfaction, and was reviewed by experts to ensure content validity. The instrument was also translated into Arabic and pretested with 50 participants, increasing its linguistic accessibility and practical clarity. The use of closed-ended questions enabled consistent responses and facilitated quantitative analysis. However, the instrument also exhibited notable limitations. The authors did not report specific psychometric data such as reliability coefficients or construct validity measures, making it difficult to assess the tool's internal consistency. Furthermore, administering the survey may have introduced social desirability bias. The lack of open-ended questions limited the potential for capturing nuanced feedback, and the study's restriction to Al-Madinah City reduced the generalizability of the findings. Additionally, the article provides limited detail on the theoretical foundation and development process of the questionnaire items, which may weaken the instrument's transparency and replicability [10].

The questionnaire employed in the study by Molla et al. (2022) demonstrated several methodological strengths. It was adapted from previously validated literature and structured to cover multiple domains of patient satisfaction, including drug availability, pharmacist interaction, and waiting time. The instrument was translated into Amharic and back-translated into English to preserve semantic integrity, and a pretest involving 15 patients was conducted to refine unclear items. The face-to-face, interviewer-administered format minimized missing responses and enabled immediate clarification of participant doubts. However, the instrument also presented some limitations. The authors also reported content validity and psychometric properties such as reliability to assess its robustness. Additionally, the use of face-to-face interviews may have introduced social desirability bias. While a five-point Likert scale was used, its limited granularity may not fully capture nuanced patient sentiments [11].

The questionnaire utilized in the study by Alotaibi et al. (2021) exhibits several notable strengths. The instrument covered a comprehensive range of factors influencing outpatient satisfaction. It was based on previously validated tools and adapted appropriately, with translation into Arabic and a back-translation process to ensure linguistic and cultural relevance. Pilot testing was conducted with 30 participants to refine clarity and comprehensibility, and the structured, closed-ended questionnaire format allowed for efficient data collection from a large sample. The article also reports content validity and key psychometric properties such as internal consistency or validity indices, which explains about the instrument's measurement robustness. However, the study also presented limitations. The exclusive use of closed-ended questions limited the depth of patient insights, and administering the questionnaire within clinical settings may have led to social desirability bias. Finally, the absence of response rate data and lack of clarity regarding regional representativeness pose potential limitations to the generalizability of the findings [12].

The questionnaire developed in the study by Berhanu et al. (2022) demonstrated notable methodological strengths suited to resource-limited settings. It was constructed through a rigorous, multi-phase process that included literature review, expert consultations, and pilot testing, ensuring both contextual relevance and content validity. The instrument captured multiple dimensions of patient satisfaction and demonstrated strong internal consistency and construct validity through statistical analysis. Its deployment across multiple sites further enhanced its applicability within similar contexts. However, the study also presented several limitations. The use of self-reported data may introduce response bias, and the cultural specificity of the tool limits its generalizability beyond the original setting. Furthermore, the cross-sectional nature of the study restricts causal inferences, and potential issues related to translation and linguistic nuance may affect the accuracy of responses. Lastly, the instrument requires further external validation in diverse populations to strengthen its utility in broader contexts [13].

Table 3. Strengths and Limitation of The Included Studies

No	Author, Year	Strengths	Limitations
1	Andrzejewska et al., 2022 [7]	• Clarity and Accessibility • Expert Validation • Ethical Transparency • Comprehensive Scope	• Limited Information on Psychometrics • Sampling Bias Potential • Lack of Demographic Balance • Single-mode Data Collection • No Mention of Response Rate

2	Al Zaidan et al., 2022 [8]	• Validated Source • Structured Format • Comprehensive Scope • Language Adaptation • Pilot Tested	• Self-Reported Bias • Limited Generalizability • Lack of Objective Measures • Response Rate & Exclusions • Cultural Context Specificity
3	Altarifi et al., 2024 [9]	• Based on Previous Validated Tools • Pilot Testing Conducted • Reliability Measurement • Multidimensional	• Self-Report Bias • Limited Generalizability • Lack of Open-Ended Questions • Translation Concerns • Sampling Method
4	El-Kholy et al., 2022 [10]	• Comprehensive Coverage of Key Constructs • Pretesting and Validation Efforts • Language Adaptation and Accessibility • Use of Closed-ended Questions • Pilot Testing for Reliability	• Lack of Detailed Psychometric Data • Potential for Social Desirability Bias • Limited Exploration of Open-Ended Feedback • Sampling and Contextual Constraints • Lack of Detail on Questionnaire Development
5	Molla et al., 2022 [11]	• Structured Format • Validated Source • Pretesting Conducted • Translation and Back-Translation • Face-to-Face Administration • Comprehensive Coverage of Satisfaction Dimensions • Reported Psychometric Properties • Content validity	• Potential Social Desirability Bias • Cultural Context Dependence • Limited Scale Diversity • Cross-sectional Design Constraints

6	Alotaibi et al., 2021 [12]	• Comprehensive Coverage of Satisfaction Dimensions • Reported Psychometric Properties • Content validity • Comprehensive Scope • Validated Instrument • Cultural and Linguistic Appropriateness • Pilot Testing • Structured Format • Report a Psychometric Properties • Content Validity	• Limited Qualitative Insight • Potential for Social Desirability Bias • Cross-Sectional Design Constraints • Generalizability Concerns in Regional Variation • No Mention of Response Rate
7	Berhanu et al., 2022 [13]	• Contextual Relevance • Comprehensive Item Development • Multidimensional Coverage • Reliability and Validity • Multicenter Design	• Cultural and Regional Constraints • Self-Reported Bias • Limited External Validation • Cross-sectional Design • Language Barriers

4 Discussion

Based on the reviewed studies, the assessment of patient satisfaction with pharmacist services demonstrates a wide variation in methodological rigor, cultural adaptation, and validation processes across different contexts. A common strength among the reviewed questionnaires is their foundation on previously validated instruments, which contributes to their initial reliability and structural soundness. Most studies employed Likert scale formats and ensured linguistic and cultural appropriateness through translation and back-translation processes, often accompanied by pilot testing to enhance clarity and contextual relevance. These methodological practices are critical for ensuring the comprehensibility and cultural sensitivity of satisfaction measures across diverse populations.

Several instruments, such as those used in the studies by Al Zaidan et al. (2022) [8], Altarifi et al. (2024) [9], and Berhanu et al. (2022) [13], reported high internal consistency and demonstrated attention to construct and content validity. The Berhanu et al. study [13], in particular, was distinguished by its rigorous multi-phase development process, which included expert input and statistical validation, making it particularly well-suited to resource-limited settings. Despite these strengths, notable limitations were observed across the studies. Many questionnaires relied exclusively on self-reported data, which can introduce recall and social desirability biases, thereby compromising the objectivity and accuracy of responses. Moreover, several studies,

including those by Andrzejewska et al. (2022) [7] and El-Kholy et al. (2022) [10], lacked detailed reporting on psychometric properties such as reliability coefficients or construct validity, limiting confidence in the robustness of the instruments used. Additionally, the predominance of closed-ended questions, while facilitating quantitative analysis, often restricted the depth of patient feedback and hindered the exploration of nuanced experiences.

Sampling methods also emerged as a critical limitation. The frequent use of convenience sampling and online or location-specific data collection approaches may lead to demographic imbalances and limit the generalizability of findings. The absence of reported response rates in some studies further weakens the ability to assess non-response bias and the representativeness of the samples. Furthermore, the contextual specificity of many instruments raises concerns about their applicability beyond the original study settings. While cultural adaptation was generally addressed, few studies conducted external validation or tested the tools in diverse healthcare systems or demographic groups, thereby restricting broader applicability.

In conclusion, while the reviewed questionnaires generally exhibit foundational methodological strengths, there remains a need for more comprehensive validation, greater transparency in psychometric reporting, and broader applicability through diversified sampling and contextual testing. Future research should aim to standardize validation procedures and incorporate both qualitative and quantitative methods to capture a more holistic understanding of patient satisfaction with pharmacist services

5 Study Limitation

This review has several limitations. Psychometric reporting across studies was inconsistent, with many lacking complete data on validity, reliability, or cultural adaptation, making comparison difficult. The exclusion of non-English and grey literature may have introduced language and publication bias. Additionally, articles without free full-text access were excluded due to practical constraints, which could have led to the omission of relevant studies and potential selection bias. Variation in study design, populations, and settings also limits generalizability. Lastly, reliance on self-reported measures may have introduced social desirability and recall bias.

6 Implications for Practice and Future Research

In healthcare practice, it is essential that providers, particularly pharmacists, actively utilize patient satisfaction data to identify areas for service improvement. Key dimensions such as information sharing, waiting times, professionalism, and privacy should be prioritized to enhance the overall patient experience. Additionally, improving interpersonal communication skills, demonstrating empathy, and focusing on patient-centered care are crucial for elevating satisfaction levels. Ongoing professional development in these areas will contribute to the delivery of more effective and compassionate healthcare services. In terms of future research, there is a clear need for further validation and refinement of patient satisfaction instruments across diverse

cultural and healthcare contexts. Studies should focus on exploring the psychometric properties of these tools in various populations to ensure their cultural adaptability and relevance. Future investigations should also examine additional factors influencing patient satisfaction, such as health status and social determinants, while developing strategies to mitigate biases in patient-reported data. Furthermore, longitudinal research that explores the long-term impact of patient satisfaction on healthcare outcomes would provide valuable insights to enhance healthcare delivery

7 Conclusion

In conclusion, this systematic review analyzed seven questionnaires assessing patient satisfaction with pharmacist services across five countries. While most instruments assessed common dimensions such as counseling, waiting times, and professionalism, there were variations in methodology, including self-administered versus interviewer-delivered formats. Strengths of the questionnaires included linguistic validation, expert reviews, and pilot testing, which improved content validity. However, limitations such as response biases, cultural specificity, and incomplete psychometric reporting were common.

Although the questionnaires provided useful insights, their generalizability was limited by issues like sampling biases and the use of closed-ended questions. Future research should focus on improving psychometric validation, sampling methods, and the inclusion of diverse populations to strengthen the reliability and applicability of these instruments in assessing patient satisfaction across different contexts.

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