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Reporting of patient language and interpreter support in Saudi patient-experience publications: a frozen 2023–2024 PubMed Central corpus audit

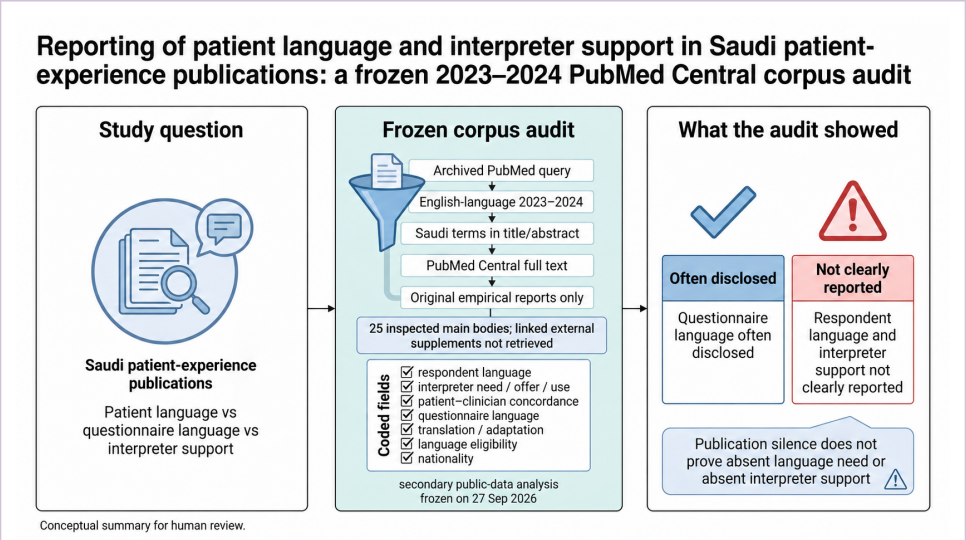
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ABSTRACT



Graphical abstract

Background: Patient-experience results can be difficult to interpret across languages when publications do not distinguish the language of a questionnaire from the language needs of respondents or clinical encounters.

Objective: To describe what a defined, publicly accessible corpus of Saudi patient-satisfaction and patient-experience reports disclosed about patient language and interpreter support.

Methods: On 27 September 2026, a fixed, archived PubMed query selected English-language 2023–2024 records with “patient satisfaction” or “patient experience” in the title, Saudi terminology in title/abstract, and a PubMed Central full text. Original empirical reports of Saudi clinical-care experience were eligible. One extractor coded the frozen main article bodies and embedded tables; linked external supplements were not retrieved. The primary fields were defined patient-language distribution, clinical interpreter need/offer/use and patient–clinician language concordance. Instrument language, translation steps, language eligibility and nationality were coded separately. No independent second coding was done.

Results: Thirty records were retrieved; three reviews, one correction and one instrument-only validation were excluded, leaving 25 reports. Under the strict codebook, none reported a defined patient-language distribution, clinical interpreter need/offer/use or language concordance. One additional paper used an ambiguous “only Arabic participants” phrase in Discussion; counting any such narrative label gives 1/25 for patient-language information. Thirteen identified instrument language: nine Arabic only and four multilingual. Four described translation/adaptation steps, three specified language eligibility, and seven tabulated nationality. A source-overlap sensitivity left 22 publication representatives, without changing the strict primary zeros.

Conclusions: In this selected corpus, questionnaire language was often disclosed while defined respondent-language and interpreter fields were not. Publication silence cannot establish absent assistance or a patient language barrier. Separating respondent language, survey language and clinical communication would improve interpretability.

Source and interpretation note for Figure 1. Author synthesis of the evidence and results presented in the text and native manuscript tables. Pictograms, arrows and repeated document icons are schematic; they do not denote counted records, measured effects, new patient data or proven local benefits.

Keywords: patient experience; patient satisfaction; language access; interpreters; Saudi Arabia; meta-research; reporting quality.

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Introduction

The language in which someone answers a patient-experience question is part of how the answer is produced. It is not, however, a complete account of the language in which that person prefers to discuss care. A translated questionnaire can be intelligible to a respondent while a clinical conversation still requires an interpreter; a bilingual survey can be offered without revealing which version each person used. Conversely, a study that says nothing about translation may have used an appropriate instrument but left readers unable to assess it. These distinctions matter before satisfaction scores are compared across populations or services. Guidance for translating patient-reported outcome measures describes translation and cultural adaptation as an explicit process, rather than a mere change of labels. [1]

Communication across languages has been studied as a substantive feature of healthcare. An international review linked language barriers with patient and provider communication and satisfaction across diverse designs. [2] A Saudi integrative review described language and cultural barriers in nursing care, and a 2010 Saudi primary study directly asked patients about care from non-Arabic-speaking nurses, interpreter calling and satisfaction. [3,4] The primary study lies outside our 2023–2024 frame; its existence rules out any suggestion that Saudi clinical language variables were previously unstudied. A review of Saudi academic-hospital satisfaction studies concentrated on satisfaction levels and domains. [5] None of these is a denominator for this analysis: the present question concerns what a deliberately defined set of publications *reports*, not the frequency or effect of language barriers in care. A separate meta-research review of orthopaedic trials assessed linguistic reporting, but its trial corpus and setting differ from Saudi patient-experience publications. [6]

The Saudi patient-experience literature is broad in clinical topic and data source. Studies in the selected period address hospital nursing, surgery, ophthalmology, primary care, pharmacy, dentistry and appointment sys-

tems. Some use original questionnaires or interviews, while others analyze existing national patient-experience programme responses. [7–13] Their satisfaction percentages, clinical endpoints and samples cannot be pooled into one national estimate. For a reporting audit, that diversity is useful in a narrower way: one can ask whether authors disclose the language-related attributes required to judge who could respond and how the responses were elicited. A paper's public full text is observable; the actual language capabilities of an unreported participant are not.

Four ideas are easily conflated. *Patient language preference or proficiency* concerns the respondent. *Instrument language* concerns the version of a survey or interview presented. *Translation process* concerns how one version was prepared and checked. *Interpreter support or patient–clinician language concordance* concerns the care interaction, not necessarily the research interview. Nationality cannot substitute for any of these fields: a Saudi/non-Saudi category does not specify what language an individual understands, prefers or used in a consultation. Evidence from other countries suggests that language-concordant care and interpreting can relate to patient experience, but even those reviews report mixed designs and cannot supply missing variables for a Saudi study that did not measure them. [14]

This article therefore asks a bounded methodological question: among English-language 2023–2024 PubMed citations whose titles explicitly name patient satisfaction or patient experience, whose title/abstract identifies Saudi Arabia, and whose full text is in PubMed Central, which language-related details are reported? The corpus is an inspectable slice, not an exhaustive survey of Saudi research. Its incremental contribution is a PMID-level reporting matrix that distinguishes patient language from instrument language, with a per-record decision audit for positive and negative codes. The 2010 primary study and Saudi communication reviews address substantive care experiences rather than this selected-publication reporting question. A finite novelty screen found no exact audit in inspected sources; it cannot prove originality. [3–5]

Methods

Design, source frame and retrieval

This is a descriptive meta-research audit of published full texts. The unit of observation is one publication, even when two reports may analyze responses from the same survey programme. No patient record was accessed. On 27 September 2026, NCBI E-Utilities esearch queried PubMed with (Saudi Arabia[Title/Abstract] OR Saudi[Title/Abstract]) AND (patient satisfaction[Title] OR patient experience[Title]) AND (2023:2024[Date - Publication]) AND english[Language] AND "pubmed pmc"[sb], requesting up to 100 identifiers. PubMed documents "pubmed pmc"[sb] as citations with a free full text in PubMed Central. [15] The search returned 30 unique PMIDs, and all 30 corresponding PMC full texts were retrieved as XML through E-Utilities. The exact PMIDs are identified by Table 1's exclusions and Tables 2–3's included records; the full reference list preserves all 30 titles and identifiers. Retrieval-date and file-hash details are in the data-availability statement.

This frame was chosen for full-text inspectability rather than maximum recall. The title requirement omits studies that measure satisfaction without using either exact phrase in the title, while the English/PubMed/PMC restrictions omit Arabic-only, unindexed, non-PMC and publisher-only full texts. Publication-date indexing may be updated after the search. A future investigator can rerun the query, but the present analysis is tied to the frozen identifier list; a changed count in a future search is not an error in this historical extraction.

Eligibility and publication screening

An eligible article was an original empirical report that analyzed patient, parent or caregiver satisfaction or experience of clinical care or a clinical-service process delivered in Saudi Arabia. Primary surveys, interviews and secondary analyses of Saudi patient-experience programme data were eligible. A hospital-level analysis of existing patient-reported experience measures qualified because its original analysis used such measures, although it could not reveal individual respondent characteristics. [16] A quality-improvement evaluation qualified when it analyzed patient-experience survey responses alongside its intervention. [17] Reviews, corrections, provider-only perspectives, non-Saudi care and instrument-only translation/validation without a service-

experience research question were excluded. We did not screen on whether a paper reported any language item, which would predetermine the main result.

The 30-record search was screened against titles, PubMed publication types and frozen PMC main-body Methods/Results. Table 1 gives the flow and each full-text exclusion. The Arabic Patient Satisfaction with Pharmacist Services Questionnaire study was classified as instrument-only validation because its stated objective and principal analysis were translation, factor structure and reliability rather than a healthcare-service satisfaction comparison. [18] It is retained in a boundary analysis because this judgment is contestable. A hospital-level PREM analysis was included as original secondary research even though it could not describe individual respondents. [16] The three review records remain useful context but are not empirical units. [5,19,20] A correction notice is not a second study. [21] Per-PMID design and inclusion/exclusion rationales are in the author research audit bundle described below.

Table 1 summarizes the frozen search and eligibility decisions. It does not estimate how many Saudi patient-experience studies existed in 2023–2024 outside this deliberately selected retrieval frame.

Table 1. Frozen PubMed/PMC publication-corpus flow and full-text exclusions.

Selection stage	n	Source/decision
PubMed/PMC records returned	30	Exact 2023–2024 title-term query [15]
Reviews excluded	3	Saudi academic-hospital review [5]; dental review [19]; GCC scoping review [20]
Correction excluded	1	Correction notice [21]
Instrument-only validation excluded	1	Arabic pharmacist-satisfaction instrument study [18]
Original empirical reports analyzed	25	Fourteen published in 2024; eleven in 2023; source PMIDs in Tables 2–3

Table 1 footnote. Search run 27 September 2026 via NLM PubMed/PMC [15]; records are publications, not distinct patient samples. Inclusion required original empirical analysis of patient, parent or caregiver experience of Saudi clinical care. Reviews, the correction, and a questionnaire-validation paper without a service-experience study question were excluded. Each excluded record is cited in its own row; included sources are cited by PMID in Tables 2–3.

Coding rules and source verification

The working codebook was defined before final tabulation and refined after the initial screening pass; it was not preregistered. A strict positive code for *patient language preference/proficiency distribution* required respondent counts/percentages or an analyzed subgroup defined by preferred, primary or spoken language or proficiency in Methods, Results or body tables. An Arabic-only eligibility rule or unnamed instrument version did not qualify. A primary positive code for *interpreter support* required a reported need, offer, provision or use of an interpreter in the clinical care interaction. Translation of a questionnaire or interpretive discussion did not qualify. Concordance required a reported patient–clinician shared or discordant language variable, not a generic communication-satisfaction item. Negative codes mean no qualifying statement was identified in the inspected version, not that patients lacked support or spoke only one language.

Secondary codes distinguished explicit instrument/interview language; a described translation or adaptation *step* beyond simply stating a version was translated; explicit language-based inclusion/exclusion; and nationality tabulated in Results. “Arabic questionnaire” was not converted into “Arabic-speaking patient,” and “Saudi patient” was not converted into Arabic preference. A cited Arabic validation conducted elsewhere did not count as a translation step performed or described in the current study. Two or more survey languages were coded “multilingual” without assuming a language-specific response count. Coding covered the frozen PMC XML main-body paragraphs, embedded tables, lists and figure captions. External supplementary files linked by three included articles (PMIDs 39006372, 38757070 and 37405854) were **not retrieved or coded**; later up-

dates/corrections were not rechecked. All negative and affirmative decisions therefore refer to those inspected versions and elements.

One extractor assigned codes for all 30 publications. A second table-aware locator pass traversed main-body paragraphs, embedded table text, lists and figure captions for broad language and interpreter terms, preserving each PMID, PMCID, source XML SHA, inspected section, unit type and candidate terms. The extractor reviewed these locators against the explicit rule, including “native language” used to describe Saudi Arabia, “language used” in a brochure item, and the ambiguous “only Arabic participants” phrase. Absence of a keyword hit alone was not treated as a negative decision. The per-PMID ledger records the negative rationale, positive-field locator, design/eligibility decision and linked-supplement boundary. A deterministic script regenerates the entered codes and counts; it does not independently validate semantic coding. There was no independent second extractor, human adjudication, measured inter-rater agreement, author contact or comparison with unpublished protocols.

Analysis and sensitivity boundaries

The numerator for each reporting field was the number of eligible publications that explicitly met its rule; the denominator was 25. We report counts and simple within-corpus percentages to make the selected denominator visible. No confidence intervals or hypothesis tests were calculated: the 25 articles are the selected full corpus under one frozen query, not a probability sample of Saudi publications or patients. We did not extract or compare satisfaction percentages, clinical outcomes or respondent sample sizes because they answer different substantive questions and can reuse participants across articles.

Three descriptive boundary checks were applied after initial extraction. First, we excluded additional publications under an assumption of overlap in two potential MoH source clusters: three dental papers each reporting 964 responses from a first-half-2022 dental survey, and two pharmacy-domain analyses of the 2022 programme with different analytic denominators (66,541 and 91,317). [10,12,13,22,23] One representative from each cluster remained; this does **not** establish that every other sample is independent or that pharmacy cohorts were identical. Second, we examined inclusion of the borderline instrument-validation paper. [18] Third, we tested a permissive patient-language rule counting any narrative sample label as “Arabic participants,” even without a defined variable or count in Methods/Results. [24] These checks are descriptive robustness boundaries, not alternate clinical estimands.

Reporting and governance

The descriptive Methods, eligibility, data-source and limitation structure was informed by STROBE's transparency principles, without claiming formal STROBE compliance for this publication audit. [25] The work uses public scholarly documents rather than participants or unpublished records. Access to PMC full text is not permission to redistribute entire papers; the final tables report identifiers and new categorical coding, not copied source text.

Results

Corpus flow and topics

The frozen query returned 30 PMIDs with 30 retrievable PMC articles. Five were excluded: three reviews, one correction and one paper whose main objective was Arabic instrument validation. Thus 25 original reports supplied the publication denominator (Table 1). Fourteen were indexed in 2024 and eleven in 2023. Tables 2 and 3 enumerate every included PMID, topic and affirmative secondary reporting code. The article-level matrix is important because an aggregate “not reported” count is easy to misunderstand as a claim about patients; the source identifier allows inspection of the actual publication.

The corpus covered care experiences after ophthalmic, dental, breast, abdominal and cosmetic procedures; hospital nursing and anesthesia; outpatient clinic visits; pharmacy services; primary-care digital services; and programme-level patient-experience measurement. [7–13] Several studies were primary convenience surveys, while others reused existing MoH Press Ganey or patient-experience programme responses. The latter are

publications, not necessarily independent datasets. The 25 articles also differ in whether the experience instrument was a short locally composed questionnaire, a translated scale, or routine programme data. No pooling of their patient counts or satisfaction scores was scientifically appropriate for the stated question.

Patient language and interpreter variables

Under the strict codebook, no eligible publication reported a defined distribution of patients' preferred or primary language, a language-proficiency measure, or an analyzed patient-language subgroup in Methods, Results or embedded tables (0/25). No article reported whether a patient needed, was offered, received or used an interpreter during clinical care (0/25), or analyzed patient–clinician language concordance or discordance (0/25). These are single-extractor judgments about the frozen PMC main bodies and embedded tables, not independently recoded findings. They do not indicate that all study patients spoke one language, that interpretation was unavailable, or that language did not influence experience.

The strict zeros differ from study-procedure descriptions. One hospital-nursing report required Arabic reading and writing proficiency, while a post-mastectomy survey and an appointment-system study excluded people unable to speak Arabic. [8,26,27] These are explicit eligibility restrictions, not respondent-language distributions among service users. A cosmetic-treatment paper says in Discussion that it used only “Arabic participants” and frames the point as excluding other races, without defining a language variable or a Methods eligibility rule. [24] The primary strict code remains zero; a permissive rule counting that narrative phrase as any patient-language information would yield 1/25, while interpreter and concordance counts remain 0/25. An interpreter could have been available in a clinic even though it was not reported as a study variable.

Instrument language, translation and nationality

Thirteen publications explicitly identified the experience instrument's language (13/25, 52%). Nine described an Arabic version only; four described more than one language. The multilingual examples include three MoH dental experience analyses that state their questions were available in Arabic and English, and a hospital nursing analysis that describes Arabic/English plus Farsi, Urdu and Hindi options. [9,12,13,23] The latter paper does not report the distribution of versions used by respondents. An instrument-language statement is valuable for reproducibility but does not establish patient fluency, preference, clinical interpreter provision or equivalence of scores across languages. Tables 2–3 preserve each source's distinct statement rather than forcing all “Arabic” reports into one method category.

Four articles described at least one translation or adaptation step beyond simply naming an Arabic version (4/25, 16%). These were an ophthalmic questionnaire with back-translation and consultant checking, a Riyadh multi-facility survey using forward/back translation and a pilot, a Riyadh clinic-visit questionnaire translated by two native speakers with reconciliation, and a primary-care electronic-services survey with expert review and pilot testing after Arabic translation. [28–31] A translated questionnaire mentioned without procedural detail did not satisfy this code. This is a measure of reporting, not a judgment that the other instruments were invalid or that the four reported procedures were sufficient by psychometric standards. Formal cross-cultural equivalence would require additional design and evidence beyond a short methods phrase. [1]

Three papers explicitly specified language-based eligibility or exclusion in Methods (3/25, 12%). [8,26,27] Seven tabulated Saudi/non-Saudi nationality in Results (7/25, 28%). [9,10,22,30–33] Nationality counts cannot fill a missing language field, and an exclusion rule is not a measured preference distribution. Table 4 presents the defined field counts. The 2024 and 2023 article matrices trace each affirmative secondary code to a PMID; the per-PMID audit ledger documents the strict negative decisions.

Table 2 lists the fourteen included 2024 publications and their affirmative instrument, translation, eligibility and nationality codes. “Not stated” always refers to the inspected full text, not to what may have occurred in clinical practice.

Table 2. Included 2024 Saudi patient-experience publications and language-related reporting flags.

PMID [ref]	Care/service focus	Instrument language	Other fields
39548416 [7]	Keratoplasty	Arabic	None
39493837 [28]	Trifocal lens after keratotomy	Arabic	T
39451465 [29]	Mixed healthcare facilities	Arabic	T
39323706 [8]	Hospital nursing	Not stated	E
39310040 [34]	Discharge pharmacy	Not stated	None
39221341 [30]	Clinic visits	Arabic	T, N
39148752 [9]	Nurse introduction	Multiple	N
39139994 [35]	Private ophthalmology	Arabic	None
39121005 [24]	Cosmetic ultrasound	Arabic	None
39006686 [32]	Cholecystectomy	Not stated	N
39006372 [10]	Community pharmacy / Wasfaty	Not stated	N
38757070 [22]	Community vs primary-care pharmacy	Not stated	N
38482306 [31]	Electronic primary care	Arabic	T, N
38348006 [36]	Ophthalmology clinics	Arabic	None

Table 2 footnote. The article unit is a publication; each PMID row cites its source, with title, DOI and link in that numbered reference. T = a described translation/adaptation step; E = explicit language-based eligibility in Methods; N = nationality tabulated in Results. None means none of these secondary fields; Not stated means instrument language unspecified. Under the strict rules, no row reported a defined patient-language distribution, clinical interpreter use or care-language concordance. This is a reporting judgment, not absence of a service or group. Per-PMID designs and decisions are in the author audit bundle.

Table 3 gives the eleven included 2023 publications under the same codebook. The two year panels are a layout device; no year comparison was prespecified or tested.

Table 3. Included 2023 Saudi patient-experience publications and language-related reporting flags.

PMID [ref]	Care/service focus	Instrument language	Other fields
38269215 [37]	Dental prostheses	Not stated	None
38152784 [11]	Enhanced-recovery surgery	Not stated	None
38149063 [26]	Post-mastectomy care	Not stated	E
38106366 [12]	MoH dental experience	Multiple	None
37790864 [23]	MoH dental experience	Multiple	None
37601511 [38]	Caesarean anaesthesia	Arabic	None
37405854 [16]	Hospital patient-experience measures	Not stated	None
37220993 [17]	Hospital experience improvement	Not stated	None
37051112 [13]	MoH dental loyalty	Multiple	None
36819326 [33]	Perioperative anaesthesia	Not stated	N
36814746 [27]	Mawid appointments	Not stated	E

Table 3 footnote. Codes as defined under Table 2. Each PMID row cites its source. Strict primary-field codes were zero in these inspected main-body versions; the author audit ledger gives per-PMID design, source and negative-decision notes. This is a publication-reporting judgment, not a claim about patients or services.

Source-overlap and boundary checks

The source-level check identified three dental papers each reporting 964 responses from a first-half-2022 dental survey, treated as a potentially overlapping cluster, and two pharmacy papers in the 2022 programme reporting analytic denominators of 66,541 and 91,317. [10,12,13,22,23] The source/period/denominator evidence and cluster assignments are recorded per PMID in the editor audit. Counting one publication representative per apparently overlapping cluster left 22. Strict patient-language distribution and interpreter reporting remained 0/22, while instrument language appeared in 11/22 and nationality results in 6/22. This is a publication-source sensitivity, not proof of 22 independent cohorts or participant-level deduplication. Including the excluded Arabic pharmacy-questionnaire validation paper would give 26 publications and strict primary zeros of 0/26. [18] The permissive “Arabic participants” narrative rule would give 1/25 patient-language descriptions under the original denominator. These checks expose boundary choices without turning publication counts into patient counts; Table 4 summarizes the nonexclusive defined reporting fields for the original 25-publication denominator.

Table 4. Explicit language-related reporting in the 25 eligible full texts.

Defined reporting field	Reports, n (%)	Interpretive rule
Patient preferred/primary language or proficiency distribution	0 (0%)	Measured respondent field
Interpreter need, offer, provision or use in clinical care	0 (0%)	Clinical care, not survey translation
Patient–clinician language concordance/discordance	0 (0%)	Analyzed care-language match
Instrument/interview language stated	13 (52%)	Nine Arabic; four multilingual
Translation/adaptation step described	4 (16%)	Procedure beyond naming version
Language-based eligibility/restriction in Methods	3 (12%)	Not a measured distribution
Nationality tabulated in Results	7 (28%)	Not a language proxy

Table 4 footnote. Categories are nonexclusive. Zero means no qualifying report in the inspected PMC main body or embedded tables under the strict rule, not absence of a patient group or service. Denominator: 25 publications, not cohorts. Sources are cited per PMID in Tables 2–3. A permissive Discussion-phrase rule yields 1/25 for patient-language information [24]; field distinctions follow reporting and translation principles [1,25].

Discussion

What the audit identifies

The main distinction is between reporting an instrument and reporting a respondent. About half of this selected set identified a survey or interview language, but no main body reported a defined patient-language distribution or clinical-interpreter field under the strict rule. This limits assessment of selection and measurement, not the clinical inference that inequitable access occurred. Investigators may have collected language data without publishing them, used interpreter services without measuring them, or studied a narrowly defined population; these possibilities cannot be resolved from the inspected papers.

One consequence concerns who could answer. In three reports, Arabic ability was an explicit eligibility condition, so their satisfaction results cannot directly represent non-Arabic-speaking patients **if such patients were present among users of the service**. [8,26,27] We do not know whether, or how many, such patients atten-

ded those settings or what care they received. A language restriction can be appropriate for a defined target population; authors should state its boundary and avoid extrapolation beyond it. A multilingual questionnaire may expand survey participation, but does not itself show who selected each version. One hospital study listed five survey languages without publishing counts by form or patient preference. [9]

Another consequence concerns what “translation” can support. Back-translation, expert review and pilot testing are substantive methods when appropriately carried out, and four articles described at least one such step. Yet the remaining publications that used an Arabic instrument could have relied on a previously validated version, translated informally, or not needed translation at all. The absence of a described procedure cannot be graded as a failure of the instrument without examining its lineage. A more precise report would identify the source instrument, available language versions, translation/adaptation provenance, who completed each step, and any available evidence of comprehension and measurement properties in the actual patient groups. ISPOR's process guidance provides a useful vocabulary but does not make a study valid merely because one named step appears. [1]

The separation from nationality is similarly practical. Seven articles give Saudi/non-Saudi results, which can be useful demographic context, but that dichotomy is not a language variable. It does not distinguish Arabic-speaking non-Saudis, multilingual Saudis, English-preferring individuals or patients who require a different language. Replacing a missing preferred-language field with nationality would introduce misclassification and could support unwarranted claims about communication. This audit does not ask papers to abandon nationality reporting; it asks them to label its meaning and collect language information when a language-access claim is being made.

The 2010 Saudi patient survey explicitly asked about non-Arabic-speaking nurses and interpreter calling. [4] It confirms that these clinical questions can be measured locally, while providing no basis to infer their prevalence or outcome effects in the selected 2023–2024 corpus. International and Saudi reviews and an orthopaedic trial-reporting audit address adjacent substantive or methodological questions, with different populations and designs. [2,3,6,14] The present audit cannot quantify language barriers in Saudi care or test whether interpreters change satisfaction; its contribution is showing what readers can and cannot recover from a finite set of publication texts.

A proportionate reporting minimum

A small set of fields would materially improve interpretability without demanding a lengthy language-access sub-study in every paper. First, authors could specify the intended respondent population and any language-based inclusion or exclusion, including how ability to respond was determined. Second, they could identify each questionnaire or interview language, its source version and translation/adaptation route. Third, where a service serves multiple language groups, they could report the number of respondents by their self-reported preferred language or another explicitly defined language measure, and the number using each instrument version when lawful and feasible. Fourth, if a report makes claims about clinical communication, it should define whether an interpreter was needed, offered or used and whether the clinician and patient shared a language. Finally, it should disclose missingness, proxies and the limitations of any language category. These are proposed reporting fields derived from this audit's interpretive gaps and existing translation/reporting principles, not a validated checklist or evidence that each variable must be measured in every clinical study. [1,25]

The data owner may reasonably decide that some fields are too sensitive or operationally unavailable for public small-cell reporting. A manuscript can say so and still distinguish “not collected,” “collected but unavailable to investigators,” “suppressed,” and “not included in this paper.” Those states have different implications. At the individual level, asking a patient what language they prefer for care is more direct than inferring it from passport status. For surveys, the language version actually used may be stored automatically, but language version is not equivalent to proficiency or preference. A study that reports a translation method without a patient-language denominator can support instrument provenance, not a claim of inclusive recruitment. The codebook deliberately treated each as a separate field so the distinctions remain visible.

Strengths, limitations and editorial meaning

The query, retrieval date, 30 PMIDs and source XML hashes are frozen. Every included PMID and affirmative secondary code is displayed, and a record-level audit now supplies design, eligibility, candidate-section, body/table inspection and negative-decision notes. The scripts regenerate the entered matrix and counts, which an editor can audit against the public PMC links; they cannot certify that a single extractor recognized every possible semantic expression. The known-source overlap and validation-paper boundaries, plus the permissive narrative-phrase sensitivity, show how the observed counts respond to three explicit choices.

The chief limitation is selection. The title requirement misses studies titled around another endpoint; PubMed, English and PMC availability omit other literature. The 2023–2024 window cannot describe earlier, later or current practice. One extractor may have missed unusual phrasing or misclassified an ambiguous sentence. We inspected body paragraphs, embedded tables, lists and figure captions, but did not retrieve the external supplementary files linked by three included articles, nor recheck later corrected versions. The 0/25 findings are therefore version- and scope-bound. No independent dual coding or inter-rater statistic can be claimed. A human bilingual, multi-database reassessment with independent coders could test generalizability and verify every negative classification.

For replication, the version boundary should be maintained at the individual PMID level. If a human recoder retrieves a linked supplement or a corrected article, that record should receive a new source-version note and an explicit decision about which publication scope is being counted. A changed classification would then be attributable to additional evidence or a revised judgment, rather than treated as an error-free continuation of the present main-body audit.

The coding also has deliberate analytic limits. We did not score research quality, appraise psychometric validity, infer whether language information was collected but omitted, verify actual interpreter policies at facilities, or link publication metadata to individual participants. The 25 publications are heterogeneous in clinical setting and share at least some survey sources, so exact percentages such as 13/25 should be read only as a compact description of this corpus. Neither a 0/25 reporting count nor a 52% instrument-language count is an estimate for all Saudi studies or for Saudi healthcare services. The finite novelty search and local overlap screen cannot replace a human similarity assessment, correction check and MHJ editor's judgment of whether a full Original Research article is warranted rather than a shorter methods/data note.

Figure 2 presents the source-bound comparison or measurement sequence described in the manuscript.

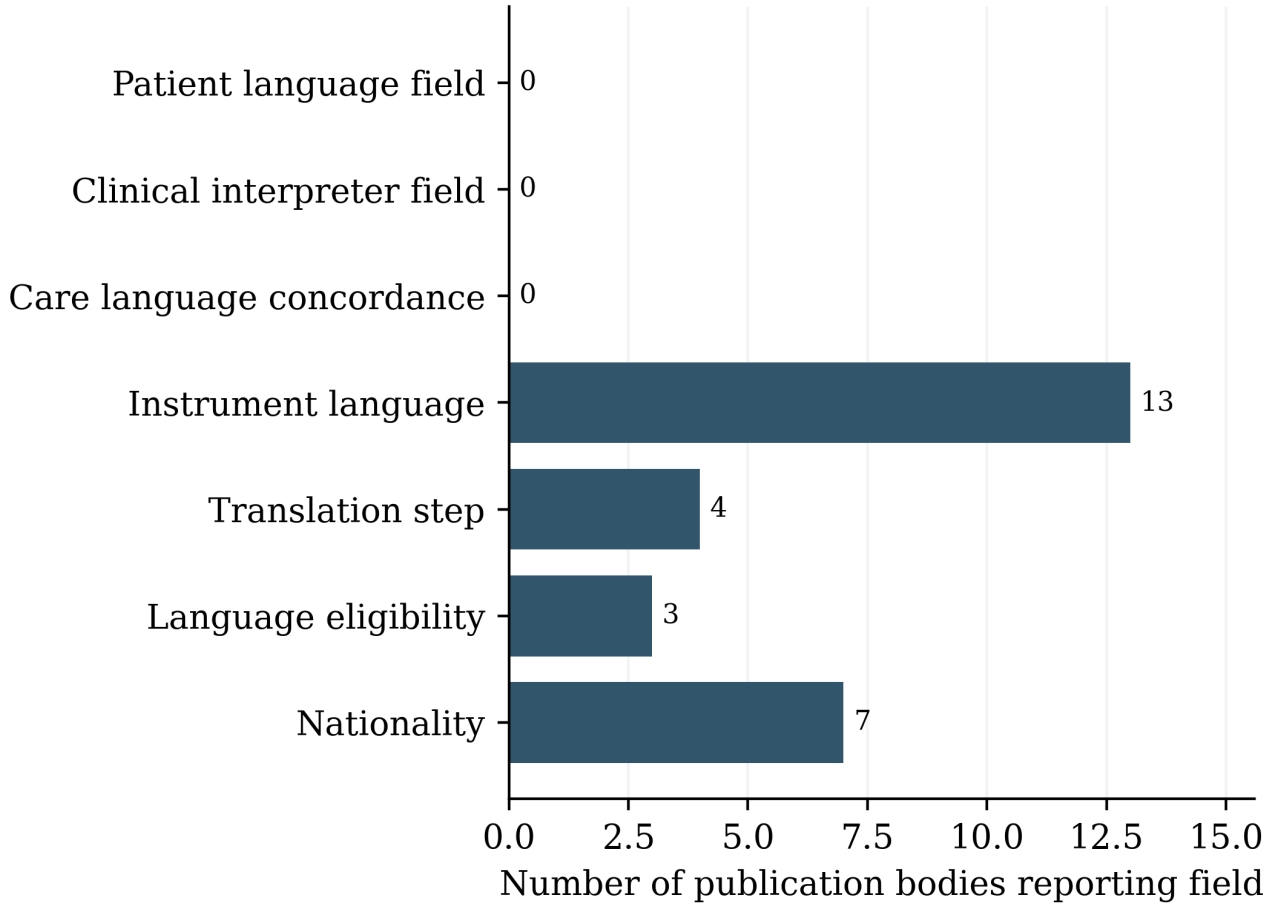


Figure 2. Source-bound descriptive plot of Table 4. Strict single-extractor, version-bound main-body/embedded-table coding; external supplements were not retrieved. Categories overlap; instrument language/nationality are not patient-language proxies.

Source and interpretation note for Figure 2. Strict single-extractor, version-bound main-body/embedded-table coding; external supplements were not retrieved. Categories overlap; instrument language/nationality are not patient-language proxies. Descriptive published-source values only; no causal effects, inferred individuals, statistical uncertainty or quality scores are estimated. Source anchor: Table 4.

Conclusion

In a frozen, title-term selected set of 25 original Saudi patient-experience publications indexed in PubMed in 2023–2024 and available in PMC, 13 identified instrument language, while no inspected main body reported a defined patient-language distribution, clinical interpreter need or use, or patient–clinician concordance under the strict codebook. A permissive rule counts one ambiguous Discussion phrase about “Arabic participants” as patient-language information. These are single-extractor publication-reporting observations, not measurements of patients' needs or services. Future reports can separately state who could respond, which instrument version they used, how it was prepared, and whether clinical language assistance was measured. Human source verification, MHJ article-type judgment and institutional determinations remain necessary.

Declarations

Ethics and data access: Only publicly available scholarly full texts, citations and categorical publication-level coding were used. No patient-level record or confidential manuscript was accessed. An accountable institution must determine the applicable ethics classification before submission; no exemption or approval identifier is asserted.

Data and code availability: The exact 30-PMID ESearch response, PubMed XML, PMC full-text XML, 30-row coded CSV, per-PMID primary-decision ledger, table-aware locator audit, exclusion rationales and counting code are retained in the author research archive. The ESearch JSON SHA-256 is 36a881371a0c2d-b5d9d863c12e4b61d2fe66855b3d73f47a39f2020f54751201; the two PMC XML SHA-256 hashes are 3a7f-d3385d39b001a1b22d49f06cc0ab5011041bb858d2eb5376d7984ce0faa0 and a4644c52e4e17455252a3f480a12d50d0624293378af0fcf1862ff02bda33ead. Public PMID/PMCID links appear in the references and editor-level design, code and source-version decisions are in the author audit bundle. Accountable authors can supply their categorical coding and scripts to editors after rights/institutional review; third-party full texts will not be redistributed. No public deposit or DOI is claimed.

References

1. Wild D, Grove A, Martin M, Eremenco S, McElroy S, Verjee-Lorenz A, et al. Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures: report of the ISPOR Task Force for Translation and Cultural Adaptation. Value Health. 2005;8(2):94-104. doi:10.1111/j.1524-4733.2005.04054.x. https://pubmed.ncbi.nlm.nih.gov/15804318/

2. Al Shamsi H, Almutairi AG, Al Mashrafi S, Al Kalbani T. Implications of Language Barriers for Healthcare: A Systematic Review. Oman Med J. 2020;35(2):e122. doi:10.5001/omj.2020.40. https://pubmed.ncbi.nlm.nih.gov/32411417/

3. Alshammari M, Duff J, Guilhermino M. Barriers to nurse-patient communication in Saudi Arabia: an integrative review. BMC Nurs. 2019;18:61. doi:10.1186/s12912-019-0385-4. https://pubmed.ncbi.nlm.nih.gov/31827387/

4. Al-Khathami AM, Kojan SW, Aljumah MA, Alqahtani H, Alrwaili H. The effect of nurse-patient language barrier on patients' satisfaction. Saudi Med J. 2010;31(12):1355-1358. PMID:21136000. https://pubmed.ncbi.nlm.nih.gov/21136000/

5. Alasiri AA, Alotaibi SA, Schussler E. Patient satisfaction among Saudi academic hospitals: a systematic review. BMJ Open. 2024;14(5):e081185. doi:10.1136/bmjopen-2023-081185. https://pubmed.ncbi.nlm.nih.gov/38772587/

6. Julian KR, Mulakaluri A, Truong NM, Fernandez A, Kamal RN, Shapiro LM. Are Orthopaedic Clinical Trials Linguistically and Culturally Diverse? A Systematic Review. JBJS Rev. 2024;12(5):e24.00012. doi:10.2106/JBJS.RVW.24.00012. https://pubmed.ncbi.nlm.nih.gov/39021638/

7. Aldebasi T, Gangadharan S, Alshammari YS, Alruhaimi SS, Alrashid SO, Ardah H, et al. Comparison of clinical outcomes, complications and patient satisfaction following deep anterior lamellar keratoplasty and penetrating keratoplasty. BMC Ophthalmol. 2024;24(1):501. doi:10.1186/s12886-024-03766-2. https://pubmed.ncbi.nlm.nih.gov/39548416/

8. Alotaibi JS. Hospital Patient Satisfaction With Nursing Care in Saudi Arabia. Cureus. 2024;16(8):e67840. doi:10.7759/cureus.67840. https://pubmed.ncbi.nlm.nih.gov/39323706/

9. Al Sherim M, Al Hamidi SA. Exploring the Significance of Nurse Introduction for Positive Patient Experience in Saudi Arabia. J Patient Exp. 2024;11:23743735241273576. doi:10.1177/23743735241273576. https://pubmed.ncbi.nlm.nih.gov/39148752/

10. Alzahrani AM, Felix HC, Alzhrani AA, Alharbi KK, Arbaein TJ, Shahzad MW, et al. Patient satisfaction with Saudi community pharmacy services (Wasfaty System). J Taibah Univ Med Sci. 2024;19(4):711-719. doi:10.1016/j.jtumed.2024.05.008. https://pubmed.ncbi.nlm.nih.gov/39006372/

11. Aleid A, Alyaseen EM, Alfurayji RS, Alanazi BS, Alquraish FA, Al Mutair A, et al. Enhanced Recovery After Surgery (ERAS) in Saudi Arabian Surgical Practice: A Comprehensive Analysis of Surgical Outcomes, Patient Satisfaction, and Cost-Effectiveness. Cureus. 2023;15(11):e49448. doi:10.7759/cureus.49448. https://pubmed.ncbi.nlm.nih.gov/38152784/

12. Aldossary MS, Ismail EH, Almutawaa MM, Alhajri SM, Almuaddi AM, El Dalatony MM. Exploring Predictors of Patient Satisfaction in Dental Services: A Secondary Analysis Study. Patient Prefer Adherence. 2023;17:3259-3263. doi:10.2147/PPA.S433352. https://pubmed.ncbi.nlm.nih.gov/38106366/

13. El Dalatony MM, Alshareef RI, Alkahtani AR, Alhajri SM, Alhumaidany TM, AlQarni WA, et al. Patient Satisfaction as a Determinant of Patient Loyalty to the Dentist in Dental Clinics. J Patient Exp. 2023;10:23743735231166506. doi:10.1177/23743735231166506. https://pubmed.ncbi.nlm.nih.gov/37051112/

14. Quigley DD, Qureshi N, Predmore Z, Diaz Y, Hays RD. Is Primary Care Patient Experience Associated with Provider-Patient Language Concordance and Use of Interpreters for Spanish-preferring Patients: A Systematic Literature Review. J Racial Ethn Health Disparities. 2025;12(2):1170-1183. doi:10.1007/s40615-024-01951-z. https://pubmed.ncbi.nlm.nih.gov/38441859/

15. National Library of Medicine. PubMed User Guide: PubMed Central subset and full-text links. Accessed 27 September 2026. https://pubmed.ncbi.nlm.nih.gov/help/

16. Abdalla R, Pavlova M, Groot W. Association of patient experience and the quality of hospital care. Int J Qual Health Care. 2023;35(3):mzad047. doi:10.1093/intqhc/mzad047. https://pubmed.ncbi.nlm.nih.gov/37405854/

17. Almohaisen NA, Alsayari NM, Abid MH, Al Subhi NF, Al Masoudi A, AlGhazali OS, et al. Improving patient experience by implementing an organisational culture model. BMJ Open Qual. 2023;12(2):e002076. doi:10.1136/bmjoq-2022-002076. https://pubmed.ncbi.nlm.nih.gov/37220993/

18. Albabtain B, Paudyal V, Cheema E, Bawazeer G, Alqahtani A, Bahatheq A, et al. Translation, cultural adaptation and validation of Patient Satisfaction with Pharmacist Services Questionnaire (PSPSQ) 2.0 into the Arabic language among people with diabetes. PLoS One. 2024;19(6):e0298848. doi:10.1371/journal.pone.0298848. https://pubmed.ncbi.nlm.nih.gov/38935668/

19. Al Ghanem EJ, AlGhanem NA, AlFaraj ZS, AlShayib LY, AlGhanem DA, AlQudaihi WS, et al. Patient Satisfaction With Dental Services. Cureus. 2023;15(11):e49223. doi:10.7759/cureus.49223. https://pubmed.ncbi.nlm.nih.gov/38143666/

20. Alhenaidi A, Al Nadabi W, Al-Haqan A, Kelender H. Patient satisfaction of primary care services in Gulf Cooperation Council Countries: A scoping review. J Gen Fam Med. 2023;24(5):279-287. doi:10.1002/jgf2.640. https://pubmed.ncbi.nlm.nih.gov/37727620/

21. Albahrani S, Albidy H, Alomar N, Bin Mutreb L, Alkhofi A, Alsaleh Z, et al. Correction: Patient Satisfaction With Primary Healthcare Services in Al-Ahsa, Saudi Arabia. Cureus. 2023;15(1):c87. doi:10.7759/cureus.c87. https://pubmed.ncbi.nlm.nih.gov/36618492/

22. Alzahrani AM, Alzhrani AA, Felix HC, Alharbi KK, Shahzad MW, Arbaein TJ, et al. Patient Satisfaction with Private Community Pharmacies versus Pharmacies in Primary Health Care Centers in Saudi Arabia. Saudi Pharm J. 2024;32(6):102091. doi:10.1016/j.jsps.2024.102091. https://pubmed.ncbi.nlm.nih.gov/38757070/

23. Aldossary MS, Alahmary MA, Almutawaa MM, Alhajri SM, Almalki AO, Alharbi KA, et al. Patient Satisfaction in Dental Healthcare Settings at Saudi Ministry of Health: A Descriptive Study. Patient Prefer Adherence. 2023;17:2377-2383. doi:10.2147/PPA.S419978. https://pubmed.ncbi.nlm.nih.gov/37790864/

24. Bukhari A, Shadid A, Al-Omair A, Alheggi A, Almukhadeb EA, Albarqawi SY. Patient satisfaction following treatment with micro-focused ultrasound with visualization: A retrospective cross-sectional study. Skin Res Technol. 2024;30(8):e13917. doi:10.1111/srt.13917. https://pubmed.ncbi.nlm.nih.gov/39121005/

25. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Bull World Health Organ. 2007;85(11):867-72. doi:10.2471/blt.07.045120. https://pubmed.ncbi.nlm.nih.gov/18038077/

26. Barkar MA, Mikwar Z, Khalid AA, Mohammedamin AA, Aloufi AH, Abualhamail AA, et al. Patient Satisfaction and Quality of Life After Mastectomy at King Abdulaziz Medical City, Jeddah. Cureus. 2023;15(12):e51029. doi:10.7759/cureus.51029. https://pubmed.ncbi.nlm.nih.gov/38149063/

27. Mahfouz MS, Ryani MA, Shubair AA, Somili SY, Majrashi AA, Zalah HA, et al. Evaluation of Patient Satisfaction With the New Web-Based Medical Appointment Systems "Mawid" at Primary Health Care Level in Southwest Saudi Arabia: A Cross-Sectional Study. Cureus. 2023;15(1):e34038. doi:10.7759/cureus.34038. https://pubmed.ncbi.nlm.nih.gov/36814746/

28. Aljindan M, Neyaz HA, Bin Helayel H, Alwohaibi NN, Rushood AA. Visual Outcome and Patient Satisfaction with Implantation of Trifocal Intraocular Lens After Radial Keratotomy. Clin Ophthalmol. 2024;18:3043-3051. doi:10.2147/OPTH.S471712. https://pubmed.ncbi.nlm.nih.gov/39493837/

29. Alodhialah AM, Almutairi AA, Almutairi M. Key Predictors of Patient Satisfaction and Loyalty in Saudi Healthcare Facilities: A Cross-Sectional Analysis. Healthcare (Basel). 2024;12(20):2050. doi:10.3390/healthcare12202050. https://pubmed.ncbi.nlm.nih.gov/39451465/

30. Farooqi W, Abukaram TM, Alsulaiman T, Wadaan AM, Sitwat R, AlDawood H, et al. Assessment of Patient Satisfaction Regarding Clinic Visits in Riyadh, Kingdom of Saudi Arabia: A Cross-Sectional Study. Cureus. 2024;16(8):e65958. doi:10.7759/cureus.65958. https://pubmed.ncbi.nlm.nih.gov/39221341/

31. Asiri AA, Al-Qahtani FS, Al-Saleh MM, Alhayyani RM, Alfaya FA, Alfaifi SH, et al. Impact of electronic health services on patient satisfaction in primary health care centers in Southwestern Saudi Arabia. J Family Med Prim Care. 2024;13(1):85-92. doi:10.4103/jfmpc.jfmpc_724_23. https://pubmed.ncbi.nlm.nih.gov/38482306/

32. Taha M, Aleesa BA, Algarni MA, Alomari SM, Alzubidy SH. Evaluating Patient Satisfaction and Quality of Life After Undergoing Laparoscopic Cholecystectomy in Al-Qunfudhah Governorate, Saudi Arabia. Cureus. 2024;16(6):e62276. doi:10.7759/cureus.62276. https://pubmed.ncbi.nlm.nih.gov/39006686/

33. Alnashri YM, Alfaqih OY, Buhaliyqh MA, Mossery RA, Alamri IR, Mahfouz NA, et al. Patient Satisfaction and Its Predictors With Perioperative Anesthesia Care at Two General Hospitals in Southwestern Saudi Arabia. Cureus. 2023;15(1):e33824. doi:10.7759/cureus.33824. https://pubmed.ncbi.nlm.nih.gov/36819326/

34. Alzahrani AM, Rambo R, Alotain F, Naeem A, Alzhrani RM, Albaradi MA, et al. Determinants of Patient Satisfaction with Discharge Pharmacy Services at a Tertiary Care Center in Jeddah, KSA. Integr Pharm Res Pract. 2024;13:155-164. doi:10.2147/IPRP.S477216. https://pubmed.ncbi.nlm.nih.gov/39310040/

35. Almulhim A, AlMulhim AF. Ophthalmology Practice-Related Factors and Patient Loyalty: Mediating Role of Patient Satisfaction. Patient Prefer Adherence. 2024;18:1675-1689. doi:10.2147/PPA.S461314. https://pubmed.ncbi.nlm.nih.gov/39139994/

36. Alruwais AT, Allihyani A, Sindy EA, Alhowaidi R, Mulla O, Malibari JS, et al. A Cross-Sectional Study on Patient Satisfaction With Healthcare Services Provided at the Ophthalmology Clinics in Saudi Arabia. Cureus. 2024;16(1):e52202. doi:10.7759/cureus.52202. https://pubmed.ncbi.nlm.nih.gov/38348006/

37. Albaqawi AH, Aljanakh MD, Alshammari BN, Alshammari MA, Alshammari RH, Alshammari GD, et al. Quality of Fixed Dental Prostheses and Patient Satisfaction in a Sample From Saudi Arabia. Cureus. 2023;15(12):e51063. doi:10.7759/cureus.51063. https://pubmed.ncbi.nlm.nih.gov/38269215/

38. Shaaib H, Al Shammari M, Alyatimi S, Algarzai M, Alshehri O, Altwigri Z, et al. Evaluation of patient satisfaction about the use of regional anesthesia for cesarean section in the Kingdom of Saudi Arabia. Saudi J Anaesth. 2023;17(3):334-339. doi:10.4103/sja.sja_784_22. https://pubmed.ncbi.nlm.nih.gov/37601511/

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