Instruments for Dysphonia Screening, Vocal Symptom Identification, and Self-reported Voice Perception: A Scoping Review

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SUMMARY: Objective. This study aims to map the instruments used in international literature for dysphonia screening, vocal symptom identification, and self-reported voice perception.

Method. A scoping review conducted in accordance with the Joanna Briggs Institute reviewer's manual and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines. Searches were performed in December 2025 across the Medline, Lilacs, Scopus, Cochrane, and EMBASE databases. Two independent reviewers selected studies addressing dysphonia screening and vocal self-report instruments, with no language or time period restrictions.

Results. A total of 190 studies published between 2007 and 2025 were included. Brazil led the publications (n=120; 63.1%), followed by the USA (n=12; 6.3%). Forty-one instruments were identified and categorized into screening (such as the Screening Index for Voice Disorder and Dysphonia Screening Tool), vocal symptom identification and self-reported voice perception (such as the Voice Handicap Index, Voice Symptom Scale, and Voice-Related Quality of Life), and hybrid tools (such as the Dysphonia Risk Screening Protocol and Vocal Tract Discomfort Scale). Most studies focused on working-age adults, revealing a shortage of digital ecological validations and robust sensitivity and specificity studies.

Conclusion. Although there is growing development of specific tools for occupational niches, gaps persist regarding pediatric and geriatric populations, as well as the validation of digital formats. The choice of instrument must strictly align its purpose (rapid population screening vs. longitudinal clinical monitoring) with the patient's profile.

Keywords: Dysphonia–Voice Disorders–Screening–Surveys and Questionnaires–Scoping Review.

INTRODUCTION

Dysphonia, conceptually defined as any alteration affecting voice quality, pitch, loudness, or vocal effort, is a disorder that impairs effective communication and negatively impacts voice-related quality of life. It is a clinical condition that affects millions of people worldwide every year.[1]

Different methodologies have been employed to identify patterns, estimate risks, and understand the prevalence of this condition. However, a wide variability is observed regarding the scope of studies, sample profiles, and countries of origin. Among the strategies previously utilized, notable examples include periodic assessments to monitor the occurrence and evolution of dysphonia,[2] investigations into incidence and associated factors,[3] clinical examinations,[4] interviews,[5] and, most notably, the application of specific questionnaires and protocols designed for dysphonia screening and/or vocal symptom identification.[6]

The heterogeneity of these evaluative criteria also contributes to discrepancies in determining the global prevalence of dysphonia. International studies estimate rates between 13.9% and 29.9% in the general population.[3,7,8] In specific groups, such as children and the elderly, these rates are also expressive, reaching approximately 11.6% and 20%, respectively.[9,10]

Speech-language pathology assessment of the voice comprises different complementary stages. It begins with the anamnesis and the investigation of factors associated with dysphonia risk, including aspects related to lifestyle, vocal habits, health conditions, vocal signs and symptoms, and self-reported voice perception. This stage constitutes an essential component of both comprehensive clinical evaluations and vocal screening/triaging actions, as it enables the early identification of individuals susceptible to developing voice disorders. Subsequently, the assessment progresses to a phase encompassing auditory-perceptual and acoustic analyses, complemented by laryngeal examination when indicated.[11,12]

In this scenario, the use of validated instruments becomes fundamental, as it allows for a more precise design of care and prevention actions, whether for vocal guidance, referral to rehabilitation, the development of health promotion strategies, or the formulation of public policies

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targeting voice disorders. Although several vocal self-assessment instruments, symptom scales, and clinical protocols have been developed to measure these alterations and their functional and psychosocial impacts, a marked dispersion remains regarding the populations evaluated, the contexts of application, and the criteria used to characterize dysphonia risk.[13]

Therefore, there is a clear need for a comprehensive synthesis of the international literature to identify the instruments used for dysphonia screening, including screening protocols and self-report instruments aimed at identifying symptoms and vocal impact. Epidemiological approaches applied to voice disorders vary across countries, reflecting different healthcare contexts and ways of utilizing these tools. In this regard, mapping the global distribution of vocal screening tools can contribute to understanding the differences related to their development and application.

Given the above, this study aims to map the instruments used in international literature for dysphonia screening, vocal symptom identification, and self-reported voice perception.

METHODS

This scoping review was based on the Joanna Briggs Institute (JBI) reviewer's manual and the recommendations of the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). The protocol was registered on the Open Science Framework platform under the registry OSF.IO/27QFC.

Accordingly, the following steps were defined for the development of this study: I. identification of the research question; II. establishment of eligibility criteria; III. development of the search strategy; IV. identification of studies; V. study selection; VI. data extraction; and VII. data mapping and summarization of the results.

Research question

The research question was structured using the PCC mnemonic, where P (Population) represents individuals with or without vocal complaints, C (Context) is the international literature, and C (Concept) encompasses instruments for dysphonia screening, vocal symptom identification, and self-reported voice perception. Thus, the following research question was defined: Which instruments are described in international literature for dysphonia screening, vocal symptom identification, and self-reported voice perception?

Eligibility criteria

Texts published in Portuguese, English, and Spanish, with no publication period restrictions, were included. Additionally, studies presenting screening/risk instruments and/or instruments assessing symptoms, impact, or self-report involving participants with or without a formal diagnosis were included.

Studies with restricted access (paid or without the full text available) were excluded, as well as gray literature documents, such as conference proceedings, book chapters, dissertations, and theses. Opinion articles, letters to the editor, reviews, and literature reviews were also disregarded. Regarding methodological criteria, instruments requiring examiner mediation, or exclusively auditory-perceptual or acoustic analyses without the use of the instruments defined in the inclusion criteria, were excluded. Finally, instrument development studies without application in samples or unvalidated versions were discarded.

Search strategy

Both standardized descriptors identified in the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH), as well as keywords from a preliminary literature search, were utilized (Table 1).

Based on the defined descriptors, a search was conducted across the Medline, Lilacs, BVS, SCOPUS, Web of Science, Cochrane Library, and Embase databases on December 10, 2025. The search strategies were adapted for each database using the Boolean operators AND and OR (Table 2).

Identification and selection of relevant studies

Data were exported and categorized on the Rayyan Qatar Computing Research Institute (QCRI) platform. The initial screening was performed independently and blindly by two researchers. In cases of divergence, a third reviewer was invited to assist in the final inclusion or exclusion decision. Studies selected during this phase underwent full-text reading to analyze their relevance to this review.

Data extraction and summarization of results

Data extraction was performed using a standardized form developed by the authors, which included: author and year of publication, title, study objective, methodological design, measurement instruments, and profile of the studied population. Regarding the instruments, they were grouped into two categories: Screening/Risk Instruments, and Instruments for the identification of vocal symptoms and self-reported voice perception.

RESULTS

A total of 839 studies were retrieved, of which 416 were removed as duplicates. Of the remaining 423 studies, 187

TABLE 1.
Descriptors Found From Automatic and Manual Searches
Source: The authors.

Protocol, instrument, questionnaire, scale, screening, screenings, mass screening, dysphonia, voice disorder, voice disorders, voice disturbance, voice disturbances

TABLE 2.
Search Strategy Adapted for Each Database
Source: The authors.

Medline	(dysphonia[Title/Abstract] OR "voice disorder"[Title/Abstract] OR "voice disorders"[Title/Abstract] OR "voice disturbance"[Title/Abstract] OR "voice disturbances"[Title/Abstract]) AND (screening[Title/Abstract] OR screenings[Title/Abstract] OR "mass screenings"[Title/Abstract]) AND (protocol[Title/Abstract] OR instrument[Title/Abstract] OR questionnaire[Title/Abstract] OR scale[Title/Abstract])
Lilacs	(tw:(dysphonia OR "voice disorder" OR "voice disorders" OR "voice disturbance" OR "voice disturbances" OR disfonias OR "distúrbios da voz" OR "distúrbios de voz" OR "alterações vocais" OR disfonía OR "trastornos de la voz" OR "disturbios de la voz" OR "alteraciones vocales")) AND (tw:(screening OR screenings OR "mass screening" OR "mass screenings" OR rastreamento OR triagem OR "triagem em massa" OR tamizaje OR cribado OR "detección masiva")) AND (tw:(protocol OR instrument OR questionnaire OR scale OR protocolo OR instrumento OR questionário OR escala OR cuestionario)) AND instance:"lilacsplus"
Scopus	(TITLE-ABS (dysphonia) OR TITLE-ABS ("voice disorder") OR TITLE-ABS ("voice disorders") OR TITLE-ABS ("voice disturbance") OR TITLE-ABS ("voice disturbances")) AND (TITLE-ABS (screening) OR TITLE-ABS (screenings) OR TITLE-ABS ("mass screening")) AND (TITLE-ABS (protocol) OR TITLE-ABS (instrument) OR TITLE-ABS (questionnaire) OR TITLE-ABS (scale))
Web of Science	((TI=dysphonia OR TI="voice disorder" OR TI="voice disorders" OR TI="voice disturbance" OR TI="voice disturbances" OR AB=dysphonia OR AB="voice disorder" OR AB="voice disorders" OR AB="voice disturbance" OR AB="voice disturbances")) AND ((TI=screening OR TI=screenings OR TI="mass screening" OR AB=screening OR AB=screenings OR AB="mass screening")) AND ((TI=protocol OR TI=instrument OR TI=questionnaire OR TI=scale OR AB=protocol OR AB=instrument OR AB=questionnaire OR AB=scale))
Cochrane library	(dysphonia OR (voice disorder*) OR (voice disturbance*)) AND ((mass screen*) OR screening OR screenings) AND (protocol* OR instrument* OR questionnaire* OR scale*)
Embase	(dysphonia:ti,ab OR "voice disorder":ti,ab OR "voice disorders":ti,ab OR "voice disturbance":ti,ab OR "voice disturbances":ti,ab) AND (screening:ti,ab OR screenings:ti,ab OR "mass screening":ti,ab) AND (protocol:ti,ab OR instrument:ti,ab OR questionnaire:ti,ab OR scale:ti,ab)

were excluded after screening titles and abstracts, leaving 236 for full-text reading. After applying the eligibility criteria, 190 studies were included in this review, as shown in Figure 1.

The studies were published between 2007 and 2025 (Figure 2). Regarding the countries of publication, 32 countries were represented: 120 from Brazil, 12 from the USA, 6 from China, 6 from Turkey, 6 from Chile, 5 from Finland, 5 from Italy, 4 from Spain, 4 from Lithuania, 3 from Colombia, 3 from India, 3 from Sweden, 3 from Poland, 2 from the United Kingdom, 2 from South Korea, 2 from Lebanon, 2 from Iran, 1 from Austria, 1 from Australia, 1 from Uruguay, 1 from Egypt, 1 from Norway, 1 from Germany, 1 from Switzerland, 1 from France, 1 from Japan, 1 from North Korea, 1 from Malaysia, 1 from the Netherlands, 1 from Portugal, 1 from Thailand, and 1 from Mexico (Supplement 1).

In terms of study designs, there was a predominance of cross-sectional studies (n=129; 68.0%) and cross-cultural adaptation and/or validation studies (n=28; 14.7%), which together accounted for 82.7% of the total.

Forty-one instruments were identified, of which 16 were used for dysphonia screening and 34 for vocal symptom identification and self-reported voice perception. Notably, 9 instruments were used for both dysphonia screening and the identification of symptoms, impact, or self-report (Table 3).

Among the most frequently used instruments, the following stood out: the Voice Handicap Index (VHI); Voice Symptom Scale (VoiSS); Voice Handicap Index - 10 (VHI-10); Voice-Related Quality of Life (V-RQOL); Vocal Fatigue Index (VFI); Screening Index for Voice Disorder (SIVD); and the Dysphonia Risk Screening Protocol (DRSP-G), all of which were applied in both clinical and epidemiological contexts. Generally, these instruments are structured as self-administered questionnaires with quantitative scores that allow for the classification of dysphonia risk or impact.

The target population was heterogeneous, predominantly encompassing adults and the elderly (n=167; 87.9%). However, there were also studies involving children and adolescents, for whom specific versions were developed.

DISCUSSION

Based on the analysis of the findings, the discussion is organized to address instruments designed for dysphonia screening, those aimed at vocal symptom identification and self-reported voice perception, and tools applicable to both purposes. This approach allows for a clearer understanding of the distinct objectives of these tools, as well as their methodological and clinical implications.

The application of standardized vocal assessment instruments enables the systematization of collected information, promotes the replicability of findings across

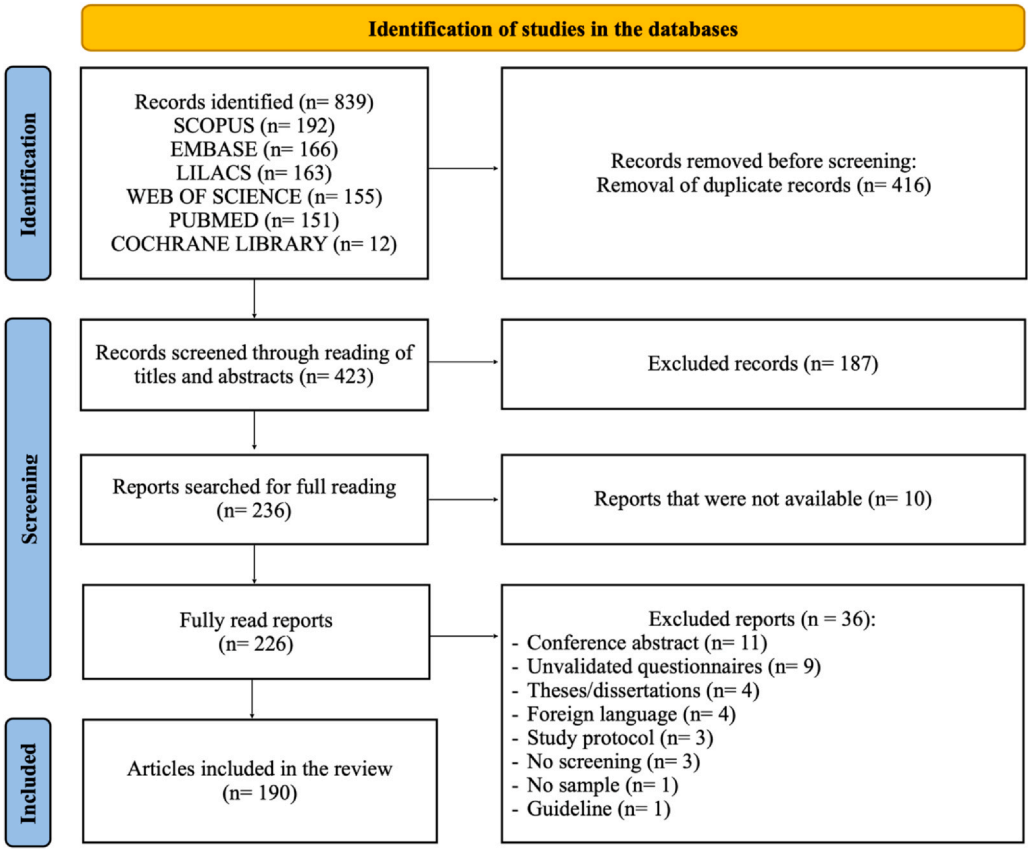

FIGURE 1. PRISMA flowchart.

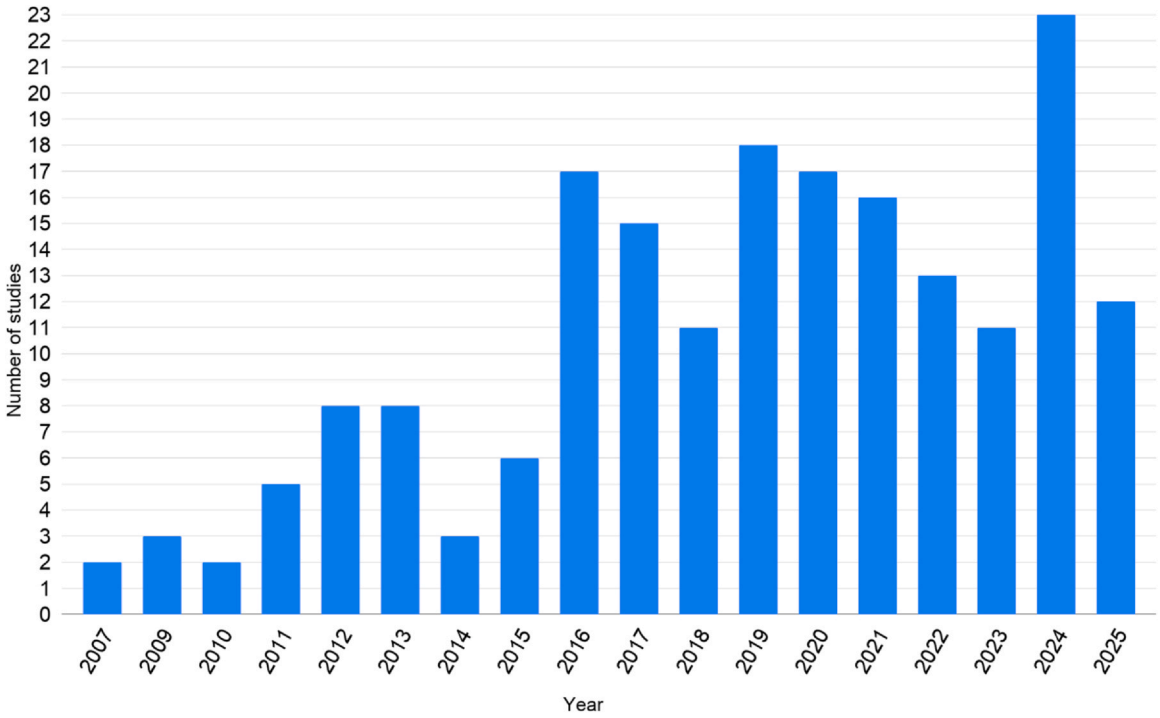

FIGURE 2. Publication period of the studies.

TABLE 3.
Methodological Design, Instruments Used, and Population Profiles of the Included Studies
Source: The authors.

Study designs*		**n= 190**
Cross-sectional		129
Cross-cultural adaptation and/or validation		28
Experimental		9
Prospective		8
Cohort		4
Longitudinal		3
Quasi experimental		2
Mixed methods		2
Observational		1
Descriptive		1
Case series		1
Case control		1
A panel of experts		1
Instruments used†	**Screening/Risk Instruments**	**n= 73**
	Screening Index for Voice Disorder (SIVD)	23
	Dysphonia Risk Screening Protocol (DRSP-G)	11
	Dysphonia Screening Tool (DST)	9
	Screening for Voice Disorders in Older Adults (RAVI)	8
	Vocal Tract Discomfort Scale (VTDS)	7
	Questionnaire for screening vocal symptoms (Screen6)	3
	Dysphonia Risk Screening Protocol for Musical Theatre Actors (DRSP-MTA)	2
	Reflux Symptom Index (RSI)	2
	The Quick Screening of Voice checklist (QSV)	2
	Teachers' Dysphonia Risk Screening Protocol (DRSP-T)	1
	Child Dysphonia Risk Screening Protocol (DRSP-C)	1
	Occupational Voice Quick Screening (OVQS)	1
	Dysphonia Risk Screening Protocol for Legal Professionals (DRSP-LP)	1
	Voice Screening Protocol (VSP)	1
	Dysphonia Risk Screening Protocol for Actors (DRSP-A)	1
	Symptom, Impact, or Self-Report Instruments	**n= 232**
	Voice Handicap Index (VHI)	42
	Voice Handicap Index - 10 (VHI-10)	30
	Voice Symptom Scale (VoiSS)	29
	Voice-Related Quality of Life (V-RQOL)	26
	Vocal Fatigue Index (VFI)	17
	Teacher's Vocal Production Condition (CPV-P)	14
	Dysphonia Risk Screening Protocol (DRSP-G)	11
	Vocal Activity and Participation Profile (VAPP)	9
	Vocal Tract Discomfort Scale (VTDS)	7
	Children's (pediatric) Voice Handicap Index (PVHI)	6
	Vocal Health and Hygiene Questionnaire (VHHQ)	4
	Modern Singing Handicap Index (MSHI)	4
	Glottal Function Index (GFI)	3
	Singing Voice Handicap Index (SVHI)	3
	Vocal Signs and Symptoms List (SSL)	3
	Dysphonia Risk Screening Protocol for Musical Theatre Actors (DRSP-MTA)	2
	Pediatric Vocal Symptoms Questionnaire (PVSQ)	2
	Evaluation of the Ability to Sing Easily (EASE)	2
	Transgender Voice Questionnaire (TVQ)	2
	Reflux Symptom Index (RSI)	2
	Thyroidectomy-Related Voice Questionnaire (TVQ -Tireoide)	2
	Dysphonia Risk Screening Protocol for Actors (DRSP-A)	1
	Pediatric Voice-Related Quality-of-Life Survey (Ped-VRQOL)	1
	Degree of Speech Quantity and Vocal Intensity (DSQVI)	1
	Voice Fatigue Handicap Questionnaire (VFHQ)	1
	Voice Catastrophization Index (VCI)	1
	Teachers' Dysphonia Risk Screening Protocol (DRSP-T)	1

TABLE 3 (*Continued*)

Child Dysphonia Risk Screening Protocol (DRSP-C)	1
Actor's Vocal Production Conditions (CPV-A)	1
Prospective Teacher's Voice Questionnaire (PTVQ)	1
Vocal Performance Questionnaire (VPQ)	1
Classical Singing Handicap Index (CSHI)	1
Dysphonia Risk Screening Protocol for Legal Professionals (DRSP-LP)	1
Population	**n= 190**
Adults (18 to 60 years)	107
Adults (18 to 60 years) and elderly (> 60 years)	45
Children/adolescents (< 18 years)	17
Elderly (> 60 years)	15
General population	4
Children/adolescents (< 18 years) and adults (18 to 60 years)	2

* Some studies were not clearly classified; in these cases, the original terminology used by the authors was maintained.
† Several instruments were used in more than one study.

different studies and contexts, and allows for the monitoring and re-evaluation of individuals throughout the therapeutic process. Consequently, it contributes to more effective communication between clinicians and researchers, enhances patients' understanding of their clinical findings, and facilitates data integration across various settings, including clinical, occupational, and scientific environments.[12]

The primary purpose of screening instruments is to identify individuals at risk for dysphonia; thus, they are widely used in epidemiological and occupational contexts. Generally, these instruments yield clustering or classification outcomes. They are required to be easy to administer, highly usable, rapid, and cost-effective, providing efficiently and satisfactorily interpreted responses, frequently based on cut-off points that allow for risk stratification (low, moderate, or high), which favors their large-scale applicability.[14,15]

Most screening instruments allow for self-administration, which expands their applicability. Nonetheless, in certain contexts, especially in clinical or research settings, professional support may be required to ensure the correct interpretation of the questions and results.

Among the most frequently used screening instruments identified in this scoping review, the Screening Index for Voice Disorder (SIVD), featured in 23 studies, is used to screen for vocal disorders in high-risk populations, particularly for occupational voice disorders, such as in teachers. Composed of twelve binary items, each corresponding to one point on the scale, the cut-off point to identify the risk of a voice disorder is the presence of five symptoms. Its objectivity and ease of administration contribute to patient compliance and clinical efficiency; with high sensitivity levels, it provides results that can contribute to the planning of epidemiological surveillance actions, making it highly viable within the public health context.[16,17]

The Dysphonia Screening Tool (DST), developed using medical records of individuals classified as dysphonic or non-dysphonic, is a brief and simple instrument proposed to screen for dysphonia by investigating items from existing, validated traditional vocal self-assessment instruments. Based on a dysphonia prediction analysis using self-assessment protocols, specifically, the Voice-Related Quality of Life (V-RQOL), the Voice Handicap Index (VHI), and the Voice Symptom Scale (VoiSS), which are presented further in this review, the authors concluded that two items were the most significant: "I feel that I have to strain to produce my voice" and "My voice is hoarse." They noted that if a patient responds "yes" to both statements, there is an 89.2% probability of dysphonia, meaning the individual should be referred for a detailed vocal evaluation and diagnostic confirmation.[18]

A relevant aspect is that although screening instruments are designed for triaging, they are frequently used in conjunction with more comprehensive assessment tools. Instruments for vocal symptom identification and self-reported voice perception primarily aim to measure an individual's perception of their vocal condition, including physical, functional, and emotional aspects. Unlike screening tools, these instruments mostly yield continuous scores, allowing for the quantification of symptom severity and the monitoring of changes over time.[12,19]

Such instruments were the most frequently utilized in the included studies, with emphasis on the Voice Handicap Index(VHI) and its shortened version (Voice Handicap Index - 10 [VHI-10]), the Voice-Related Quality of Life (V-RQOL), and the Voice Symptom Scale (VoiSS). These tools reflect a patient-centered approach, measuring the subjective perception of dysphonia and its impact on daily life and vocal well-being.

The Voice Handicap Index (VHI),[19] present in 42 of the 190 studies in this review, is one of the most widely used self-report instruments to assess the impact of voice disorders on quality of life. The protocol consists of 30 items distributed

across three domains: functional, physical, and emotional, with a total score ranging from 0 to 120, where higher scores indicate a greater impact of dysphonia. The instrument presents well-established evidence of validity, reliability, and sensitivity to change, making it widely used for pre- and post-vocal treatment comparisons, with a minimum variation of 18 points considered significant.[20,21]

Due to its robust evidence and sensitivity, a shortened version was subsequently developed: the VHI-10. Composed of the 10 most representative items from the original instrument, it aims to provide a quicker assessment of perceived vocal handicap while maintaining a high correlation with the VHI-30 and a similar capacity to discriminate differences between groups, with a six-point difference considered clinically relevant.[21,22]

Both the VHI and VHI-10 are among the most recurrent instruments, being widely applied across different clinical and cultural contexts, which has also driven many translation and cross-cultural validation studies. Their multidomain structure allows for a comprehensive assessment of dysphonia, a factor that justifies their extensive use in studies with medium-to-large sample sizes.

The Voice Symptom Scale (VoiSS),[23] the second most recurrent tool among studies using instruments for dysphonia,[24] is a vocal self-assessment scale that investigates the frequency of vocal symptoms. It addresses vocal function, physical symptoms, and the emotional impact of the voice disorder on the individual's life, containing 30 items scored on a Likert scale. The VoiSS differs from other vocal self-assessment instruments, such as the V-RQOL and VHI, due to its ability to investigate both the presence of vocal symptoms and their impact on the individual's life within the same instrument.[20,23,24]

Similarly, the V-RQOL,[25] widely utilized and present in 26 studies within this review, is one of the most frequently validated instruments in other languages, cited in literature as a quick and easily understood tool. Used to assess the self-perception of voice in an individual's quality of life, it features ten items with five response options each on a Likert scale. It measures the frequency and intensity of situations related to the voice's impact on functional and socio-emotional aspects of life. The total score and separate domain scores allow for the identification of which life aspects are most affected by the vocal alteration.[25,26]

Combining screening, vocal symptom identification, and self-reported voice perception into a single tool is a recurrent practice, especially in studies seeking to integrate subjective and objective voice measures. The Vocal Tract Discomfort Scale (VTDS) appears in 7 studies, mainly in the investigation of specific symptoms related to vocal tract discomfort, and is frequently associated with other instruments to complement vocal assessment. It is a self-assessment scale that measures the frequency and intensity of vocal tract symptoms, enabling both the screening of vocal alterations and the analysis of specific symptoms. Initially developed to monitor the effects of manual laryngeal therapy in patients with muscle tension dysphonia, the instrument has become widely used to measure vocal discomfort by integrating symptoms and self-report into the same protocol.[27,28]

With a similar objective of investigating specific symptoms, the use of the Vocal Fatigue Index (VFI) was reported among the included studies to identify individuals with vocal fatigue and characterize their complaints.[29,30]

Another instrument, designated for screening but also featuring an in-depth exploration of daily vocal symptoms and habits, is the Dysphonia Risk Screening Protocol (DRSP-G). It demonstrates high sensitivity and specificity in differentiating groups of individuals with and without dysphonia across different sample groups, proving to be an effective tool for use in voice clinics for screening, symptom assessment, and vocal impact evaluation. It is composed of 18 items encompassing vocal self-assessment, history of previous vocal alterations, frequency of vocal signs and symptoms, voice use in extra-professional activities, diet, hydration, sleep, contact with smokers, medical history, family history of voice disorders, family dynamics, and physical and leisure activities. The final score is obtained via simple summation and can range from 0 to 131. The cut-off points for high risk of dysphonia are 29.25 for adult women, 22.75 for adult men, and 27.10 for the elderly, regardless of gender.[31,32]

The findings of this study also highlight a conceptual overlap in the literature regarding what constitutes a true rapid screening tool versus a detailed clinical anamnesis. Instruments like the General Dysphonia Risk Screening Protocol (DRSP-G), although highly valuable and frequently categorized as screening tools, consist of 18 detailed items. This structural complexity may limit their feasibility in mass population screenings, where shorter and more direct tools, such as the SIVD or the DST, are optimized for high-throughput triaging.[14]

Furthermore, studies have shown that the DRSP-G tracks dysphonia severity in individuals with different laryngeal diagnoses and has potential application in therapeutic monitoring, reinforcing its role beyond initial screening.[33] It is crucial that clinicians and researchers clearly distinguish rapid epidemiological screening from detailed risk profiling when selecting an instrument.[14]

Regarding age groups, there was a predominance of investigations involving working-age adults (n=107), especially voice professionals such as teachers and singers,[34,35] a population frequently evaluated using instruments such as the VHI, VHI-10, VoiSS, and SIVD. Investigations integrating adults and the elderly (n=46; 24.2%) were also significant, focusing mainly on instruments targeting quality of life and vocal screening.[31] This concentration reflects the recognition of dysphonia as an occupational hazard extensively investigated in the literature. In contrast, samples composed exclusively of children/adolescents (n=17; 8.9%) and the elderly (n=15; 7.9%) appeared in smaller proportions, generally associated with specific protocols, such as the Pediatric Voice Handicap Index (pVHI)[36] and the Screening for Voice Disorders in Older

Adults (RAVI),[15] respectively, showing a lower recurrence of instruments targeted at these populations.

The use of proxy responders, particularly for the pediatric population (such as parents or guardians), was identified as a limitation in some studies, as it introduces discrepancies between the observer's perception and the child's subjective experience, potentially resulting in the under- or overestimation of vocal risk.

Instruments for niche samples appeared in lower proportions and were frequently associated with smaller sample sizes and highly specific contexts, requiring complementary assessment by other tools, such as the Modern Singing Handicap Index (MSHI)[37] and specific screenings derived from the DRSP-G.[38,39]

In terms of sample size, the studies exhibited great variability, ranging from 8[40] to 5591 participants,[41] with larger studies generally linked to epidemiological investigations and validations.

Overall, studies with larger sample sizes shared similar methodological characteristics, being predominantly cross-sectional, epidemiological, and focused on cross-cultural validation or the definition of cut-off points. Furthermore, they mostly utilized brief, standardized, self-administered instruments, a factor that facilitates large-scale data collection, especially in occupational populations.[34,41,42]

In contrast, studies with smaller samples frequently explored specific contexts or particular populations, such as patients with vocal fold immobility,[40] individuals with multiple sclerosis,[43] children playing basketball,[44] and patients with neurofibromatosis,[45] contexts that typically hamper the acquisition of large samples and favor more exploratory designs.

Regarding the publication period of the retrieved studies, between 2007 and 2025, an increase was observed over the years in the production of screening instruments tailored to specific populations, primarily voice professionals,[37,46] indicating a trend toward specialization and greater contextual sensitivity. In parallel, there is a growth in validation studies, reflecting expanding interest in vocal health research and the adaptation of instruments across different cultural and linguistic contexts.

Brazil showed an outstanding participation in the scientific arena, with a significant volume of publications (n=120), showcasing the development, adaptation, and validation of vocal instruments, mainly focusing on teachers' voices and singing. Brazil's leadership in publications on screening and vocal self-report instruments tends to reflect its tradition in occupational vocal health. Unlike other countries where dysphonia is managed primarily within rehabilitation, Brazil has prioritized prevention and worker's health, driven by public policies and the recognition of dysphonia as a work-related disorder.[47,48] This factor stimulated the creation and validation of screening tools for voice professionals, especially teachers.

Moreover, Brazil's vast territorial and population size reinforces the importance of strategies for vocal health promotion, prevention, and screening of vocal alterations across different contexts and populations. Thus, the predominance of Brazilian studies does not represent a bias in this review, but rather underscores the country's methodological and epidemiological pioneering spirit, which can serve as a reference for other nations.

From a psychometric standpoint, many studies still focus on initial validation stages, such as content and construct validity, with a lower frequency of more robust analyses involving reliability, sensitivity, specificity, and reproducibility tested in reduced samples.

Self-administration is predominant, favoring its use in clinical and research environments, including digital platforms. Furthermore, the post-COVID-19 landscape spurred an unprecedented transition toward telehealth and mobile health applications within speech-language pathology. Despite this digital shift, the present review revealed a critical shortage of equivalence studies validating the transition from traditional paper-based vocal protocols to digital ecological formats. Considering the widespread use of smartphones and remote monitoring in contemporary vocal care, establishing the psychometric equivalence, digital usability, sensitivity, and specificity of computerized screening tools represents an urgent frontier for future investigations.

Moreover, the heterogeneity of the instruments demonstrated a diversity of criteria, scales, and cut-off points; while many studies combine instruments, few perform direct comparisons between them. Many instruments are used in association with other measures not considered in this scoping review, such as auditory-perceptual assessments, acoustic analyses, and quality-of-life instruments that exclusively reference other fields without considering vocal health (e.g., mental health assessment tools). This factor reinforces the complex nature of vocal assessment but also increases methodological complexity.

Even though it was not included in this study, the Visual Analogue Scale (VAS) was also frequently used as a complementary measure, allowing for the rapid quantification of subjective perception regarding vocal severity. However, its nature limits its isolated application, being most effective when combined with other instruments, which is why it was not considered an independent instrument in this review.

CONCLUSION

The analysis of the publication timeline demonstrates growing consolidation of these instruments through an increasing number of versions adapted and validated across different languages, countries, and cultures. The combined analysis of the findings shows that the choice of instruments is strongly related to age group, the context of voice use, and the study's objective. Adult populations and voice professionals concentrate the largest sample sizes and the most frequent use of instruments for vocal symptom assessment and self-reported voice perception, whereas screening instruments are more heavily utilized in epidemiological and triaging contexts. In pediatric and elderly populations, greater methodological variability and frequently smaller sample sizes persist.

From a practical perspective, the choice of instrument must be guided by the assessment objective and the population profile, considering the need to combine screening and assessment measures for a more comprehensive approach. In summary, although significant breakthroughs have been made in instrument development, methodological heterogeneity remains a challenge for researchers.

Declarations

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Declaration of Competing Interest

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.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.jvoice.2026.07.021.

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