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Developing a core outcome set for sciatica: a scoping review of outcome measures

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ABSTRACT

Objectives Outcome measures used in sciatica research lack standardisation, making it difficult to combine data for analysis. This scoping review identified and categorised Patient Reported Outcome Measures (PROMs) employed in randomised controlled trials investigating sciatica interventions, providing a foundation for developing a consensus-based core outcome set.

Design Scoping review.

Data sources A systematic search was conducted across MEDLINE, Embase and Cochrane Central for research published between 1999 and 2024.

Eligibility criteria We included randomised controlled trials that involved patients with sciatica and used at least one PROM.

Data extraction and synthesis Screening and data extraction were performed independently by at least two reviewers. PROMs were categorised using the OMERACT Filter 2.0 framework, inductively sub-categorised into domains, and then the frequency was counted to identify patterns of use. Collection time points and intervention type were also assessed.

Results 187 studies met the inclusion criteria. These studies employed 69 different PROMs, collected 548 times across all papers. The Visual Analogue Scale for pain (n=115), Oswestry Disability Index (n=109) and Numeric Pain Rating Scale (n=74) were most frequently used. PROMs predominantly addressed the pathophysiological (n=274) and life impact (n=262) domains, with minimal attention to resource use/economic impact (n=12). Injection-based interventions were the most studied treatment approach. Follow-up periods using the same PROMs varied considerably between studies, with trends by intervention type.

Conclusions This review identified and categorised PROMs from numerous research studies, revealing substantial heterogeneity in outcome measurement for sciatica trials. This demonstrates the need for a standardised core outcome set. The predominance of use of non-sciatica-specific pain and disability measures suggests potential gaps in capturing sciatica-specific outcomes. Inconsistent follow-up durations and administration methods further highlight the requirement for standardisation.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Comprehensive scope capturing 25 years of published literature with rigorous double-screening methodology.
⇒ Large sample of screened and included studies enhances the representativeness and robustness of findings.
⇒ Systematic categorisation using the OMERACT framework and domains provides clear mapping of the current outcome measurement landscape.
⇒ Non-standardised terminology for sciatica and related conditions may have limited identification of all relevant trials.
⇒ Some inevitable subjectivity in the categorisation process, though mitigated through reviewer consensus and discussion.

INTRODUCTION

Sciatica is a broad term relating to a group of symptoms characterised by pain and sometimes sensorimotor disturbance radiating from the lumbar-sacral spine to below the knee.[1] It is often used synonymously with more contemporary terms such as spine-related leg pain, lumbar radicular pain and lumbar radiculopathy. However, sciatica is still the most commonly used term among patients and clinicians, and this report uses the term sciatica throughout to ensure clarity and consistency.

Sciatica typically affects the working-age population and usually has a favourable outcome at 12 to 24 months.[2] However, for some people, sciatica can be severely painful and disabling, affecting every aspect of their lives, including capability to work, participate in social activities and carry out activities of daily living. With an annual prevalence of 2.2%, it is a significant health and social care issue worldwide.[3–5]

Healthcare outcomes are critical indicators that measure the effects of treatments and interventions. In everyday clinical settings, healthcare providers regularly employ outcome measurement tools to track patient improvement and guide decisions about further treatment approaches. In research,

outcome evaluations determine the effectiveness of interventions, which guides evidence-based practices and enhances patient care protocols. Inconsistent outcomes across studies examining the same condition make meaningful comparisons difficult and hamper statistical combination of results in systematic reviews.[6] Selective outcome reporting also introduces significant bias into the evidence base.[7] Furthermore, failure to assess and report outcomes that patients themselves consider important diminishes the practical relevance of research findings. To address this, the development of Core Outcome Sets (COS) has gained momentum. A COS is a standardised, minimum collection of outcomes that should be measured and reported in studies of specific conditions.[8] A COS facilitates cross-study comparison, strengthens decision making and prevents outcome reporting bias.[7]

Currently, Patient Reported Outcome Measures (PROMs) used in sciatica trials often mirror those used in low back pain studies. While a COS exists for non-specific low back pain,[9] incorporating physical functioning, pain intensity and health-related quality of life, a meta-epidemiological study revealed that only 20.8% of randomised controlled trials in registries planned to measure all domains of this COS.[10] Notably, no specific COS has been established for sciatica. People who experience sciatica typically suffer more severe back pain, leg pain, depression and anxiety compared with those with nociceptive leg pain.[11] Given the substantial differences in pain characteristics, duration and disability levels between sciatica and low back pain, sciatica should be considered as a distinct entity.[12] In the United Kingdom (UK), sciatica-associated costs exceed £12.4 billion.[13] Patients with sciatica consume more healthcare resources than those with low back pain alone, take more time off work, are less likely to perform their usual work duties and consequently experience reduced quality of life.[14]

The initial stage in the development of a COS is the undertaking of a systematic scoping review to identify and synthesise the outcome measures that have been reported in the existing literature within the field.[15] This highlights the breadth of variability of outcomes and helps to identify inconsistencies, redundancies and potential gaps in outcome reporting. By systematically cataloguing these outcomes, it establishes an evidence-based foundation on which subsequent phases of COS development can build, ensuring that the final set of outcomes reflects both clinical relevance and research priorities. This typically precedes a Delphi study, where patients and clinicians are involved to determine the final COS.

This scoping review aimed to identify, count and categorise the PROMs previously employed in randomised controlled trials (RCTs) involving sciatica patients across all types of interventions. This work can be used as a valuable precursor to developing a COS.[15]

METHODS

This scoping review is reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) guidelines.[16] The protocol was uploaded to a data repository at the University of Sheffield on 16 September 2024[17] and can be found in online supplemental appendix 1. The study is registered on Core Outcome Measures in Effectiveness Trials (COMET), registration number 3481.

Search strategy

A comprehensive literature search was conducted on 13 September 2024 across three databases: MEDLINE via Ovid, Embase via Ovid and Cochrane Central. The search strategy was developed in MEDLINE and adapted for use in the other databases (online supplemental appendix 2). Thesaurus and free-text terms were used to search for studies, which included terms related to sciatica (including synonyms for sciatica, such as lumbar radiculopathy, radicular pain and lumbar radicular syndrome) and clinical trials. Reference lists of included studies were also reviewed.

Eligibility criteria

Articles were eligible for inclusion if they met the following criteria:

Population

Participants diagnosed with sciatica, or any synonymous term, regardless of cause. Studies on mixed populations were only included if data was reported separately for patients with sciatica.

Intervention/control

Studies with any interventions and controls were included.

Outcomes

Used at least one PROM as an outcome measure

Study design

RCTs (including those with active controls). Articles were excluded if they were protocol papers, systematic reviews, literature reviews, guidelines, qualitative studies, retrospective or observational studies, pilot studies or studies with fewer than 10 participants. Studies reported as conference abstracts only were not included.

The search was restricted to 25 years (1999 to present, at time of searching) to reflect existing outcome measurement practices in the clinical setting. The timeframe ensures that the findings are relevant to contemporary clinical care and aligns with the adoption of validated PROMs and diagnostic criteria for sciatica.[18] Articles were also only included if they were published in the English language.

If more than one report was identified relating to the same study, the report with the most comprehensive dataset only was included. There were no restrictions on study setting, location or country.

Study selection

Results from the database searches were exported and uploaded to Rayyan.[19] Duplicates were removed. The titles and abstracts of each article were then independently screened by two reviewers (a combination of KR, JW, IA, BW, DM or RM), and a third reviewer (MR) settled any disagreements. For the articles which passed the first round of screening, full texts were downloaded and screened independently by two reviewers (a combination as above), with a third again settling any disagreements. Authors were contacted for all reports which the reviewers were unable to access.

Data extraction

Data extraction was performed independently by two reviewers per included article, using a predesigned spreadsheet on Google Sheets. Data on publication details, number of participants, details of control and intervention groups and PROMs, including method of collection and timepoints, were extracted. To improve clarity in reporting and ensure that the synthesis reflected meaningful distinctions, PROMs with only minor differences were consolidated, where appropriate.

Data analysis

PROMs were categorised by MR and KR using the OMERACT Filter 2.0: a framework used to assess outcomes to include in a COS.[20] The OMERACT core areas of Life impact, Pathophysiological, and Resource use/Economical Impact were used. PROMs were then inductively further broken down into domains of Pain, Disability, Health Status, Global Perceived Effect, Satisfaction, Quality of Life, Psychological, Work/study, Healthcare Utilisation, Sleep and Physical activity. PROMs and their categories were frequency counted to identify the most-used measures.

Interventions were broadly arranged into five different categories: Injections, Surgery, Medications, Physiotherapy/Exercise and Novel/Experimental Treatments. If interventions could potentially fit into multiple categories, a decision was made on the primary focus of the intervention. Time points were then assessed in relation to these categories.

As the purpose of this review was to collate the outcomes used in previous literature, risk of bias/quality assessment of studies was not conducted.

Patient and public involvement

Patient and Public representatives were not engaged in this review, as our aim was to summarise current literature. Their participation will be essential in the next steps of development of a COS.

Deviations from protocol

Given the substantial number of records retrieved through database searching, it was determined that an additional search of the grey literature, including sources such as Google Scholar and citation tracking, would not be undertaken, despite its inclusion in the original study protocol. This is in accordance with the COMET Initiative, which acknowledges that pragmatic decisions regarding search strategies are often necessary to balance methodological rigour with efficiency.[15] The large volume of peer-reviewed studies identified was considered sufficient to capture the range of outcomes relevant to the review.

RESULTS

Study selection

The database search identified 2188 initial records. After removing 764 duplicates, 1424 records were screened, resulting in 374 papers for full-text review. 98% (n=366) of these full texts were retrieved. Despite librarian assistance, eight were unable to be accessed and authors could not be successfully contacted. Following detailed assessment, 187 papers were included in the final review (figure 1). The data extraction table including references for all included studies can be found in online supplemental appendix 3.

Characteristics

Three studies were published in 1999, 45 studies in the 2000s, 95 in the 2010s and 44 between 2020 and 2024.

Population

As per the search strategy, all studies included patients with sciatica or synonymous terms. There was a large variation in the number of participants randomised per study. This ranged from 15 participants[21] to 2390 participants,[22] with a mean of 124.

Outcomes

Most studies collected two PROMs (n=68). There was a range from 1 to 10 PROMs, and a mean of 3 PROMs.

Overall, 548 PROMs were collected, which encompassed 69 different PROMs across all papers (table 1). This was in addition to four other modified/short versions of questionnaires (Modified Oswestry Disability Index, Short Form-12, Modified Roland-Morris Disability Index and Short Form Brief Pain Inventory) and several different methods of collecting global perceived effect and patient satisfaction, which were grouped into one PROM each. The most collected PROMs were the Visual Analogue Scale (VAS) randomised controlled trials for pain (n=115), Oswestry Disability Index (n=109) and Numeric Pain Rating Scale (n=71).

Many of the collected PROMs covered the 'pathophysiological' core area (n=274) or the 'life impact' core area (n=262) (figure 2). PROMs on 'resource use/economical impact' were only collected 12 times across all studies.

- **Pathophysiological**. Comprised 20 different PROMs, collected 274 times across the studies. These were broken down into the domains of: Pain and Health Status. 'Pain' could be further broken down into general (total n=199), neuropathic (n=24), psychological (n=6) (five used the Brief Pain Inventory, and one study used the Global Pain scale), or medication

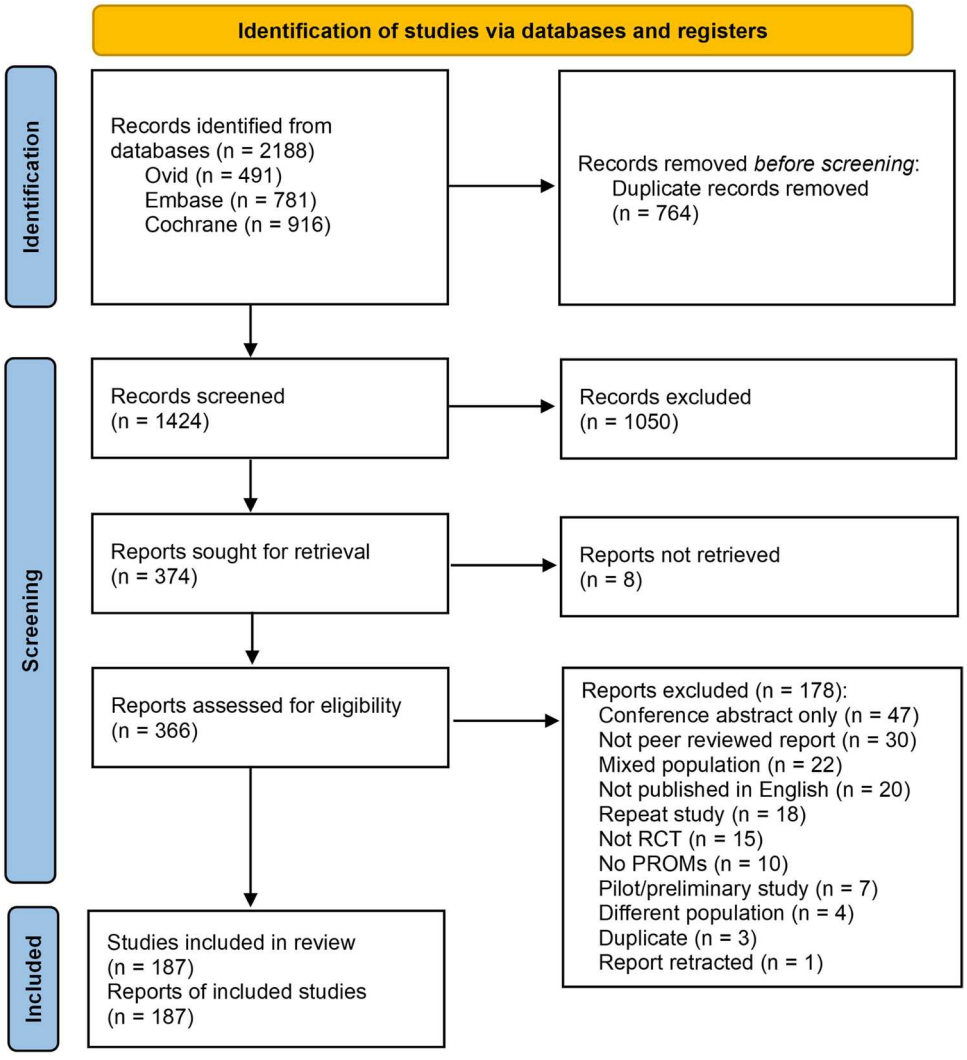

Figure 1 PRISMA Flow Diagram. PROM, Patient Reported Outcome Measure; RCT, randomised controlled trials.

use (as a proxy) (n=4). The VAS was used to assess pain differently and rarely to specifically measure sciatic pain (table 2).

- **Life Impact**. Covered 42 different PROMs, collected a total of 262 times across all studies. These were broken down into seven domains, listed highest to lowest: Disability, Global Perceived Effect, Psychological, Satisfaction, Quality of Life, Sleep and Physical activity. The category 'Psychological' could be further divided into mental health (total of n=21), fear (n=7), mindfulness (n=2) and pain awareness (n=1).
- **Resource Use/Economical Impact**. Included six different PROMs, collected 12 times across all studies. These were subcategorised into: work/study and healthcare utilisation.

Interventions

Most studies (n=77) involved interventions of injections (table 3). Many trials studied physiotherapy or exercise (n=36), novel/experimental treatments (n=31) and medication (n=29). Fewer studies focused on surgery (n=14). PROMs used were similar across intervention categories (table 3), but follow-up durations differed (table 4).

Study design

All studies were RCTs. It was unclear in 77 reports how the PROMs were administered. In those which specified, data were collected in person (n=77), via telephone (n=17), online (n=17), through patient diaries (n=11), by post (n=9) or by text message (n=1). Some studies used multiple methods.

Studies collected data at an average of 2.7 timepoints per measure (excluding baseline). PROMs were mostly, but not always, collected before randomisation. There were noteworthy differences in the timepoints at which the same PROMs were collected between different studies (table 5). The overall maximum follow-up duration was 2 years, but few studies followed patients for this long. Trends could be seen in follow-up duration according to intervention type (table 4). Surgical interventions had on average the longest duration of follow-up (19.7 months), whereas medication interventions had the shortest average duration (3.4 months).

Table 1 Patient reported outcome measures (69 different measures used a total of 548 times) collected by 187 studies on sciatica interventions, categorised into OMERACT 2.1 core areas and sub-categorised into domains

Patient reported outcome measure	Quantity	Core area*	Domains
Visual analogue scale for pain	115	Pathophysiological	Pain
Oswestry disability index (inc. modified)	109	Life impact	Disability
Numeric pain rating scale	71	Pathophysiological	Pain
Short form 36 or 12	41	Pathophysiological	Health Status
Roland-Morris disability index (or modified)	37	Life impact	Disability
Global perceived effect/change/recovery/ improvement/efficacy/relief (varied scale lengths)	36	Life impact	Global Perceived Effect
Patient/parent satisfaction (varied scale lengths)	17	Life impact	Satisfaction
McGill pain questionnaire (or short form)	11	Pathophysiological	Pain
Sciatica frequency and bothersomeness index	9	Pathophysiological	Pain
European quality of life measure	9	Life impact	Quality of Life
Hospital anxiety and depression scale	6	Life impact	Psychological
Brief pain inventory (or short form)	5	Pathophysiological	Pain
Beck depression inventory	4	Life impact	Psychological
Tampa scale of Kinesophobia	4	Life impact	Psychological
Ability to work/study	4	Resource use	Work/study
Analgesic intake	3	Pathophysiological	Pain
Neuropathic pain symptoms	3	Pathophysiological	Pain
Pain catastrophising scale	3	Life impact	Psychological
Pain DETECT questionnaire	3	Pathophysiological	Pain
Prolo scale	3	Resource use	Work/study
Functional rating index	2	Life impact	Disability
Healthcare utilisation questionnaire	2	Resource use	Healthcare Utilisation
North American Spine Society questionnaire	2	Life impact	Disability
Pressure pain threshold	2	Pathophysiological	Pain
Self-report Leeds Assessment of Neuropathic Symptoms & Signs	2	Pathophysiological	Pain
Sleep interference scale	2	Life impact	Sleep
Dallas pain questionnaire	2	Life impact	Disability
Visual analogue scale - quality of Life	1	Life impact	Quality of Life
Seven point 'annotated thermometer' rating scales for leg & back pain	1	Pathophysiological	Pain
Centre for Epidemiologic Studies Depression Scale	1	Life impact	Psychological
Core Outcome Measures Index	1	Life impact	Disability
Daily physical activities scale	1	Life impact	Physical activity
Douleur Neuropathique en 4 Questions	1	Pathophysiological	Pain
Duration of sick leave	1	Resource use	Work/study
Epworth sleepiness scale	1	Life impact	Sleep
Estimation index of backache	1	Life impact	Disability
Five-Facet mindfulness questionnaire	1	Life impact	Psychological
Galer neuropathic pain scale	1	Pathophysiological	Pain
Global assessment questionnaire	1	Life impact	Psychological
Global pain scale	1	Pathophysiological	Pain
Hannover functional ability questionnaire	1	Life impact	Disability
Health-related quality of life measure 15D	1	Life impact	Disability
Japanese Orthopaedic Association scores	1	Life impact	Disability

Continued

Table 1 Continued

Patient reported outcome measure	Quantity	Core area*	Domains
Kellner score	1	Life impact	Psychological
Lumbosacral Radiculopathy Pain Management Questionnaire	1	Pathophysiological	Pain
Major depressive inventory	1	Life impact	Psychological
Medication quantification scale	1	Pathophysiological	Pain
Mindful reappraisal questionnaire	1	Life impact	Psychological
Modified somatic perception questionnaire	1	Life impact	Psychological
Modified Zung depression index	1	Life impact	Psychological
Multidimensional pain inventory	1	Life impact	Disability
Nerve-root injection questionnaire	1	Pathophysiological	Pain
Neuropathy impairment score in the lower limbs	1	Pathophysiological	Pain
Nottingham Health Profile	1	Life impact	Disability
Numeric rating scale - Depression	1	Life impact	Psychological
Numeric rating scale - sleep assessment	1	Life impact	Sleep
Numeric Rating Scale - tolerance to physical activity	1	Life impact	Physical activity
Oxford pain chart	1	Pathophysiological	Pain
Pain vigilance and awareness questionnaire	1	Life impact	Psychological
Patient Health Questionnaire-15	1	Life impact	Psychological
Patient-specified functional outcome instrument	1	Life impact	Disability
Profile of mood states	1	Life impact	Psychological
Quebec disability scale	1	Life impact	Disability
The depression scale	1	Life impact	Psychological
Total symptom score	1	Life impact	Disability
Visual analogue scale - generalised anxiety	1	Life impact	Psychological
Work productivity and activity impairment questionnaire	1	Resource use	Work/study
Work status	1	Resource use	Work/study

*'Resource use' category expands to Resource use/ Economical Impact.

DISCUSSION

Main findings

The findings of this scoping review highlight significant heterogeneity in PROM selection, with 69 different measures used. The distribution across OMERACT domains shows an emphasis on pathophysiological and life impact measures, with limited attention to resource use outcomes. Most studies used measures associated with pain or disability. There was moderate homogeneity in PROMs used within intervention types as several measures were consistently common, but there was notable heterogeneity in the relative preference. Follow-up durations used in studies also varied, with some evidence that these relate to the intervention type.

Comparison with other literature

Variation in reported outcomes across studies of a single condition is a common phenomenon in medical research. For example, Mellor *et al* identified 50 distinct outcomes in 51 studies on interventions for small bowel obstruction,[23] while Marson *et al* found 525 outcomes across 100 trials on childhood fractures.[24] A systematic review of 401 low back pain trials conducted up to 2012 identified 23 outcome domains, with pain and disability being the most common. Similar to our findings, the review reported that the VAS, Roland-Morris Disability Index, Oswestry Disability Index, Numeric Pain Rating Scale and Global Perceived Improvement were the most frequently used PROMs.[25] In addition, a recent systematic review of 27 studies on sciatic neuropathy (not including sciatica) also found pain to be the most frequently assessed domain, with the Oswestry Disability Index being the most common PROM.[26] Some PROMs identified in that review—such as the Modified Harris Hip Score, International Hip Outcome Tool and International Physical Activity Questionnaire—were not observed in our analysis.

As there was no previous scoping review of outcomes used in sciatica, our review is essential to outline the current environment. The findings provide a strong foundation for developing consensus-based outcome measures specific to sciatica research.

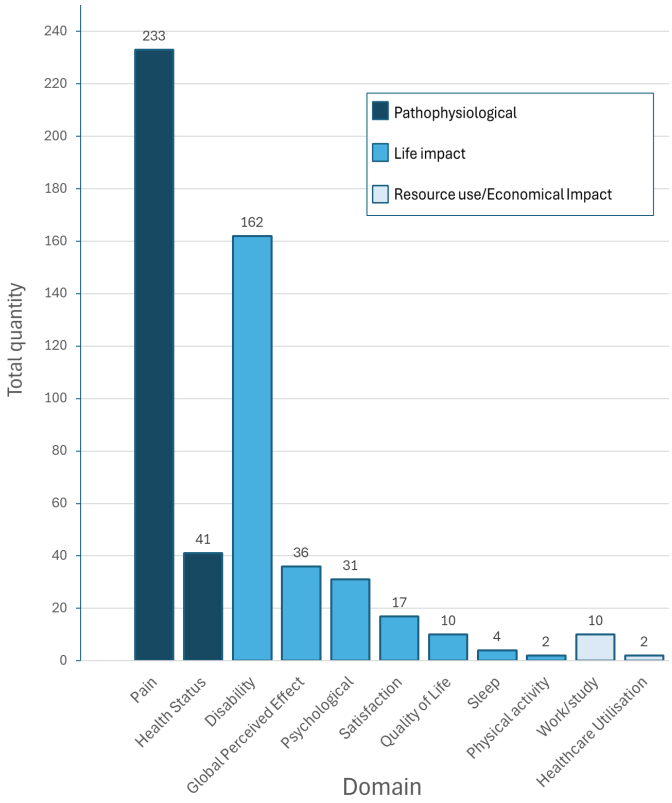

Figure 2 Categories of outcomes used in randomised controlled trials on sciatica (n=187 studies) categorised by OMERACT Filter 2.1. Core area and subcategorised into domains.

Recommendations for clinicians and research

When studies investigating the same health condition use different definitions for their outcomes, it is more challenging to make meaningful comparisons and the ability to effectively combine statistical results in systematic reviews is impeded.[6 7] This scoping review demonstrates significant variation in PROM selection for sciatica trials and highlights the need for a standardised COS. The next step for developing a COS will involve a Delphi Study, in which a group of people will score the identified outcome measurement tools in order of importance, with opportunity to add further outcomes if desired. Such a group should include clinicians treating patients with sciatica, as well as patients with experience of sciatica to consider the outcomes most important to patients.

Table 2 The body area/type of pain assessed by the Visual Analogue Scale in 115 different studies

Body area	Number of studies
Unspecified	58
Leg and back	40
Leg	9
Low back	4
Radiculopathy	3
Sciatic	1

Table 3 The seven most common PROMs used in each intervention category

Intervention category	PROM	Quantity
Injections (n=77)	Oswestry Disability Index	54
	Visual Analogue Scale	51
	Numeric Rating Scale	29
	Global Perceived Change	11
	Roland-Morris Disability Index	9
	Patient/parent Satisfaction	8
	Short Form 36 or 12	6
Physiotherapy / exercise (n=36)	Visual Analogue Scale	22
	Oswestry Disability Index	20
	Roland-Morris Disability Index	12
	Numeric Rating Scale	11
	Short Form 36 or 12	6
	Global Perceived Change	6
	Sciatica Frequency and Bothersomeness Index	5
Novel / experimental (n=31)	Oswestry Disability Index	18
	Visual Analogue Scale	16
	Numeric Rating Scale	14
	Short Form 36 or 12	10
	Global Perceived Change	8
	Patient/Parent Satisfaction	4
	Roland-Morris Disability Index	3
Medication (n=29)	Visual Analogue Scale	17
	Numeric Rating Scale	14
	Short Form 36 or 12	11
	Roland-Morris Disability Index	10
	Oswestry Disability Index	9
	Global Perceived Change	7
	McGill Pain Questionnaire	5
Surgery (n=14)	Visual Analogue Scale	9
	Oswestry Disability Index	8
	Short Form 36 or 12	8
	Global Perceived Change	4
	Roland-Morris Disability Index	3
	Sciatica Frequency and Bothersomeness Index	3
	Numeric Rating Scale	3

The review also demonstrates the need for a COS that can be applied consistently across diverse intervention types, ensuring comparable and meaningful outcomes regardless of therapeutic modality. Injection-based interventions, particularly epidural steroids, are the most studied and common treatment.[27] Non-invasive physiotherapy and exercise form the second largest category, aligning with UK guidance.[28] Novel/experimental

Table 4 Sciatica interventions identified in 187 studies, demonstrating difference in follow-up duration

Intervention type	Number of studies	Average duration of Follow-up	Percentage of trials with 1 year+follow-up
Injections*	77	5.6 months	18.5%
Physiotherapy/Exercise†	36	6.5 months	27.8%
Novel/Experimental Treatments‡	31	5.2 months	6.7%
Medication§	29	3.4 months	11.5%
Surgery¶	14	19.7 months	85.7%

*Spinal steroid injections affecting the nerve root (includes transforaminal, interlaminar, caudal approaches; periradicular infiltrations).
†Includes muscle strengthening exercise, mobilisation techniques, nerve flossing/gliding, stabilisation exercises, manual therapy, massage techniques.
‡Includes radiofrequency treatments, laser therapy, acupuncture/electroacupuncture, ozone therapy, pulsed electromagnetic fields, mindfulness techniques, nutritional supplements, biologics/neurotrophic factors.
§Includes NSAIDs, steroids, anticonvulsants, intravenous medications, anticonvulsants, antidepressants used for pain.
¶Includes discectomy, laminectomy, nucleoplasty, spinal decompression surgery, herniectomy.

treatments were the third most common, reflecting research into emerging options. Despite recognised effectiveness,[29] surgery is least represented, possibly due to preference for conservative approaches first.

Long-term outcomes beyond 1 year were assessed relatively infrequently, which may limit understanding of chronic pain trajectories. Follow-up duration was particularly short for medication trials. Surgical interventions had the longest follow-ups, which is appropriate as recovery can continue over many months. This should be taken into account in future COS development, as follow-up durations should not necessarily be standardised across all trials.

Until a COS is developed for Sciatica, future interventional studies should consider the outcomes reported in this review. The predominant use of just two measures (VAS and Oswestry Disability Index) suggests potential gaps in comprehensive outcome assessment. The Sciatica Frequency and Bothersome Index, which is the one measure designed specifically for use with people with sciatica, was only used in 5% of studies. Several different PROMs were used to assess the same, or similar, outcomes. For example, 19 different PROMs were used to assess pain. There was variation in the administration of the same PROMs (eg different pain areas assessed by VAS), which further emphasises a requirement for standardisation and consideration of pain location of sciatica, which radiates into the lower limb. Future studies should assess whether the Sciatica Frequency and Bothersomeness Index is appropriate for their research aims, and, if assessing pain, whether the VAS is suitable, as it is the most commonly used pain measure. Incorporating assessment of radiating pain into the VAS could further enhance the relevance of the measure for sciatica.

Table 5 Most common and maximum timepoints collected by Patient Reported Outcomes used in five or more different studies (of 187 identified)

	Maximum timepoint (months)		No. of timepoints	
Patient reported outcome measure	Mean	Range	Mean	Range
Visual analogue scale for pain	4.5	0.1–24	4.2	1–13
Oswestry disability index (or modified)	4.9	0.1–36	4	1–36
Numeric pain rating scale	5	0.3–36	4.3	1–14
Short form 36 or 12	7.4	0.5–24	3.6	1–9
Roland-Morris disability index (or modified)	5.3	0.2–12	3.9	1–10
Global perceived effect/change/recovery/improvement	9.6	0.2–60	3.2	1–7
Patient/parent satisfaction	8.4	1–36	2.9	1–9
Sciatica frequency and bothersomeness index	11.7	0.2–24	4.2	1–9
European quality of life measure	8	1–12	7.6	2–36
Patient global impression of change	2.9	0.9–12	7	1–36
Hospital anxiety and depression scale	8.3	3–12	3.2	1–6
McGill pain questionnaire (or short form)	3.2	1–12	4.5	2–12
Brief pain inventory (or short form)	1.6	0.9–2.8	1.8	1–3

Strengths and limitations

This review's rigour is supported by its comprehensive scope, double-screening methodology for all review phases and systematic categorisation approach that effectively mapped the literature landscape. Limitations include the restriction to English-language publications, which may have excluded relevant international research, the absence of grey literature in our search strategy and some inevitable subjectivity in our categorisation process, though this was mitigated through ongoing discussion and consensus-building between reviewers. It is worth noting that due to non-standardisation of the terminology (sciatica, radiculopathy and related terms), it was sometimes difficult to identify trials on sciatica in the literature, so some studies may not have been identified.

CONCLUSION

This scoping review analysed an extensive number of RCTs for interventions on sciatica, identifying, counting and categorising the PROMs used. This revealed significant variability in how outcomes are measured and reported across trials. Studies employed diverse follow-up timeframes and data collection methods, which would make cross-study comparisons challenging. Most studies relied on generic pain and disability instruments rather than sciatica-specific tools, potentially limiting their ability to capture the unique clinical features of this condition. These findings emphasise the need to develop and implement a consensus-driven COS that can be applied consistently across sciatica research, ensuring more meaningful comparisons and better evidence synthesis in future studies.

Contributors Conceptualisation: MR and KR. Investigation: KR, JW, IA, BW, DM, RM and MR. Writing – Original Draft: KR, MR, IA and BW. Visualisation: KR and MR. Writing - Review and Editing: JW, IA, BW, DM and RM. Supervision: KR and MR. Project administration: KR. KR is the guarantor.

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