

PATIENT-REPORTED OUTCOMES IN STUDIES PUBLISHED IN 2014: WHICH TOOLS HAVE BEEN MOST COMMONLY USED IN STUDIES OF MUSCULOSKELETAL DISORDERS?



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Objectives

To determine which patient-reported outcome (PRO) tools were used in studies on musculoskeletal diseases published in 2014.

Methods

An evidence surveillance process was established based on a systematic search of PubMed, incorporating all studies published from 2010 and updated weekly, with a final search on 18 May 2015.

Abstracts identified by the search that reported quality of life outcomes in musculoskeletal disorders were identified.

Articles were included if they reported results or a study protocol from a primary research study or were a systematic review. PRO tools were identified, where possible, from the abstract alone.

Search strategy

("quality of life"[tiab] OR QOL[tiab] OR HRQOL[tiab] OR "patient reported outcome"[tiab] OR PRO[tiab] OR "patient-reported"[tiab] OR "clinician-reported"[tiab] OR "carer-reported"[tiab])

AND

(questionnaire[tiab] OR tool[tiab] OR instrument[tiab] OR survey[tiab] OR randomised[tiab] OR randomized[tiab] OR controlled[tiab])

Limits

The search was limited to studies indexed in the PubMed database, in humans, with abstract, published in English in the previous 5 years before the search date of 18 May 2015; study methodology was limited to clinical trial, comparative study, controlled clinical trial, evaluation study, observational study, RCT, systematic review or validation study.

Results

The search identified 1,980 articles published in 2014. Of these, 197 (10%) were in musculoskeletal disorders. The most commonly researched diseases were osteoarthritis (19 abstracts), rheumatoid arthritis and back pain (14 abstracts each), fibromyalgia and fractures (10 abstracts each), and ankylosing spondylitis (9 abstracts).

Overall, 160 different PRO or clinician-reported instruments were cited in the 197 abstracts, with 93 abstracts citing more than one tool. Pain instruments were most commonly used (82 abstracts included either VAS or unspecified pain measurement tools). Utility measurement was made in 36 studies, with SF-36 used twice as often as either SF-12 or EQ-5D. PROs most commonly cited included WOMAC (13 abstracts), DASH (9 abstracts), KOOS (9 abstracts), HAQ (8 abstracts), WHOQOL-BREF (6 abstracts), FIQ and WOSI (5 abstracts each). The PRO used was not specified in 52 article abstracts: 22 of the 143 primary research articles, 7 of 18 study protocols and 30 of 34 systematic reviews.

Evidence map showing PRO tools used by type of musculoskeletal disease in studies published in 2014

Numbers refer to number of abstracts citing each tool, each abstract may cite one or more tools

	Pain VAS, NRS	SF-36, SF-12	WOMAC	KOOS	EQ-5D	DASH	HAQ	WHOQOL	WOSI	SRS-22	FIQ	BASDAI	RMDQ	PROMIS	ODI	HADS, BDI	BASFI	No. of other PROs	PRO not specified
Osteoarthritis	7	3	8		1			1								1		7	2
Rheumatoid arthritis	1	1			2		4							2		1		14	3
Fibromyalgia	2										5					1		7	3
Ankylosing spondylitis	1											4					3	10	
Osteoporosis	3	1													1			4	2
Scoliosis		1								5								4	
Spinal disorders	9	7						1				1	4		3	1	1	13	10
Hip or knee arthroplasty	2	3	3	3	3											1		6	4
Fractures	3	1				4												3	4
Shoulder disorders	1	1			1	2			5									8	3
Wrist and hand disorders		1				2		1										2	
Other lower limb disorders	3	1	2	6	1													20	6
Other musculoskeletal disorders	5	4			1	1	5	3						2		1		28	17

Key:

BASDAI: Bath Ankylosing Spondylitis Disease Activity Index

BASFI: Bath Ankylosing Spondylitis Functional Index

BDI: Beck Depression Inventory

DASH: Disabilities of the Arm, Shoulder and Hand questionnaire

EQ-5D: European Quality of Life Questionnaire, 5 dimensions

FIQ: Fibromyalgia Impact Questionnaire

HADS: Hospital Anxiety and Depression Scale

HAQ: Health Assessment Questionnaire

KOOS: Knee injury and Osteoarthritis Outcome Score

NRS: Numeric Rating Scale

ODI: Oswestry Disability Index

PROMIS: Patient-Reported Outcomes Measurement Information System

RMDQ: Roland-Morris Disability Questionnaire

SF-12: Short-form 12

SF-36: Short-form 36

SRS-22: Scoliosis Research Society Questionnaire

VAS: Visual Analog Scale

WHOQOL: WHO Quality of Life measure

WOMAC: Western Ontario and McMaster Universities Osteoarthritis Index

WOSI: Western Ontario Shoulder Instability Index

Conclusions

A wide range of musculoskeletal disorders were researched in 2014, with little overlap in PRO tools used, even within diseases. Standardisation of tool use would aid comparison of outcomes across studies. Evidence surveillance including study protocols, results and systematic reviews may help identify trends in PRO use within specific diseases.