

Usage and content comparison of outcome measures used to evaluate outcome of total shoulder arthroplasty(TSA): A structured review with ICF-linking

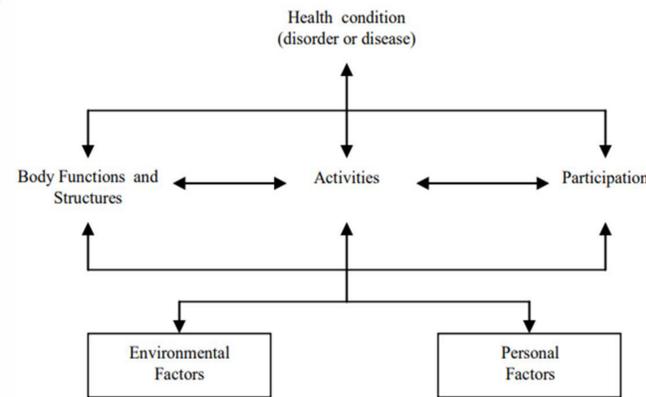
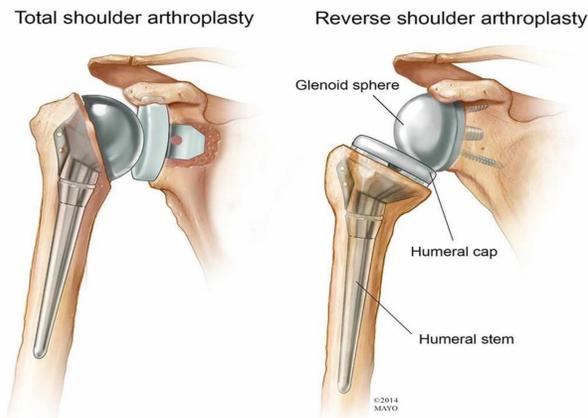
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KEY FINDINGS

- We found confusion in conceptual definitions on PROM, and wide variation in PROM used to evaluate the outcomes of TSA.
- Efforts to consensus on the key constructs that should be measured following TSA are needed.

Background



- A formal analysis of Patient-reported outcomes (PROMs) outcome measure use in TSA is lacking¹.
- International Society for Quality of Life (ISOQOL) definitions of functioning, disability, and health (FDH), quality of life (QoL) and health-related quality of life (HRQoL) provide a clear conceptual classification of measures².
- The International Classification of Functioning, Disability and Health (ICF) can be used to compare the content of these measures³.

Objective

- The purposes of this study were to: (1) identify the PROMs used for patients after TSA; (2) map the content of the individual items by linking items to 2nd level ICF codes; (3) summarize the focus of these PROMs based on ICF domains; and (4) summarize the predominant application of included PROMs based on ICF linking and pre-defined concepts of FDH, HRQoL, and QoL.

Methods

- A structured literature review was performed in three databases including MEDLINE, EMBASE, and CINAHL to identify which PROM were used in TSA studies. Meaningful concepts of the identified measures were extracted and linked to the relevant second-level ICF codes using standard linking rules. Outcome measures were classified as being FDH, HRQoL or QoL measures based on the content analysis.

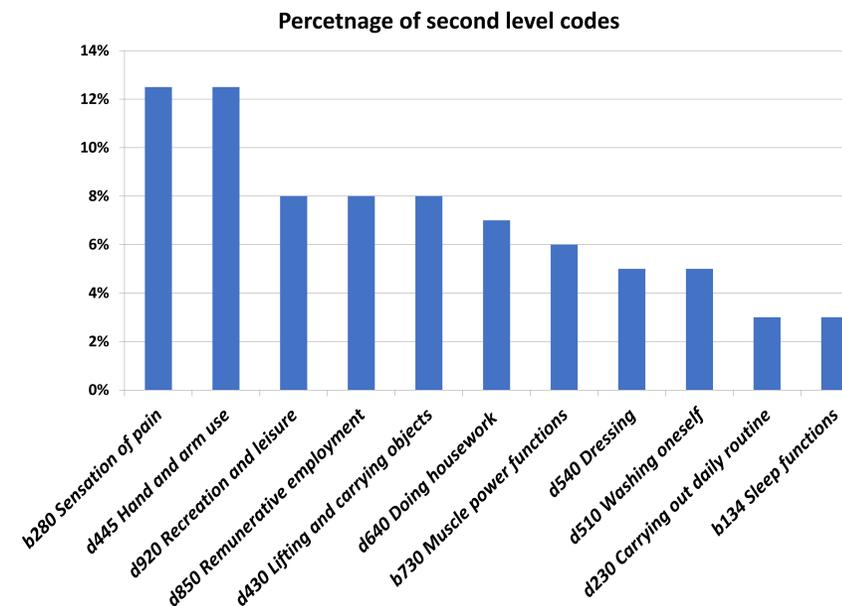
Result

- One hundred and ninety individual items were linked to 36 2nd-level ICF codes. Most codes (65%) fell under activity and participation. The top 3 most predominant codes were: sensation of pain (13%), hand and arm use (13%), recreational activity (8%). Ten PROMs included in this study were categorized as FDH measures, one as an HRQoL measure, and one as unknown.

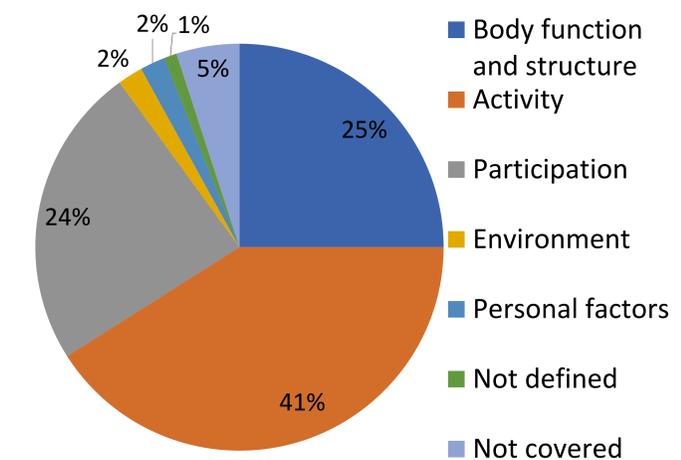
Conclusion

- Our systematic review demonstrated that there is an inconsistency and lack of clarity in conceptual frameworks of identified outcome measures. Despite this, common core constructs are evaluated. Decision-making about individual studies or core sets for outcome measurement for TSA would be advanced by considering our results, patient priorities and measurement properties.

Results



Linked ICF domains



	Percentage of the total citations	Dominant ICF Component	Instrument recommendations
ASES	21%	Activity	FDH instrument focusing on activity concerns
VAS-pain	17%	Body function	FDH instrument for pain
SST	12%	Activity Body function	FDH instrument focusing on activity and body function
SANE & SSV	8%	none	HRQoL
Patient satisfaction	5%	none	Unknown
SF-12	3%	Participation	FDH instrument focusing participation with HRQoL feature
SPADI	3%	Activity Body function	FDH instrument focusing on activity and body function
DASH	3%	Activity Participation Body function	FDH instrument with HRQoL
WOOS	2%	Activity Body function	FDH instrument focusing on activity and body function with HRQoL and QoL feature
Quick-DASH	2%	Participation	FDH instrument focusing on participation
OSS	2%	Activity	FDH instrument focusing on activity concerns
PENN	1%	Activity	FDH instrument focusing on activity with HRQoL feature