

Patient-reported outcome (PRO) instruments in Arabic-speaking populations: a systematic review

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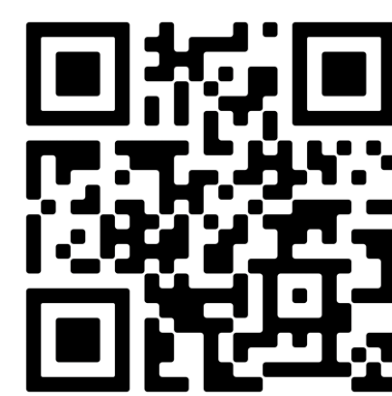
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Background

- A Patient-reported outcomes (PROs) is defined by the USA Food and Drug Agency (FDA) “as any report of the status of a patient’s health condition that comes directly from the patient without interpretation of the patient’s response by a clinician or anyone else”¹.
- Patient-reported outcomes measures (PROMs) are the instruments used by researchers, administrators, or others to measure PROs.
- Arabic, a member of the Semitic language family, is the official language of 25 countries.
- There is a lack of evidence about the quality with the Arabic PROMs were translated, adapted, and the measurement properties post-adaptation, to guide the selection of particular measure for use in practice

References QR code



Objectives

To identify and critically appraise studies reporting the development, translation, and/or psychometric evaluation PROMs instruments for Arabic speaking population.

Methods

- ❑ The review was guided by a published guideline for systematic reviews of patient-reported outcome measures².
- ❑ We searched two databases: PubMed and Web of Science. The search strategy was guided by published search filters. There were no publication period or language restrictions.
- ❑ Studies of any design were included if:
 - reporting PROM development in Arabic speaking population; or
 - reporting the assessment of one or more psychometric properties for PROM(s) (including validity, reliability, responsiveness, interpretability) in our target population; or
 - reporting cross-cultural validation of PROMs in in our target population.
- ❑ We excluded studies if:
 - using a PRO instrument as an outcome measurement instrument without any description of development, translation, and/or validation;
 - Published as an abstracts as very limited information on the design of the study will be available to allow quality assessment.
 - Measures of patient experience of care (such as patient satisfaction) and health behaviour (such as adherence).
- ❑ Two un-blind authors independently screened title and abstracts using an online systematic review management software (*Abstrackr*).
- ❑ Two reviewers independently extracted data from included studies. The methodological quality of each single study on a measurement property was assessed using CONsensus-based Standards for the selection of health Measurement INstruments (COSMIN) Risk of Bias checklist³.
- ❑ The ISPOR guidelines on good research practices for cross-cultural adaptation process for PROs was used to assess translation and adaptation procedures⁴.
- ❑ The review protocol Prospero registration number is CRD42018088991.

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Results



Study Characteristics

Setting		Year	
Saudi Arabia	33%	Pre 2010	30%
Lebanon	18%		
Jordan	13%	2011-2018	70%
Others	36%		

- ❑ The 140 studies examined 110 PROMs.
- ❑ We categorized the 110 PROMs into: QoL (42%), functioning(29%), symptoms(28%) and utility(1%).
- ❑ The instruments examined by more than 3 studies are:
 - Juvenile Arthritis Multidimensional Assessment Report
 - European Organization for Research and Treatment of Cancer Quality of Life Questionnaire

QoL instruments quality appraisal

Quality criteria for measurement properties

- ❑ As for internal consistency, 75% reported on Cronbach’s alpha(s) for internal consistency but only 26% reported Factor analysis.
- ❑ 40% reported the reliability of the instrument using intraclass correlation or Kappa.
- ❑ Construct validity, agreement, responsiveness, floor and ceiling effects, and Interpretability was not reported by the majority of included studies.

Translation and Cultural Adaptation Process

- ❑ 70% reported on the development of at least two independent forward translations and 66% reported on back translation.
- ❑ Obtain permission to use instrument, the development of an explanation of concepts for the items in the instruments for use by the translators in the process, and cognitive debriefing of the new translation was not reported by the majority of included studies.

Conclusion

Implications

There is a growing interest in the use of Arabic version of PRO instruments, however, quality of published evidence indicate that further investigations are required before recommendation for use in practice.

Limitations

We only searched two databases. We therefore, missed articles published in journals that are not indexed in these databases.