

Suitability of goal attainment scaling in older adult populations with neurodegenerative disease experiencing dementia or cognitive impairment: a systematic review

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State of the art: Identification of responsive outcome measurements for assessing functional change related to cognition, communication, and quality of life for those with Primary Progressive Aphasia (PPA) or related dementia is important for intervention design and clinical care. Goal Attainment Scaling (GAS) is an outcome measure used to formally specify goals and measure goal attainment in clinical settings that has been shown to be useful in cognitive rehabilitation. This study conducted a systematic review to evaluate the suitability of GAS as an outcome measure in older adult populations with neurodegenerative disease experiencing dementia or cognitive impairment.

Methodology: A systematic review was registered with PROSPERO and performed by searching ten electronic scientific databases (PubMed, Medline OVID, CINAHL, Cochrane, Embase, Web of Science, PsychINFO, Scopus, OTSeeker, RehabDATA) and four registries (Clinicaltrials.gov, Grey Literature Report, Mednar, Open Grey). 882 eligible articles were identified and screened by two independent reviewers. A summary measure of responsiveness (post-intervention minus pre-intervention mean GAS T-score) was then compared across eligible studies using a random-effects meta-analysis.

Results: Ten of the 882 studies met criteria for final analysis. Responsiveness analyses showed post- and pre-intervention GAS goals were significantly different from zero ($Z=7.48$, $p<0.00001$), with post-intervention GAS scores being higher than pre-intervention GAS scores.

Conclusion: GAS showed an improvement in goal attainment across different dementia patient populations and intervention types. The results support GAS as being highly responsive to functional change and suggest it is suitable for use in older adult populations with neurodegenerative disease experiencing dementia or cognitive impairment.

Conflicts of interest

N/A