



Quality of Life (QOL) in Patients with Depression– a Review of Patient Reported Outcome Instruments

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BACKGROUND

- Globally, mental health disorders are among the top ten causes of disease burden in terms of years lived with disability (YLDs) and disability-adjusted life-years (DALYs). This burden of disease is posing a challenge to health systems across countries. The situation has since worsened post the COVID-19 pandemic.
- Depression is the most common mental health related chronic disease worldwide that can impair normal functioning, cause depressive thoughts, and adversely affect the quality of life.^{2,3}
- In-order-to understand the extent of depression level, it is important that we explore ways to quantify or measure its effect on patient's quality of life (QoL).
- There are multiple patient reported outcome (PROs) tools to collect evidence on the effect of depression or its treatment on patient's QoL.

OBJECTIVE

- We aim to compare different PRO instruments available to measure QoL among patients with depression.

METHODS

Search Strategy

We conducted a comprehensive search of literature to summarize the different types of PRO tools used to measure QoL in people diagnosed with depression. The search strategy was peer-reviewed and utilized a combination of controlled vocabulary.

- A review process to identify the relevant English language studies was performed by two independent reviewers followed by a quality check.
- Data was extracted for patient population, type of PROs and the number of items assessed.

Table 1: Sources of Literature and Inclusion Criteria

Sources of Literature	
Databases	PubMed, clinicaltrial.gov, EudraCT
Other sources	None
Inclusion Criteria	
Population	Depression population
Outcomes	PRO instruments used in Depression
Study design	No restriction
Language	English
Publication date	Until June 2022

RESULTS

- A total of 127 studies reported different PRO scales for depression. (Table 1)
- Of the included studies, 29 unique instruments assessing the prognosis and quality of life in depression patients were identified: 24 disease specific and 5 generic questionnaires.
- Patient Health Questionnaire (PHQ-9) [N=44], Patient-Reported Outcomes Measurement Information System (PROMIS) Depression scale [N=27], and the Hospital Anxiety and Depression Scale (HADS) [N=11] were the most actively used disease-specific instruments while the EuroQol-5D (EQ-5D) [N=9] was the most used generic PRO. (Table 2)
- Geriatric Depression Scale (GDS) [N=2] and Children's Depression Rating Scale (CDRS) [N=1] were used to measure depression in geriatric and pediatrics, respectively.

- Hamilton Depression Rating Scale (HAM-D) [N=7] and Beck Depression Inventory-II (BDI-II) [N=5] covered the most aspects in prognosis of depression with 21-items (range 0-60) whereas HADS, GDS and CDRS covered 14 (range 0-42), 15 (range 0-15) and 17 items (range 17-113), respectively. Higher scores represent a worse situation in depression. Montgomery Åsberg Depression Rating Scale (MADRS) [N=12] (10 items, range 0-60) and CDRS were the only clinician-administered scales, others were self-administered/caregiver administered.
- All the PROs concerned themselves with changes in mood and depression except HAM-D which included items on treatment.

Figure1: Number of studies reporting PROs

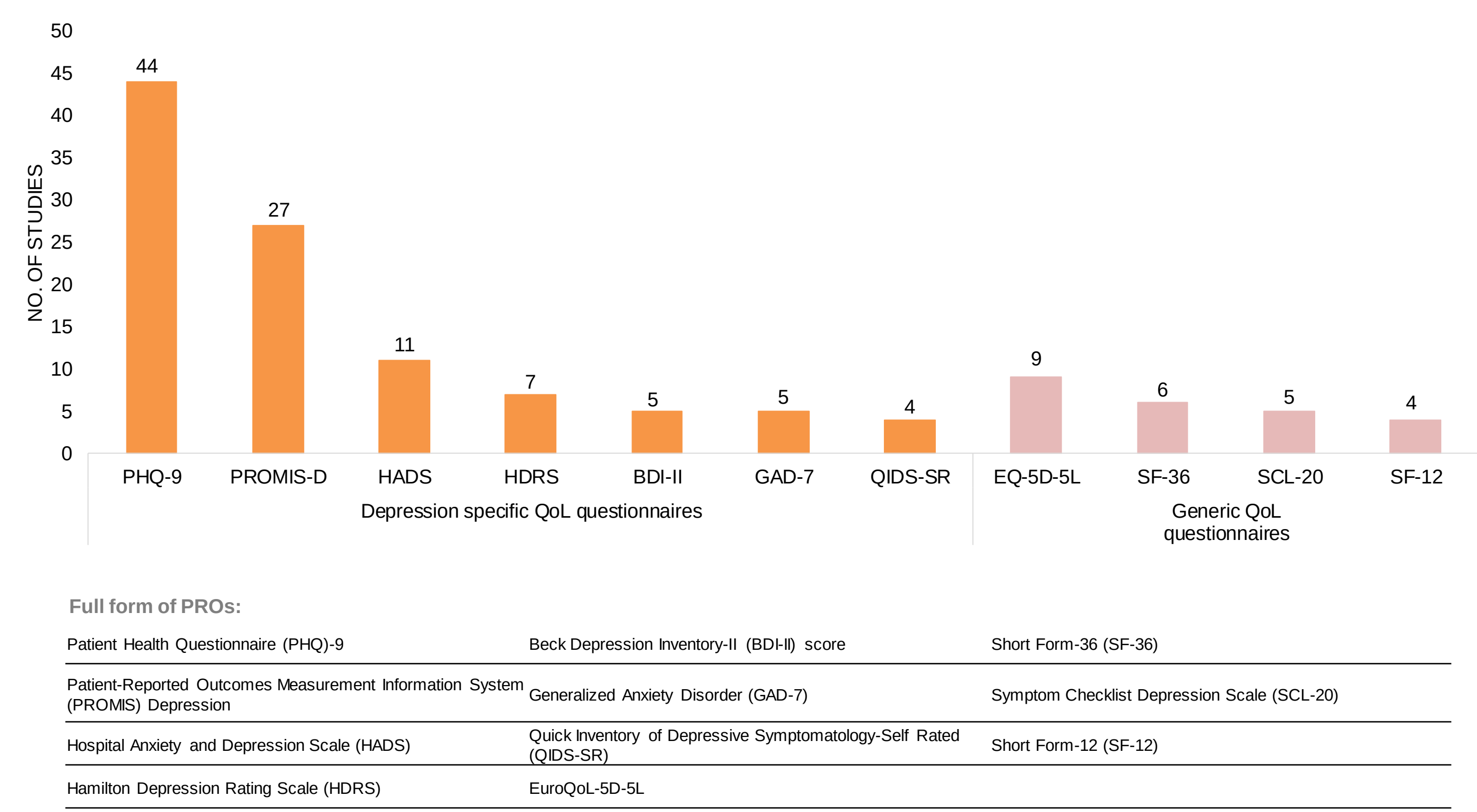


Table 2: Summary of Depression-specific PRO Scales and the Number of Items Identified

Depression specific questionnaire	Population	Items	Remarks
Patient Health Questionnaire-9 (PHQ-9)	Adult	9	Scores ranges from 0 (No depression) to 27 (Severe depression).
Patient-Reported Outcomes Measurement Information System (PROMIS) Depression	Adult	8	Scores generally range from 20 - 80, with higher scores indicating a patient is reporting more severe levels of depression.
Hospital Anxiety and Depression Scale (HADS)	Adult	14	Highly validated scale for measuring anxiety (7 items) and depression (7 items), where scores of >8 for either anxiety or depression indicate probable symptoms.
Beck Depression Inventory-II (BDI-II)	Adolescent and older	21	Each answer being scored on a scale value of 0 to 3. Total scores ranged from 0 (No depression) to 63 (Severe depression).
Geriatric Depression Scale (GDS)	Older	15	Very simple and effective questionnaire to assess the depression in older age groups. Score > 5 is suggestive of depression and >10 is almost always indicative of depression.
Children's Depression Rating Scale	Pediatric	17	Possible total score ranged from 17 to 113, rated by clinician via interviews with the child and parent.

CONCLUSION

PRO tools should also include items on treatment in the questionnaires as they can influence quality of life, treatment compliance and overall treatment seeking behavior. More studies should be undertaken to help refine the existing tools which would reflect the real quality of life among patients.

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