

ORGANIZATION NEWS

Highlights From the Rehabilitation Measures Database

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Measurement Characteristics and Clinical Utility of the Parkinson Disease Quality of Life Measure (39- and 8-item versions) in Individuals With Parkinson Disease

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The Parkinson's Disease Quality of Life questionnaire is a self-report instrument used to assess health-related quality of life in individuals with Parkinson disease (PD).¹ The instrument assesses quality of life across 8 domains: mobility, activities of daily living, emotional well-being, stigma, social support, cognitive impairment, communication, and bodily discomfort. There are extensive psychometric data available for this measure, the majority of which reveal adequate to excellent validity and reliability for both the 39-item Parkinson's Disease Questionnaire (PDQ-39) summary index score and the majority of the 8 domain scores (with the notable exception of the social support domain).²⁻⁴ Domain scores are associated with larger floor and ceiling effects compared with the PDQ-39 summary index score, suggesting caution in the interpretation of individual domain scores.¹ Responsiveness of the summary index score has been demonstrated with natural disease progression and with pharmacological interventions with mixed results following rehabilitation interventions.¹ The use of the PDQ-39 is recommended for persons in Hoehn and Yahr stages 1 to 5. As the time required to administer the PDQ-39 (10–15min) can be long, an abbreviated 8-item version (PDQ-8) was developed.

The PDQ-8 is a quick (<5min), valid, and reliable self-report instrument with adequate to excellent psychometric data supporting its use in persons with PD.^{3,4} It consists of 1 item from each of the 8 dimensions in the original PDQ-39. It is responsive to changes in health-related quality of life with natural disease progression and with pharmacological interventions, particularly in the later Hoehn and Yahr stages.⁵ However, responsiveness to rehabilitation interventions has not been adequately assessed. The PDQ-8 has no ceiling/floor effects and is adequately correlated with Hoehn and Yahr stages, Unified Parkinson's Disease Rating Scale scores, and disease duration.⁵

This Rehabilitation Measures Database summary provides a review of the psychometric properties of the PDQ-39 and PDQ-8 in individuals living with PD. A full review of the PDQ-39 and PDQ-8 as well as reviews of more than 100 other instruments can be found at www.rehabmeasures.org.

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This instrument summary is designed to facilitate the selection of outcome measures by trained clinicians. The information contained in this summary represents a sample of the peer-reviewed research available at the time of this summary's publication. The information contained in this summary does not constitute an endorsement of this instrument for clinical practice. The views expressed are those of the summary authors and do not represent those of authors' employers, instrument owner(s), the *Archives of Physical Medicine and Rehabilitation*, the Rehabilitation Measures Database, the United States Department of Education or the Retirement Research Foundation. The information contained in this summary has not been reviewed externally.

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	Measure Name:	Acronym:	Summary Authors:															
	Parkinson's Disease Questionnaire	PDQ-8 PDQ-39	Kegelmeyer D, Ellis T, Esposito A, Gallagher R, Harro C, Hoder J, Hussey E, O'Neal S															
Population Reviewed:	Admin Time:	Items:	Score:															
Parkinson's Disease, others at www.rehabmeasures.org	10-20 minutes	8 or 39	0/100 (min / max)															
Purpose and Administration Instructions:																		
<ul style="list-style-type: none"> Measure quality of life in person's with Parkinson's Disease (PD) 																		
Required Equipment:			Training:															
Paper copy of PDQ-8 or PDQ-39 and pen			None required															
Validity:		Reliability:																
<ul style="list-style-type: none"> Excellent concurrent validity between the PDQ-8 and PDQ-39⁶ Excellent convergent validity between the PDQ-8 and PDQ-39⁷ <p>PDQ-8:</p> <ul style="list-style-type: none"> <u>Convergent Validity</u> <ul style="list-style-type: none"> Excellent when using a proxy⁸ Adequate for the Columbia Rating Scale⁶, long disease duration⁷, and higher H&Y stage⁷ <p>PDQ-39:</p> <ul style="list-style-type: none"> <u>Convergent Validity</u>: <ul style="list-style-type: none"> Excellent for H&Y, Schwab and England Scale, EQ-5D, Beck's DI⁹ Adequate for MMSE⁹, UPDRS -ME¹⁰ <u>Face Validity</u>: <ul style="list-style-type: none"> Capable of detecting disease deterioration⁶ 		<p>PDQ-8:</p> <ul style="list-style-type: none"> Adequate test-retest reliability¹² Excellent interrater reliability and internal consistency⁷ <p>PDQ-39:</p> <ul style="list-style-type: none"> Excellent test-retest reliability¹ Adequate interrater reliability for all subscales but Stigma, Cognition, and Communication, which had poor interrater reliability¹ Excellent internal consistency² 																
Score Interpretation:		SEM:																
<ul style="list-style-type: none"> Lower score reflects better quality of life 		<p>PDQ-39: SEM from 6.25 -12.49 for each dimension¹¹</p>																
MDC:		MCID:																
<p>PDQ-39: MDC ranged from 12-24-24.48 for each dimension¹¹</p>		<p>PDQ-8: Anchor based range over one year = 5.78 -7.4 points¹³</p>																
Considerations:		Abbreviations:																
<ul style="list-style-type: none"> Many studies only report the mean H&Y stage, making classifying evidence by stage alone difficult. The majority of evidence supporting the use of the PDQ-8 is for persons in H&Y stages 2-3. PDQ-39 may be less suitable to use in earlier H&Y stages of PD, as indicated by large ceiling effects in mildly perceived PD and bias toward the more severe end of health impairments. 		<p>MCID: Minimal Clinically Important Differences MDC: Minimal Detectable Change SEM: Standard Error of Measurement H&Y: Hoehn and Yahr PD Rating Scale EQ-5D: EuroQOL Five Dimensions Beck's DI: Beck's Depression Inventory MMSE: Mini -Mental State Examination UPDRS -ME: Unified Parkinson Disease Rating Scale -Motor Examination</p> <table border="1"> <thead> <tr> <th colspan="3">Cut-off Criteria:</th> </tr> <tr> <th></th> <th>r</th> <th>ICC</th> </tr> </thead> <tbody> <tr> <td>Excellent</td> <td>≥ 0.6</td> <td>≥ 0.75</td> </tr> <tr> <td>Adequate</td> <td>0.31-0.59</td> <td>0.40-0.74</td> </tr> <tr> <td>Poor</td> <td>≤ 0.3</td> <td>< 0.4</td> </tr> </tbody> </table>		Cut-off Criteria:				r	ICC	Excellent	≥ 0.6	≥ 0.75	Adequate	0.31-0.59	0.40-0.74	Poor	≤ 0.3	< 0.4
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