

ORGANIZATION NEWS

Highlights From the Rehabilitation Measures Database

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Measurement Characteristics and Clinical Utility of the Freezing of Gait Questionnaire in Individuals With Parkinson Disease

Sydney Rozenfeld, Ana Miskovic, BA, Kristian P. Nitsch, MS, Linda Ehrlich-Jones, PhD, RN

Parkinson disease (PD) is one of the most common neurodegenerative conditions and affects >10 million people worldwide.^{1,2} Freezing of gait (FOG) is a commonly observed symptom in individuals with PD,³ with prevalence rates ranging between 20% and 40%.⁴⁻⁶ The Freezing of Gait Questionnaire (FOGQ) is a 6-item questionnaire used to assess FOG severity in patients with PD.^{7,8} A 5-point scale, 0 (absence of symptoms) to 4 (most severe), is used for each item to rank symptom severity.⁷ The FOGQ total score ranges from 0 to 24 (higher scores correspond to more severe FOG), has demonstrated excellent reliability,^{7,8} and has demonstrated adequate to excellent criterion validity with other PD-specific measurement tools.^{7,9,10} Additionally, the FOGQ has been shown to be more sensitive in detecting FOG than the Unified Parkinson's Disease Rating Scale.⁷ The FOGQ can be administered and scored in <10 minutes, making it a clinically useful and low-burden instrument. The FOGQ is free to use, is available in several languages, and has been recommended by the Neurology Section of the American Physical Therapy Association's Parkinson's Taskforce.

This abbreviated summary provides a review of the psychometric properties of the FOGQ in people with PD. A full review of the FOGQ and reviews of nearly 375 other instruments for patients with various health conditions can be found at www.rehabmeasures.org.


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This instrument summary is designed to facilitate the selection of outcome measures by 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, or the U.S. Department of Health and Human Services. The information contained in this summary has not been reviewed externally.

The Rehabilitation Measures Database and Instrument Summary Tear-sheets were initially funded by the National Institute on Disability, Independent Living, and Rehabilitation Research, U.S. Department of Health and Human Services through the Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes (grant no. H133B090024).

	Measure Name: Freezing of Gait Questionnaire		Acronym: FOGQ		Authors: S. Rozenfeld, A. Miskovic, & K. Nitsch													
	Population Reviewed: Parkinson's disease		Age Range: Adults: 18 - 64 Years; Elderly Adults: 65+		Cost: Free	Items: 6	Admin. Time: ~ 5 - 10 Minutes											
Purpose and Administration Instructions: ^{7,8} <ul style="list-style-type: none"> The Freezing of Gait Questionnaire is a clinician-rated instrument used to evaluate freezing of gait (FOG) severity in patients with Parkinson's disease, unrelated to falls. Item responses use a 5-point scale, ranging from 0 (Absence of Symptom) to 4 (Severe). Total score ranges from 0 to 24; higher scores correspond to more severe FOG. Items 1, 2, 4, 5, and 6 are answered based on experience over the past week or overall FOG during an entire day. 				Required Equipment: Pencil, FOGQ Form		Training Required: No Training Required												
Responsiveness: <ul style="list-style-type: none"> Item 3 has greater sensitivity (85.9%) for detecting gait freezers than item 14 of the UPDRS (44.1%).⁸ 65.3% accuracy in determining probability of falls.¹¹ 				Reliability: <i>Test-Retest (Baseline and 10-week follow up):</i> <ul style="list-style-type: none"> Placebo Group: Excellent ($r = 0.83$)⁸ Treatment Groups: Excellent ($r = 0.84$)⁸ <i>Internal Consistency:</i> <ul style="list-style-type: none"> Excellent: (Cronbach's Alpha = 0.94)⁷ Excellent: (Cronbach's Alpha = 0.90)⁸ 														
Professional Association Recommendations: <ul style="list-style-type: none"> Recommendations for the use of the FOGQ from the Neurology Section of the American Physical Therapy Association's Parkinson's Taskforce (PD EDGE). These recommendations were developed by a panel of research and clinical experts using a modified Delphi process. 				Validity: <i>Concurrent:</i> <ul style="list-style-type: none"> Hoehn & Yahr: Excellent ($r = 0.66$)⁷ UPDRS Total Score: Adequate ($r = 0.48$)⁷ UPDRS Mental Score: Poor ($r = 0.05$)⁷ UPDRS ADL Score: Adequate ($r = 0.43$)⁷ UPDRS Motor Score: Adequate ($r = 0.40$)⁷ Timed Up & Go: Adequate ($r = 0.40$)⁹ Falls-Efficacy Scale: Adequate ($r = -0.59$)⁹ PDQ-39 Score: Adequate ($r = 0.57$)¹⁰ 														
Recommendation Guide <table border="1"> <tr> <td><i>HR</i></td> <td>Highly Recommended</td> </tr> <tr> <td><i>R</i></td> <td>Recommended</td> </tr> <tr> <td><i>LS / UR</i></td> <td>Reasonable to use, but limited study in target group / Unable to Recommend</td> </tr> <tr> <td><i>NR</i></td> <td>Not Recommended</td> </tr> </table>				<i>HR</i>	Highly Recommended	<i>R</i>	Recommended	<i>LS / UR</i>	Reasonable to use, but limited study in target group / Unable to Recommend	<i>NR</i>	Not Recommended	Floor / Ceiling Effects: ⁹ <ul style="list-style-type: none"> Adequate: floor and ceiling effects both less than 5.4% 						
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Recommendations based on Hoehn and Yahr <table border="1"> <tr> <td></td> <td>I</td> <td>II</td> <td>III</td> <td>IV</td> <td>V</td> </tr> <tr> <td>PD EDGE</td> <td>NR</td> <td>R</td> <td>R</td> <td>R</td> <td>NR</td> </tr> </table>					I	II	III	IV	V	PD EDGE	NR	R	R	R	NR	Considerations: <ul style="list-style-type: none"> Item 3 is a good single question for screening FOG frequency.⁸ Items provide a classification range for the duration of a FOG episode.¹² 		
	I	II	III	IV	V													
PD EDGE	NR	R	R	R	NR													
Recommendations for Entry-level Physical Therapy Education & Research <table border="1"> <tr> <td></td> <td>Students Should Learn to Administer?</td> <td>Students Should be Exposed?</td> <td>Appropriate for Intervention Research</td> <td>Additional Research Warranted?</td> </tr> <tr> <td>PD EDGE</td> <td>No</td> <td>Yes</td> <td>Yes</td> <td>Not Reported</td> </tr> </table>					Students Should Learn to Administer?	Students Should be Exposed?	Appropriate for Intervention Research	Additional Research Warranted?	PD EDGE	No	Yes	Yes	Not Reported	Abbreviations: <ul style="list-style-type: none"> ADL: Activities of Daily Living ICC: Interclass Correlation PDQ-39: Parkinson's Disease Questionnaire-39 UPDRS: Unified Parkinson Disease Rating Scale 				
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Cut-off Criteria: <table border="1"> <tr> <td></td> <td><i>r</i></td> <td>ICC</td> </tr> <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> </table>					<i>r</i>	ICC	Excellent	≥ 0.6	≥ 0.75	Adequate	0.31-0.59	0.40-0.74	Poor	≤ 0.3	< 0.4			
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