

# Cross-cultural translation and content validity of the Dutch Determinants of Physical Activity Questionnaire (DPAQ) in a rehabilitation population

DCM Stokman-Meiland MD<sup>1</sup>, MAM Berger PhD<sup>1,2</sup>, NJ Taylor PhD<sup>3</sup>, Prof. TPM Vliet Vlieland PhD<sup>1,4</sup>, A de Rooij PhD<sup>1,4</sup>

<sup>1</sup> Basalt Leiden/The Hague, The Netherlands

<sup>2</sup> Centre of Expertise Health Innovation, The Hague University of Applied Sciences, The Hague, The Netherlands

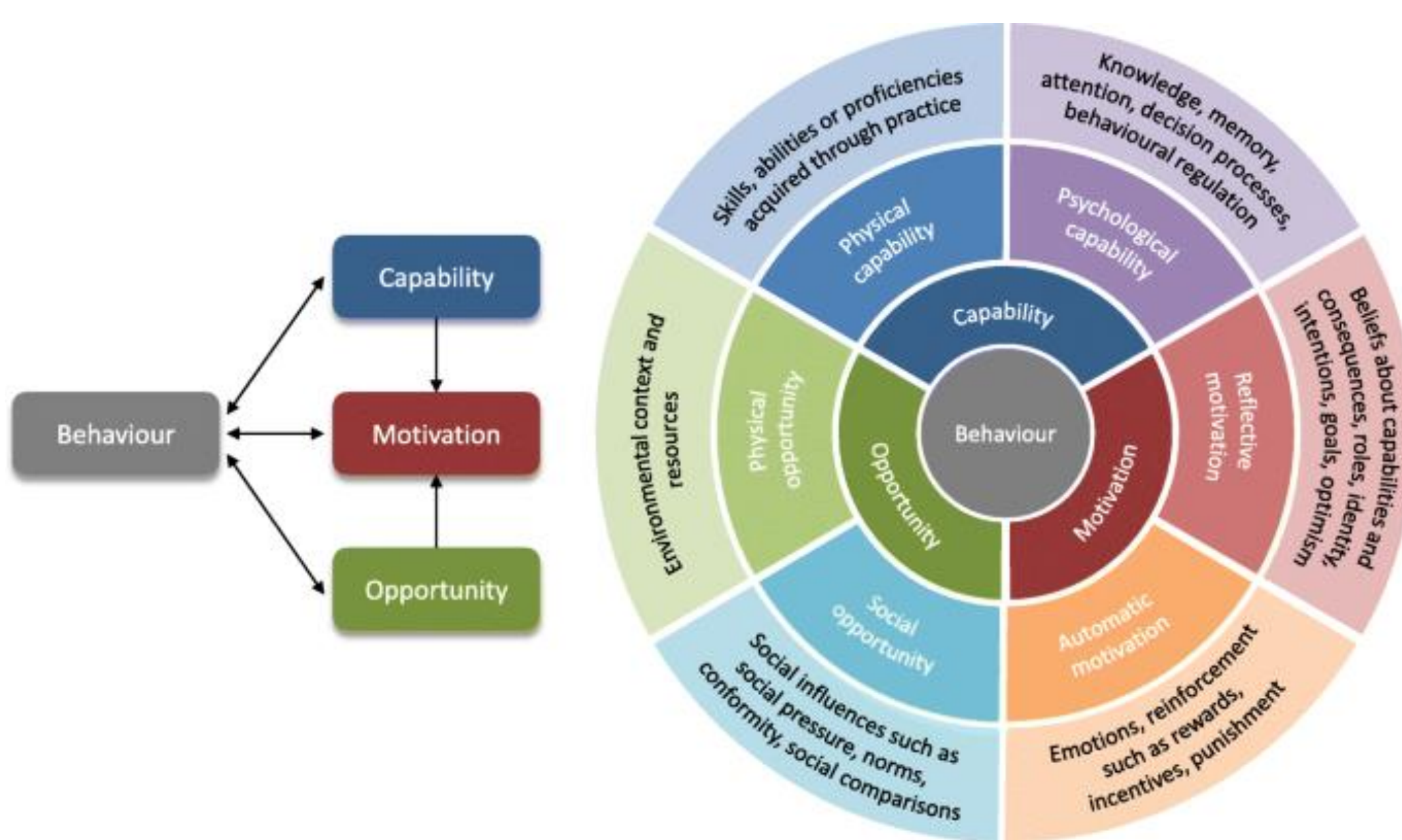
<sup>3</sup> School of Population Health, Faculty of Medicine, UNSW Sydney, Australia

<sup>4</sup> Department of Orthopaedics, Rehabilitation and Physical Therapy, Leiden University Medical Center, Leiden, The Netherlands

## Introduction

Patients with stroke are less physically active than healthy controls.<sup>1,2</sup> Understanding barriers to physical activity in stroke patients can help to tailor treatment.

The Determinants of Physical Activity Questionnaire (DPAQ) is a 34-item 11-domain questionnaire, developed in Australia to assess barriers to physical activity based on the Theoretical Domains Framework (TDF)/COM-B.<sup>3</sup> It proved reliable and valid in healthy subjects.<sup>4</sup>



## Results

Stroke patients in pilot one reported comprehensibility problems mainly resulting from double negative statements, vocabulary, and complex sentence structure. The introduction was not understood as intended and one response option was considered irrelevant. Adaptations were made, after which pilot two detected no major comprehensibility problems. Most participants considered the items as relevant and covering the main barriers to physical activity.

## Discussion and Conclusion

Comprehensibility and relevance problems in the Dutch DPAQ were detected and adjusted, which should improve reliability and validity, however cross-cultural validity may be negatively affected. Validity, reliability, and feasibility in daily practice should be investigated.

## Objective

To translate the DPAQ cross-culturally into Dutch and evaluate the content validity (comprehensibility, comprehensiveness, and relevance).

## Patients

Stroke patients  $\geq 18$  years attending outpatient rehabilitation and their healthy peers.

## Methods

The DPAQ was translated according to international guidelines.<sup>5</sup> Content validity was assessed in a pilot including 7 stroke patients using think aloud and cognitive debriefing (pilot one). Audio-recorded data were transcribed, coded and analyzed. After making adaptations, the revised version underwent pilot testing once more, involving 7 stroke patients and 7 healthy peers (pilot two).

## Clinical message

The adapted Dutch DPAQ seems promising to assess barriers to physical activity.



d.stokman@basaltrevalidatie.nl; m.a.m.berger@hhs.nl

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- [1] L. Paul et al. Disabil Rehabil, 2016. 38(4): p. 362-7.
- [2] A.T. Duran et al. Stroke, 2021. 52(11): p. e729-e732.
- [3] S. Michie et al. Great Britain: Silverback Publishing; 2014
- [4] N. Taylor et al. Int J Behav Nutr Phys Act, 2013. 10:p. 74
- [5] D.E. Beaton et al. Spine (Phila Pa 1976), 2000. 25(24): p. 3186-91.