



Letter to the Editor: "Translation and validation of Cerebral Palsy Quality of Life Questionnaire-Teen in Hong Kong Chinese population [CP QoL-Teen (HK)]"

Fatih Özden¹

Received: 28 August 2023 / Revised: 28 August 2023 / Accepted: 4 October 2023
© The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2023

I read the study by Ngai et al. [1]. I would like to discuss some methodological issues. First, the authors classified the participants using the Gross Motor Function Classification System (GMFCS-E&R). The comparison analysis with one-way ANOVA revealed that there was no between-group difference, except for "feelings about functioning" and "access to service" subscores. These results revealed that the Hong Kong (H-K) version of CP QoL is controversial regarding known-group validity [2]. The exclusion criteria did not consider surgery or rehabilitation history. These cofactors are comprehended to have a possible relationship with quality of life [3].

One-way ANOVA analysis is controversial regarding statistical power when there are 52 people with GMFCS-E&R Level I and 6 with Level IV. The authors should demonstrate the groups' normal distribution and variance homogeneity. Otherwise, the Kruskal-Wallis Test and Dunn's Test (post-hoc) could have provided results at a higher level of evidence [4].

The pretest was conducted with only ten individuals. As stated by Beaton et al., the pilot study should be carried out with 30-40 individuals [5]. The authors should have included the results of cultural adaptation in their article. The authors analyzed the intra-class correlation coefficient (ICC) with only 20 participants. The ICC-based power analysis of the sample size indicates that at least 110 individuals should be included in the test-retest analysis, considering the minimum acceptable ICC (0.60), the minimum ICC obtained from the study (0.40), the power (0.80) and the margin of error (0.05) [6]. In addition, some of the ICC values were below 0.60, which decreases the reliability of the (H-K) version of CP QoL. The authors stated that there was at least one

week between the test and re-test. However, as stated by Terwee et al., this period should be 14 days at maximum [7].

Authors' contributions F.Ö. wrote the main manuscript text.

Funding None.

Data availability statement All data generated or analyzed during this study are included in this published article.

Declarations

Ethical approval Not applicable.

Consent to participate Not applicable.

Competing interests The author declares no competing interests.

References

1. Ngai SP, Wong LY, Poon VW, Poon CY, Yiu BP, Wong TP, Chow CP (2023) Translation and validation of Cerebral Palsy Quality of Life Questionnaire-Teen in Hong Kong Chinese population [CP QoL-Teen (HK)]. *Eur J Pediatr* 182:1719–1730
2. Özkeskin M, Özden F, Ar E, Yüceyar N (2022) The reliability and validity of the 30-second chair stand test and modified four square step test in persons with multiple sclerosis. *Physiother Theory Pract* 1:1–7
3. Arpino C, Vescio MF, De Luca A, Curatolo P (2010) Efficacy of intensive versus nonintensive physiotherapy in children with cerebral palsy: a meta-analysis. *Int J Rehabil Res* 33(2):165–71
4. Dinno A (2015) Nonparametric pairwise multiple comparisons in independent groups using Dunn's test. *Stata J* 15(1):292–300
5. Beaton DE, Bombardier C, Guillemin F, Ferraz MB (2020) Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine* 25(24):3186–91
6. Walter SD, Eliasziw M, Donner A (1998) Sample size and optimal designs for reliability studies. *Stat Med* 17(1):101–10
7. Terwee CB, Bot SD, de Boer MR, van der Windt DA, Knol DL, Dekker J, Bouter LM, de Vet HC (2007) Quality criteria were proposed for measurement properties of health status questionnaires. *J Clin Epidemiol* 60(1):34–42

Communicated by Peter de Winter

✉ Fatih Özden
fatihozden@mu.edu.tr

¹ Köyceğiz Vocational School of Health Services, Department of Health Care Services, Muğla Sıtkı Koçman University, Muğla, Turkey

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.