

Kessler Foundation Neglect Assessment Process (KF-NAP™) measures spatial neglect during activities of daily living

Supplementary Data: Confirmatory Factor Analysis for Objective 1

Azouvi et al. (2003) suggested that the Catherine Bergego Scale (CBS) was a one-factor-structured scale, and Goedert et al. (2012) suggested that a two-factor structure underlying the CBS. Since the KF-NAP is a process using the same assessing categories on the CBS, it is important to know whether CBS scores assigned following the KF-NAP assessment process have one or two underlying factors. Therefore, to confirm whether one-factor or two-factor structure underlying the KF-NAP, we built two structural equation models (SEMs) in this confirmatory factor analysis (CFA). The specific models were as follows.

Model 1: One-factor SEM. One latent factor subserved each of the ten KF-NAP categories (Azouvi, et al., 2003).

Model 2: Two-factor SEM. One latent factor subserved grooming, auditory attention, gaze orientation, personal belongs, eating, and cleaning after meal. The other factor subserved limb awareness, dressing, navigation, and collisions (Goedert, et al., 2012). The covariance between the two factors was included in the model.

We performed a preliminary analysis to select the best model fitting variance-covariance matrix by combining unrestricted, equal, or zero variances with unrestricted, equal, or zero covariances. The result suggested the unstructured variance-covariance matrix (unrestricted variances and covariances) with maximum likelihood estimation to be used in the analysis. We included participants without missing data and with positive KF-NAP scores. There was no significant difference between the two models, $\chi^2(1) = .99, p = .321$. In addition, both models did not reach two of the three model-fitting guidelines (Table i). It is possible that the SEM was not the best method to perform CFA because CFA often assumes independence among observed items (Schmitt, 2011). We followed up with exploratory factor analysis (EFA) and reported the results in the Results section of the article.

Table i. Model Comparison

SEM Model Fit Index	Model 1	Model 2	Recommended good fit guideline (Schmitt, 2011)
χ^2 (df) model vs. saturated	85.90 (35), p<.001	84.91 (34), p<.001	---
Root mean squared error of approximation (RMSEA)	.141	.143	< .06
Akaike's information criterion correction (AICc)	1452.08	1453.10	---
Comparative fit index (CFI)	.924	.924	> .95
Standardized root mean squared residual (SRMR)	.039	.039	< .08
χ^2 (df) Model 1 vs. Model 2	---	.99(1), p = .321	---

References

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- Goedert, K. M., Chen, P., Botticello, A., Masmela, J. R., Adler, U., & Barrett, A. M. (2012). Psychometric evaluation of neglect assessment reveals motor-exploratory predictor of functional disability in acute-stage spatial neglect. *Archives of Physical Medicine and Rehabilitation, 93*, 137-142.
- Schmitt, T. A. (2011). Current Methodological Considerations in Exploratory and Confirmatory Factor Analysis. *Journal of Psychoeducational Assessment, 29*(4), 304-321.