


[International Workshop on Gerontechnology](#)

IWoG 2018: [Gerontechnology](#) pp 143-153 | [Cite as](#)

# Psychometric Properties of the Elderly Nursing Core Set

Authors

[Authors and affiliations](#)

César Fonseca , Manuel Lopes, David Mendes, Pedro Parreira, Lisete Mónico, Céu Marques

Conference paper

First Online: 14 April 2019

245

Downloads

Part of the [Communications in Computer and Information Science](#) book series (CCIS, volume 1016)

## Abstract

**Aim:** To assess the psychometric properties of the Elderly Nursing Core Set.

**Methods:** Cross-sectional descriptive study; convenience sample composed of 427 individuals aged 65 years old or older.

**Results:** Factor analysis of principal components allowed extracting 4 concepts, i.e., Self-Care, Learning and Mental Functions, Communication, and Relationship with Friends and Caregivers, which explained 82.25% of the total variance. Varimax rotation indicated a very good measure of sampling adequacy (KMO = 0.947), with Bartlett's test of sphericity ( $X^2(300) = 11131.28$ ,  $p < 0.001$ ) and an excellent Cronbach's alpha value of 0.963.

**Conclusion:** The Elderly Nursing Core Set exhibits excellent psychometric properties, i.e., consistency, reliability, and internal validity, for which reason it is recommended as a means of determining the nursing care needs of individuals aged 65 years old or older and assessing the outcomes of nursing interventions targeting that population.

## Keywords

Ageing International Classification of Functioning, Disability and Health

This is a preview of subscription content, [log in](#) to check access.

## References

- Bongaarts, J.: United Nations, Department of Economic and Social Affairs, Population Division, Sex Differentials in Childhood Mortality. *Popul. Dev. Rev.* **40**(2), 380 (2014) [CrossRef](#) [Google Scholar](#)
- Burke, D., Gorman, E., Stokes, D., Lennon, O.: An evaluation of neuromuscular electrical stimulation in critical care using the ICF framework: a systematic review and meta-analysis. *Clin. Respir. J.* **10**, 407–420 (2014) [CrossRef](#) [Google Scholar](#)
- Direcção-Geral da Saúde (DGS): Translation of: World Health Organization (resolution WHA54.21). International classification of functioning, disability and health (2004) [Google Scholar](#)
- European Commission (EC): Population, Key figures on Europe – 2014 edition. Luxembourg: Publications Office of the European Union (2014). ISSN 2315-201X [Google Scholar](#)
- Florin, J., Ehrenberg, A., Ehnfors, M., Björvell, C.: A comparison between the VIPS model and the ICF for expressing nursing content in the health care record. *Int. J. Med. Inform.* **82**(2), 108–117 (2013) [CrossRef](#) [Google Scholar](#)
- José Lopes, M., Escoval, A., Gamito Pereira, D., Sandra Pereira, C., Carvalho, C., Fonseca, C.: Evaluation of elderly persons' functionality and care needs. *Revista Latino-Americana De Enfermagem (RLAE)* **21**, 52–60 (2013) [CrossRef](#) [Google Scholar](#)
- Maric, M., de Haan, E., Hogendoorn, S.M., Wolters, L.H., Huizenga, H.M.: Evaluating statistical and clinical significance of intervention effects in single-case experimental designs: An SPSS method to analyse univariate data. *Behav. Ther.* **46**(2), 230–241 (2015) [CrossRef](#) [Google Scholar](#)
- Marôco, J.: *Análise Estatística com Utilização do SPSS [Statistical Analysis using SPSS]*, 6th edn., p. 990. Edições Silabo (2014). ISBN: 9789899676343 [Google Scholar](#)
- Meskeil, P., Murphy, K., Shaw, D.G., Casey, D.: Insights into the use and complexities of the Policy Delphi technique. *Nurse Res.* **21**(3), 32–39 (2014) [CrossRef](#) [Google Scholar](#)
- Orem, D.E.: *Nursing: Concepts of Practice*, 6th edn. Mosby, St. Louis (2001) [Google Scholar](#)
- Pereira, C., Fonseca, C., Escoval, A., Lopes, M.: Contributo para a classificação da funcionalidade na população com mais de 65 anos, segundo a classificação internacional de funcionalidade. *Revista Portuguesa de Saúde Pública* **19**(1), 52–62 (2011) [Google Scholar](#)
- Shen, P., Chen, C.: The WHO's international classification of functioning, disability, and health (ICF): essential knowledge for nurses. *Hu Li Za Zhi (J. Nurs.)* **59**(6), 92–97 (2012) [Google Scholar](#)
- Sidani, S.: Effects of patient-centered care on patient outcomes: an evaluation. *Res. Theory Nurs. Pract.* **22**(1), 24–37 (2008) [CrossRef](#) [Google Scholar](#)
- So, H., Kim, H., Ju, K.: Prediction model of quality of life in elderly based on ICF model. *J. Korean Acad. Nurs.* **41**(4), 481–490 (2011) [CrossRef](#) [Google Scholar](#)
- The United Nations 2012 Population Projections (UN). *Popul. Dev. Rev.* **39**(3), 551–555 (2013) [Google Scholar](#)
- World Bank (WB): *The World Bank Annual Report 2014: Year in Review*, p. 67 (2014) [Google Scholar](#)
- Zhu, H.: Correctly selection methods of building up a model function of known categories in SPSS 16.0. *J. Capital Inst. Phys. Educ.* **26**(1), 91–96 (2014) [Google Scholar](#)

## Copyright information

© Springer Nature Switzerland AG 2019

## About this paper



Check for updates

### Cite this paper as:

Fonseca C., Lopes M., Mendes D., Parreira P., Mónico L., Marques C. (2019) Psychometric Properties of the Elderly Nursing Core Set. In: García-Alonso J., Fonseca C. (eds) *Gerontechnology*. IWoG 2018. Communications in Computer and Information Science, vol 1016. Springer, Cham

### First Online

14 April 2019

### DOI

[https://doi.org/10.1007/978-3-030-16028-9\\_13](https://doi.org/10.1007/978-3-030-16028-9_13)

### Publisher Name

Springer, Cham

### Print ISBN

978-3-030-16027-2

### Online ISBN

978-3-030-16028-9

### eBook Packages

[Computer Science](#)

[Buy this book on publisher's site](#)

[Reprints and Permissions](#)

Log in to check access

Buy eBook

EUR 64.19

Buy paper (PDF)

EUR 30.69

- Instant download
- Readable on all devices
- Own it forever
- Local sales tax included if applicable

[Learn about institutional subscriptions](#)

Cite paper