

OPP: HEALTH & SELF ESTEEM

Influence of the educational of Northeastern Brazilian older adults on their proficiency with mobile devices

C. Lins, M. G. Coriolano, V. Silva, A. K. Borba, T. Nascimento, R. L. Batista

Purpose Technological culture is a global reality. Its social practices are mediated by information and communication technologies, which contribute to social processes and facilitate everyday activities, such as sending instant messages, paying bills online, and so forth. Given the increase in life expectancy and the goal of active aging, digital mobile technologies are important for older people to interact with and relate to contemporary changes around them – as these devices vary greatly and constantly and offer a wide range of accessible use options (Nimrod, 2020). Hence, this study aimed to analyze the influence of the educational attainment of Northeastern Brazilian older adults on their proficiency with mobile devices. **Method** This cross-sectional analytical study was conducted in 2023 with community-dwelling older adults in Recife, Northeastern Brazil. Data were collected based on their years of school attendance (17, 11, 8, and 4 years, and no formal education) and the Mobile Proficiency Questionnaire (MPDQ) (Roque & Boot, 2018), validated for Brazilian Portuguese (Raymundo, 2024). The Mobile Device Basics (MPDQb) has 9 questions and its score ranges from 9 to 45. The Kruskal-Wallis test and then the Dunn test were used for comparison data analysis between the groups (Figure 1). **Results and Discussion** Altogether, 311 older adults, with a mean age of 69.8 years, were interviewed. The mean MPDQb score was 30.5 ± 8 (or 3.4), corresponding to $68\% \pm 18\%$ of the highest possible score (45) in the domain. The following MPDQb items had the lowest scores: adjusting the size of the text (mean score=2.0), copying and pasting a text with the touchscreen (mean score=2.2), connecting to a wi-fi network (mean score=2.3), and adjusting screen brightness (mean score=2.9). Those who had attended school for 17 years ($n=108$) had an MPDQb score= 34.6 ± 5.7 ; for 11 years ($n=89$), an MPDQb score= 31.6 ± 6.6 ; for 8 years ($n=56$), an MPDQb score= 27.6 ± 8.5 ; for 4 years ($n=49$), an MPDQb score= 24.1 ± 8.6 ; and those with no formal education ($n=9$), an MPDQb score= 22.1 ± 3.7 ; Kruskal-Wallis test= $p < 0.0001$. The MPDQb score was significantly higher among those who attended school for 17 years than in the other groups; post hoc Dunn test= $p < 0.05$. Thus, although older people with higher education levels had a significantly higher mean MPDQb score than the other groups, proficiency in basic mobile device functions may not be considered good, since their mean score is far from the highest possible one for the domain. This can be justified by the fact that these people were already adults or older when they began using mobile device technology, influencing how they manage difficulties in handling the device, which is relevant to their proficiency (Raymundo, 2019). Therefore, further initiatives aimed at digital inclusion are needed to demystify the use of technological devices for older people, ensuring their self-confidence and better quality of life.

References

- Nimrod, G. (2020). Aging Well in the Digital Age: Technology in Processes of Selective Optimization with Compensation. *The Journals of Gerontology*, 75(9), 2008–2017, <https://doi.org/10.1093/geronb/gbz111>
- Raymundo, T. M.; Gil, H.T.; Bernardo, L. D. (2019). Desenvolvimento de projetos de inclusão digital para idosos. *Estudos Interdisciplinares sobre o Envelhecimento*, 24 (3): 22-44. <https://doi.org/22456/2316-2171.87420>
- Raymundo, T. M.; Facioli, M. S. B.; Deodoro, T. M. S.; Balduino, A. S.; Boot, W.; Bernardo, L. D. (2024). Cross-cultural adaptation of the Mobile Device Proficiency Questionnaire and content validity for Brazilian Portuguese. *Rev. Bras. Geriatr. Gerontol.*;27:e230200. <http://dx.doi.org/10.1590/1981-22562024027.230200.pt>
- Roque, N. A. & Boot, W. R. A (2018). New Tool for Assessing Mobile Device Proficiency in Older Adults: The Mobile Device Proficiency Questionnaire. *J Appl Gerontol.* 37 (2):131-156, <http://doi: 10.1177/0733464816642582>

Keywords: aged, elderly people, digital inclusion, mobile devices, survey, questionnaire

Affiliation: Posgraduate Program in Gerontology / Health Science Center / Federal University of Pernambuco / Brazil

Email: carla.santos@ufpe.br; **ORCID iD:** 0000-0002-1018-5331

Acknowledgement: This research was supported by Foundation for the Support of Science and Technology of the State of Pernambuco – FACEPE

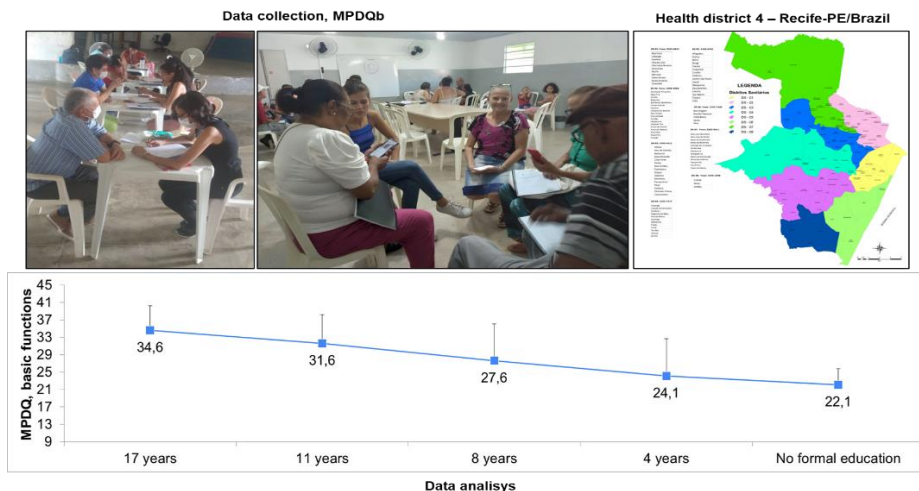


Figure 1. Overview of the proposal