

Governance, Social Policy and Communication

Wireless Network Proficiency Questionnaire (WNPQ) for Brazilian Older Adults: Translation, Back-Translation, and Synthesis S.K. Mateus, G.P. Cruz, W.R. Boot, P.C. Castro. *Gerontechnology* 25(s)

Purpose Advances in Gerontechnology and the expansion of digital access among older adults highlight the need for validated instruments to assess technological proficiency. Although internet access has increased among Brazilians aged 60+, difficulties related to the effective use of digital technologies persist. Brazil still lacks a comprehensive instrument assessing proficiency in wireless network use. The Wireless Network Proficiency Questionnaire (WNPQ), developed in the United States, evaluates skills related to mobile devices, computers, and advanced Wi-Fi tasks [1]. This study aimed to perform the cross-cultural adaptation of the WNPQ into Brazilian Portuguese, focusing on the stages of translation, synthesis, and back-translation. Pilot testing and subsequent psychometric validation phases are planned by large-scale application across the five Brazilian regions. **Method** This methodological study followed the guidelines of [2]. Four translators independently produced initial Portuguese versions, which were synthesized by the research team. Two native English speakers performed the back-translations. A committee of five experts in Gerontology, Gerontechnology, and Computer Science evaluated clarity, relevance, and conceptual equivalence of the items. Each item received a relevance score, and the Content Validity Index (CVI) was calculated. The original WNPQ authors reviewed the synthesized version to assess cultural adequacy and guide necessary adjustments. **Results and Discussion** Of the 19 original items, 13 demonstrated satisfactory equivalence (CVI > 0.78). All items maintained the six original response options: (1) Don't know task; (1) Never tried; (2) Not at all; (3) Not very easily; (4) Somewhat easily; (5) Very easily. Experts recommended semantic, terminological, and contextual adjustments, particularly regarding technical vocabulary and older adults' familiarity with everyday digital tasks. Considering the discrepancies observed, the original authors recommended adopting the inclusive version (i-WNPQ), consisting of 10 items with broader international applicability. Additional refinements were made, such as replacing "wireless network" with the more familiar term "Wi-Fi" and simplifying instructions to enhance clarity. The cross-cultural adaptation process resulted in a culturally coherent Brazilian Portuguese version of the i-WNPQ, preserving conceptual equivalence while improving comprehension for older adults (Table 1). The adapted instrument demonstrated satisfactory content validity and is suitable for subsequent psychometric validation phases in Brazil. Its availability may contribute to improving the assessment of digital proficiency among older adults and advance gerontechnology research in the national context.

Table 1 - Brazilian Portuguese version of the Wireless Network Proficiency Questionnaire (i-WNPQ)

Questionário de proficiência em Wi-Fi (Redes sem fio) - WNPQ
<p>1. Tarefas Básicas com Redes Sem Fio usando um computador/ notebook</p> <ul style="list-style-type: none">a. Conectar à rede sem fio (Wi-Fi) da minha casa no meu computador ou notebookb. Conectar à rede sem fio (Wi-Fi) de um hotel, empresa, restaurantes, consultórios no meu computador ou notebookc. Conectar a um celular que está roteando a Internet para dar acesso a outros dispositivos como computador ou notebook
<p>2. Tarefas Básicas com Redes Sem Fio usando dispositivos móveis (tablet/ celular)</p> <ul style="list-style-type: none">a. Conectar à rede sem fio (Wi-Fi) da minha casa no meu celular ou tabletb. Conectar à rede sem fio (Wi-Fi) de um hotel, empresa, restaurantes, consultórios no meu celular ou tabletc. Conectar a um celular que está roteando a Internet para dar acesso a outros dispositivos no meu celular ou tablet
<p>3. Tarefas Avançadas com Redes Sem Fio (Wi-Fi)</p> <ul style="list-style-type: none">a. Reiniciar minha rede Wi-Fi, mantendo as mesmas configuraçõesb. Restaurar meu ponto de acesso (roteador ou modem) para as configurações de fábricac. Trocar o nome da minha rede Wi-Fid. Trocar a senha da minha rede Wi-Fi

References

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