

Validation of an Italian work-adapted Technostress Scale for older employees

Wednesday 23 July 2025 18:45 (15 minutes)

Introduction

In today's rapidly evolving technological landscape, the integration of Information and Communication Technology (ICT) in the workplace has transformed work processes, offering numerous benefits while also introducing new challenges. One such challenge is technostress, a phenomenon describing the strain caused by the pervasive use of ICT. Although technostress affects workers across all age groups, research suggests that older employees may experience it more intensely due to digital literacy gaps and difficulties adapting to constantly changing technologies. This study aims to evaluate the psychometric properties of a workplace-adapted version of Nimrod's Technostress Scale, originally developed for older adults.

Methods

A sample of 470 Italian full-time workers aged 50 and above from three different sectors -finance, packaging, and steel- participated in the study. The questionnaire was administered during occupational health surveillance, ensuring a high response rate. The original scale was translated into Italian and tailored to assess work-related stress. The adapted scale measured five dimensions of technostress: overload, invasion, complexity, privacy, and inclusion.

Results

Confirmatory Factor Analysis (CFA) supported the five-dimensional structure, with a bifactor model providing the best fit. The scale demonstrated good reliability (Cronbach's $\alpha = 0.75$; McDonald's $\omega = 0.76$) and validity, with technostress significantly correlating with increased perceived stress ($r = 0.32$, $p < 0.001$), decreased well-being ($r = -0.17$, $p < 0.001$), and reduced workability ($r = -0.24$, $p < 0.001$). Significant differences emerged across occupational groups and gender. Blue-collar workers reported higher overall technostress, particularly in the dimensions of overload, complexity, and inclusion, while white-collar employees experienced more invasion and privacy-related concerns. Women reported higher technostress scores than men, especially in invasion and inclusion.

Conclusion

This study validated a workplace-specific technostress scale for older workers, offering a reliable tool for assessing the impact of ICT-related stress and guiding organizational policies aimed at fostering a healthier work environment. Given the aging workforce and the increasing reliance on digital tools, addressing technostress is crucial for promoting employee well-being, productivity, and job sustainability.

Oral presentation

Validation of an Italian work-adapted Technostress Scale for older employees

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Keywords

validation; questionnaire; techostress

Abstract

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Session Classification: Session 21 : "Psychometric Innovations and Diagnostic Methodologies"

Track Classification: Measurement: Measurement