Dipartimento di SCIENZE UMANE

APsyM LAB
Applied Psychology Measurement Lab

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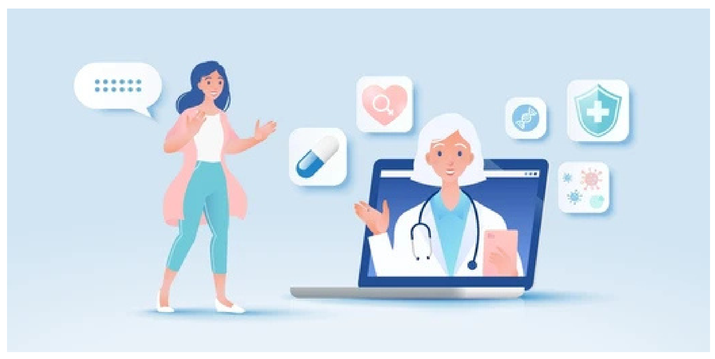
From Mountains to Monitors: Understanding Technostress in Rural Healthcare Digitalization



AIM

Investigate the relationship between interest in future use of telemedicine services and current levels of technostress among mountain-based healthcare professionals.

Telemedicine services encompass synchronous interactions in healthcare delivery at a distance (i.e., when professionals and patients are not in the same room) through the use of Information and Communication Technologies (ICTs) (WHO, 2022).

Healthcare professionals are subjected to numerous stress-inducing factors, such as: work-life conflicts, lack of role clarity, unfair behaviour by colleagues, and technostress factors (Peter et al., 2020; Tell et al., 2023; Keshavarz et al., 2025).

METHOD

Participants → 16 professionals (e.g. pharmacists, nurses, general practicioners).

Qualitative → Interview to identify the interests of professionals in using telemedicine technologies in their work activities.

Quantitative → Two surveys: 1) evaluate technostress in current work activities; 2) adapted version to evaluate technostress in future use of telemedicine services (-TEL) (Molino et al., 2020).

BACKGROUND

WHAT IS TECHNOSTRESS?

"The phenomenon of stress experienced by end users in organisations as a result of their use of ICTs" (Ragu-Nathan et al., 2008).

TECHNOSTRESS COMPONENTS

Techno-overload → ICTs' potential to compel users to work faster and longer or change work habit;

Techno-invasion → ICTs' ability to invade users' personal life and make the boundaries between work and private contexts more blurred;

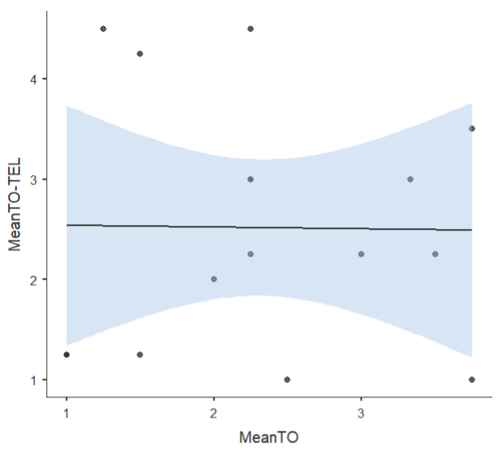
Techno-complexity → situations where ICTs' features and complexity make users feel inadequate with respect to their skills (Taradfar et al., 2007).

RESULTS

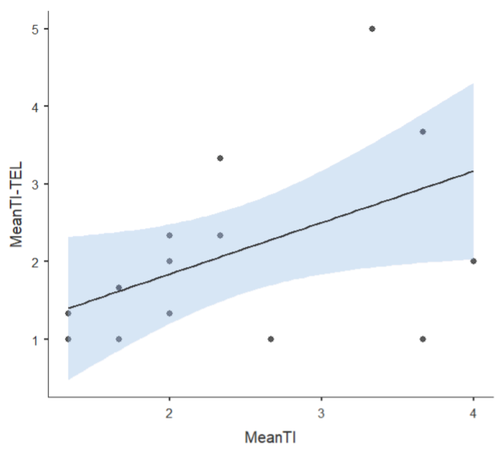
Technostress questionnaire results

Technostress dimensions	Questionnaire mean (SD)	
	Original	Telemedicine
Techno-Overload (TO)	2.32 (0.93)	2.52 (1.22)
Techno-Invasion (TI)	2.46 (0.92)	2.15 (1.19)
Techno-Complexity (TC)	2.39 (1.16)	2.23 (0.82)
Overall Technostress (TE-TOT)	2.38 (0.83)	2.31 (0.83)

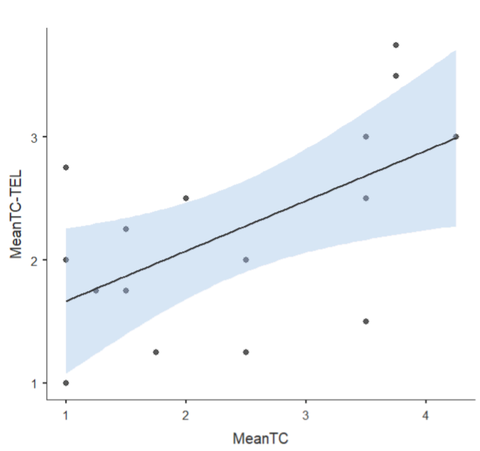
Correlations between technostress in current activities and expected technostress in telemedicine use



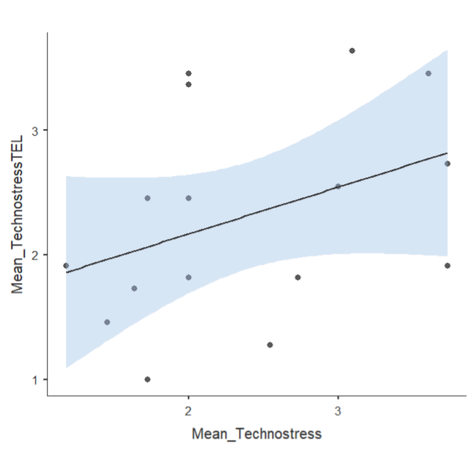
Correlation between TO and TO-TEL: r (14) = -0.01, p = 0.961



Correlation between TI and TI-TEL: r (14) = 0.51, p = 0.044



Correlation between TC and TC-TEL: r (14) = 0.58, p = 0.019



Correlation between TE-TOT and TE-TOT-TEL: r (14) = 0.38, p = 0.151

Interview results: All interviewees identified telemedicine services as a good solution to bridge the gap in healthcare delivery between their mountainous areas and the closest hospital, located 45 minutes away from their operating location. Furthermore, the connections provided by these services would improve access to care and quality of care, and strengthen the community's resilience, particularly given the age (M = 68 years old) of its inhabitants.

DISCUSSION

Preliminary results show that while current technostress, particularly Techno-Invasion and Techno-Complexity, raises concerns about future telemedicine adoption, the professional and community benefits of these tools outweigh those concerns and encourage their use. To promote adoption among healthcare professionals, interventions should assess existing technological stressors, align services with workers' skills, and provide digital literacy training where needed to ease the complexity of new technologies.

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