

Development of an instrument to measure the relationship between reciprocity behaviour and technology readiness

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Background

Technological innovations are often viewed as a remedy for the challenges confronting the healthcare sector, such as demographic shifts and shortages in nursing staff. However, nurses do not consistently adopt these innovations. The primary objective of this study is to design an instrument that can gauge the factors associated with nurses' readiness for technology. While numerous earlier studies concentrated on individual factors, our research uniquely emphasizes the assessment of collaborative factors. Specifically, we have integrated two key concepts: technology readiness and reciprocity behaviour. To achieve this, the Technology Readiness Index 2.0 and the Reciprocity Instrument were jointly administered, and a thorough examination of the psychometric properties of the instrument was conducted.

Methods

A cross-sectional study was conducted involving four care institutions in the northern region of the Netherlands. From October 2020 to January 2021 all Registered Nurses and Nursing Assistants employed in these institutions were provided with an anonymous link to an online survey. The survey results were analyzed using the Generalized Partial Credit Model and linear regression analyses.

Findings

The results indicate that the three subscales—technology readiness, reciprocity behavior, and the conditions of reciprocity behavior—are sufficiently reliable. The analyses affirm that the two instruments are psychometrically robust and well-suited for combination.

Conclusion

The incorporation of the Technology Readiness Index 2.0 and the Reciprocity Instrument seems a meaningful approach to assessing the correlation between reciprocity behavior and the preparedness of nursing staff to embrace technology.