

Title: Implementation of Computer Adapted Testing in Public Health using PROMIS: the Swedish experience

Authors: Evalill Nilsson¹ & John Eric Chaplin² ¹QRC & KI Stockholm, evalill.nilsson@ki.se.
²Inst. Clinical Sciences, Gothenburg University, john.chaplin@gu.se

Key words: PRO, patient representative, item-banking, PROMIS

Background: National Quality Registries (NQRs) increasingly incorporate electronic patient-reported outcome data. It is non-efficient to use multiple non-standard data collection techniques. An item bank system would take advantage of future Computer Adapted Testing (CAT) utilising modern statistical techniques (e.g. Item Response Theory). Public health must have the possibility of large-scale, flexible, continuous data collection and analysis across conditions and healthcare systems. The problem is how to integrate a universal system.

Theoretical framework and methods: PROMIS has been identified as the most suitable item banking system. Integration strategy is based on Organizational Readiness, and Normalization Process Theory leading to the following co-design elements:

- 1) network the existing PROMIS instruments,
- 2) pilot a CATs with range of stakeholders,
- 3) establish legitimacy through collaborative action,
- 4) integrate patients' perspective,
- 5) develop synergy with legacy instruments,
- 6) establish multiple pilot projects creating ownership of change process,
- 7) outline a long-term sustainable strategy for public health.

Main results: A set of adult and pediatric item banks, short forms and profiles have been translated. Contact made with all NQRs in Sweden. Multiple pilot projects and development projects have been started. An emerging factor has been the innovative ideas generated due to the flexible nature of the system. Patient representatives have seen the potential for greater participation and empowerment. Clinicians and registries have also been energized by the possibilities of standardization leading to high data quality at lower costs.

Significance: The implementation of a sustainable nationwide CAT procedure for PROM data offers many possibilities for the future development of a modern public health system. It is considered vital for smooth integration to involve patient groups and future users as co-designers and advisors from the start of the implementation. Co-design will ensure that item banking will be rapidly integrated into the Nordic public health systems.

Key references: Alonso,J., Bartlett,S., Rose,M., Aaronson,N., Chaplin,JE. et.al. (2013). The Case for an International Patient-Reported Outcomes Measurement Information System (PROMIS). Health and Quality-of-Life Outcomes,11(1),210.

Type: Oral presentation / Symposium

Category: 11. How can public health use modern technology.

Language of presentation: Swedish