

P8 Enhancing PROMIS score interpretation through a Story-Based Score Guide: Development and methodological insights

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Objective: This study elaborates on the theoretical foundation and developmental trajectory of the Story-Based PROMIS Score Guide (SBSG-P), analyzing its relevant concepts and construction process. The aim is to provide clinical healthcare professionals with an innovative tool for interpreting PROMIS scale scores that are both contextually relevant and precise, thereby offering decision support for treatment decisions, intervention strategies, and personalized patient management plans in clinical practice.

Methods: Incorporating both quantitative and qualitative research methodologies, the construction of the SBSG-P followed a mixed-methods design. The process initiated with formulating a research plan, creating an initial story-based item bank through quantitative pre-assessment and individual semi-structured interviews. The validation of the story-based scoring guide was accomplished through focus groups, Delphi surveys, pilot testing, and clinical validation.

Results: The mixed-methods approach enabled the systematic development and enhancement of the SBSG-P guideline. Summative content analysis was employed to generate an initial story-based item bank. Subsequent validation involved focus group interviews, Delphi surveys, and a small-sample pilot study to evaluate the alignment between narrative components and empirical data, informing iterative revisions. Finally, clinical validation was conducted within the Item Response Theory (IRT) framework to illustrate the guideline's psychometric rigor, endorsing its applicability and reliability in clinical decision-making.

Conclusions: The Story-Based PROMIS Scoring Guide (SBSG-P) innovatively integrates narrative medicine with psychometric measurement, creating a patient-centered PROMIS scoring interpretation tool that is both contextually adaptive and measurement-sensitive. With the rapid development of artificial intelligence technologies such as large language models, the SBSG-P has broader potential for further development and application. Its design logic driven by the "meaning-data" dual model can be extended to chronic disease monitoring and shared decision-making between patients and healthcare providers, showcasing its strong clinical applicability and decision support value. Future efforts should focus on expanding multi-center validation to enhance the clinical application model of this method, driving PRO tools from data collection towards a paradigm of meaning coexistence.