

Quick Review of Model System Research

Basic Psychometric Properties of the Transfer Assessment Instrument (Version 3.0)¹

What is the study about?

This study aimed at refining Transfer Assessment Instrument 2.0 (TAI), perform reliability testing, and evaluate measurement properties of the refined version of TAI 3.0. This study is important because TAI is an objective and quantifiable measure of transfer technique that helps clinicians detect harmful transfer technique problems and guide transfer training.

Who participated in the study?

The participants included 41 veterans, at least 18 years old, participating in a winter adaptive sports clinic. A signed consent form was obtained from each participant, approved by the Veterans Affairs Pittsburgh HealthCare System Institutional Review Board. Participants used a wheelchair for one year at least, were able to sit upright for at least 4 hours a day, used a wheelchair for more than 40 hours a week, and spoke English. Participants were excluded if they had a current or recent history of pressure ulcers in the last year or if they were able to stand unsupported.

How was the study conducted?

4 raters evaluated all participants on their transfer skill and technique. The raters were clinicians that completed the TAI 3.0 educational program. Participants were reviewed over a three-day period. Each participant performed four transfers that was evaluated by one rater, either unassisted or assisted. Researchers calculated descriptive statistics for the subjects' demographic data, strength, trunk stability, and TAI scores.

What did the study find?

TAI 3.0 improves clinicians' ability to evaluate patients transfer skills. The study found that the TAI 3.0 provided more uniform ratings within each clinician and more uniform ratings across clinicians. TAI scores are not biased by demographic factors like the participants' age, type or disability, sex, body weight, strength, balance, shoulder pain, wheelchair use, and number of transfers per day. It proved to fill the gap by providing a quantitative measurement of the transfer while detecting errors and informing training.

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¹ Tsai, C., Rice, L.A., Hoelmer, C., Boninger, M.L., & Koontz, A.M. (2013). Basic Psychometric Properties of the Transfer Assessment Instrument (Version 3.0). *Archives of Physical Medicine and Rehabilitation*. 94(12): 2456-2464.

*The contents of this summary have been reviewed by the corresponding author of the original study.