

Psychometric properties of the Alberta Infant Motor Scale and culturally adapted versions when used for infant populations cross-culturally: a systematic review

Authors: Bianca Mendonça, PT, DPT, PCS; Michael Kong, PT, DPT; Alison Coombs, PT, DPT, PCS; Lynn Kysh, MLIS, MPP; Barbara Sargent, PhD, PT, PCS

Faculty advisor: Barbara Sargent, PhD, PT, PCS

Purpose: To identify the psychometric properties of the Alberta Infant Motor Scale (AIMS) or culturally adapted versions when used for infant populations cross-culturally, defined as infants living in a country other than Canada where the norms were established. **Methods:** From inception to 2023, six databases were searched for studies that informed the psychometric properties of the AIMS in non-Canadian cohorts. Studies were appraised for risk of bias and quality. **Results:** Twenty-six studies were included. The AIMS has been culturally adapted for Brazilian, Polish, Serbian, Spanish, and Thai cohorts. The use of Canadian norms was found to be appropriate for Greek cohorts, but Dutch cohorts need to use Dutch norms; Brazil was inconsistent. The AIMS had sufficient reliability across reliability types and cultural groups. The AIMS had sufficient concurrent validity with most criterion standard motor tests and cultural groups, but predictive validity was inconsistent. **Conclusion:** In 19 countries worldwide, the psychometric properties of the AIMS or a culturally adapted version was supported by overall very low-quality evidence. For each country in which the AIMS is used, further research is needed to: (1) validated the AIMS as appropriate to use without modifications or culturally adapt it for use, including a translation into the language commonly used by medical professions, (2) validate the norms, either the Canadian norms or culture-specific norms, (3) and provide high quality evidence for reliability and validity.

Funding Source: This research is supported by the Maternal and Child Health Bureau (MCHB), Children's Hospital Los Angeles California-Leadership in Neurodevelopmental Disabilities Training Program under award number T78MC00008.