Reliability and validity of the Alberta infant motor scale Thai version

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Introduction: Delayed motor development affects the quality of life of both children and their family members. An early detection allows a rehabilitation program to start sooner. The Alberta Infant Motor Scale (AIMS) is an observational assessment tool for measuring gross motor maturation. This scale is reliable and widely-used for clinical and research purposes in various countries.

Aim: This study aimed to translate the AIMS into Thai language and examine its reliability and validity.

Methodology: The cross-cultural translation and adaptation process were proceeded to obtain the AIMS Thai version. Three physical therapists were asked to participate. Two physical therapists evaluated the video recordings of 30 full-term Thai infants aged from birth to 18 months using the AIMS Thai version, and one physical therapist used the Bayley Scales of Infant and Toddler Development®, Third Edition (Bayley-III® Screening Test). The Cronbach's alpha was used to estimate the internal consistency. The Intra-class correlation coefficient (ICC (3,1)) was used to assess the inter-rater reliability with a 95% confidence interval. The correlations between the AIMS Thai version and Bayley-III® Screening Test were examined by the Spearman's rank correlation coefficient.

Findings: The AIMS Thai version has high internal consistency with the Cronbach's alpha of 0.994. The inter-rater reliability was satisfactory with the ICC of 0.989 (95% CI 0.977-0.955). The Spearman's rank correlation was 0.986.

Conclusion: The AIMS Thai version demonstrated satisfactory psychometric properties to assess the gross motor skills for Thai infants and toddlers.

Biography
Aimsamrarn P is a PhD candidate in Rehabilitation Science Program at the Khon Kaen University. He is working as a Pediatric Physical Therapist, and believes that using good assessment tools help him develop proper rehabilitation plan.

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