

Thesis Title **Interobserver and test-retest item reliability of Motor Screening of Infant Test**

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ABSTRACT

The purpose of this study was to determine the level of interobserver and test-retest reliability of the Motor Screening of Infant Test (MSI). Motor Screening of Infant Test or MSI test was constructed in this study by using MCG test and MAI test as important components with other tests and knowledge of neuromotor development. Fifty healthy fullterm infants (1-15 mo.) were videotaped during the administration of the MSI test. Five well-trained pediatric physical therapists independently viewed the videotapes and scored the neuromotor developmental responses. At least 2 weeks after the first session, the five pediatric physical therapists independently reviewed and rescored the responses. Interobserver and test-retest item reliabilities were determined by percent of agreement and the Kappa statistic. Interobserver percents of agreement ranged from 76% to 100%, 84% of the items had more than 80 percents of agreement. Using Kappa statistic guidelines, 4% of the items had excellent reliability, 48% of the items had fair to good reliability and 16% of the items had poor reliability. In addition to these results, 32% of the items could not be considered by Kappa values. However,

these items had high percents of agreement ranging from 94% to 100%. So, they could be interpreted as acceptable agreement. Test-retest percents of agreement ranged from 69% to 100%, 84% of the items had more than 80 percents of agreement. Using Kappa statistic guidelines, 12% of the items had excellent reliability, 56% of the items had fair to good reliability and no item had poor reliability. In addition to these results, 32% of the items could not be considered by Kappa values. However, these items had high percents of agreement ranging from 92% to 100%. So, they could be interpreted as acceptable agreement. Most items of the MSI reached the acceptable levels of interobserver and test-retest reliability. With neuromotor developmental experience and proper training, the Motor Screening of Infant Test would be used clinically and in research to assess neuromotor development in the early age (0-2 yr.).