

The Reliabilities and Validities of Assessment Tools for Physical Home Environment for Children Aged 0-3 Years: A Systematic Review

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Background and purposes: The influence of the physical home environment on children's development has been confirmed recently. To measure the physical environment of the child during early life, we need reliable and valid assessment tools in order to provide early childhood intervention or health promotion. The purposes of this article were to systematically review the tools for physical home environment for children aged 0-3 years, and to summarize the reliability and validity information of these measures. **Methods:** Searches of electronic databases, including the Medline, PubMed, PsycInfo, Web of Science, CEPS, and Electronic Thesis and Dissertations System were undertaken. The selection criteria of the literature were: research type (meta-analysis, systematic review, and methodology study), language (English or Chinese), and full text. **Results:** 5 measures were identified: The Infant/Toddler version of the Home Observation for Measurement of the Environment Inventory (IT-HOME), StimQ Cognitive Home Environment, Affordances in the Home Environment for Motor Development Self Report 18-42 months (AHEMD-SR-18-42mo), The Pediatric Review and Observation of Children's Environmental Support and Stimulation (PROCESS), Home Screening Questionnaire (HSQ). Among them, AHEMD-SR-18-42mo contains more items related to physical home environment. Seventeen articles provided the psychometric property data. All 5 measures demonstrate appropriate internal consistency and test-retest reliabilities. Only IT-HOME and StimQ-T provide information concerning inter-rater reliabilities. According to factor analysis, 4 measures except HSQ have appropriate construct validity. Most measures have acceptable convergent validities except for few subscales. **Conclusion:** 5 measures are available in the literature to measure the physical home environment for children less than 3 years of age. The psychometric properties of some measures are still inadequate. Only 2 measures were translated to Mandarin for research purposes. For clinical use in the Mandarin speech area, the measures for physical home environment still need further study. (FJPT 2008;33(5):314-324)

Key Words: Physical home environment, Measures, Reliability, Validity, Systematic review

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