

Development of Japanese Playful Assessment of Neuropsychological Abilities (JPAN)

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Introduction: It's been more than 30 years since the theory of Sensory Integration was introduced to Occupational Therapists (OT) in Japan. Because of Japanese children has been identified their unique natures not only in the language but also in the fine, gross, and social development compared with US children, it is necessary to develop Japanese norm based developmental tests. We have developed Japanese version of Miller Assessment for Preschoolers (JMAP) in 1989, Japanese Sensory Inventory-revised (JSI-R) in 2002. However, neuropsychological tests which comparable to Sensory Integration and Praxis Test (SIPT) have not been available in Japan. SIPT require relatively high abilities of concentration and obtain not meaningful task for children who need assessment often show short attention span and lowered motivation.

Objective: The purpose of this study is to develop Japanese norm based assessment tool by using meaningful task and obtaining useful neuropsychological information.

Method: In 2005, 41 items are originally developed as a pilot version which cover four developmental domain of sensory integrative abilities; equilibrium and antigravity posture (9 items), somatosensory (12 items), eye-hand coordination and visual perception (6 items), and praxis (14 items). Each item was carefully designed to obtain meaningful and playful nature. After analyzing 130 children's performance, number of items was reduced to 34 in 2006 and 32 in 2008. From 2006 to 2009, total numbers of 414 children, whose regional features represented 2005 Japanese censuses; aged four to ten years have been gathered.

Results: 32 items were divided into the four test batteries. Each battery requires 30 to 40 minutes and the half of those items require less than one minute. Those batteries show high abilities of intra-item and age correlation except two items. Most children enjoyed each item especially praxis items.

Conclusion and contribution to practice: Those test batteries are tentatively named as Japanese Playful Assessment of Neuropsychological abilities (JPAN). It is enjoyable and less stressful, but useful assessment tool for OT. Increasing number of normative data is still necessary to accomplish the further study of The JPAN.