

EARLY DETECTION OF ESSENCE IN JAPANESE 0-4-YEAR-OLDS

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i hörsal Arvid Carlsson, Academicum, Medicinaregatan 3, fredagen den 23 februari 2018 kl. 13:00

av YUHEI HATAKENAKA

Fakultetsopponent:

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Avhandlingen baseras på följande delarbeten

- I. Hatakenaka Y. & Hiarano S. Training Health Professionals Engaging in 18-Month Check-up for Early Detection and Early Intervention of Autism Spectrum Disorder. *Journal of Social Policy and Social Work* 2015; 19:45-57.
- II. Hatakenaka Y, Kotani H, Yasumitsu-Lovell K, Suzuki K, Fernell E, & Gillberg C. Infant Motor Delay and Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examinations in Japan. *Pediatric Neurology* 2016; 54:55-63.
- III. Hatakenaka Y, Fernell E, Sakaguchi M., Ninomiya H, Fukunaga I, & Gillberg C. ESSENCE-Q - a first clinical validation study of a new screening questionnaire for young children with suspected neurodevelopmental problems in south Japan. *Neuropsychiatric Disease and Treatment* 2016; 12:1739-1746.
- IV. Hatakenaka Y, Ninomiya H, Billstedt E, Fernell E, Gillberg C. ESSENCE-Q - used as a screening tool for neurodevelopmental problems in public health check-ups for young children in south Japan. *Neuropsychiatric Disease and Treatment* 2017; 13:1271-1280.

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Abstract

Background: Early identification of children with neurodevelopmental problems/ESSENCE (Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examinations) is a critical issue both in the community and in clinical settings. **Aims:** Approach early identification of ESSENCE from three different angles; training for health professionals, early concern regarding motor development, and the development and preliminary validation of a new one-page screening questionnaire, the ESSENCE-Q. **Methods:** (Study I) Evaluate the effect of seminars and materials developed for the training of health professionals engaging in child 18-month check-ups, using a before-and-after questionnaire. (Study II) Explore whether concern about early motor development may be an indication of ESSENCE, using a prospective clinical cohort of children under age two years. (Study III) Develop and examine the ESSENCE-Q as a parent screening questionnaire in a clinical setting, in the context of an explorative study of the ESSENCE-Q used for one year in a neurodevelopmental clinic. (Study IV) Validate the ESSENCE-Q in a community setting targeting mothers, public health nurses, and psychologists in routine child-health check-ups. **Results:** (Study I) Overall subjective evaluation was positive, and self-confidence of public health nurses improved after the seminar. (Study II) The majority of children with concern about early motor delay had ESSENCE. (Study III) The ESSENCE-Q appeared to have good psychometric properties as a parent questionnaire in a clinical setting. (Study IV) The ESSENCE-Q when used by public health nurses and psychologists appeared to have good psychometric properties in a public health setting. **Conclusion:** Neurodevelopmental disorders/problems can often be identified in very early childhood. Careful observation of motor development would seem to be crucial, and the ESSENCE-Q would be a useful tool in screening for ESSENCE both in clinics, and in the general preschool population of children. Public health nurses may be the most appropriate professionals in the screening process, and providing training for them in the field of ESSENCE is critical.

Keywords: ESSENCE, public health nurse, motor development, ESSENCE-Questionnaire

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