

## **Abstract**

**Background:** Psychological and psychiatric comorbidity in children with enuresis is common and well documented. Emotional and behavioral screening is recommended as part as a comprehensive assessment of enuresis. Although available broadband behavioral questionnaires exist, they are usually long and can be time-consuming in scoring and interpretation. A brief validated screening instrument is needed.

**Objective:** To develop a screening tool for emotional and behavioral problems in children with enuresis in Thai context and examine its validity against a standard behavioral rating scales Thai Youth Checklist (TYC).

**Material and Methods:** Using the Short Screening Instrument for Psychological Problem in Enuresis (SSIPPE), a 13-item questionnaire, as a template, the 15-item Thai Behavioral and Emotional Screening Tool for children with Enuresis (TBEST-E) was developed. There were 7 questions to assess internalizing symptoms, 3 for attentional problems, 3 for hyperactivity/impulsivity, and 2 for oppositional defiant symptoms with a yes/no format of answer. In the validation study, 24 children with enuresis were recruited. The parents completed the TBEST-E and the TYC.

**Results:** Among 15 male and 9 female children with enuresis (median age 9, interquartile range 7-11 years), 12 (50%) had lower urinary tract symptoms. After an adaptation following comments from 3 child psychiatrists experienced in pediatric consultation liaison psychiatry including enuresis, the TBEST-E showed the content validity of 0.9, the internal consistency of 0.71 and overall accuracy of 83% (95% CI 0.62-0.95) in identifying emotional and/or behavioral problems. With an appropriate cut-off, further assessment was indicated with an overall sensitivity of 0.88 and specificity of 0.71.

**Conclusions:** The TBEST-E has acceptable psychometric properties in time-efficiently and early detection of common neuropsychiatric problems in children with enuresis.

**Keywords:** enuresis, neuropsychiatric, psychological, SSIPPE, ADHD