Abstract

Background: Attention Deficit Hyperactivity Disorder (ADHD) is a common and impairing child and adolescent psychiatric disorder. Early identification and prompt treatment are essential. Rating scales are commonly used by clinicians and researchers to assess children with ADHD. However, most questionnaires ask about the presence and/or frequency of the problem behaviors and run the risk of being skewed. Strengths and Weaknesses of ADHD-Symptoms and Normal-Behaviors Questionnaire (SWAN) has the advantage over other ADHD rating scales as it measures continuous rating from strengths to weaknesses. However, its clinical utility was understudied.

Objectives: In the current study, we aimed to validate the subscale scores of SWAN against the Diagnostic Interview Schedule for Children version IV (DISC-IV) and look into its ability to identify ADHD in psychiatric clinic setting. We also tested the age and gender effect on the SWAN scores. Subscale cutoff scores of SWAN specific to each gender were determined correspondingly.

Method: A total of 290 children aged 6-12 years old studying in local mainstream primary schools were recruited from clinic and interviewed with the parent version of DISC-IV. Their parents and teachers completed the corresponding version of SWAN.

Results: Both parent and teacher versions of SWAN were found to have good concurrent validity with DISC-IV. SWAN could identify subjects with ADHD well in clinic sample. Gender-specific subscale cutoff scores were determined. Sensitivities and specificities were found to be satisfactory in the range of 76%-96% and 68%-95% respectively.

Conclusions: SWAN is proven to be a useful tool to aid the assessment of ADHD in clinic sample. The subscale cutoff scores can be used to identify ADHD subtypes/ presentations according to the diagnostic algorithm. The scores are gender-specific, so ADHD can be more accurately identified in both genders and improve the potential under-identification in female subjects. Moreover, with the satisfactory concurrent validity of SWAN and DISC-IV, future studies may find SWAN a reasonable and simple alternative to assist in identifying ADHD subjects. Our results remain applicable with the latest published Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).