

## **Abstract**

### **Background**

Attention-deficit/ hyperactivity disorder (ADHD) is common in school-aged children and can lead to substantial adverse social and emotional outcomes if left untreated. The efficacy of pharmacological treatment for ADHD has been well established in clinical trials, and stimulant is the most commonly used agent. However, the effectiveness of stimulant medication is often reduced because of low treatment adherence. Knowing that it is important to identify patients with non-adherence and understand the reasons for not taking the medication, especially caregivers' attitudes and beliefs, there is a relative lack of instruments to study this topic systematically in our locality. Therefore, it would be of great importance that we have a reliable and valid instrument that measures stimulants adherence and caregivers' attitudes and beliefs about medication use in Hong Kong.

### **Objectives**

The study was designed to develop and evaluate a questionnaire that measures stimulants adherence and caregivers' attitudes and beliefs about medication use in Chinese primary school-aged children with ADHD in Hong Kong.

### **Method**

Development of the questionnaire evolved through different stages. Items were generated from literature search and focus groups, followed by expert panel review on its contents and format. The preliminary questionnaire was pilot tested on twenty

participants and amendments were made accordingly. The revised questionnaire was then administered to 243 caregivers, whose children aged between 6 and 12 and had been prescribed stimulants for ADHD, to evaluate the psychometric properties of the questionnaire. Exploratory factor analysis was performed to examine its underlying factorial structure. The construct validity was assessed by evaluating the correlation between subscales scores and adherence rate using Pearson product moment correlation coefficient. The internal consistency and test-retest reliability were examined as well.

## **Results**

The questionnaire consisted of two parts; the first part enquired caregivers about their attitudes and beliefs on ADHD and stimulant medication while the second part was about the details of medication use. The mean age of the subjects was 8.7 years (S.D. = 1.4 years) and the mean adherence rate was 82.2% (S.D. = 32.7 %). Factor analysis of the 24 items in the first part of the questionnaire identified five distinguishable factors, namely *Perceived Medication Effectiveness*, *Worries about Medication Use*, *Willingness to Use Medication among Different Parties*, *Therapeutic Alliance*, and *Perceived Severity of Symptoms*. Three subscales scores (*Perceived Medication Effectiveness*, *Willingness to Use Medication among Different Parties*, and *Therapeutic Alliance*) showed moderate correlation with the level of stimulant adherence. Internal consistency of the five subscales using Cronbach's alpha ranged from 0.63 to 0.78. Test-retest reliability using intraclass correlation coefficient ranged from 0.47 to 0.86.

## **Conclusions**

The preliminary findings indicate that this questionnaire is a psychometrically acceptable and potentially useful tool to measure stimulants adherence and caregivers' attitudes and beliefs about stimulant medication use in Chinese primary school-aged children with ADHD in Hong Kong.