Available online at www.sciencedirect.com

SciVerse ScienceDirect

Comprehensive Psychiatry 54 (2013) 720–730

COMPREHENSIVE PSYCHIATRY

www.elsevier.com/locate/comppsych

Psychometric properties of the Chinese version of Strength and Difficulties Questionnaire

Shih-Kai Liu[a,1], Yi-Ling Chien[b,1], Chi-Yung Shang[b], Chien-Ho Lin[c], Yu-Chih Liu[d], Susan Shur-Fen Gau[b,e,*]

[a]*Department of Child and Adolescent Psychiatry, Taoyuan Mental Hospital, Department of Health, Executive Yuan, Tao-Yuan, Taiwan*
[b]*Department of Psychiatry, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan*
[c]*Department of Psychiatry, Chimei Medical Center, Tainan, Taiwan*
[d]*Department of Psychiatry, Buddhist Dalin Tzu Chi General Hospital, Chia-Yi, Taiwan*
[e]*Department of Psychology, School of Occupational Therapy, Graduate Institute of Brain and Mind Sciences, and Graduate Institute of Epidemiology and Preventive Medicine, National Taiwan University, Taipei, Taiwan*

Abstract

This study aimed to establish the norms and to examine the psychometric properties of the Chinese version of the Strengths and Difficulties Questionnaire (SDQ). Sample included a representative sample of 3534 students (grades 1 to 8) from one city and one suburb each in Northern and Southern Taiwan by using a multistage sampling method and 211 psychiatric outpatients diagnosed with attention-deficit hyperactivity disorder (ADHD), aged 6 to 15, consecutively recruited from a medical center in Taipei. All the parents and teachers and participants with grade 4 or higher completed the SDQ. Parents and teachers also completed the Child Behavior Checklist and the measures about inattention, hyperactivity, and oppositional symptoms. Similar to Western studies, principal component analyses confirmed the five psychological dimensions of the SDQ for the parent, teacher, and student forms. The three forms of the Chinese SDQ showed satisfactory test–retest reliability, internal consistency, concurrent validity, and discriminant validity. All the subscales of the three forms of the Chinese SDQ clearly distinguished clinical participants with ADHD from school-based participants. Like Western studies, our findings indicate that the Chinese SDQ demonstrates a reliable and valid instrument for measuring internalizing, externalizing, and prosocial behaviors in Taiwanese child and adolescent population.
© 2013 Elsevier Inc. All rights reserved.

1. Introduction

Inadequate access to mental health care has been a serious issue for children and adolescents. The majority of children and adolescents with mental problems are not receiving any treatment until the impairment became severe [1,2]. A previous epidemiologic study in Taiwanese adolescents [3] reported similar prevalence rates (22.7%) of childhood-onset psychiatric disorders to those reported in Western countries [4–9]. Given the high prevalence of psychiatric illnesses among children and adolescents, the mental health services approached by this age group are far below the needs (e.g. [10]). Based on psychiatric interview using the Chinese version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children—Epidemiologic Version (K-SADS-E), Gau et al. [3] reported the prevalence rates of childhood-onset psychiatric disorders, including attention deficit hyperactivity disorder (ADHD), specific phobia, social phobia, and separation anxiety disorder in the range of 3.3%–7.5%, 0.7%–5.6%, 1.8%–3.4%, and 0–0.3%, respectively. According to the same study, the estimated rates of children and adolescents with grade 7 to 9 in need of mental health services are 14.8%–20.3%, whereas only 2.50% of the population (10–14 years old) utilized the medical services as reported by the National Health Insurance Reimbursement Data in Taiwan in 2012 [11]. This reflects the necessity of developing a routine

* Corresponding author. Department of Psychiatry, National Taiwan University Hospital, No. 7, Chung-Shan South Road, Taipei, Taiwan 10002. Tel.: +886 2 23123456ext66802; fax: +886 2 23812408.
E-mail address: gaushufe@ntu.edu.tw (S.S.-F. Gau).
[1] Yi-Ling Chien and Shih-Kai Liu have equal contribution to this work as the first authors.

0010-440X/$ – see front matter © 2013 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.comppsych.2013.01.002

screening measure in Taiwan, to detect children and adolescents at high risk of emotional and behavioral problems for further assessment and treatment.

There are limited reliable and valid instruments available for the Chinese population. The Chinese version of the Child Behavior Checklist (CBCL) is a comprehensive tool to assess a wide-spectrum of symptom dimensions but is time-consuming [12–14]; the Chinese versions of the Conner's Rating Scales [15] and the Swanson, Nolan, and Pelham, version IV [16,17] are much efficient for screening inattention and externalizing behaviors, but lack the ability to screen for internalizing or interpersonal problems. Besides, these scales over-emphasize the difficulties of the child, but overlook the strengths and resilience of the child. Hence, a quick and valid screening tool covering strengths and difficulties, internalizing and externalizing problems would be very helpful for clinical practices and research [18].

The Strengths and Difficulties Questionnaire (SDQ) is a 25-item brief behavioral screening questionnaire developed by Goodman for assessing a broad area of different psychological adjustment of children and youths [19,20]. It consists of 5 subscales: conduct problems, hyperactivity, emotional symptoms, peer problems and pro-social behaviors with 5 items for each. In addition to the behavioral items, there is a brief impact supplement regarding whether there is a problem, and if so, further inquiries into overall distress, social impairment, burden, and chronicity are made. The SDQ has been translated into more than 60 languages, and is extensively evaluated and widely applied to assess behavioral disorders and mental health of children and adolescents aged 3–16 years across countries and cultures [21], including European countries [22–29], the United States [22,30], Australia [31], or special populations like the looked after children [32] and the British Indian children [33]. The validity and reliability of the SDQ are generally satisfactory, in both genders and regardless of parental education levels (e.g. [34]). Despite the availability of many translation versions of the SDQ for comparing emotional/behavioral problems and psychosocial functioning/impairments in children and adolescents, the norm and psychometric properties of each translation version need to be established before employment in clinical and research settings [35]. On the other hand, cross-national differences in questionnaires do not necessarily reflect comparable differences in disorder prevalence; for example, the prevalence of any mental disorder ranged from 2.2% in India to 17.1% in Russia [36]. Therefore, it is necessary to assure the predictive validity upon the applications in different populations.

Studies have shown that like the CBCL, the SDQ parent and teacher-report forms distinguish between community-based and clinic-based samples [37–40], while the Total Difficulties Score (the sum of the first four subscales) of the SDQ discriminated more accurately than that of the CBCL [38]. Moreover, the SDQ demonstrates better prediction of the clinical diagnosis of a hyperactivity disorder [38], and is at least as good at detecting internalizing and externalizing problems as the CBCL [25,35,40,38]. In addition to the psychometric studies conducted in Western countries, there are some studies reported from Asian countries, such as Pakistan [41], Bangladesh [42], China [43] and Hong Kong [44]. Most of them focus on the parent and/or teacher versions of the SDQ only, rather than including three versions of the SDQ [25,43,45]. Others were limited by a smaller clinical sample, or a large but non-representative population from metropolitan areas [43,44]. Besides, only a few provide evidence of convergent validity [43], and none of them compared the SDQ with the gold standard CBCL.

This study used a representative sample to evaluate the psychometric properties of the SDQ, including the factor structure, the test–retest reliability, inter-informant agreement and concurrent validity with the CBCL of the three Chinese versions of the SDQ: parent, teacher, and student versions; and to investigate the age and gender effects on the subscores of the three versions of the Chinese SDQ. Further, we also examined the discriminative validity of the Chinese SDQ on its ability to distinguish children and adolescents with ADHD from typically developing children and adolescents recruited from schools.

2. Method

2.1. The sample

2.1.1. Community-based participants

We used a multi-stage sampling method to identify 3899 eligible participants, first to eighth graders from six primary schools and six junior high schools from northern Taiwan (Taipei City and Taoyuan County) and southern Taiwan (Tainan City and Chiayi County). One or two of primary and junior high schools were randomly allocated according to the school sizes among the schools where school principals agreed to participate in this study. Two to three classes were randomly allocated from each grade level (grades 1 to 8) to make up a sample of 100 to 120 students at each school grade level in each study site. All the students, their parents and teachers in the selected class were recruited as study samples.

There were 35, 25, 24, 32 classes and a total 1078, 849, 858, 1114 eligible students in each of four areas, i.e., Taipei, Taoyuan, Chiayi, and Tainan city orderly. The final sample for analysis was 3546 (1832 boys, 51.7% and 1714 girls, 48.3%) for the SDQ parent version, 3669 (1918 boys, 51.8% and 1751 girls, 47.7%) for the SDQ teacher version, and 2672 students at third grade (if they were able to fill on the SDQ) or above (1400 boys, 52.4% and 1272 girls, 47.6%) for the SDQ self-report version.

2.1.2. Clinic-based participants

We recruited 211 children and parents with DSM-IV ADHD, aged 6–15 (179 boys, 84.8%), consecutively from the Children's Mental Health Center, National Taiwan University Hospital, between June 2005 and September 2005. All of them were diagnosed with ADHD and were not

Download English Version:

https://daneshyari.com/en/article/10297894

Download Persian Version:

https://daneshyari.com/article/10297894

Daneshyari.com