Psychometric Evaluation of the Cigarette Withdrawal Scale (Chinese Version) in Male Smokers in Taiwan

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Introduction
The rates of smoking in Taiwan were approximately 33.5% for men and 4.4% for women in 2011 (Health Promotion Administration, 2013). Only 14.4% of Taiwanese smokers have stopped smoking, a considerably lower rate than that in developed countries such as the United States (25.0%), the United Kingdom (29.8%), Australia (27.9%), and Canada (33.0%; Health Promotion Administration, 2013). Nicotine dependence results in difficulties in quitting smoking (Royal College of Physician, 2000), and the emergence of withdrawal symptoms is an essential feature of nicotine dependence (American Psychiatric Association, 2000; World Health Organization, 1992). A valid, reliable measure of symptoms of withdrawal from nicotine is therefore important for gaining a better understanding of dependence on nicotine and for developing related interventions.

Since 2012, the Taiwan Department of Health has funded a second-generation, nationwide quit-smoking program, including nicotine replacement therapy, in hospital and community settings (Health Promotion Administration, 2013). A valid questionnaire for assessing nicotine withdrawal is critical both for clinical practice and for research on smoking cessation.

However, no instrument for assessing nicotine withdrawal symptoms in adult smokers is currently available in Taiwan. The Cigarette Withdrawal Scale (CWS) is a reliable and valid Chinese-language instrument for assessing the symptoms of cigarette withdrawal.

Conclusions/Implications for Practice: The CWS-C performed well in terms of reliability and validity in several tests conducted on male Taiwanese smokers. Accurate measurement is expected to help health professionals better understand smoker quitting patterns and the severity of withdrawal symptoms and to develop improved withdrawal-symptom treatment interventions.

Key Words: cigarettes withdrawal, validity, reliability, measure, Chinese version.