

## **Validation of a Malay version of the smartphone addiction scale among medical students in Malaysia**

### **ABSTRACT**

**Introduction:** This study was initiated to determine the psychometric properties of the Smart Phone Addiction Scale (SAS) by translating and validating this scale into the Malay language (SAS-M), which is the main language spoken in Malaysia. This study can distinguish smart phone and internet addiction among multi-ethnic Malaysian medical students. In addition, the reliability and validity of the SAS was also demonstrated.

**Materials and Methods:** A total of 228 participants were selected between August 2014 and September 2014 to complete a set of questionnaires, including the SAS and the modified Kimberly Young Internet addiction test (IAT) in the Malay language.

**Results:** There were 99 males and 129 females with ages ranging from 19 to 22 years old ( $21.7 \pm 1.1$ ) included in this study. Descriptive and factor analyses, intra-class coefficients, t-tests and correlation analyses were conducted to verify the reliability and validity of the SAS. Bartlett's test of sphericity was significant ( $p < 0.01$ ), and the Kaiser-Meyer-Olkin measure of sampling adequacy for the SAS-M was 0.92, indicating meritoriously that the factor analysis was appropriate. The internal consistency and concurrent validity of the SAS-M were verified (Cronbach's alpha = 0.94). All of the subscales of the SAS-M, except for positive anticipation, were significantly related to the Malay version of the IAT.

**Conclusions:** This study developed the first smart phone addiction scale among medical students. This scale was shown to be reliable and valid in the Malay language.