

Abstract

Background: Z-drugs are a group of hypnotics commonly prescribed in psychiatric clinics in Hong Kong for those who suffer from insomnia. They include zopiclone, zolpidem and zaleplon. Z-drugs were initially marketed as safer choices to benzodiazepines in terms of weaker dependence potential. However, this statement has been challenged repeatedly in various researches in recent years, and it seems that Z-drugs dependence is more likely than it was previously thought. There is a lack of validated instruments for quick assessments of the severity of Z-drugs dependence in Hong Kong. The present study examined the validity and reliability of the Chinese version of Severity of Dependence Scale for Z-drugs (CSDS-Z) in a sample of patients receiving treatment with Z-drugs in a psychiatric clinic in Hong Kong. Socio-demographic, clinical and Z-drugs use characteristics of this group of patients were also analysed for possible predictors of Z-drugs dependence in this sample.

Methods: A randomised sample of 103 patients receiving treatment with Z-drugs was recruited from a psychiatric clinic in West Kowloon in Hong Kong. CSDS-Z was administered to assess their severity of dependence on Z-drugs in the past one year. The Chinese-bilingual version of Structured Clinical Interview for DSM-IV Axis I Disorders, Patient research version) (CB-SCID-I/P) was used to determine any

diagnosis of Z-drugs dependence. Socio-demographic, clinical and Z-drugs use data were collected. Psychometric properties of CSDS-Z were examined.

Results: CSDS-Z showed high internal consistency (Cronbach's alpha = 0.80) and test-retest reliability (intraclass correlation coefficient = 0.961). All items loaded strongly on a single factor (factor loading > 0.65) in principal component analysis, supporting its construct validity. Concurrent validity was confirmed by the fact that CSDS-Z score correlates positively with the count of criteria met for DSM-IV dependence, and several Z-drugs use characteristics including dose, frequency and length of use. The CSDS-Z was shown to have high diagnostic utility (area under the receiver operating characteristic curve = 0.965), with a sensitivity of 94.2%, a specificity of 92.2% and a cut-off point at seven. Participants were divided into Z-drugs dependent and non-dependent groups according to SCID. The two groups were found to be significantly different in several Z-drugs use characteristics including source of Z-drugs ($p < 0.001$), amount of Z-drugs use ($p < 0.001$), frequency of Z-drugs use ($p < 0.001$) and length of Z-drugs use ($p = 0.004$). A logistic regression model identified three predictors for Z-drugs dependence, which included obtaining Z-drugs from sources other than a prescription in psychiatric clinic ($p = 0.019$), amount of Z-drugs use ($p = 0.005$) and frequency of Z-drugs use ($p = 0.011$).

Conclusions: The findings of the present study support CSDS-Z as a reliable and valid instrument to measure the severity of dependence on Z-drugs in patients of a local psychiatric clinic. With a cut-off point at seven, it may help to rapidly identify patients who have a more clinically significant problem with Z-drugs dependence. There are significant differences in the pattern of use of Z-drugs between dependent and non-dependent group, and there are three predictors for Z-drugs dependence.

Keywords: hypnotics, zopiclone, zolpidem, dependence, Severity of Dependence Scale