

Abstract

Background: Alcohol use disorders pose impact on personal and public health around the world. Locally validated assessment tools for alcohol dependence are lacking. The Leeds Dependence Questionnaire (LDQ) is a self-administered questionnaire which gauges the severity of substance dependence, based on ten factors namely pre-occupation, salience, compulsion to start, planning, maximise effect, narrowing of repertoire, compulsion to continue, primacy of effect, constancy of state, and cognitive set.

Aim: This study aimed to validate the Hong Kong Chinese version of Leeds Dependence Questionnaire on alcohol (HKC-LDQ-A).

Method: The HKC-LDQ-A was developed by backward and forward translation. It was reviewed by an expert panel and a focus group. One hundred and eighteen alcohol dependence patients were recruited. The internal consistency, split-half reliability and test-retest reliability at one-week interval were examined. Concurrent validity was examined by the correlation between the total score of HKC-LDQ-A and Chinese Bilingual version of the Structured Clinical Interview for DSM-IV-TR Axis I Disorder, Research Version, Patient Edition (CB-SCID-I/P) plus amount of alcohol intake. Construct validity was examined by exploratory factor analysis (EFA) which explored the underlying factor structure of HKC-LDQ-A. Convergent validity was examined by the correlation of HKC-LDQ-A with the Chinese version of General Health Questionnaire 12 Items (C-GHQ-12) and the World Health Organization Disability Assessment Scale II Chinese Version (C-WHODAS-II).

Results: The HKC-LDQ-A showed good internal consistency (Cronbach's alpha = 0.89), acceptable split-half reliability (Spearman-Brown coefficient = 0.92) and high test-retest

reliability (Spearman rank order correlation coefficient [r_s] = 0.98, $p < .001$; p -value calculated by Wilcoxon signed-rank test = 0.22). Concurrent validity was established by a positive correlation of $r_s = 0.74$ with CB-SCID-I/P and $r_s = 0.59$ with the total unit of alcohol drunk in the past one month respectively. Construct validity was established by the EFA which found the factor structure of HKC-LDQ-A corresponds to the original LDQ with one single construct measuring dependence. Convergent validity was demonstrated with a positive correlation of $r_s = 0.42$ between C-LDQ-A and C-GHQ-12, and $r_s = 0.48$ between C-LDQ-A and C-WHODAS-II.

Conclusion: The HKC-LDQ-A is a reliable and valid measure of alcohol dependence severity. It could be easily applied in an outpatient setting to assist initial assessment.

Keywords: Alcohol, dependence, Leeds Dependence Questionnaire (LDQ), Chinese, Hong Kong