Abstract

Background: In-patient aggression in forensic psychiatric setting is an under-researched subject, despite the magnitude of the problem. No studies have been conducted on the assessment of risk and the examination of the predictors of aggression in a forensic psychiatric population in the Chinese-speaking community.

Aims: To test the psychometric properties of a structured dynamic risk-assessment instrument, the Dynamic Appraisal of Situational Aggression (DASA), and to examine the prevalence and determinants of in-patient aggression in a local forensic psychiatric population.

Method: A representative sample of 530 detainees consecutively admitted to the Siu Lam Psychiatric Centre, the only forensic psychiatric institution in Hong Kong, was recruited. Qualified nurses completed two risk-assessment instruments, the DASA and the Brøset Violence Checklist (BVC), once daily during the participants' first 14 days of admission. Aggressive incidents were recorded with a standardised instrument, the revised Staff Observation Aggression Scale (SOAS-R). Sociodemographic data, mental health information and criminal background information about the participants were collected for univariate and multivariate analyses.

Results: A total of 7359 DASA ratings and 375 incidents of aggression were recorded. The prevalence of in-patient aggression was 17.7%. Internal consistency and inter-rater reliability of the DASA were good (Cronbach's alpha = 0.862, Krippendorff's alpha = 0.915). The predictive validity was estimated by determining the receiver operating characteristic (ROC), which yielded an area under the curve (AUC) of 0.973, sensitivity of 97%, specificity of 99% and positive and negative predictive values of 0.8 and 1.0, respectively, at a cut-off score of 3. The concurrent validity and construct validity were demonstrated by the strong positive correlations of the DASA with the BVC and the SOAS-R. Female gender, diagnoses of personality disorder and substance-related disorder, and admission at other correctional institutions were predictors of in-patient aggression.

Conclusion: The DASA appears to be a valid and reliable risk-assessment instrument in a predominantly Chinese-speaking forensic psychiatric population. Specific groups of offenders with increased risk of aggression were identified, and this study laid the foundation for future studies on this topic.

Keywords: aggression, violence, in-patient, forensic psychiatry, risk-assessment