
Objective: The aim of this paper was to determine whether imminent aggression in psychiatric inpatients can be accurately predicted using a structured risk assessment instrument, the Dynamic Appraisal of Situational Aggression (DASA).

Methods: This prospective validation study involved 10,013 DASA risk assessments of patients residing in a psychiatric hospital. Twenty-four hours after the risk assessment, psychiatric nurses documented whether patients had behaved aggressively towards others or whether they had deliberately damaged property. They also noted the target of aggression, whether towards staff, patients or property.

Results: The predictive validity of the DASA varied according to the type and target of aggression. The prediction of any aggressive behaviour, irrespective of type of aggression or target, was significantly greater than chance (AUC = 0.69). The strongest predictive accuracy (AUC = 0.80) was for physical aggression towards staff.

Conclusions: These results suggest that imminent aggression in psychiatric hospitals may be able to be accurately predicted by psychiatric nurses using a structured risk assessment instrument.


Institutional 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 predictors of aggression among the Chinese forensic psychiatric population. Our study aimed to examine the determinants of aggression in the only forensic psychiatric institution in Hong Kong, and to test the psychometric properties of a risk-assessment instrument, the Dynamic Appraisal of Situational Aggression (DASA). We recruited a representative sample of 530 consecutively admitted detainees. 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 using the revised Staff Observation Aggression Scale (SOAS-R), and participants’ data were collected for multivariate analyses. We showed that female gender, diagnoses of personality disorder and substance-related disorder, and admission at other correctional institutions were associated with institutional aggression. Aggression was perpetrated by 17.7% of the participants, and the DASA was demonstrated to have good psychometric properties in assessing and predicting aggressive incidents. Our findings preliminarily support the use of daily in-patient risk-assessment and affirm the role of dynamic factors in institutional aggression.
Against the background of an emerging international demand, this study examined the impact of a suite of interventions designed to reduce the use of seclusion in a forensic psychiatric hospital. These interventions included a review of existing seclusion practices and staff training in the management of aggression as well as the implementation of evidence-based alternatives. Evaluation occurred via pre- and post measurements of (1) therapeutic climate, (2) staff attitudes towards seclusion, (3) staff confidence to manage aggression, (4) the frequency and duration of seclusion episodes and (5) the frequency of aggression. The results revealed a significant reduction in the use and duration of seclusion episodes. Although staff appeared to use seclusion less frequently to manage a similar number of aggressive incidents there was no deterioration in staff perceptions of personal safety, nor any change in staff confidence to manage aggressive patients. There was also no change to therapeutic climate or staff attitudes towards seclusion. The clinical implications and opportunities for future research are discussed.

The assessment and prevention of aggressive behavior are critical components of contemporary psychiatric inpatient care, treatment, and management. This prospective study compared the predictive validity of three dynamic violence risk assessment measures (i.e. Brøset Violence Checklist (BVC), Dynamic Appraisal of Situational Aggression (DASA), and HCR-20 Clinical scale) for imminent aggression (within the next 24 h). The DASA and BVC were developed specifically to assess imminent violence within psychiatric hospitals, whereas the HCR-20 is a ‘general’ violence risk assessment measure that can also be used for this purpose. Daily risk ratings were completed for 70 psychiatric inpatients; a total of 3449 ratings for each risk assessment measure were obtained. Results showed that the DASA and BVC were acceptable to outstanding predictive validity and were more accurate than the HCR-20 Clinical scale for predicting inpatient aggression. Actuarial and structured professional ratings were similar for the prediction of verbal threats, but actuarial ratings were more accurate for predicting interpersonal violence. Overall, these findings support the use of structured dynamic risk assessment measures to aid in the prediction of imminent aggression within inpatient psychiatric settings.

Aggressive behavior in incarcerated youth presents a significant problem for staff, co-residents and the functioning of the institution. This study aimed to examine the predictive validity of an empirically validated measure, designed to appraise the risk of imminent aggression within institutionalized adult psychiatric patients (Dynamic Appraisal of Situational Aggression; DASA), in adolescent male and female offenders. The supervising staff members on the residential units rated the DASA daily for 49 youth (29 males and 20 females) over two months. The results showed that DASA total scores significantly predicted institutional aggression in the following 24 and 48 hrs; however, the predictive validity of the DASA for institutional aggression was, at best, modest. Further analyses on male and female subsamples revealed that the DASA total scores only predicted imminent institutional aggression in the male subsample. Item analyses showed that negative attitudes, anger when requests are denied, and unwillingness to follow instructions predicted institutional aggression more strongly as compared with other behavioral manifestations of an irritable and unstable mental state as assessed by the DASA.


Recent advancements in risk assessment have led to the development of dynamic risk-assessment measures that are predictive of inpatient aggression in the short term. However, there are several areas within this field that warrant further empirical investigation, including whether the average, maximum, or most recent risk state assessment is the most valid for predicting subsequent aggression in the medium term. This prospective study compared the predictive validity of three indices (i.e. mean score, peak score, and most recent single time-point rating) of the Dynamic Appraisal of Situational Aggression (DASA) for inpatient aggression. Daily risk ratings were completed for 60 psychiatric inpatients (from the acute wards of a forensic psychiatric hospital) for up to 6 months; a total of 1054 DASA ratings were obtained. Results showed that mean and peak scores on the DASA were better predictors of interpersonal violence, verbal threat, and any inpatient aggression than the DASA single time-point most recent ratings. Overall, the results support the use of the prior week’s mean and peak scores to aid the prediction of inpatient aggression within inpatient forensic psychiatric settings in the short to medium term. These results also have practical implications for clinicians considering risk-management strategies and the scoring of clinically-relevant items on risk-assessment measures.
Although violence risk assessment knowledge and practice has advanced over the past few decades, it remains practically difficult to decide which measures clinicians should use to assess and make decisions about the violence potential of individuals on an ongoing basis, particularly in the short to medium term. Within this context, this study sought to compare the predictive accuracy of dynamic risk assessment measures for violence with static risk assessment measures over the short term (up to 1 month) and medium term (up to 6 months) in a forensic psychiatric inpatient setting. Results showed that dynamic measures were generally more accurate than static measures for short- to medium-term predictions of inpatient aggression. These findings highlight the necessity of using risk assessment measures that are sensitive to important clinical risk state variables to improve the short- to medium-term prediction of aggression within the forensic inpatient setting. Such knowledge can assist with the development of more accurate and efficient risk assessment procedures, including the selection of appropriate risk assessment instruments to manage and prevent the violence of offenders with mental illnesses during inpatient treatment.


There has been increased interest in structured schemes for the assessment of risk for aggression within inpatient psychiatric settings. The most commonly utilized schemes are those previously developed to assess risk for prisoners being considered for release on parole and for forensic psychiatric patients being considered for discharge from the hospital to the community. Few structured schemes have been developed with the explicit aim of assessing risk for aggression in the inpatient setting. Recent research utilising a variety of risk assessment schemes has revealed reasonable predictive validity. This narrative review summarizes and appraises this expanding literature within the context of risk assessment decision making tasks typically undertaken by psychiatric unit staff. It is concluded that a number of structured risk assessments schemes do have acceptable predictive validity. Unfortunately, many of the schemes tested are compromised by a lack of practical utility, and only a few are capable of contributing to the entire range of risk assessment decision making tasks required. Options for the application of structured risk assessment schemes are raised.
Despite the high rate of aggression on psychiatric wards, uncertainty exists about the nature of the relationship between mental illness, outpatient treatment and aggression. As a consequence, the frequently employed strategies used to manage aggressive inpatients, such as seclusion, isolation, sedation, and restraint, are implemented inconsistently and possibly selected on the basis of characteristics unrelated to the cause of aggression. Further, the implementation of these management strategies may precipitate aggression, model aggressive ways of interacting with others, or reinforce aggression. Aggression may, therefore, be maintained rather than eliminated through normal ward practices. The purpose of the present paper is to review the literature on psychiatric inpatient aggression. Assessment approaches in this area may be categorized as structural (which emphasise form) or functional (which emphasise purpose). Most research in this field has utilized a structural approach. While these studies have identified a number of demographic, clinical, and situational characteristics of high-risk individuals and environments, which assist resource allocation and actuarial assessments of risk, they fail to clarify the purpose of aggression or assist the development of psychological interventions aimed at reducing aggression. This review concludes that a functional analysis of inpatient aggression may guide the selection of management strategies used to contain aggressive incidents and ensure such strategies are consistent with the psychological interventions developed to reduce the likelihood of future aggression. The implications of this conclusion for future research are discussed.

Drawing on recent advances in the violence risk assessment literature, this study tested the predictive validity of two structured measures designed to support risk related decision making, the HCR-20 and the Dynamic Appraisal of Situational Aggression (DASA), for the prediction of imminent aggression and self-harm in personality disordered patients of a high secure psychiatric hospital. For four months nursing staff completed daily assessments of patients using the DASA and the Clinical scale items from the HCR-20. On the following day they documented whether patients had behaved aggressively and/or self-harmed. Results revealed modest predictive validity, significantly better than chance, for both the prediction of imminent self-harm and aggression for both measures. Furthermore, these results suggest that personality disordered patients in a negative psychological state characterized by irritability, impulsivity and disagreeableness are at an increased risk of aggression and self-harm during involuntary psychiatric inpatient treatment and that this state is sensitive to structured risk assessment.

This study tested the proposition that structured risk assessments followed immediately by the risk assessment results and recommendations for management can reduce the frequency of aggression in high-risk personality-disordered patients. The study included three phases during which aggressive behaviour was recorded: (a) baseline, (b) daily risk assessment using the Dynamic Appraisal of Situational Aggression (DASA) and HCR-20 Clinical Scale, and (c) daily DASA risk assessment followed by risk assessment results and risk management recommendations. Following the third phase a staff survey was conducted to measure the clinical utility of the DASA and the risk management recommendations. Results revealed no significant difference in the frequency of aggression between the three phases. The staff survey revealed varied reactions to the DASA and to the utility of the risk assessment results and management recommendations. Possible reasons for the limited impact of the DASA and opportunities for future research are discussed.


Empirically derived structured violence risk assessment instruments are increasingly used by nurses in forensic mental health settings, typically demonstrating stronger predictive validity than unaided clinical risk assessments, and associated with reduced aggression and reduced restrictive practices including seclusion. However, these instruments are less often used in non-forensic mental health settings despite frequent aggression in these settings. This study represents the first test of the Dynamic Appraisal of Situational Aggression (DASA-IV), a structured instrument used to appraise risk for imminent aggression in a non-forensic mental health hospital. Predictive validity of DASA-IV, and unaided clinical and structured clinical judgements made after DASA-IV assessments were compared. Participants included 105 nurses at two mental health inpatient units in rural Victoria, Australia. During the study, 482 DASA-IV assessments and structured clinical judgements were compared with 997 unaided clinical risk judgements. DASA-IV total scores predicted aggression significantly better than unaided clinical risk ratings over the subsequent 24 hours and for the next shift. Nurses’ structured clinical judgement ratings were more accurate than unaided clinical appraisals but less accurate than actuarial (DASA-IV derived) scores. The DASA-IV presents as a valid measure for appraising risk of imminent aggression in mainstream mental health inpatient settings.
Objectives: Aggression in adolescents presents a significant problem for psychiatric units. The Dynamic Appraisal of Situational Aggression (DASA) is an empirically validated measure designed to appraise the risk of imminent aggression (within the next 24 hours) in adult patients. Our aim was to examine the predictive validity of the DASA: Youth Version (DASA:YV) with youth-specific items, in young offenders hospitalised with a mental illness.

Methods: This prospective validation study involved 4440 DASA:YV ratings of mentally ill adolescents in a secure hospital. At 24 hours post-assessment, the nursing staff documented whether patients had behaved aggressively: physically, verbally or towards property. Predictive accuracy was assessed using the area under the curve (AUC) of the receiver operating characteristic (ROC) curve.

Results: The DASA:YV significantly predicted any imminent aggression (AUC = 0.754). Additional youth-specific items conferred a greater predictive yield, as compared to adult-derived items (p = 0.014).

Conclusions: It is possible to monitor the risk state of hospitalised mentally ill youth, so that heightened states can be detected early, thus facilitating interventions to reduce the risk of violence.

**Background:** Patient aggression and violence against staff members and other patients are common concerns in psychiatric units. Many structured clinical risk assessment tools have recently been developed. Despite their superiority to unaided clinical judgments, staff has shown ambivalent views towards them. A constant worry of staff is that the results of risk assessments would not be used. The aims of the present study were to investigate what were the interventions applied by the staff of a psychiatric admission ward after a high risk patient had been identified, how frequently these interventions were used and how effective they were.

**Methods:** The data were collected in a naturalistic setting during a 6-month period in a Finnish psychiatric admission ward with a total of 331 patients with a mean age of 42.9 years (SD 17.39) suffering mostly from mood, schizophrenia-related and substance use disorders. The total number of treatment days was 2399. The staff assessed the patients daily with the Dynamic Appraisal of Situational Aggression (DASA), which is a structured violence risk assessment considering the upcoming 24 h. The interventions in order to reduce the risk of violence following a high DASA total score (≥4) were collected from the patients’ medical files. Inductive content analysis was used.

**Results:** There were a total of 64 patients with 217 observations of high DASA total score. In 91.2% of cases, at least one intervention aiming to reduce the violence risk was used. Pro re nata (PRN)-medication, seclusion and focused discussions with a nurse were the most frequently used interventions. Non-coercive and non-pharmacological interventions like daily activities associated significantly with the decrease of perceived risk of violence.

**Conclusion:** In most cases, a high score in violence risk assessment led to interventions aiming to reduce the risk. Unfortunately, the most frequently used methods were psychopharmacological or coercive. It is hoped that the findings will encourage the staff to use their imagination when choosing violence risk reducing intervention techniques.

PURPOSE: The aims of this study are to explain the intervention of implementing a structured violence risk assessment procedure in mental health inpatient units using the Ottawa Model of Research Use (OMRU) as a guiding framework and to consider nurses' perspectives of its clinical utility and implementation process.

BACKGROUND: Patient aggression toward staff is a global concern in mental health units. The limited extant literature exploring the use of structured violence risk assessments in mental health units, although small and inconsistent, reveals some positive impacts on the incidence of aggression and staff's use of restrictive interventions.

RATIONALE: Although numerous violence risk assessment instruments have been developed and tested, their systematic implementation and use are still limited.

DESCRIPTION OF THE PROJECT:
A project titled "Safer Working Management" (111298) was conducted in a Finnish hospital district, across 3 mental health units. The 6 steps of OMRU were followed during implementation of the Dynamic Appraisal of Situational Aggression (DASA).

OUTCOME: Nurses' views toward structured violence risk assessment procedures varied. Although implementation of the DASA was seen as a useful method to increase discussions with patients and nursing staff, some staff preferred their own clinical judgment for assessment of violence risk.

CONCLUSION: It is possible to use a specific model to promote the implementation of risk assessment instruments in mental health units. However, the complex mental health inpatient environment and the difficulties in understanding and managing aggressive patients present challenges for the implementation of structured violence risk assessment methods.

IMPLICATIONS: The OMRU provides a tool for clinical nurse specialists to guide implementation process in mental health units. Clinical nurse specialists must promote training for staff regarding use of new innovations, such as the DASA. Implementation processes should be reviewed so that clinical nurse specialists can lead and support mental health staff to properly use structured violence risk assessment measures.

**Purpose:** This paper aims to explore the acceptability of Dynamic Appraisal of Situational Aggression (DASA) from the perspective of patients, its actual use by mental health nurses, and the predictive validity of the DASA instrument.

**Methods:** A feasibility study design incorporating quantitative and qualitative components was used. The study was conducted in three mental health inpatient units at three hospitals in southern Finland. Quantitative data were used to explore demand (nurses’ actual use of the DASA), limited efficacy (predictive validity), and acceptability (measured through patients’ participation in the project). Qualitative data were collected to enhance the understanding of acceptability by describing patients’ perceptions of the strengths and weaknesses of the DASA.

**Results:** Nurses used the DASA for most patient assessments. The predictive validity of the DASA was outstanding or excellent, depending on the type of aggression predicted, although the patient recruitment ratio was low. Patients reported both strengths and weaknesses of the DASA, providing complementary information regarding the instrument’s acceptability and clinical application.

**Conclusion:** The DASA accurately predicts inpatient aggression. The patients’ preferences and concerns regarding risk assessment have been noted. More patient involvement in risk assessment research and violence prevention efforts is required. Keywords: patient participation, nurses, violence, risk assessment, psychiatric hospitals, multi-method approach


Limit setting is an intervention that is frequently used by mental health nurses. However, limit setting is poorly conceptualized, its purpose is unclear, and there are few evidence-based guidelines to assist nurses to set limits in a safe and effective manner. What is known is that the manner in which nurses set limits influences patients' perceptions of the interactions and their emotional and behavioural responses. In this qualitative study, 12 nurses and 12 patients participated in personal, semistructured interviews that aimed to explore limit setting and to propose principles to guide practice. The findings suggested that: (i) limit setting is important to safety in mental health hospitals; (ii) engaging patients in an empathic manner is necessary when setting limits (when nurses engage in an empathic manner, the therapeutic relationship is more likely to be preserved and the risk of aggressive responses is reduced); and (iii) an authoritative (fair, respectful, consistent, and knowledgeable), rather than authoritarian (controlling and indifferent), limit-setting style enhances positive outcomes with regards to adherence, reduced likelihood of aggression, and preservation of the therapeutic relationship. In conclusion, a limit-setting style characterized by empathic responding and an authoritative, rather than authoritarian interpersonal, style is recommended. Elucidating the components of this style is critical for effective training and best practice of mental health nurses, and to reduce aggressive responses from limit setting.

In the present study, we explored the predictive validity of the Dynamic Appraisal of Situational Aggression (DASA) assessment tool in male (n = 30) and female (n = 30) patients admitted to the acute units of a forensic mental health hospital. We also tested the psychometric properties of the original DASA bands and novel risk bands. The first 60 days of each patient's file was reviewed to identify daily DASA scores and subsequent risk-related nursing interventions and aggressive behaviour within the following 24 hours. Risk assessments, followed by documented nursing interventions, were removed to preserve the integrity of the risk-assessment analysis. Receiver-operator characteristics were used to test the predictive accuracy of the DASA, and generalized estimating equations (GEE) were used to account for repeated risk assessments, which occurs when analysing short-term risk-assessment data. The results revealed modest predictive validity for males and females. GEE analyses suggested the need to adjust the DASA risk bands to the following (with associated odds ratios (OR) for aggressive behaviour): 0 = low risk; 1, 2, 3 = moderate-risk OR, 4.70 (95% confidence interval (CI): 2.84-7.80); and 4, 5, 6, 7 = high-risk OR, 16.13 (95% CI: 9.71-26.78). The adjusted DASA risk bands could assist nurses by prompting violence-prevention interventions when the level of risk is elevated.


Risk assessment is a pre-requisite for violence prevention in mental health settings. Extant research concerning risk assessment and nursing intervention is limited and has focused on the predictive validity of various risk assessment approaches and instruments, with few attempts to elucidate and test interventions that might prevent aggression, and reduce reliance on coercive interventions. The integration of risk assessment and violence prevention strategies has been neglected. The aim of this feasibility study was to test a novel Aggression Prevention Protocol designed to prioritize the instigation of less restrictive interventions on an acute forensic mental health unit for female patients. A prospective quasi-experimental study was designed to test an Aggression Prevention Protocol, linked to an electronic application of the Dynamic Appraisal of Situational Aggression (DASA). Following introduction of the DASA and Aggression Prevention Protocol, there were reductions in verbal aggression, administration of Pro Re Nata medication, the rate of seclusion, and physical and mechanical restraint. There was also an increase in documented nursing interventions. Overall, these results support further testing of the electronic application of the DASA and the Aggression Prevention Protocol.
Considerable research has attempted to delineate the demographic and clinical characteristics of high-risk psychiatric patients and identify salient modifiable aspects of aggression prone environments. Recently, there has also been increased interest in the development and testing of structured schemes for the assessment of risk for aggression within inpatient psychiatric settings. Although some of these methods show acceptable predictive validity, their ability to inform day-to-day treatment and management decisions is limited. The current research was designed to identify existing and novel risk factors that would assist staff to identify and manage the risk for aggression in psychiatric inpatient populations. Results showed that assessments supported by structured risk measures were more accurate than unaided clinical judgements based only on nurses’ clinical experience and knowledge of the patient alone. Seven test items emerged that were maximally effective at identifying acute psychiatric patients at risk for engaging in inpatient violence within 24 hours; these items have been combined in the development of the Dynamic Appraisal of Situational Aggression. Empirical analyses and clinical experience support the efficacy of the instrument in assisting clinical staff in the identification and management of inpatient aggression.


Despite high rates of aggression on female psychiatric inpatient units and research to suggest that risk factors for violence may be different for men and women, violence risk assessment instruments are typically developed and validated through research on male populations. The current study tested a female-specific modification to an existing risk assessment instrument, the Dynamic Appraisal of Situational Aggression: Women’s Version (DASA:WV). The modification involved addition of two factors taken from the Female Additional Manual used in conjunction with the HCR-20 (Covert/Manipulative Behaviour and Low Self-Esteem) and a rating of ward atmosphere to the original DASA. Nursing staff on a high secure female forensic unit rated patients on the DASA:WV at the end of each shift and recorded incidents of verbal aggression and physical aggression against others, objects, and self in the subsequent 24-hr period. Hierarchical (multilevel) logistic regression was employed in the statistical analysis to account for the incorporation of multiple repeated measures for each participant. While the evidence for the predictive validity of the DASA for aggression in a female forensic population was strengthened, the hypothesis that the DASA:WV would significantly improve predictive validity for female patients was not supported.
Inpatient aggression in psychiatric settings poses a serious management problem. This study reports the findings of a prospective pilot study on the Dynamic Appraisal of Situational Aggression – Inpatient Version (DASA-IV), a structured risk assessment tool for imminent aggression. The study was conducted in the State Hospital, the high secure psychiatric hospital for Scotland and Northern Ireland. The outcome data were aggressive incidents recorded on the Staff Observation Aggression Scale – Revised (SOAS-R) and incidents noted on the hospital’s online recording tool. All measures were completed by nursing staff as part of their daily clinical routine to ensure ecological validity. The DASA-IV was found to be of moderate to good predictive power. Limitations and suggestions for further research are outlined, and the potential for implementation of the tool is discussed.