

Protective factor for violence in a secure hospital: global function, treatment response and recovery.



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Introduction

There is a clear and established link between serious mental illness and violence. Secure forensic mental health services provide care and treatment to patients with history of serious violence in combination with significant mental disorder, most typically a complex combination of psychoses, personality disorder and often substance misuse issues.

Violence, including physical assaults happen in acute psychiatric wards, including secure forensic settings and constitutes a major issue. For the perpetrator of the violence, ongoing assaults on others may be repeating a cycle of violence that is a longstanding maladaptive coping mechanism developed in early life. The majority of patients in forensic settings have a history of childhood deprivation or may have experienced or witnessed violence in the home or in prison settings in the past. Therefore either being assaulted or witnessing assaults on the ward is highly likely to have a significant re-traumatising effect on this vulnerable patient group. Clinical staff have the right to be in a safe place when they are at work and there is evidence of PTSD among particularly psychiatric nurses who have worked in secure settings, but among other disciplines too. Therefore understanding violence in psychiatric hospitals, the risk factors and preventative factors is of vital importance to health care teams. It is essential that psychiatric wards are safe spaces.

The Structured Assessment of Protective Factors for Violent Risk, SAPROF is a violence risk assessment tool designed specifically for the assessment of protective factors. Its aim is to provide a more accurate and well-rounded assessment of risk for future violent behaviour. The dynamic nature of the tool allows for specific treatment interventions to be tailored according to a patient’s protective factors. We have previously shown that SAPROF has a protective effect against in-patient violence. In this study, we took a rigorous definition of violence as physical assault causing harm to another person.

The aim of this study was to determine the associations between protective factors against violence risk using a structured instrument (SAPROF) and actual rates of physical assaults, and other violent incidents in the National Forensic Mental Health Service, Dublin.

Methods

This study was conducted at the National Forensic Mental Health Service, Central Mental Hospital (CMH), Dundrum, Ireland, which is the only secure forensic hospital in the Republic of Ireland. The male wards are organised into acute, medium and rehabilitation clusters of different security levels – high dependency, medium and low dependency, all on one site. There are also female and intellectual disability wards.

All incidents including violent incidents and non-violent incidents over a 12-month period were recorded by a triangulation method. We collated measures of protective factors against violence (SAPROF), risk for violence (HCR-20), therapeutic programme completion and recovery (DUNDRUM-3, DUNDRUM-4). Incidents were categorised into physical assaults and other incidents including sexual violence, security breaches and verbal threats. Diagnostic categories, demographic details were collated.

Binary logistic regression was utilised to establish the associations, and data were analysed using SPSS version 26.

Ethical approval was granted by the Research Ethics and Effective Committee of the Central Mental Hospital.

Results

A total of n=91 patients were included in the study, of whom the majority were male (n= 82, 90%). The most common diagnosis was schizophrenia (n= 66, 72.5%), followed by schizoaffective disorder (n= 11, 12.1%) and bipolar affective disorder (n=4, 4.4%). In relation to personality disorder, this is not a criteria for detention under the mental health act in the Republic of Ireland, however many patients in forensic settings in Ireland meet criteria for traits of ASPD or EUPD, with some reaching full diagnostic criteria.

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When analysing SAPROF alone, we found that those patients with higher (better) scores on the SAPROF total scale were less likely to have had a violent incident during the study period. We also found that those patients with better scores on the motivational and external factors of the SAPROF scale were significantly less likely to have had violent incidents during the study period (Table 1).

Table 1: Association between SAPROF and violent incidents

SAPROF	Wald χ^2	p-value	Exp(B)	95% CI
Internal	2.565	0.109	1.416	0.925-2.168
Motivational	6.189	0.013*	0.688	0.513-0.924
External	4.545	0.033*	0.805	0.659-0.983
TOTAL	33.900	<0.001*	0.866	0.825-0.909

When analysing HCR-20 alone, we found that scores on the HCR-20 scales were not significantly associated with violent incidents in the in-patient setting of the secure forensic hospital at Dundrum (Table 2).

Table 2: Association between HCR-20 and violent incidents

HCR-20	Wald χ^2	p-value	Exp(B)	95% CI
Historical	3.164	0.075	0.841	0.695-1.018
Clinical	1.634	0.201	1.182	0.915-1.527
Risk	0.195	0.659	0.938	0.706-1.246
TOTAL	41.105	<0.001*	0.927	0.906-0.949

When a binary logistic regression was completed including HCR-20 total, SAPROF, DUNDRUM-3, DUNDRUM-4 and SRAMM in the model, only SAPROF total score remained significant (Table 3).

Table 3: Association between HCR-20, SAPROF, DUNDRUM-3, DUNDRUM-4 and violent incidents

Assessment	Wald χ^2	p-value	Exp(B)	95% CI
Total HCR-20	0.285	0.594	0.953	0.798-1.137
Total SAPROF	7.177	0.007*	0.863	0.775-0.961
DUNDRUM-3	0.005	0.945	0.994	0.828-1.192
DUNDRUM-4	1.748	0.186	1.169	0.927-1.473
Total S-RAMM	0.802	0.371	0.936	0.809-1.082

Discussion

Protective factors against violence risk are essential to measure in secure forensic hospitals. These are clinical strengths which patients have, and collating these is in keeping with a positive risk assessment approach to patient care. In this study, we found that when examining actual violence in a secure forensic hospital setting, protective factors against violence (SAPROF) were associated with lower actual violence in the hospital setting. This result remained consistent even when controlling for HCR-20 total score, measures of therapeutic programme completion and recovery, and measures of suicide risk. Therefore it is clear from this study that SAPROF adds to the knowledge of risk assessment, and gives additional value to the clinician over and above the use of the other instruments alone.

References

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