

# INSIGHT INTO ILLNESS AMONG IN-PATIENTS IN A FORENSIC SERVICE. A study from Dundrum Hospital.

Sean Murray<sup>1</sup>, Harry G. Kennedy<sup>1,2</sup>, Mary Davoren<sup>1,2</sup>.

[seanmurray@rcsi.ie](mailto:seanmurray@rcsi.ie)

<sup>1</sup> The National Forensic Mental Health Service, Central Mental Hospital, Dublin.

<sup>2</sup> The DUNDRUM Centre for Forensic Excellence, Trinity College Dublin.

## Background

Secure forensic mental health services have a dual role, to treat mental illness and reduce violent recidivism. The majority of those admitted to secure forensic hospital settings have diagnoses of major mental illnesses, most commonly schizophrenia and often with co-morbid substance misuse, personality disorder and significant psychosocial stressors. The high rates of treatment resistant schizophrenia amongst forensic inpatients is one of the main impediments to progress through care pathways. This group of patients are known to have poorer outcomes in terms of psychosocial functioning than those for whom treatment is effective, with lower rates of independent living, less productive activities and dysfunction in social relationships. These are major factors in determining the speed at which a forensic inpatient will progress from high-security and higher dependency wards to lower-security environments. The VAGUS tool is a structured instrument designed to measure clinician rated and self rated insight into psychotic symptoms. We chose the VAGUS tool for this study because of its validity and reliability in assessing insight in those with psychotic symptoms. It was developed and first published in 2014 by Gerretsen et al with the aim of creating a measure of insight into psychosis that was easy to administer, sensitive to small changes, and inclusive of the core dimensions of clinical insight into psychosis.

## Objectives/Aims

The aim of the study was to assess the reliability and clinical utility of a structured assessment of insight among a group of forensic psychiatric in-patients with diagnoses of severe and enduring mental illness, predominantly treatment resistant schizophrenia.

Secondary aims were to ascertain if measures of insight stratified across the secure care pathway, with better insight seen in rehab wards and less insight on higher security wards. We also aimed to evaluate the associations between measures of insight, and measures of violence risk (HCR-20), therapeutic programme completion (Dundrum-3) and recovery (Dundrum-4) and measures of symptoms (PANSS).

## Methods

A cross sectional study of structured assessment of insight among all in-patients (n=104) in Dundrum Forensic Hospital was completed using the VAGUS insight tool. All current inpatients were offered the opportunity to participate in the study, of which n=63 completed the assessment. Signed consent was obtained from each participating patient.

The patients were rated for self-rated and clinician-rated measures of insight using the VAGUS insight tool. All participants completed the self-rated scale (VAGUS-SR) first and independent of the clinician to avoid clinician bias. The clinician then conducted the structured interview, completing the clinician rated scale (VAGUS-CR) afterward while remaining blind to the participants' answers on the self-rated scale (as per methodology set out in VAGUS tool handbook). Measures of symptomatology (PANSS) were completed, again with signed consent, by researchers blind to the scores on VAGUS.

Ratings of measures of violence risk (HCR-20), therapeutic programme completion (DUNDRUM-3), recovery (DUNDRUM-4) were collated from patient notes. These measures were conducted by separate clinicians within in the same 6-week period. Participants' scores on the VAGUS tool and the other various tools were then compared to ascertain if any correlations could be identified between them. Demographic details, details pertaining to diagnoses and placement within the secure care pathway of the CMH Dundrum were collated. Data were analysed using SPSS software.

Ethical approval for this project was granted as part of the DUNDRUM Forensic Redevelopment Evaluation Study (D-FOREST). The D-FOREST study is a comprehensive, prospective observational study to evaluate the patient and service wide benefit of the re-development of the NFMHS to a complete new campus at Portrane, North Dublin. The data utilised in this study formed part of the baseline measures of D-FOREST.

## Results

### Correlation between clinician rated measures of insight, and self-rated measures of insight.

We found that there was a significant correlation between clinician-rated measures of insight and self-rated measures of insight using the VAGUS tool, demonstrating good internal validity for the tool (Fig 1 and Table 1).

Fig 1. Scatter plot correlation of self-rated and Clinician rated measures of insight

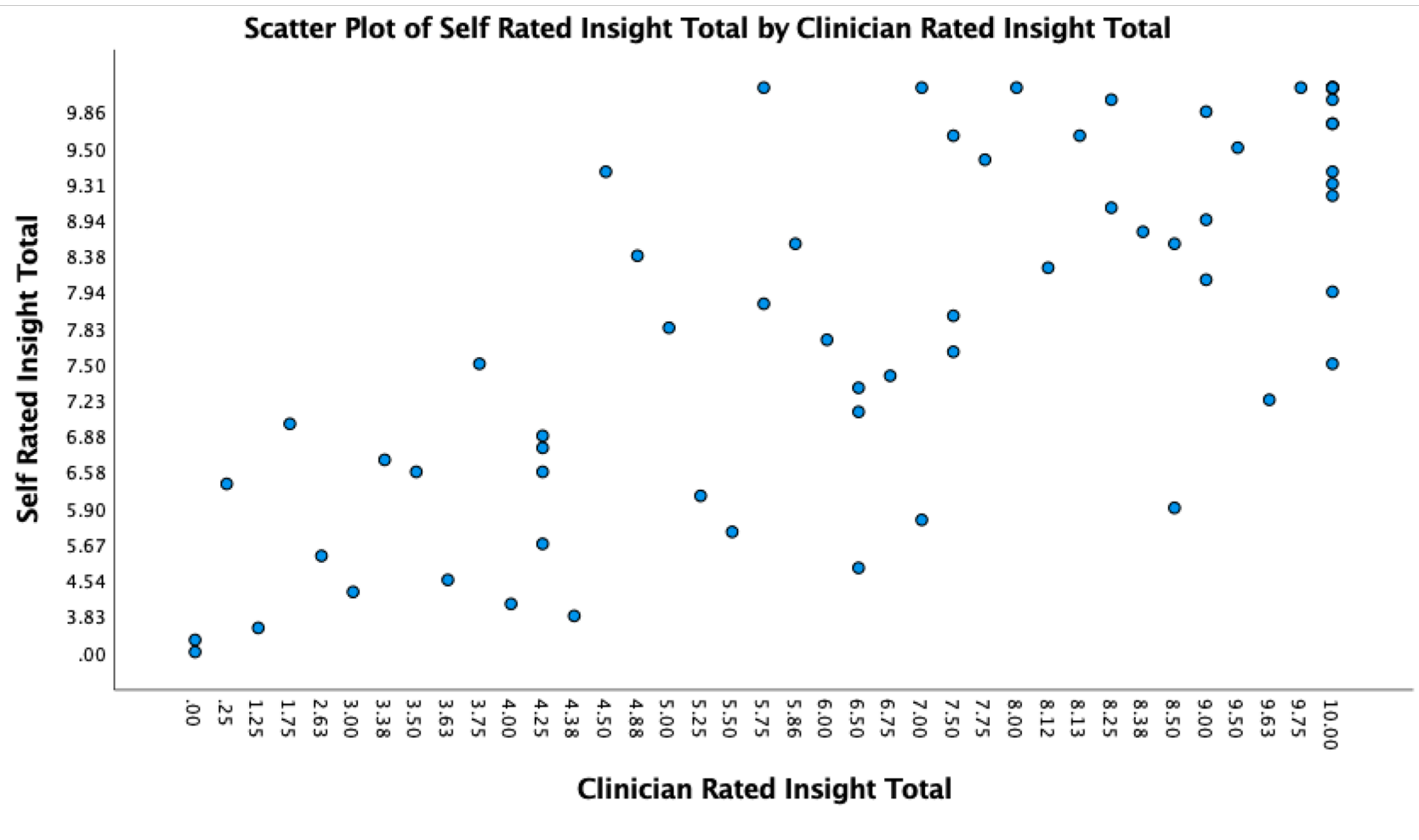


Table 1. Correlation coefficient of self-rated and Clinician rated measures of insight

| Spearman's Rho                |                             | Clinician Rated Insight Total | Self Rated Insight Total |
|-------------------------------|-----------------------------|-------------------------------|--------------------------|
| Clinician Rated Insight Total | Correlation Coefficient (r) | 1.000                         | 0.741**                  |
|                               | Sig. (2 – tailed) (p)       | .                             | <0.001                   |
| Self Rated Insight Total      | Correlation Coefficient (r) | 0.741**                       | 1.000                    |
|                               | Sig. (2 – tailed) (p)       | <0.001                        | .                        |

### Insight across the secure hospital care pathway.

We found significant correlations between scores on the clinician rated VAGUS tool for insight and placement on the secure care pathway within the hospital. We found that patients with the best levels of insight were placed on the lower security and rehab end of the secure hospital, while those who had the poorest scores on insight were on the higher dependency (high dependency and admissions) wards of the hospital (Fig 2 and Table 2).

Fig 2. Scatter plot correlation of insight and level of security

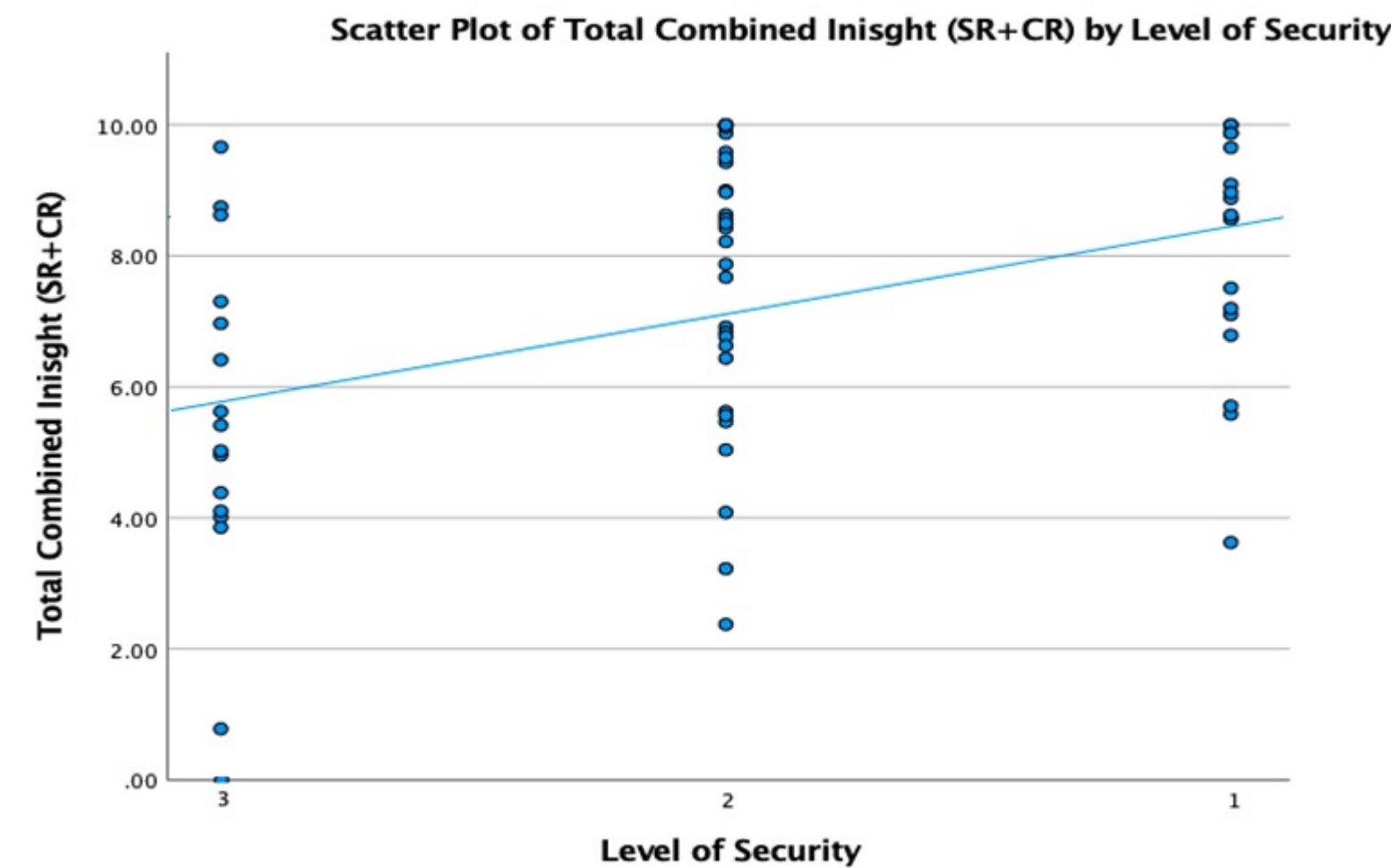


Table 2. Mean combined levels of insight across security clusters

|                             | Level of Security |                   |       |
|-----------------------------|-------------------|-------------------|-------|
|                             | High Dependency   | Medium Dependency | Rehab |
| Mean Combined Insight Score | 5.335             | 7.399             | 8.118 |
| N                           | 13                | 27                | 16    |

### Correlations between insight (VAGUS) and measures of violence risk, therapeutic programme completion, recovery and symptoms.

We found that better scores on clinician rated measures of insight correlated with better (lower) scores on dynamic risk of violence towards others (HCR- dynamic), better (lower) scores on measures of therapeutic programme completion (DUNDRUM-3), better (lower) scores on measures of recovery (DUNDRUM-4) and better scores on PANSS positive scale, PANSS negative scale and PANSS general scales (Table 3).

Table 3. Correlations between insight and other measures.

|                  |                             | HCR Dynamic | Dundrum-3 | Dundrum-4 | PANSS    | PANSS (+) | PANSS (-) | PANSS (G) |
|------------------|-----------------------------|-------------|-----------|-----------|----------|-----------|-----------|-----------|
| CR Insight Total | Correlation Coefficient (r) | -0.480**    | -0.491**  | -0.265*   | -0.452** | -0.481**  | -0.403**  | -0.314*   |
|                  | Sig. (2 – tailed) (p)       | <0.001      | <0.001    | 0.041     | <0.001   | <0.001    | 0.003     | 0.025     |
|                  | N                           | 60          | 60        | 60        | 51       | 51        | 51        | 51        |

## Conclusions

The VAGUS Insight measure showed validity in a forensic context demonstrated by the statistically significant negative correlation between level of insight as measured by the tool and the level of security under which patients were admitted. The VAGUS is easy to administer and provides valuable information which is related to many metrics associated with progress through the forensic care pathway. Discrepancy between clinician and self-rated insight scores is in line with previous studies in the same centre which showed patients' self-ratings on the DUNDRUM-3 and DUNDRUM-4 were significantly lower than staff ratings, showing that patients believed themselves to be further along their recovery pathway than clinicians did. The VAGUS insight measure shows negative correlation with the other forensically validated measures administered in the study in a manner that would be expected, further demonstrating its validity in this context.