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PREDICTIVE VALIDITY OF THE NGASR-ita FOR THE ASSESSMENT OF SUICIDAL RISK IN ACUTE PSYCHIATRIC INPATIENTS

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Introduction & Objectives

Suicide is a major public health issue worldwide[1]; several studies suggest that people diagnosed with mental health disorders have a higher lifetime risk of suicide attempts than the general population. In particular, people with 'depressive disorders' appear to have a 20-fold increase in suicide risk compared to the general population[2].

There are many assessment tools for suicidal risk described in suicidology literature; one of these, the Nurses' Global Assessment of Suicide Risk (NGASR) scale[3], can be used by nurses to assess suicidal tendency in acute psychiatric setting. The italian version of the scale (NGASR-ita) has been tested in acute psychiatric settings demonstrating good properties of validity and reliability[4].

The aim of the study was to assess the predictive validity of the Italian version of the NGASR-ita (Table 1) in inpatients of an acute psychiatric ward.

Materials & Methods

In order to evaluate sensitivity and specificity of the Italian version of NGASR, a pilot study was conducted using a longitudinal prospective design in a non-randomized sample of inpatients admitted to the psychiatric ward of the San Paolo University Hospital in Milan (Italy). The NGASR-ita was administered by nursing staff members to all patients ≥18 years at the time of admission (first 2 hours). Ideation or suicide attempt manifested during hospitalization were recorded.

Results

We recruited 121 subjects, 60 males and 61 females; the mean age was 35±5 years. 45 patients were diagnosed with psychotic disorders, 23 had Borderline Personality Disorder (BPD), 22 Bipolar Disorder (BD), 19 Major Depressive Disorder (MDD), 5 Anxiety Disorders, 4 Eating Disorders; 3 had no diagnosis at the time of admission. 31 out of 121 subjects (25.62%) had an intermediate or higher level of risk. Table 2 summarizes suicidal risk, according to the criteria defined by the original authors, at the time of admission. The category with the highest ratio of subjects at intermediate or higher risk was that of MDD (9 subjects at risk out of 19, 47.37%, p=0.02).

9 (7.44%) of the 121 subjects evaluated, showed self-harm behaviour during the hospitalization; of these, 7 obtained, at the time of the initial evaluation, an average or higher level of suicidal risk (sensitivity=0.78); also the specificity of NGASR was 0.79 (88 subjects considered at low risk out of the total of 112 who did not show self-injury behaviour) (Table 3, Table 4)

Predictive validity of NGASR-ita

Sensitivity:	0.78
Specificity:	0.79
Positive predictive value:	0.26
Negative predictive value:	0.98

Table 3: NGASR-ita predictive validity

Nurses' Global Assessment Suicide Risk	Score
Presence/influence of hopelessness	3
Recent stressful life event (e.g. job loss, financial worries, pending court action)	1
Evidence of persecutory voices/beliefs	1
Evidence of depression/loss of interest or loss of pleasure	3
Evidence of withdrawal	1
Warning of suicidal intent	1
Evidence of a plan to commit suicide	3
Family history of serious psychiatric problems or suicide	1
Recent bereavement or relationship breakdown	3
History of psychosis	1
Widow/widower	1
Prior suicide attempt	3
History of socio-economic deprivation	1
History of alcohol and/or substance misuse	1
Presence of terminal illness	1

Table 1: Nurses' Global Assessment Suicide Risk (NGASR- Ita)

Level of risk		n.
Score of 5 or less = low level of risk estimated	– Level four	90
Score between 6 and 8 = intermediate level of risk	– Level three	17
Score between 9 and 11 = high level of risk	– Level two	10
Score 12 or more = very high level of risk	– Level one	4

Table 2: Risk assessment with the NGASR
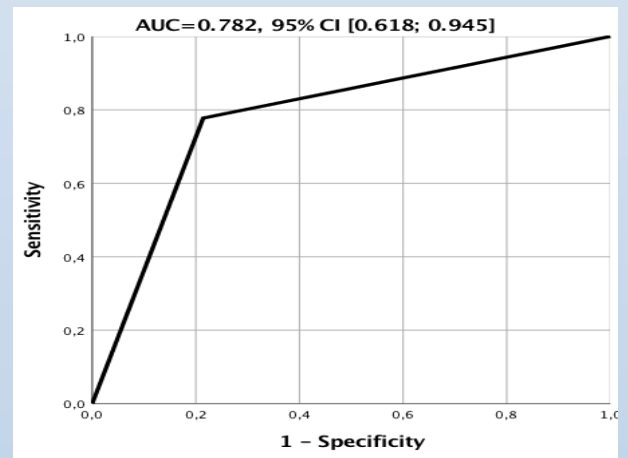

AUC=0.782, 95% CI [0.618; 0.945]

Table 4: NGASR-ita ROC Curve

Conclusions

Our results suggest that the italian version of NGASR is a promising tool for suicide prediction to support the nurses evaluation at the time of admission in order to identify the subjects at greater risk for suicidal ideation or behavior; because of the severity of the phenomenon research on larger samples is recommended.

References

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