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ORIGINAL ARTICLE

Self-stigma and suicidality in patients with neurotic spectrum disorder – a cross sectional study

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Abstract

BACKGROUND: Self-stigmatization is a step-by-step process during which the person uncritically accepts the societal negative evaluation and applies it to himself. Relation between self-stigma and suicidality in neurotic disorders is not known. The aim of our study was to find connection between self-stigma and the level of suicidality in neurotic spectrum disorders.
METHOD: It was a cross-sectional study of 198 inpatients with pharmacoresistant neurotic spectrum disorders hospitalized at the psychotherapeutic ward of the Department of Psychiatry, University Hospital Olomouc. Patients were diagnosed using the ICD-10 research diagnostic criteria. The assessments included Internalized Stigma Of Mental Illness (ISMI), Beck Depression Inventory-second edition (BDI-II), objective and subjective Clinical Global Impression (CGI), Morin sleep scale, Dissociative Experience Scale (DES) and Montgomery and Asberg Depression Rating Scale, item 10 Suicidal Thoughts (MADRS item 10 suicidality) for the assessment.
RESULTS: The subjective rate of suicidality and also the objective rate of suicidality were strongly positively correlated with the total score of ISMI. There were also significant correlations with all subscores except for the correlation between the BDI 9 and the sub score Resistance against stigma, which barely missed the level of statistical significance.
CONCLUSIONS: More attention should be paid to self-stigma in neurotic patients, especially in those with suicidal thoughts and tendencies.

INTRODUCTION

About 90% of persons who commit suicide suffer from mental illness (Henriksson *et al.* 1993). The risk of another attempt is highest within one year (Nordstrom *et al.* 1995). The risk is particularly high in depression, psychosis, agitation, post-traumatic stress disorder, hypochondriasis and borderline personality disorder but also in anxiety disorders (Prasko *et al.* 2010; Latalova *et al.* 2012; Latalova *et al.* 2013). Cougle *et al.* (2009) analyzed data from the US National Comorbidity Survey-Replication to examine association between anxiety disorders and suicidality in a large national sample. A multivariate analysis covarying for psychiatric comorbidity and demographic variables

showed that social phobia, Posttraumatic stress disorder (PTSD), Generalized anxiety disorder (GAD) and panic disorder are unique predictors of suicidal ideations but only social phobia, PTSD and GAD also predict suicide attempts. Suicide risk is related to severity of symptoms (Dhyani *et al.* 2013; Thibodeau *et al.* 2013). Moreover, patients with more severe psychopathology show a greater tendency to self-stigmatization (Ociskova *et al.* 2013a; Ociskova *et al.* 2013b). Self-stigmatization is a step-by-step process during which the person uncritically accepts the societal negative evaluation and applies it to himself (Corrigan *et al.* 2011). Self-stigmatization has many negative consequences, like isolation, treatment delay, higher level of psychopathology and lesser quality of life (Ritsher & Phelan 2004; Livingston & Boyd 2010). Self-stigma also influences engagement in treatment, adherence, and treatment efficacy. Individuals with mental health issues who stigmatize themselves tend to avoid psychiatric or psychotherapeutic treatment, which often leads to chronicity of mental disorders or exacerbation of their symptoms (Vogel *et al.* 2006; Sirey *et al.* 2001). Relation between self-stigma and suicidality in neurotic disorders is not known.

The aim of study was to find a connection between suicidality and self-stigma, demographic or clinical variables in neurotic spectrum disorders. The following hypotheses were tested in the study: (a) the level of self-stigma will be related to the level of suicidality; (b) the level of suicidality will be related to sociodemographic factors like age of the patient, age at the onset of the disorder, marital status and family history; (c) the level of suicidality will be related to the severity of the disorder.

METHOD

The participation in the study was offered to all patients hospitalized at the psychotherapy ward of the Department of Psychiatry, University Hospital Olomouc in years 2012 and 2013.

The inclusion criteria were:

- Diagnosis of the neurotic spectrum disorder (F4X.X), mild or moderate depressive disorder (F32.0, F32.1, F33.0 and F33.1, F34.1) with or without the comorbidity of personality disorders (F60.0–F60.9 or F61) according to ICD-10 (1992) accepted, if present.
- Informed consent;
- Age between 18 to 65 years.

The exclusion criteria were:

- Mental retardation;
- Organic mental disorder.

Measurements

Diagnosis was assessed according to the ICD-10 (1992) by two experienced psychiatrists. Validity of the diagnosis was confirmed by the The Mini-International Neuropsychiatric Interview (M.I.N.I). (Lecrubier *et al.* 1997).

- **CGI** (Guy 1976) – Clinical Global Impression is a global evaluation of severity of psychopathology. There are two components of the evaluation. The first one presents a complex evaluation (objective CGI) of the severity of the disorder by a physician; the second one is a self-evaluation done by patients on a scale 1–7 where every point of the scale describes refer to unique characteristics (subjective CGI).
- **BAI** (Beck *et al.* 1988) – Beck Anxiety Scale consists of 21 items based on a four-point Likert scale in which patients choose which of the described anxiety symptoms they perceived in the last week and to what extent they were unpleasant.
- **BDI-II** (Beck *et al.* 1996) – Beck Depression Inventory – second edition, consists of 21 items in which patients choose which of the described depressive symptoms they perceived in the last week and to what extent were they unpleasant.
- **ISMI** (Ritsher *et al.* 2003)–consists of 29 items with statements and a four-point scale measuring the level of agreement with them. The scale focuses on five elements of internalized stigma – alienation, perceived discrimination, stereotype endorsement, social withdrawal, and resistance to stigma. The scale was standardized in Czech by Ociskova *et al.* (2014).
- **Sheehan Disability Scale** (SDS) **–** was developed to assess functional impairment in three inter-related domains; work/school, social, and family life**.** The patient rates the extent to which work/school, social life and home life or family responsibilities are impaired by his or her symptoms on a 10 point visual analog scale.
- **Drug Attitude Inventory** (DAI-10) – is a questionnaire to assess the attitudes of the patient to the medication. This questionnaire is used to estimate the actual level of medication adherence.
- **Demographic questionnaire** – contains basic information – gender, age, the employment status, pension income, education, age of illness onset, overall time of attending the outpatient clinic, the number of hospitalizations, time elapsed since last hospitalization, the number of visited psychiatrists, current medication, information on discontinuing medication in the past (either on the recommendation of a psychiatrist or by patient's decision).
- **DES** (Bernstein and Putman 1986) – Dissociative Experience Scale describes 28 dissociative experiences and patients mark a spot on a 10 cm line according to the frequency of experiencing the symptoms. Beside the overall scale score, one can also evaluate pathological dissociation by using Dissociative Experience Scale Taxon (DES-T). This subscale consists of 8 out of the 28 items of DES (items 3, 5, 7, 8, 12, 13, 22, and 27). These items focus on depersonalization, derealization, identity alteration, and amnestic quality of pathological dissociations

(Waller and Ross 1997). The Czech version of the scale is comparable to the original version in terms of its test-retest reliability, validity and factor structure (Ptacek *et al.* 2007).

- **MADRS-10 –** Montgomery and Asberg Depression Rating Scale representing the feeling that life is not worth living, that a natural death would be welcome, suicidal thoughts, and preparations for suicide. According to this scale, suicidality ranges from 0 (Enjoys life or takes it as it comes) to 6 (Explicit plans for suicide when there is an opportunity. Active preparations for suicide).

Treatment

All patients were treated according to guidelines for their diagnosis and the rules of Good clinical practice (EMEA 2002).

Statistical evaluation and ethics

The statistical programs Prism (GraphPad PRISM version 5.0; http://www.graphpad.com/ prism/prism.htm) were used for statistical evaluation. Demographic data and average total scores in the individual questionnaires and CGI were assessed using descriptive statistics to identify averages, medians, standard deviations, and

Tab. 1. Basic sociodemographic and clinical data of the patients.

Sociodemographic and clinical data	Mean±SD
Age	38.76±11.65
Gender (M:F)	74:124
Age at the disorder onset	28.67±13.72
Education: Basic / vocational training / secondary / university	23 / 48 / 102 / 25
Occupation: yes / no	126 / 72
Live with partner / without partner	87 / 111
Primary diagnosis:	
Panic disorder and/or agoraphobia	23
Social phobia	15
Generalized anxiety disorder	7
Mixed anxiety-depressive disorder	33
Obsessive compulsive disorder	22
Somatoform disorders	19
Dissociative disorders	7
Adjustment disorders	25
PTSD	6
Depressive disorder (mild or moderate) and dysthymia	31
Others (neurasthenia, depersonalized dis., other anxiety dis., insomnia)	10
Comorbidity with other axis I disorder	58(29.3%)
Comorbidity with personality disorder	67(33.8%)
Objective CGI – severity	4.055±1.281
Subjective CGI - severity	4.384±1.345
BAI	25.12±13.45
BDI	16.85±15.85
Sheehan disability scale: occupation / family / social	6.2±3.0 / 6.3±2.5 / 6.1±2.4
DES / DES-T	16.29±14.29/11.33±14.56
Family history (%)	44.2%
Antidepressants: number of patients used / mean dosage adjusted to paroxetine index	158 / 41.63±24.20
Anxiolytics: number of people used / mean dosage adjusted to diazepam index	40 / 12.9±9.4
Antipsychotics: number of people used / mean dosage adjusted to risperidone index	55 / 1.8±1.9
Adherence to medication	3.28±4.59
ISMI – total score	66.04±13.54
Stopped medication in the past by patient decision(%)	35.2%
Suicidality score in BDI (item 9)	1.14±0.90
Suicidality score in MADRS (item 10)	1.35±1.19

the character of the data distribution. The relationships between categories were assessed by correlation coefficients and linear regression. The relationship between alternative variables (gender, marital status, discontinuing of medication) were assessed by the Fisher test. Backward stepwise regression.was used to analyze the meanings of the correlations of the individual factors. The 5% level of significance was considered acceptable for all statistical tests.

The study was approved by the Ethical committee of the University Hospital Olomouc. The research was conducted in accordance with the latest version of the Helsinki Declaration and recommendations for good clinical practice (EMEA 2002). All patients signed an informed consent form before starting the study.

RESULTS

Patients

A total of 203 patients were enrolled in the study but only 198 completed all questionnaires at baseline (the time of treatment start). Basic sociodemographic data are displayed in Table 1. Mean suicidality according to the subjective assessment in BDI (item 9) was 1.14±0.90. A second rating was made by a psychiatrist according to item 10 of MADRS with the mean score of 1.35±1.19.

Suicidality and sociodemographic or clinical factors

Subjective scores of suicidality (BDI item 9) did not correlate with age or with the duration of the disorder, but was negatively correlated with the age of onset of the disorder (Table 2). The objective rates of suicidality (MARDS item 10) did not correlate with age, the duration of the disorder or the age at the disorder onset (Table 2).

There were no differences in subjective suicidality rates between different levels of education, status of employment and living or not living with a partner, and between the genders (Figure 1).

There were statistically significant correlations of subjective but not objective rates of suicidality (except BDI total score) and BAI, BDI. objective CGI-S or subjective CGI (Table 2).

Tab. 2. Correlation of the subjective rates of the suicidality (BDI item 9) or objective rates of the suicidality (MADRS item 10) and demographic or clinical variables.

Variable	Correlation with BDI item 9 (Spearman r)	Correlation with MADRS item 10 (Spearman r)
Age	–0.082	–0.104
Duration of the disorder	0.074	–0.053
Age at disorder onset	–0.195**	–0.012
Objective CGI-severity	0.332*****	0.043
Subjective CGI-severity	0.152*	–0.093
BAI	0.224****	0.017
BDI	0.368*****	0.332*****
Sheehan disability scale		
Occupation	0.068	–0.065
Family	0.269*****	–0.004
Social	0.271*****	0.072
Subjective stress analogue scale	0.232****	–0.146*
ISMI total	0.431*****	0.327*****
ISMI subscores:		
Alienation	0.464*****	0.303*****
Agreement with stereotypes	0.346*****	0.247****
Perceived discrimination	0.359*****	0.327*****
Social withdrawal	0.339*****	0.261****
Stigma resistance	0.1812 (p=0.0523)	0.172*
DES	0.405*****	0.157*
DES-taxon	0.377*****	0.152*
Mean dose of antidepressant adjusted to paroxetine dose (n=158)	0.212**	0.036
Mean dose of anxiolytics adjusted to diazepam dose (n=40)	–0.243	0.054
Mean dose of antipsychotics adjusted to risperidon dose (n=55)	0.258	–0.172

p-values: *p<0.05; **p<0.01; ***p<0.005; ****p<0.001; *****p<0.0001.

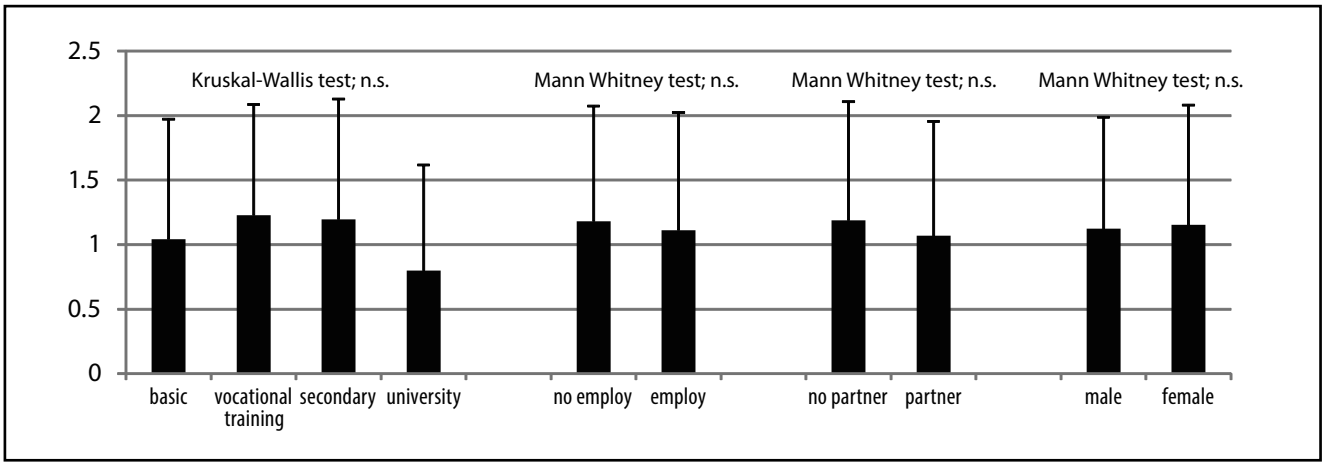

Fig. 1. Subjective suicidality rate (BDI item 9) and level of education, employment and life with partner.

There was a statistically significant positive correlation between subjective rates of suicidality and dissociation measured by DES and subscale DES taxon (Table 2, Figure 2). Thus, higher level of dissociation is associated with higher level of suicidality.

Family history of psychiatric disorder was found in 44,2% of the patients. There was no statistical difference in subjective or objective rates of suicidality in patients with family history in comparison with those without it (both Mann Whitney test; n.s.).

The subjective rate of suicidality correlated positively with the mean dose of antidepressant adjusted to paroxetine dosage, but not with the anxiolytic dosage adjusted to diazepam dosage, or with the antipsychotic dosage adjusted to risperidone dosage (Table 2). The objective rate of suicidality was not correlated with doses of medications.

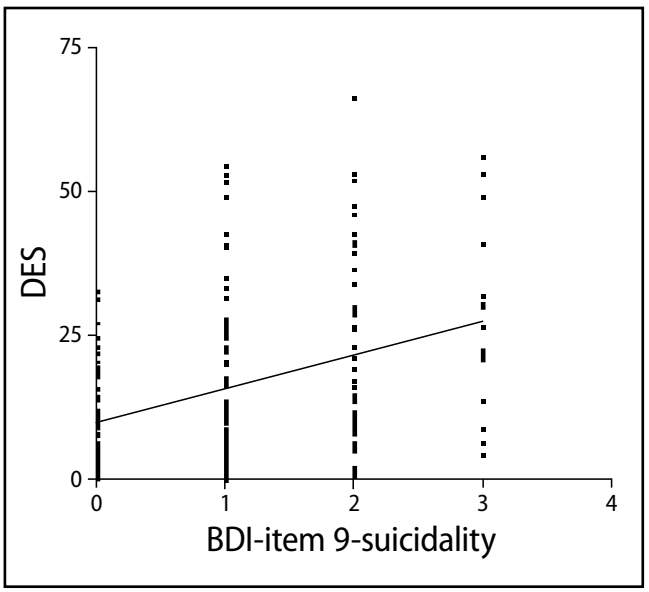

Fig. 2. Linear regression between suicidality and DES. F=31.46 DFn 1.000 DFd 193.0; $p<0.0001$

Suicidality and self-stigma

The subjective rate of suicidality (BDI item 9) and also the objective rate of suicidality (MADRS item 10) were strongly positively correlated with the total score of ISMI. There were also significant correlations with all subscores except for the correlation between the BDI 9 and the sub score Resistance against stigma, which barely missed the level of statistical significance (Table 2, Figures 3 and 4).

Suicidality and diagnosis

The comparison between diagnostic groups did not show any statistical difference in the number of patients with suicidal thoughts (Table 3). Also, there were not statistically significant differences in the mean BDI-9 item scores between diagnostic groups (Kruskal-Wallis test; n.s.), mean ISMI-total scores (one-way analysis of variance; F=1.628 df=178; n.s.) or mean DES scores (one-way analysis of variance; F=0.6159 df=178; n.s).

Suicidality and adherence to the treatment

There was no statistically significant correlation between adherence to treatment measured by DAI-10 and the subjective (Spearman r=0,08107; n.s.) or objective (Spearman r=0.031; ns.) rates of suicidality.

DISCUSSION

Little known is about impact of self-stigma on the treatment efficacy and course of minor psychiatric disorders, specifically neurotic disorders. Our study shows that self-stigma could be an important factor influencing suicidality level of neurotic patients. Looking back to hypotheses of the study, it is possible to confirm that: (a) The level of self-stigma is related to subjective and also objective rates of suicidality. (b) The subjective rates of the suicidality were related negatively to age of disorder onset, but not to other demographic factors, like age, marital status or family history. The objective rates of suicidality were no related to any of

Tab. 3. Suicidality according the diagnoses.

	Number of patients	Number of patient with any suicidal thoughts	mean BDI - 9	ISMI-total	DES
Panic disorder and/or agoraphobia	23	60.9%	0.714±0.561	62.61±15.82	14.33±11.95
Social phobia	15	73.3%	1.267±1.100	66.07±12.18	11.54±10.55
Generalized anxiety disorder	8	62.5%	0.857±0.991	68.88±12.55	14.41±11.73
Mixed anxiety-depressive disorder	35	80.0%	1.257±0.852	62.07±14.43	15.22±15.45
Obsessive compulsive disorder	25	76.0%	1.167±0.917	69.09±14.47	16.60±17.28
Somatoform and dissociative disorders	26	65.4%	0.962±0.871	61.78±13.15	17.57±17.25
Adjustment disorders	25	84.0%	1.320±0.900	65.91±9.71	21.25±12.60
PTSD	6	50.0%	0.833±0.983	62.17±9.17	16.34±11.00
Depressive disorder (mild or moderate) and dysthymia	29	79.3%	1.357±0.951	71.27±11.97	16.56±14.04
Others (neurasthenia, depersonalized dis., other anxiety dis., insomnia)	11	63.6%	1.182±1.079	72.55±16.90	16.32±14.64

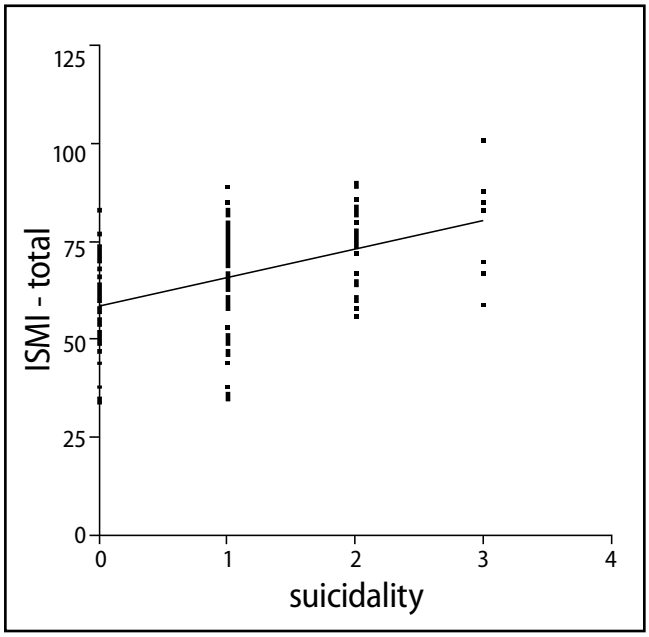

Fig. 3. Linear regression between subjective rate of (BDI item 9) suicidality and total score of ISMI. F=40.86 DFn 1.000 DFd 144.0; $p<0.0001$.

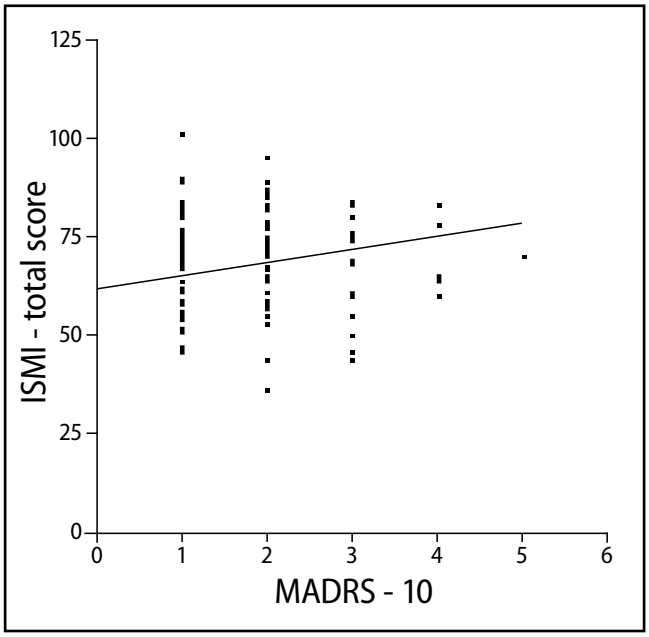

Fig. 4. Linear regression between MADRS item 10 (suicidality) and ISMI. F=15.94 DFn 1.000 DFd 177.0; $p<0.0001$.

above mentioned demographic factors. (c) The subjective rates of suicidality were related to the severity of disorder measured by subjective and objective CGI, BAI and BDI-II, but objective rates of suicidality were related to the BDI-II only. The level of self-stigma was related to the suicidality rates also in bipolar disorder (Latalova *et al.* 2014) and schizophrenia (Borgeois *et al.* 2004). Our study is the first which describes this association with patients with neurotic spectrum. The study has sever limitations. The number of participants is relative small. Another limitation presents heterogeneity of diagnoses. Participants were diagnosed with various neurotic disorders. It was not realistic to compar levels of internalized stigma among different disorders of neurotic spectrum because of diagnostic diversity. In spite of this diagnostic diversity, internalized stigma

proves to bean an important factor contributing to level of suicidality. Our using of questionnaires based on self-evaluation in measurement of self-stigma, level of anxiety and depression and level of dissociation presents another limitation. However, internalized stigma proves to be an important factor contributing to the level of suicidality.

CONCLUSIONS

More attention should be paid to self-stigma and level of dissociation in all neurotic patients, especially those with suicidal thoughts and tendencies. It is also important to identify personality traits and coping strategies that contribute to the development of internalized stigma in minor psychiatric disorders, such as anxiety disorders. Results of simile studies might be useful for the choice of an optimal therapeutic strategy for suicidal patients with neurotic spectrum disorders.

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