Research report

Personality disorders and suicide attempts in unipolar and bipolar mood disorders

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ABSTRACT

Background: Comorbid personality disorders may predispose patients with mood disorders to suicide attempts (SAs), but factors mediating this effect are not well known.
Methods: Altogether 597 patients from three prospective cohort studies (Vantaa Depression Study, Jorvi Bipolar Study, and Vantaa Primary Care Depression Study) were interviewed at baseline, at 18 months, and in VDS and PC-VDS at 5 years. Personality disorders (PDs) at baseline, number of previous SAs, life-charted time spent in major depressive episodes (MDEs), and precise timing of SAs during follow-up were determined and investigated.
Results: Overall, 219 (36.7%) patients had a total of 718 lifetime SAs; 88 (14.7%) patients had 242 SAs during the prospective follow-up. Having any PD diagnosis increased the SA rate, both lifetime and prospectively evaluated, by 90% and 102%, respectively. All PD clusters increased the rate of new SAs, although cluster C PDs more than the others. After adjusting for time spent in MDEs, only cluster C further increased the SA rate (by 52%). Mediation analyses of PD effects on prospectively ascertained SAs indicated significant mediated effects through time at risk in MDEs, but also some direct effects.
Limitations: Findings generalizable only to patients with mood disorders.
Conclusions: Among mood disorder patients, comorbid PDs increase the risk of SAs to approximately two-fold. The excess risk is mostly due to patients with comorbid PDs spending more time in depressive episodes than those without. Consequently, risk appears highest for PDs that most predispose to chronicity and recurrences. However, also direct risk-modifying effects of PDs exist.

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1. Introduction

Mood and personality disorders carry a significant risk of suicide. Between one-half and two-thirds of all suicides occur in patients with mood disorders (Cavanagh et al., 2003), with lifetime risk of suicide in mood disorders in the 5–6% range, the risk being somewhat higher in bipolar disorder (BD) than in major depressive disorder (MDD) (Nordentoft et al., 2011). Moreover, comorbid psychiatric disorders increase suicide risk (Nordentoft et al., 2011). Of individuals who die by suicide, 30–40% of have at least one

personality disorder (PD) (Foster et al., 1997; Henriksson et al., 1993) and nearly all of them have also comorbid depressive or substance use disorders, or both (Cheng et al., 1997; Henriksson et al., 1993). Thus, individuals with co-occurring mood and personality disorders comprise the vast majority of all suicides (Foster et al., 1997). Knowing the risk factors for suicide is necessary for rational preventive decisions. However, given suicide's low base rate, much risk factor research has focused on suicide attempts (SAs) as a proxy for suicide. The risk factors for SAs and suicide are mainly similar, although completers are more often males, have more psychotic symptoms, and use more lethal methods (Hawton et al., 2013; Isometsa, 2014).

Risk factors for SAs in mood disorder patients include previous SAs, younger age, hopelessness, impulsive-aggressive traits, poor perceived social support, and concurrent anxiety, substance use,

Table 1

Methods used in the Jorvi Bipolar Study (JoBS), the Vantaa Depression Study (VDS), and the Vantaa Primary Care Depression Study (PC-VDS).

Cohort	JoBS	VDS	PC-VDS
Timing of screening	Jan 1, 2002 to Feb 28, 2003	Feb 1, 1997 to May 31, 1998	Jan 1, 2002 to Dec 31, 2002
Catchment area	Adjacent cities of Espoo, Kauniainen, and Kirkkonummi (population 261 100 in 2002)	City of Vantaa (population 169 000 in 1997)	Two districts in the city of Vantaa (population of 63,400 in 2002)
Setting	Department of Psychiatry, Jorvi Hospital, Helsinki University Central Hospital, Espoo, Finland	Department of Psychiatry of the Peijas Medical Care District, Helsinki University Central Hospital, Vantaa, Finland	Primary Health Care Organization of the City of Vantaa, Finland Three health centers Two maternity clinics served by 30 general practitioners with population-based responsibility
Target group	All psychiatric patients aged 18-59 years (1) seeking treatment (2) referred to treatment, or (3) already in treatment with an acute deteriorating clinical state	All psychiatric patients aged 20-59 years (1) seeking treatment (2) referred to treatment, or (3) already in treatment with an acute deteriorating clinical state	Consecutive primary care patients aged 20-59 years in general practitioners' waiting room
Exclusion from screening	ICD-10 schizophrenia	ICD-10 schizophrenia, BD I	Poor general health status prohibiting completion of screening form
Screening procedure	(1) Mood Disorders Questionnaire, 7/13 items positive, or (2) Clinical suspicion of BD (N=28)	(1) Five screening questions for depression from SCAN, 1 positive, or (2) Scale for Suicide Ideation, score $\geq$ 6	(1) PRIME-MD: positive answer to either question concerning depressed mood or anhedonia during the past month, and (2) Telephone interview: one or more main symptoms of depression according to SCID-I/P
Total screened	1630	806	1111(8 refused)
Screened positive	546	703	402
Refusals	Screening 46 (2.8% of all screened), Interview 49 (9.0% of positive screens)	161 (22.9%)	37 (9.2%)
Diagnostic interview	After informed consent, DSM-IV (SCID-I/P and SCID-II)	After informed consent, DSM-IV (Axis I, SCAN) and DSM-III-R (SCID-II, modified to DSM-IV)	After informed consent DSM-IV (SCID-I/P and SCID-II)
Inclusion criteria	DSM-IV type I or II with a new depressive, manic, hypomanic, mixed, or depressive mixed episode of BD	DSM-IV MDD with a new depressive episode	DSM-IV unipolar depressive disorders with no current treatment in psychiatric care
Cohort	191 MDD patient with a current episode at baseline (65 inpatients and 126 outpatients)	269 BD patient with a current phase at baseline (46 inpatients, 223 outpatients)	137 outpatients from primary care; 91 MDD patients with current episode and 46 patients with subsyndromal depression at baseline
Current psychiatric comorbidity	Anxiety Disorder 44.5% Substance Use Disorder 19.9% Eating Disorder 7.9% Somatoform Disorder 5..2% Personality Disorder 42.9% 1. Cluster A 9.9% 2. Cluster B 24.6% 3. Cluster C 23.0%	Anxiety Disorder 57% Alcohol Use Disorder 25% Bulimia Nervosa 2% Personality Disorder 44% 1. Cluster A 19.0% 2. Cluster B 14.5% 3. Cluster C 31.6%	Anxiety Disorder 43% Substance Use Disorder 12% Somatoform Disorder 12 % Eating Disorder 2% Personality Disorder 52% 1. Cluster A 1.0% 2. Cluster B 28.0% 3. Cluster C 32.0%
Number of patients at 6-month follow-up	176 (92.1%)	229 (85.1%)	–
18-month follow-up Number of patients	161 (84.3%)	198 (77.3%)	92 (88.5%)
Participants vs. non-participants	Somewhat older (mean 39.0 years, SD 11.9 vs. 33.7 years, SD 12.1, $t=2.711$, df=189, $p=0.007$)		
Mean time for interview	19.8 $\pm$ 3.0 months		
5-year follow-up Number of Patients	–	182 (67.7%)	112 (82.0%)
Switch of diagnosis		29 BD, 1 schizophrenia, 2 schizoaffective disorder	5 BD
Participants vs. non-participants		More often female (72.1% vs. 55.6%, $\chi^2=6.581$, $p=0.010$), married or cohabiting (75.6% vs. 59.7%, $\chi^2=7.725$, $p=0.005$), less alcohol dependence at baseline (39.5% vs. 72.3%, $\chi^2=16.064$, $p<0.001$)	No difference in age, gender, or baseline depression severity
Mean time for interview		5.2 years	5.2 years
Number of patients with follow-up data from at least one follow-up interview	176	249	130
Diagnostic reliability at baseline	20 videotaped diagnostic interviews; kappa coefficient for BD=1.0; not tested for comorbidity	20 videotaped diagnostic interviews; kappa coefficient for current MDD= 0.86 (95% CI=0.58–1.00); not tested for comorbidity	20 videotaped diagnostic interviews; kappa coefficient for current MDD and current subsyndromal diagnoses = 1.0; not tested for comorbidity
Assessment of suicide attempt	By interview and medical and psychiatric records at baseline and at 6- and 18-months	By interview and medical and psychiatric records at baseline and at 6- and 18-months and at 5-years	By interview and medical and psychiatric records at baseline and at 18-months and at 5-years
Symptom assessment	YMRS, HAM-D, BDI, BAI (baseline and 18 months). Psychotic symptoms as part of semistructured interview.	HAM-D, BDI, BAI (baseline, 18 months, and 5 years). Psychotic symptoms as part of semi-structured interview	HAM-D, BDI, BAI (baseline, 18 months, and 5 years). Psychotic symptoms as part of semistructured interview