Obsessive-Compulsive Personality Disorder and Suicidal Behavior: Evidence for a Positive Association in a Sample of Depressed Patients

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Objective: To explore the association between obsessive-compulsive personality disorder (OCPD) and suicidal behavior.

Method: Subjects referred for a psychiatric consultation were evaluated with structured interviews for mood and personality disorders (the Structured Clinical Interview for DSM-III-R and the Structured Clinical Interview for DSM-III-R Axis II Disorders), a history of suicidal behavior, and levels of coping. A total of 311 subjects were investigated using a 3-group design to test the association between OCPD and suicidal behavior, controlling for the presence of depression. Subjects with OCPD and a history of depression were compared to depressed subjects without any Axis II diagnosis and to subjects without depression or personality disorders. The study was conducted at Verdun Community Psychiatric Clinic, Douglas Hospital, McGill University, in Montreal, Quebec, Canada, and subjects were recruited from 2003 until 2005.

Results: Subjects in the comorbid OCPDdepression group presented increased current and lifetime suicide ideation compared to the groups with depression alone or without depression or personality disorders (P = .004); they also had increased history of suicide attempts (P = .04), which were often multiple attempts (P = .01). They also scored lower on the Reasons for Living Inventory (RFL) and the Death Anxiety Questionnaire. Interestingly, comorbid OCPD-depression patients differed from patients with depression alone on the Moral Objections items of the RFL, on which individuals with OCPD-depression scored lowest. Limitations of this study were its cross-sectional design, retrospective sample, and limited generalizability to the population at large.

Conclusions: Obsessive-compulsive personality disorder is a factor increasing risk for nonfatal suicidal behavior independently of risk conferred by depressive disorders.

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Submitted: August 25, 2008; accepted October 9, 2008. Online ahead of print: July 14, 2009 (doi:10.4088/JCP.08m04636). Corresponding author: Gustavo Turecki, MD, PhD, 6875 LaSalle Blvd, McGill Group for Suicide Studies, Douglas Hospital Research Center, Montreal, H4H 1R3, Quebec, Canada (gustavo.turecki@mcgill.ca). **S** uicide attempts frequently occur in the context of a major depressive episode.¹⁻³ There is now consistent evidence, from both community and clinical samples, that a history of depression will increase the likelihood of a suicidal act, the onset of which is often early in the course of the disease.⁴ Yet only a minority of persons with major depressive disorder engage in a suicidal act.⁵ Additional factors associated with suicidal behavior include the presence of personality disorder, most prominently the emotionally labile, impulsive, and aggressive type (cluster B),⁶⁷ as well as specific personality dimensions, such as elevated levels of impulsivity and aggressive behavior.⁸ Further variance is accounted for by comorbidity with substance abuse and dependence, which often plays an important role in increasing the risk of suicidal behavior.⁹

Yet, while most studies investigating the role of personality traits in risk of suicidal behavior have focused on the risk attributed to cluster B traits, there is some evidence that rigidity and lack of coping mechanisms^{10,11} may also increase risk of suicidal behavior. The current DSM classification includes these characteristics in the "cluster C" of personality disorders, which comprises the dependent, avoidant, and obsessive-compulsive personality disorders. Usually treated in literature as 1 large category, cluster C personality disorders have been shown, in psychiatric populations, to be associated with increased suicide ideation (although no higher risk for suicide attempts) and higher levels of hostility, compared to subjects with no such personality disorders.¹² A similar association was described in a study of suicidal behavior in psychiatric patients with panic disorder and agoraphobia that suggested that cluster C personality disorders and the severity of panic and agoraphobic symptoms predicted suicidal ideation in these individuals.¹³ In mood disorders in general, there are data suggesting that cluster C comorbidity interferes with recovery from a major depressive episode,^{14,15} thus increasing risk of suicidal behavior. One common limitation of these studies, however, is the operationalization and measurement of cluster C traits, and, particularly, the lack of investigation of individual personality disorders.

The most prevalent disorder of the cluster C personality spectrum, obsessive-compulsive personality disorder (OCPD), is characterized by a tendency to be excessively controlling with one's environment, a need for predictability, and excessive orderliness. This becomes evident, especially during periods of intense stress. Individuals who meet criteria for OCPD are rigid, reticent to delegate responsibility, and tend to be extremely critical of their peers; are careeroriented; and frequently have difficulties adjusting to normal family life.

In a recent analysis of National Comorbidity Survey data,¹⁶ as well as in previous studies on the National Epidemiologic Survey of Alcohol and Related Conditions¹⁷ sample, which evaluated alcohol consumption in a large community sample, OCPD emerged as the most frequent personality disorder, with a prevalence ranging from 5% to almost 8% in the population. However, in spite of its high occurrence rate, the literature on OCPD is relatively scarce compared to, for example, that on cluster B personality disorders. The characteristics of OCPD have been described mainly in eating disorder samples, in which it tends to be more severely expressed.^{18–21} The relation of OCPD to suicidal behavior has not been well investigated.

There are a few studies, however, investigating the relationship between one of the OCPD traits-perfectionism-and suicidal behavior. In one relatively recent report,²² perfectionism appeared to be the most important predictor of suicide ideation in depressed patients at 6 months' follow-up. The association between perfectionism and suicidal behavior, particularly suicide attempts, was also supported by a systematic review of published studies, the vast majority of which investigated nonclinical populations, such as university students.¹⁰ Hewitt et al.²³ (reviewed in O'Connor et al.¹⁰) found in an initial study on psychiatric patients that socially prescribed perfectionism (SPP) correlated significantly with suicide threat and intent, and in a hierarchical regression it predicted variance in suicide scores unaccounted for by depression or hopelessness.²³ Further investigations, this time on alcoholic inpatients, revealed that depression, social hopelessness, SPP, and other-oriented perfectionism were unique discriminators of the suicide-attempt group versus controls.²⁴

Finally, compulsivity, an obsessive-compulsive trait, has also been associated with certain characteristics of suicidal behavior in a large epidemiologic study conducting analyses of a large French-Canadian cohort prospectively followed up.²⁵ This study indicated that this narrow trait accounted for the difference between one-time and multiple-time suicide attempters. Though previous studies are suggestive of an effect of certain obsessive-compulsive personality traits on suicidality, it remains unclear if there is an association between OCPD proper and suicidal behavior. Some preliminary evidence suggesting that this may be the case was recently published by Raja and Azzoni²⁶ in their analyses of 7 case vignettes in which they describe a positive association between OCPD and suicide attempts.

To our knowledge, this is the first clinical study to investigate the relation between OCPD and a history of suicidal behavior. Here we report an investigation focused on a large sample of psychiatric outpatients. Our hypothesis was that patients with OCPD would display increased suicidality, independent of their history of mood disorder, and that this association would be explained by their lower levels of coping and cognitive rigidity.

METHOD

Subjects, Population Sample

The original study sample consisted of 474 outpatient adults recruited consecutively from community clinic referrals by general practitioners for a psychiatric consultation. Subjects were recruited from 2003 until 2005, and the study was conducted at Verdun Community Psychiatric Clinic, Douglas Hospital, McGill University, in Montreal, Quebec, Canada. Each candidate signed an informed consent, previously approved by our local institutional review board. All subjects were assessed with clinical instruments and inventories briefly described below. As reported elsewhere,²⁷ the majority of these participants met criteria for a depressive disorder; almost half of the sample was diagnosed with a personality disorder-not surprisingly, mostly cluster B disorders. For the present study, 311 subjects (66%) were considered, for the following reasons. Individuals were selected for this study if they had (1) lifetime history of depressive disorders (major depressive disorder or major depressive disorder NOS) and OCPD, (2) lifetime depressive disorder but no diagnosis of personality disorder, or (3) other psychiatric diagnosis and no Axis II psychopathology. Cases in which other personality disorders were comorbid with OCPD were excluded from this study in order to minimize the confounding effect on the dependent variable (suicidal behavior) and optimize a design that sought the main effect of OCPD on suicidal behavior.

Axis I and II Assessment

Axis I diagnoses were generated using the Structured Clinical Interview for DSM-III-R²⁸ (for Axis I diagnoses) by a psychiatrist as described elsewhere.²⁷ Additional assessments were carried out by MSc/PhD-level clinical psychologists, who used a battery of standardized instruments, described below. Axis II diagnoses were obtained using the Structured Clinical Interview for *DSM-III-R* Axis II Disorders.²⁹ The internal consistency (α =.93), and overall interrater reliability (κ =.80) for this instrument were very good to excellent. In particular, the α and κ values for OCPD were considered satisfactory (α =0.66, κ =0.7)

Suicidality

A French version of the Columbia Suicide History Form was used during clinical interviews to document cases with a history of suicide attempts (unpublished, G.T., 2002). The severity of the most serious as well as most recent suicide attempts was explored with the Suicide Intent Scale.³⁰ In our sample, the internal consistency for this scale was very good (α = .79). Suicide ideation was assessed with the Beck

Table 1. Sociodemographic Information and Suicidality in Subjects With Depression and a History of Obsessive-Compulsive
Personality Disorder Compared to Subjects With Depression Alone and Without Depression or Axis II Disorders

Variable	OCPD + Depression (n = 31)	Depression Alone (n = 159)	No Depression or Axis II Disorder (n = 114)	Test	Р						
						Age, mean ± SD, y	41.26 ± 11.5	41.6±9.8	40 ± 11.6	F=0.8	.5 (NS)
						Age at first suicide attempt, mean \pm SD, y	23.5 ± 11.9	28.6 ± 11.6	25 ± 12.7	F = 1.32	.3 (NS)
Sex, male, N (%)	9 (29)	52 (33)	47 (41.2)	$\chi^2 = 2.7$.3 (NS)						
Higher education, ^a N (%)	15 (52)	49 (31)	27 (25)	$\chi^2 = 7.6$.06						
Suicide ideation (present or lifetime), N (%)	24 (77.4)	75 (47)	51 (45)	$\chi^2 = 11$.004						
Lifetime Suicide Ideation Scores, mean ± SD	14.7 ± 11.3	10.7 ± 11.1	9.4 ± 11.4	F = 2.6	.08						
History of suicide attempt, N (%)	16 (52)	50 (38)	32 (28)	$\chi^2 = 6.4$.04						
History of multiple suicide attempts, N (%)	9 (38)	31 (24)	11 (12)	$\chi^2 = 9.2$.01						
Suicide intent (most severe SA), mean \pm SD	10.2 ± 4.5	14.5 ± 5.2	10.4 ± 5.6	F = 7.1	.001						
High lethality on most severe suicide attempt (compared to low), N (%)	10 (67)	27 (59)	18 (67)	$\chi^2 = 0.6$.7 (NS)						
HAM-D total score, mean \pm SD	22.0 ± 8.2	23.6 ± 9.9	15.2 ± 9.8	F = 24.8	.000						

Scale for Suicide Ideation.³¹ In our analyses we generated a categorical variable (present/absent) based on a cutoff score of 5 on the first 5 items. For parametric analyses, we also used the total score, which offers a quantitative impression of the severity of suicide ideation. Reliability coefficients for this instrument were very good (α = .82).

Personality Traits

Subjects were investigated for impulsivity and aggressive behavior using the Barratt Impulsiveness Scale, 11th edition,³² and the Brown-Goodwin Inventory for Lifetime History of Aggression,^{33,34} respectively. They also completed the State-Trait Anxiety Inventory by Spielberger.³⁵

Reasons for Living Inventory and Death Anxiety Questionnaire

All subjects were administered the 48-item version of the Reasons for Living Inventory (RFL).³⁶ The RFL includes a series of statements scored from 1 to 6 (1 = totally disagree; 6 = totally agree) that represent motivations *not* to commit suicide in the event of acute suicidality. Six subscales have been validated in community and psychiatric samples: Responsibility to Family, Child Concerns, Fear of Social Disapproval, Moral Objections, Fear of Suicide, and Survival and Coping Beliefs. In our sample, the α for the RFL was excellent (α = .93).

Additionally, participants completed the Death Anxiety Questionnaire (DAQ).³⁷ The DAQ is a 15-item Likert-type scale that explores rumination and brooding about death and the dying process and the burden this may have on spouse, children, or relatives. Internal consistency for this inventory was also considered excellent (α = .86)

Data Analysis

Relations between groups were explored using t tests and analysis of variance (ANOVA), in both univariate and multivariate analyses. Associations between categorical variables were explored using χ^2 tests with Fisher exact test. Nonparametric versions of these analyses (Kruskal-Wallis ANOVA, Mann-Whitney *U* test) were employed as alternatives when required. All the statistical work was carried out using SPSS software version 15.1.1 (SPSS Inc, Chicago, Illinois).

RESULTS

Of the 311 subjects included in this study, a total of 31 (10%) had a depressive disorder (major or not otherwise specified) and also a diagnosis of OCPD. We compared them to depressed subjects (n = 159) with no comorbid personality pathology and to a reference group (n = 114) of psychiatric outpatients with neither a history of a depressive disorder nor any Axis II diagnosis.

The mean age of the sample investigated was 41 years (SD = 10.6), and female representation was higher (65%). Demographic characteristics are presented in Table 1. Participants were similar across groups in regard to age and sex distribution. A trend toward higher education—a college or university degree—(52%) was noted (P = .06) in depressed patients with OCPD compared to the patients with depression alone (31%) or the outpatients with no history of depression or OCPD (25%).

Almost 8 of 10 in the OCPD-depression group reported significant levels of suicidal ideation either currently or lifetime (n = 24/31, 77.4%, P < .001) compared to just 47% and 45% in the groups with depression alone and with no history of depression, respectively. The comorbid OCPD-depression group did not differ with respect to the severity of suicidal ideation from the comparison groups with depression alone or with no history of depression or Axis II disorders, although the OCPD-depression group scores were slightly higher (see Table 1 for details). Half of the OCPD-depression group (52%) also had a history of suicida attempts, somewhat more frequent than that in the group

Variable	OCPD + Depression (n = 31)	Depression Alone (n = 159)	No Depression or Axis II Disorder (n = 114)	Test	Р
Total Reasons for Living score	92.1	113.1	138.6	$\chi^2 = 11.6$.003
Responsibility to Family	105.7	123.5	120.9	$\chi^2 = 1.6$.5 (NS)
Child Concerns	102.5	111.1	140.7	$\chi^2 = 11$.004
Fear of Social Disapproval	88.0	105.9	144.3	$\chi^2 = 21.3$.000
Moral Objections	87.9	118.3	133.8	$\chi^2 = 9.6$.008
Fear of Suicide	95.7	116.3	134.1	$\chi^2 = 7.2$.03
Survival and Coping Beliefs	101.4	116.0	135.2	$\chi^2 = 6.3$.04
Total DAQ score	151.5	129.3	113.5	$\chi^2 = 6.4$.04

Table 2. Reasons for Living Inventory and Death Anxiety Questionnaire Scores Ranked in a Kruskal-Wallis Analysis of Variance, Rank

Abbreviations: DAQ = Death Anxiety Questionnaire, NS = not significant, OCPD = obsessive-compulsive personality disorder, RFL = Reasons for Living Inventory.

with depression alone (38%) and almost twice as frequent as in the patients without depression or Axis II disorders (24%). Rates for history of multiple suicide attempts were high (37.5%) in the OCPD-depression group, a 3-fold difference compared to the patients without depression or Axis II disorders (P<.001). Suicide intent, as recorded for the worst (most severe) suicide attempt in the OCPDdepression group was, however, lower than in the group with depression alone (10.2 vs 14.5, respectively), and similar to that in those without a history of depression or personality pathology (P<.05).

Subjects with depressive disorder (major or not otherwise specified) comorbid with OCPD scored lower on all subscales of the RFL (Table 2). Compared to the group without depression, they had significantly fewer reasons for living (P<.005), would pay less attention to external disapproval (P<.000) or a fear of suicide (P<.05), and would ruminate much more about death and dying (P<.05). Additionally, they scored worse on the Survival and Coping Beliefs subscale (P<.05). However, these differences were not significant between the OCPD-depression group and the group with depression alone. The independent contribution of OCPD to these differences, beyond the effect of depression, was evident on the Moral Objections subscale, in which OCPD-depressed patients had the lowest rank (87.9).

DISCUSSION

This study aimed at exploring the relation between OCPD and suicidal behavior in a population of psychiatric outpatients. We hypothesized that comorbid OCPD would be associated with increased history of suicide attempts. Irrespective of their own history of depression, participants with OCPD experienced more frequent, chronic suicide ideation, which they also acted on more frequently by engaging in suicide attempts. Suicide attempts in this group, however, did not differ in severity from those of psychiatric outpatients with depression alone or without depression. One significant finding, discussed below, is that, in our sample, depressed patients with OCPD had lower coping strategies in relation to their suicidal thoughts, as measured by their RFL³⁶ score, and a tendency to dwell more on death and dying, as indicated by their DAQ³⁷ score. These 2 questionnaires explore elements that might deter the patient from attempting suicide. Obsessive-compulsive personality disorder contributed most to a decrease in the Moral Objections subscale of the RFL, whose rank was lowest of all the RFL subscales in this group. A lack of moral objections to suicide has previously been shown to be a key element in the suicidality noted in cluster B patients.^{12,38} Here, we add insight into this matter by providing evidence for similarity to a cluster C personality disorder. A likely interpretation of the data suggests that comorbid OCPD yields a more severe depressive symptomatology and is a moderating factor for poorer functioning and more severe outcome overall.

There are several implications of our study. First and foremost, our results indicate that Axis II pathology, as an associated factor in suicidal behavior, extends beyond the cluster B borderline construct. This finding adds to the debate about the possible relationship between cluster C personality traits/disorders and suicidal behavior. For instance, it has been suggested that anxious traits may be protective against completed suicide. Such a conclusion emerged as a corollary to the often-noted decreased frequency of anxiety disorders in individuals who died by suicide.9,39 However, a positive association between OCPD and nonfatal suicidal behavior is not in contradiction with these findings. First, the association supports the suggestion that anxiety-related disorders may increase the risk of nonfatal suicidal acts.^{40,41} If anxiety traits truly protect against suicide, this effect may be conferred by anxiety traits other than those of the OCPD spectrum. Pertinent to the same matter, in an analysis of a longitudinal cohort study of a sample of 2000 French-Canadian children followed for more than 12 years into adulthood, compulsivity, together with a narrow personality trait (anxiousness) accounted for the difference between one-time attempters and multiple attempters.^{25,42,43} Repeated suicide attempters were twice as likely to score highest on dimensions of compulsivity (OR = 2, 95% CI = 1.2 to 3.5).

Similar evidence comes from work in the familial aggregation of suicidal behavior. Brent et al⁴⁴ suggest that anxiety may be a potential "third pathway", an intermediate one, mediating the relation between parental abuse and offspring mood disorder. They argue that a divergence between mood and suicidality pathways, mediated by impulsiveaggressive behavior, among other behavioral traits, may help better identify persons at higher risk for suicide. Obsessivecompulsive personality disorder traits could act as part of this pathway.

Obsessive-compulsive personality disorder has sustained stability over time, whereas cluster B disorders wax and wane over time, which has been shown in analyses ancillary to the Collaborative Longitudinal Personality Study.^{16,19,45} As such, OCPD may be a life-long risk factor for suicidal behavior. In this context, it would be particularly interesting to investigate the relationship between OCPD and suicidal behavior in the elderly. It remains also to be determined whether OCPD plays a role in completed suicide, as it seems to do in suicide attempts. It is also interesting to observe that, in recent research on common aspects of OCPD and depression, a relation has emerged between obsessive-compulsive traits and a genetic variation in the dopamine D₃ receptor in patients with major depressive disorder.⁴⁶ In this last example, an additional factor associated with the development of OCPD was male sex (OR = 2.82, P < .001), which is also an independent factor for completed suicide.

There are some limitations to our study. The design employed in this study, as well as the sampling method, is not representative of the entire psychiatric outpatient population or of all manifestations of suicidal behavior. Another limitation was the fact that we performed our analyses retrospectively, which may have resulted in some nondifferential recall bias.

In summary, our results suggest that OCPD increases the risk of suicidal behavior independently of the risk conferred by major depressive disorder. While this evidence is consistent with observations from studies investigating the relationship between perfectionism and suicidality, it remains preliminary. Further research is required to expand knowledge of the association between obsessive-compulsive personality disorder and suicidal behavior, particularly investigating its validity among suicide completers. Future research should also investigate the relative contribution of OCPD, cluster B diagnoses, and other personality disorders to suicidal behavior.

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