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Temperaments in completed suicides: Are they different from those in suicide attempters and controls?

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Abstract

Background: Temperaments in completed suicides have never been assessed whereas there is substantial research on temperaments in attempted suicides and psychiatric patients.
Methods: The significant others of 18 completed suicides participated in this study in order to provide an assessment of temperaments, hopelessness, depression and the suicide risk of their loved ones. The data were compared with data from 244 psychiatric patients of whom 83 had attempted suicide in the previous month. The following instruments were used: the Temperament Evaluation of Memphis, Pisa, Paris and San Diego-auto questionnaire (TEMPS-A), the Beck Hopelessness Scale (BHS), the Gotland Scale for Male Depression (GSMD), and the Mini International Neuropsychiatric Interview (MINI) module for assessing suicide risk.
Results: Individuals who died by suicide more frequently had scores of 9 or higher on the BHS and higher MINI suicide risk scores compared with patients with mood disorders who had not attempted suicide in the previous month. Completed suicides also had lower scores on the TEMPS-A Cyclothymia and Anxiety scales and on the MINI suicide risk scale than mood disorder patients with a recent suicide attempt.
Limitations: Proxy assessment of variables through survivors can result in underestimation of psychiatric morbidity and other parameters investigated, and limits the generalization of our results
Conclusions: Our study adds information about temperamental subtypes and other variables in completed suicides and points to their difference from attempted suicides and non-suicidal psychiatric patients.

1. Introduction

Suicide is recognized to be major worldwide public health issue [1], and the search for variables that can shed light on the phenomenon is a priority for researchers, clinicians, and policy makers. Among the large number of variables studied as potential predictors of suicide, affective temperaments may play an important role as these temperaments may be associated with suicide diatheses [2–6]. To the best of our knowledge, affective temperaments have been investigated only among suicide attempters and ideators [2,3,5–8], and information regarding completed suicides is absent from the existing literature. Clinical decisions about patients may be improved if specific factors can be identified differentiating those who die by suicide from individuals who make a nonlethal suicide attempt. Therefore, differentiating between risk of suicide attempts and risk for completed suicide at the temperament and personality level is important.

The aim of the present study was to investigate affective temperament profiles in those who died by suicide in order to

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examine possible differences compared to living patients with mood disorders, some of whom had engaged in recent suicide behavior. An additional aim was to investigate whether hopelessness and male depression emerged as risk factors for death by suicide.

2. Methods and subjects

The Suicide Prevention Center, Psychiatry Department, at Sant'Andrea Hospital in Rome offers supportive treatments for suicide survivors, defined as individuals who have lost a significant other by suicide. Between September 2013 and July 2014, forty-two survivors were admitted to the outpatient treatment center. Of them, 18 agreed to participate in the present investigation yielding data for the same number of suicides (response rate = 42.9%). The comparison group consisted of 244 patients admitted to the same department in the same time period who had a diagnosis of a major mood disorder (either bipolar disorder type I [BD I], II [BD II], or unipolar major depression [MDD]). Of these, 83 had made a suicide attempt in the past month. The characteristics of the participants are reported in Table 1.

Patients participated voluntarily in the study, and each subject provided written informed consent. The study protocol received ethics approval from the local research ethics review board.

2.1. Data on completed suicides

A psychological autopsy approach was used to assess temperaments, hopelessness, and male depression in the suicides. This is the most direct method available to investigate the relationship between risk factors and suicide [9,10], and it uses proxy-based diagnostic assessments. Informants were survivors (spouses; n = 8, 44.4%), parents (n = 4; 22.2%), children (n = 2, 11.2%), and siblings (n = 4, 22.2%) of the deceased who were admitted to our Center on average 3 months (SD = 0.8) after the death of their loved one. All survivors were administered Italian versions of the following psychometric instruments with the instructions to rate items according the status of their significant other in the few months or weeks before the death: the Temperament Evaluation of Memphis, Pisa, Paris and San Diego-auto questionnaire (TEMPS-A) [11] measuring affective temperaments, the Beck Hopelessness Scale (BHS) [12] assessing pessimism and attitudes toward the future, the Gotland Scale for Male Depression (GSMD) [13–16] which assesses atypical symptoms of depression such as irritability, anger and alcohol use, and the Mini International Neuropsychiatric Interview (MINI) module assessing suicide risk [17].

The psychological autopsy was used to derive Axis I and Axis II psychiatric diagnosis for those who died by suicide using criteria from the Diagnostic and Statistical Manual for Mental Disorders, 4th edition, text revised (DSM-IV-TR) [18]. This is a valid technique [10,19,20] that involves identifying the family member or friend best acquainted with the subject to act as an informant. Previous research has indicated that the identification of specific psychiatric diagnoses using the psychological autopsy methodology does not vary according to the informant's relationship with the deceased [21,22].

2.2. Data from comparison subjects

Data from comparisons (bipolar and unipolar depressives) were obtained directly from patients a few days after their admission to the outpatient treatment center. Patients were administered the same protocols used in the psychological autopsy for suicide deaths. The psychiatrist in charge assessed DSM-IV-TR diagnosis [17,18] using a semi-structured interview.

2.3. Measures

The TEMPS-A is a 110-item self-report measure of the affective temperaments that define the bipolar spectrum, with depressive, cyclothymic, hyperthymic, irritable, and anxious subscales [23]. The TEMPS-A is not affected by current mood state (e.g. depressive vs. manic) and is able to reliably identify temperament profiles in psychiatric patients with severe Axis-I psychopathology [11].

The BHS is a 20-item scale for measuring negative attitudes about the future [12,24]. Research consistently supports a positive relationship between BHS scores and measures of depression, suicidal intent and current suicidal ideation, and scores on the BHS predict subsequent suicide. The BHS may, therefore, be used as a proxy-based indicator of suicide potential. There are validation studies for the Italian population that confirm the association with suicide risk [25,26].

The Gotland Scale of Male Depression (GSMD) is a screening instrument for depression consisting of 13 items which are rated on a 4-point Likert scale (0 = *not present* to 3 = *present to a high degree*) [14–16]. The "male depressive syndrome" differs from common depressive symptoms found in females. It includes atypical symptoms like irritability, anger attacks, and alcohol use which may mask depression in men. However, Innamorati et al. [13] indicated that the Gotland Scale of Male Depression is a valid instrument for measuring non-typical ("suicidality-related") symptoms of depression and can be used to assess depression in both women and men.

2.4. Statistical analysis

One-way Fisher exact tests and t-tests were used to analyze differences between groups. Phi coefficients (weak effects between 0.1 and 0.2, moderate between 0.2 and 0.4, strong 0.4 and higher) and Cohen's d (weak effects between 0.2 and 0.5, moderate between 0.5 and 0.8, strong 0.8 and higher) coefficients were reported as measures of effect size.