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The associations among childhood maltreatment, "male depression" and suicide risk in psychiatric patients

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ABSTRACT

In the current cross-sectional study, we aimed to investigate the presence and severity of "male" depressive symptoms and suicidal behaviors in psychiatric patients with and without a history of child abuse and neglect, as measured by the Childhood Trauma Questionnaire (CTQ), as well as to explore the associations among childhood maltreatment, "male depression" and suicide risk. The sample consisted of 163 consecutively admitted adult inpatients (80 men; 83 women). The patients were administered the CTQ, Gotland Male Depression Scale (GMDS), and Suicidal History Self-Rating Screening Scale (SHSS). Those with a moderate-severe childhood maltreatment history were more likely to be female ($p < 0.05$) and reported more "male depression" ($p < 0.001$) and suicidal behaviors ($p < 0.01$) as compared to those not having or having a minimal history of child abuse and neglect. In the multivariate analysis, only the minimization/denial scale of the CTQ (odds ratio=0.31; $p < 0.001$) and "male depression" (odds ratio=1.83; $p < 0.05$) were independently associated with moderate/severe history of child maltreatment. The findings suggest that exposure to abuse and neglect as a child may increase the risk of subsequent symptoms of "male depression", which has been associated with higher suicidal risk.

1. Introduction

Childhood maltreatment, which includes abuse (physical, sexual, and emotional) and neglect (physical and emotional), is highly prevalent and a major public health concern (Gilbert et al., 2009), which often leads to deleterious effects on physical and mental health well-being (Draper et al., 2008). Official reports indicate that the overall prevalence of lifetime childhood maltreatment has been estimated to approach 30% in population-based samples (Hussey et al., 2006; Finkelhor et al., 2009). Researchers have consistently shown that childhood maltreatment is associated with a range of mental disorders, including depression (see Alloy et al. (2006) for a review). For example, Widom, DuMont, and Czaja (2007) found that individuals who experienced childhood abuse or neglect were 1.51 times more likely to be diagnosed with major depressive disorder (MDD) as adults. Thus, it is important for clinicians to identify individuals who have been victims of childhood maltreatment and intervene before this negative experience may contribute to the development of a mood disorder.

Rutz (1995, 1999) has suggested that "male depression" is a distinct construct and differs from common depressive symptoms often found among females. It includes abrupt lowered stress tolerance, irritability, impulsive, aggressive, and/or psychopathic behavior, such as alcohol and/or drug abuse or abusive equivalents (e.g., work alcholism and excessive exercise), which often go unnoticed when trying to detect depression in men. Specifically, the Gotland Male Depression Scale (GMDS) not only focuses on overconsumption of alcohol/excessive activity, but also on positive family history of abuse/depression/suicide unlike major depressive syndrome. Rutz (1999) suggested that due to the alexithymic inability to ask for help together with atypical depressive symptoms (e.g., aggressive or abusive behaviors), depressed males experienced rejection or are misdiagnosed in the health care system.

Accordingly, the Gotland studies have resulted in a screening instrument for assessing depression in men, "GMDS", which has recently been validated (Stromberg et al., 2010; Innamorati et al., 2011b). Moreover, Möller-Leimkühler and Yücel (2010) found that "male depression" might also be prevalent in females and suggested that the association between "male depression" and gender be further explored. The GMDS consists of typical depressive symptoms as well as emotional distress symptoms that are more

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commonly found in males than in females according to Walinder and Rutz (2001). However, the diagnostic criteria have focused on typical depressive symptoms, which may have resulted in "male" symptoms being overlooked. Previous studies examining gender differences in depressive symptoms have consistently found that men report fewer depressive symptoms than women (Parker and Brotchie, 2010). However, a gender bias in the assessment of depression could contribute to lower rates of depression in men.

Several lines of evidence have suggested the association between a history of child sexual abuse and both psychological and social adverse outcomes in adulthood. In particular, a consistent link has been found between childhood maltreatment and "male depression". Rihmer et al. (2009) investigated the influence of childhood maltreatment on GMDS scores in 150 nonviolent suicide attempters suggesting a significant association among unfavorable psychosocial situations, negative life events, "male depression", and suicidal behavior. Specifically, the authors reported that independent of gender, the "male" depressive syndrome was significantly more severe among those who had experienced either physical or sexual abuse during childhood. Traumatic early experiences may predispose individuals, in the authors' opinion, to suicidal behavior. Similarly, Brodsky et al. (2001) reported that adult inpatients with a childhood abuse history were more likely to report attempted suicide and have significantly higher impulsivity and aggression scores compared to those who did not report child maltreatment.

A significant association was also found between child sexual abuse and subsequent treatment for mental disorders using a prospective cohort design in a sample of 1612 children (Spataro et al., 2004). Interestingly, male victims had higher rates of childhood mental disorders such as personality, anxiety, and major affective disorders and were significantly more likely to have had treatment when compared to females. Studies have reported that higher levels of behavioral problems were present in adult males who were sexually abused during childhood as compared to their female counterparts (Darves-Bornoz et al., 1998; Horwitz et al., 2001).

Childhood maltreatment has also been found to be a significant risk factor for suicidal ideation and behaviors (Pompili et al., 2011; Rhodes et al., 2012; Bryan et al., 2013; Fergusson et al., 2013). Research (Mann et al., 2005; Zouk et al., 2006) has demonstrated a strong association between a past experience of childhood abuse and impulsive/aggressive behaviors, which may contribute to suicidality. Impulsivity and aggressiveness may predispose individuals to suicidal behavior regardless of psychiatric conditions, as they are associated with structural and functional dysfunctions in key brain regions implicated in the regulation of mood, impulse, and behavior. However, a complex and multifaceted interaction among crucial risk factors may be evoked to explain the association between childhood abuse, impulsive/aggressive behaviors, and suicidality. To this end, Wanklyn et al. (2012) suggested that in a sample of 110 incarcerated youths, impulsivity and hopelessness were important factors to consider when examining the relationship between childhood maltreatment and depression. Screening for impulsivity as well as hopelessness may increase clinicians' ability to identify those at greatest risk of self-harm and suicidal behavior. In a longitudinal study (Enns et al., 2006), childhood neglect, psychological abuse, and physical abuse were all strongly associated with new onset ideation and suicide attempts, even after controlling for the effects of mental disorders. Moreover, Andover et al. (2007) found that individuals with a history of suicide attempts were more likely to report histories of childhood physical and sexual abuse compared to those without a suicide attempt history. Similarly, Brezo et al. (2008) demonstrated that young adults who reported childhood abuse histories had up to a 14 times greater risk of attempting suicide. Furthermore, Joiner et al. (2007) observed a significant relationship between childhood physical and sexual abuse and lifetime suicide attempts, after accounting for several important covariates (demographic variables such as age, gender, and family of origin together with clinical variables such as individual and family psychiatric histories as well as childhood abuse), each of which was considered to be strongly associated with suicide- and abuse-related variables. In sum, the above studies highlight the strong association between childhood maltreatment and negative mental health outcomes, including depression and suicidality.

Thus, the aim of the current study was to evaluate the possible association between "male" depressive symptoms (Rutz et al., 1995; Rutz, 1999) and suicidal behaviors in psychiatric patients who reported a history of child abuse and neglect on the CTQ (Bernstein et al., 1994; Bernstein et al., 1997; Bernstein and Fink, 1998). We hypothesized that individuals who experienced a more severe history of child abuse and neglect would report more "male depression" symptoms, which include not only prototypical symptoms of major depression (e.g., depressed mood or diminished interest or pleasure in activities, sleep disturbances), but also externalizing symptoms such as irritability, aggressiveness, and abusive and risky behavior.

2. Method

2.1. Participants

This cross-sectional study consisted of adult patients consecutively admitted to the Department of Psychiatry of the Sant'Andrea University Hospital in Rome, Italy, between January 2012 and December 2012. Inclusion criteria were admission in the time period indicated and any psychiatric diagnosis according to the DSM-IV-TR criteria. Exclusion criteria were the presence of any condition that may affect the ability to complete the assessment, including delirium, dementia or denial of informed consent.

All the patients were assessed in the first 72 h after hospital admission by clinical psychiatrists who are experts in psychopathological assessment. Subjects voluntarily participated in the study, and each provided written informed consent. The study protocol was approved by the local research ethics review board. The sample consisted of 163 adult patients (80 men and 83 women), with a mean age of 42.1 years (S.D. = 14.2; Range: 18–77 years). Male and female patients did not differ in age (42.33 ± 14.41 vs. 41.81 ± 14.01; $t_{161} = 0.23$; $p = 0.82$), or diagnosis ($\chi^2_3 = 4.35$; $p = 0.23$). The response rate was 86%. Twenty-seven patients who were eligible to be included in the study refused their consent to take part in the study. No patients returned incomplete or not analyzable questionnaires.

2.2. Measures

All the patients were administered the Italian versions of the below measures. The Mini International Neuropsychiatric Interview (MINI) (Sheehan et al., 1998) is a brief, fully structured diagnostic interview that assesses 17 Axis I disorders, antisocial personality, and suicidality according to *DSM-IV* criteria. Interviews typically were 15–20 min per person. One section of this instrument is dedicated to the assessment of suicidal risk, with questions about past and current suicidality. The suicidality section of the MINI classifies subjects into four groups: no suicidal risk, low suicidal risk, medium suicidal risk, and high suicidal risk. The MINI has demonstrated good validity, with median kappa coefficients greater than 0.63 against other interviews and interrater reliabilities ranging from kappas of 0.79 to 1.00 (Sheehan et al., 1998).

The Gotland Male Depression Scale (Rutz et al., 1995; Rutz, 1999; Walinder and Rutz, 2001) is a screening instrument for "male depression", consisting of 13 items which are rated on a 4-point Likert scale from 0 (*not present*) to 3 (*present to a high degree*) with a range from 0 to 39. Items of the GMDS assess symptoms such as lower stress threshold, aggressiveness, feeling of being burned out, tiredness, irritability and restlessness, difficulty in decision making, sleep problems, anxiety and uneasiness especially in the morning, alcohol and substance misuse, hopelessness, tendency to complain, and hereditary loading. In addition to typical depressive symptoms (e.g., depressed or irritable mood, decreased interest or pleasure in most activities, significant weight change, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or excessive or inappropriate guilt, diminished ability to think or concentrate, and suicidality), the GMDS also includes questions regarding characteristics commonly found in depressed men (e.g., irritability, aggression, and alcohol use). In Italian samples, the GMDS has been shown to be a valid instrument for measuring non-typical ("suicidality-related") symptoms of depression in both