Journal of Affective Disorders 174 (2015) 13–18

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

Relationship between affective temperaments and aggression in euthymic patients with bipolar mood disorder and major depressive disorder

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ARTICLE INFO

Article history:
Received 30 June 2014
Received in revised form
9 October 2014
Accepted 8 November 2014
Available online 20 November 2014

Keywords:
Affective temperament
Aggression
Bipolar disorder
Major depressive disorder

ABSTRACT

Background: So far there is a scarce of studies dealing with the relationship between different aspects of aggressive behaviour and affective temperaments among various mood disorders. The aim of the present study was to explore in a group of patients with affective mood disorders the relationship between affective temperaments and aggression.
Methods: 100 consecutive outpatients in euthymic phase of mood disorders (46 with bipolar disorder—type I, 18 with bipolar disorder—type II and 36 with major depressive disorder) were self-assessed with the Aggression Questionnaire and the short version of Slovenian Temperament Evaluation of Memphis, Pisa, Paris and San Diego – Autoquestionnaire (TEMPS-A).
Results: The factorial analysis of the TEMPS-A subscales revealed 2 main factors: Factor 1 (prominent cyclothymic profile) consisted of cyclothymic, depressive, irritable, and anxious temperaments and Factor 2 (prominent hyperthymic profile) which was represented by the hyperthymic temperament, and by depressive and anxious temperaments as negative components. Patients with prominent cyclothymic profile got their diagnosis later in their life and had significantly higher mean scores on anger and hostility (non-motor aggressive behaviour) compared with patients with prominent hyperthymic profile.
Limitations: We included patients with different mood disorders, therefore the sample selection may influence temperamental and aggression profiles. We used self-report questionnaires which can elicit sociable desirable answers.
Conclusion: Anger and hostility could represent stable personality characteristics of prominent cyclothymic profile that endure even in remission. It seems that distinct temperamental profile could serve as a good diagnostic and prognostic value for non-motor aspects of aggressive behaviour.

1. Introduction

Several psychiatric disorders, including mood disorders, have been associated with increased rates of aggression and violent behaviour (Ballester et al., 2012; Brennan et al., 2000; Corrigan and Watson, 2005; Faedda et al., 2014; Feldmann, 2001; Harford et al., 2013; Oquendo et al., 2000), which could also carry diagnostic, prognostic, and therapeutic implications. However, the evidence for interpersonal violence and violent crime in patients with bipolar disorder is less clear (Fazel et al., 2010).

Perroud et al. (2011) report that patients with bipolar and major depressive disorders display more frequent and severe lifetime aggressive behaviours than healthy persons. Some data also indicate a higher criminality rate in bipolar patients in comparison with patients with unipolar major depression (Cassidy et al., 2002; Corrigan and Watson, 2005; Graz et al., 2009; Sato et al., 2003). A significant association was reported between criminal behaviours and sub-threshold and syndromal bipolar disorder (Zimmermann et al., 2009). Barlow et al. (2000) report that patients with bipolar disorder express more aggressive behaviour in comparison with patients with other Axis-I disorders. Retrospectively assessed violent behaviour before and after the age of 15 is also reported to be associated with bipolar disorder (Pulay et al., 2008). Some studies also revealed that the diagnosis of bipolar disorder significantly increased the likelihood of being incarcerated (Stoddard Dare et al., 2011). In the case of bipolar disorder, the National Comorbidity Survey showed that the 12-month adult population prevalence of violent behaviours was 2%, whereas it was 16% for adults with bipolar disorder (Corrigan and

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http://dx.doi.org/10.1016/j.jad.2014.11.007
0165-0327/

Watson, 2005). Corrigan and Watson (2005) report that for patients with bipolar disorder the odds ratio for violence is 9.5 higher in comparison with healthy controls, meaning that people with bipolar disorder will have a 9.5 times greater likelihood of reporting violent behaviours than those with no mental disorder. However, some authors report that self-directed violence is more strongly associated with mood disorder compared with other-directed violence (Harford et al., 2013).

In a longitudinal study of individuals with bipolar disorder, Fazel et al. (2010) reported that there was an increased risk for violent crime among individuals with bipolar disorder, but most of the excess violent crime was associated with substance abuse comorbidity, whereas the risk associated with a bipolar disorder per se appeared low. Authors concluded that the association between bipolar disorder and violent crime seems to be largely mediated by substance abuse comorbidity.

Some studies also revealed, that violent behaviour is associated particularly during mania, mixed episodes, or psychotic states (Latalova, 2009), whereas hostility and aggression have been assumed of particular importance as core features of manic and mixed states (Cassidy et al., 2002; Maj et al., 2003; Swann et al., 1994). Some authors report that the general rate of total offence is higher in the manic phase of bipolar disorder in comparison with the depressive phase, whereas the rate of homicide is higher in the depressive phase of bipolar disorder (Yoon et al., 2012). Corrigan and Watson (2005) also pointed out that when adjusting violence rates by population base rates, demographics including ethnicity and gender revealed to be a better predictor of violent behaviour than psychiatric diagnosis, leading to a conclusion that mental illness is only a weak predictor of violent behaviour. Kesic and Thomas (2014) also reported that having a history of prior mental disorder diagnoses is not associated with violence which again challenges the traditional stereotyped view about the violence risk posed by people with prior contact with mental health services.

Different conclusions made by previous studies show that more research needs to be done on explaining the relationship between mental illness and violent behaviour. It could be that research summaries that stress the connection of violence and psychiatric disorder may be exacerbating the stigma of mental illness (Corrigan and Watson, 2005).

Besides aggressive traits, affective temperament supposed to have an impact on the clinical manifestation of mood disorders and on their course as well (Akiskal and Akiskal, 2005; Akiskal et al., 1977, Hantouche et al., 1998). Akiskal et al. (1977) postulated that temperament could represent the earliest subclinical phenotype of mood disorders and could be a potential contributor to the bipolar spectrum (Akiskal and Pinto, 1999). Numerous studies reported of specific temperament profile in patients with bipolar disorder (Hantouche et al., 1998; Matsumoto et al., 2005; Mazzarini et al., 2009; Mendlowicz et al., 2005) and major depression (Matsumoto et al., 2005; Mazzarini et al., 2009). However the predictive value of affective temperaments on the outcome of the bipolar disorder still requires further research (Perugi et al., 2012).

The intertwinement between temperament and aggressive behaviour has been known for several years (e.g. Buss and Perry, 1992). However, so far there is a scarce of studies dealing with different aspects of aggressive behaviour among various affective disorders (Brennan et al., 2000; Graz et al., 2009). Some studies show that there is an increased risk for violent crime among the unaffected siblings of individuals with bipolar disorder, which further weakens the relationship between bipolar disorder per se and violent crime and highlights the contribution of genetic or early environmental factors in families with bipolar disorder (Fazel et al., 2010). From this standpoint, the role of affective temperaments in violent behaviour in mood disorders comes even more to the front.

It is crucial to understand the relationship between affective mood disorders and aggressive behaviour together with temperamental traits as these violent behaviours are associated with an increased risk for individual and familial suffering, socioeconomic and legal problems (Ballester et al., 2012) and also with the suicidal risk (Oquendo et al., 2004). Specifically, it has been recognized that behavioural dysregulation characterizes suicidal behaviour with aggression being particularly salient (Oquendo et al., 2004; Perroud et al., 2011). Unresolved questions also persist about the state- versus trait- dependent nature of aggression and factors that mediate its expression in bipolar disorder and depression (Garno et al., 2008).

The aim of the present study was to explore in a group of patients with mood disorders (bipolar disorder—type I, bipolar disorder—type II and Major Depressive Disorder), evaluated in euthymic phase of illness, the relationship between affective temperaments and aggression. We focused on the influence of affective temperament as a relatively stable trait (Gandotra and Paul, 2004) on different disease-related variables and different aspects of aggressive behaviour.

2. Methods

2.1. Subjects

100 consecutive outpatients with mood disorders were included in our study. The sample comprised of 64 (64%) patients with bipolar disorder (of that 46 with bipolar disorder—type I [BD I] and 18 patients with bipolar disorder—type II [BD II]) and 36 (36%) patients with major depressive disorder (MDD). 30 (30%) patients were males and 70 (70%) females. All patients were in euthymic phase of illness, according to ICD-10 diagnostic criteria. All patients were treated as outpatients in University Psychiatric Clinic Ljubljana in the year 2012.

All patients were treated in full accordance with the routine clinical practice. The efficacy and the effectiveness of the treatments were not among the aims of the investigation. All subjects who were not in a stable mental or physical condition due to any cause, subjects who were not for 6 months in stable remission according to the case records, subjects with other psychiatric diagnoses, pregnant women, subjects already enrolled in other studies and subjects who were unable to give an informed consent were excluded from the study.

All subjects included in our study gave written informed consent and had the chance to give up the study at any time.

2.2. Measures

Two self-assessment questionnaires were used in our study. The Aggression Questionnaire (Buss and Perry, 1992) is constructed of four aggression subscales: physical aggression (hurting or harming others—instrumental or motor component of behaviour), verbal aggression (hurting or harming others—instrumental or motor component of behaviour), anger (physiological arousal and preparation for aggression—emotional or affective component of behaviour), and hostility (feelings of ill will and injustice—cognitive component of behaviour).

The short version of Slovenian TEMPS-A Scale (Temperament Evaluation of Memphis, Pisa, Paris and San Diego – Autoquestionnaire, Akiskal et al., 2005) was used to measure five affective temperaments, namely depressive (increased sensitivity to life's sorrows and disappointments), cyclothymic (labile mood swings), hyperthymic (enterprising, ambitious and driven), irritable (angry and dissatisfied) and anxious (prone to worrying and anxiety).