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Alexithymia in adolescents with borderline personality disorder

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ABSTRACT

Objective: The aim of this study was to explore the relationship between alexithymia and borderline personality disorder (BPD) in adolescents.
Methods: The study investigated a sample of 59 consulting or inpatient adolescents with a well-established diagnosis of BPD (SIDP-IV) and a control sample of healthy adolescents individually matched by gender, age and socio-economic status. Alexithymia, depression and trait-anxiety were rated using the Twenty-item Toronto Alexithymia Scale (TAS-20), the Beck Depression Inventory (BDI-II) and the trait-anxiety subscale from the State-Trait Anxiety Inventory (STAI-T), respectively. A confirmatory factorial analysis (CFA) was performed to test the fit of the three-factor structure of the TAS-20 in the adolescent sample (N = 140). BPD and control groups were compared on alexithymic scores using ANCOVA analyses controlling for the potential confounding effects of depression and anxiety.
Results: The ratio of the chi-square to its degrees of freedom, the goodness-of-fit index, the adjusted goodness-of-fit index and Steiger's root-mean-square error of approximation had satisfactory values of 1.54; 0.87; 0.83 and 0.058, respectively. The two ANCOVA demonstrated no significant difference for TAS-20 scores. BPD subjects were more alexithymic than healthy subjects but this difference was mainly explained by the levels of depression or anxiety.
Limitations: Since BPD subjects have high comorbidity with depression or anxiety, longitudinal studies examining the absolute and relative stability of TAS-20 scores are necessary to determine whether alexithymia constitutes a state or a trait in BPD.
Conclusions: BPD adolescents are characterized by alexithymia, probably of a secondary or state-dependent nature.

Introduction

Borderline personality disorder (BPD) is an impairing mental disorder characterized by a pervasive pattern of instability in affect regulation, impulse control, interpersonal relationships, and self-image. BPD is currently considered a public health problem, as it is associated with severe psychosocial impairments and high mortality rates due to suicide [1]. BPD concerns 1–2% of the general population [2], with higher prevalence in adolescents compared to adults. Detecting BPD in adolescence would allow early intervention before maladaptive behaviors become fixed and refractory to biological or psychotherapeutic treatments.

Among the various theoretical efforts to understand BPD, great interest has been raised by the proposals made by Fonagy [3,4] who suggested conceptualizing BPD as a disorder of "mentalization" and proposed a specific mentalization-oriented psychodynamic approach to the disorder [5]. Mentalization refers to the process used by humans to make sense of the social world by imagining the mental states that explain their own and others' behaviors in social interaction. Mentalization-based treatments have been empirically validated by randomized, controlled trials as more effective than non-specific psychiatric treatments [6,7]. Among the different conceptual overlaps of the construct of mentalization, Choi-Kain and Gunderson [4] have underlined the notion of affect consciousness (and its absence), which resembles the concept of alexithymia. Alexithymia, literally "no words for emotions", is used to describe individuals presenting difficulty in identifying their feelings, difficulty in communicating their feelings, an absence of daydreaming, and an externally-

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oriented way of thinking. If BPD is a disorder of mentalization, then high levels of alexithymia should be observed in BPD subjects. Moreover, if the level of reflective functioning is conceptualized as a core feature of BPD and as state-dependent [5], alexithymia could be a primary feature of BPD and not only secondary to other symptoms (e.g. anxiety or depression). Moreover, from a therapeutic point of view, this perspective suggests several hypotheses. First, as alexithymic features have been shown to be less sensitive to psychotherapy [8], high levels of alexithymia could be associated with lower responses to psychotherapy in BPD subjects. Second, the psychotherapeutic approaches that have been found effective in alexithymia could also be effective in BPD, and vice-versa. For example, Levy and colleagues [9] assessed changes in attachment organization and reflective function as putative mechanisms of change over 1 year in a 3-year psychotherapy treatment for patients with BPD. BPD patients were randomized to transference-focused psychotherapy (TFP), dialectical behavioral therapy, or psychodynamic supportive psychotherapy. Although the three treatments produced significant positive changes in several domains of psychopathology and functioning (with TFP showing improvements in more domains than the other two treatments: see Clarkin et al., [10]), an increase in patients' narrative coherence and reflective function was only observed for transference-focused psychotherapy.

Despite the potential interest of investigating the relationships between alexithymia and BPD, few studies have been conducted on this topic, and they have reported contrasting results. To our knowledge, only five studies have been published: three reported significant associations between BPD and alexithymia and two reported non-significant associations. Berenbaum [11] investigated the relationship between alexithymia and personality disorder in 60 adults receiving outpatient psychotherapy. Alexithymia was rated using the well-validated Toronto Alexithymia Scale (TAS) and personality disorders were assessed using the Personality Diagnostic Questionnaire Revised (PDQ-R) following DSM-III-R criteria. Significant and positive correlations were found between BPD diagnoses and two of the subscales in the TAS, namely difficulty in identifying emotions and difficulty in communicating emotions. Zlotnick et al. [12], in a sample of 252 treatment-seeking patients reported that the 34 subjects who met the DSM-IV criteria for BPD (using the SIDP), had significantly higher scores on the Toronto Alexithymia Scale than the 218 subjects without BPD. Modestin et al. [13] explored the relationship between alexithymia and BPD in 223 medical students or nursing personnel using the TAS-20 and the Borderline Pathology Questionnaire for DSM-IV. Using the cutoff scores of ≥ 60 and ≤ 52 to categorize participants as alexithymic or non-alexithymic, they found a prevalence of BPD of 62% and 21%, respectively, with a significant difference between the two groups. Bach et al. [14] reported the results of a stepwise regression analysis exploring the relationships between the TAS score (dependent variable) and the specific DSM-III-R personality disorder dimension scores (predictors) assessed with the PDQ-R. The sample included 182 female psychiatric outpatients. No significant association was found between alexithymia and the BPD dimension score. Recently, Nicolo et al. [15] explored the relationships between alexithymia and personality disorders in a sample of 388 adults and adolescents requiring psychiatric treatment in an outpatient clinic. Alexithymia was assessed with the TAS-20 and personality disorders were rated using the SCID-II for DSM-IV. Using the validated cutoff scores of the TAS-20 (≥ 60: alexithymia; 53–59: intermediate alexithymia; ≤ 52: non-alexithymia), three groups were defined (94 alexithymics, 81 intermediate alexithymics and 213 non-alexithymics). The three groups were then compared in terms of the number of criteria they met for clusters A, B and C on the SCID-II. No group differences were reported for cluster B criteria. However, a weak but significant correlation ($r = 0.22$, $p < 0.0001$) was observed between the number of BPD traits and the TAS-20 subscale rating difficulty in identifying feelings.

These contrasting results could be partly explained by differences in sampling and statistical methods, but also by differences in the comorbidity profiles associated with the groups under investigation. It has been clearly established that alexithymia and BPD are both associated with high levels of anxiety and depression [1,16]. A recent study [17] in a non-clinical sample of late adolescents, found that alexithymic subjects, as assessed using the TAS-20, were significantly more anxious on the State-Trait Anxiety Inventory (STAI) than non-alexithymic subjects. Thus, anxiety and depressive levels should be controlled for when examining the relationship between BPD and alexithymia.

Thus, although the relationship between BPD and alexithymia is still controversial, alexithymia, as a mentalization deficit, could be considered as a main symptom of BPD subjects and a potential major target for the therapeutic approach to BPD. Since the relationship between alexithymia and BPD has never been studied in adolescents, this study was designed to explore this relationship. We tested the hypothesis that BPD subjects would be more alexithymic than non-BPD subjects, independently from the impact of anxiety and depression.

Methods

Participants

The study sample was drawn from a European research project investigating the phenomenology of BPD in adolescence (the European Research Network on Borderline Personality Disorder, EURNET BPD; see [18] for a full description of the study methodology). Briefly, the research network was composed of five specialist psychiatric centers for adolescents and young adults in France, Belgium, and Switzerland. Between January and December 2007, all inpatient and outpatient adolescents (aged 15 to 19) meeting DSM-IV criteria for BPD on the Structured Interview for DSM-IV Personality (SIDP-IV) were included [19]. Individuals with schizophrenia and any potentially life-threatening, chronic and/or serious medical illness were excluded. The final study population comprised 85 BPD adolescents (11 boys, 13%, and 74 girls, 87%). The mean age was 16.3 years ($SD = 1.4$). 67% ($N = 57$) were inpatients. The control sample included 85 healthy adolescents individually matched for gender, age and socio-economic status recruited by announcement in schools. Control subjects were excluded if they had a history of or ongoing psychiatric follow-up, and if they were positive for a DSM-IV diagnosis of personality disorder.

This study was approved by our local institutional review board and all data were rendered anonymous. Subjects were provided with comprehensive information on the study objectives and procedures. Written informed consent was obtained from the adolescents and at least one of their parents in each case.

Assessments

All subjects completed a research protocol (consisting of a diagnostic evaluation of Axis I and Axis II disorders) and a self-administered questionnaire to collect socio-demographic and psychopathological data. Axis II disorders were investigated using the French version of SIDP-IV which is known to have good psychometric properties in adolescents and young adults [20]. Borderline severity for each of the 9 criteria was coded as absent (0), subliminal (1), present (2) and severe (3). Borderline severity scores thus varied from 0 to 27. Axis I disorders were assessed with the Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS). Diagnostic interviews were conducted by a team of 5 clinical psychologists and psychiatrists experienced in research and the assessment and/or treatment of DSM-IV Axis I/II disorders in adolescents. To ensure high levels of reliability, the research team participated in several training sessions, including commented scoring of videotaped interviews. The inter-rater reliability for SIDP-IV was calculated from independent ratings of ten videotaped interviews. The Kappa coefficient for agreement on the presence or absence of a BPD was