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Alexithymia and self-directedness as predictors of psychopathology and psychotherapeutic treatment outcome

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Abstract

Objective: Alexithymia, a common personality style of patients seeking psychotherapeutic help, is associated with illness severity and negative treatment outcome in various mental disorders. Still, it remains unclear how alexithymia influences psychopathology and the therapeutic processes. In previous studies, a strong association of alexithymia with self-directedness (SD), a dimension of Cloninger's Temperament and Character Inventory (TCI) has been shown. In this study, we investigated the interaction of alexithymia and SD, and their impact on general psychopathology and on treatment outcome.

Method: 716 consecutively admitted day-clinic outpatients were examined at admission (t_0) and discharge (t_1). The Toronto Alexithymia Scale 20 (TAS-20), the SD subscale of the TCI and the Symptom Checklist 90 (SCL-90-R) were administered. Linear regression analyses were performed to calculate associations and the predictive power of TAS-20 and SD on psychopathology at admission and treatment outcome. ANOVA was used to calculate interactions of TAS-20 and SD on treatment outcome. A general linear model was applied to compare the outcome of four subgroups, defined by high/low TAS-20 and SD scores.

Results: Regression analyses revealed significant prediction of the baseline General Severity Index ($GSIt_0$) by TAS-20 (df = 4, 711; Beta: 0.385; $p < 0.001$) and SD (Beta: −0.365; $p < 0.001$). The whole model accounted for 41% of the explained variance. On subscale level, the 'Difficulties in identifying feelings' facet (DIF) of TAS-20 was the strongest predictor of $GSIt_0$ (Beta: 0.478, $P < 0.001$) and $GSIt_1$ (Beta: 0.072, $p = 0.049$). Therapeutic outcome measured by $GSIt_1$ was significantly predicted by SD (df = 5, 710; Beta: −0.065; $p = 0.041$), but not by TAS-20 (Beta: 0.042; $p = 0.179$). Change scores (Δ) of TAS-20 and SD predicted $GSIt_1$ (df = 5, 710; TAS-20Δ Beta: −0.268; $p < 0.001$; SDΔ Beta: 0.191; $p < 0.001$) as well as GSIΔ (df = 5, 710; TASΔ Beta: 0.384; $p < 0.001$; SDΔ: −0.274; $p < 0.001$) significantly. ANOVA revealed no significant interactions of TAS-20 and SD at admission on the treatment outcome ($p > 0.05$).

Conclusion: Low SD was shown to be a common problem of alexithymic patients and both, alexithymia and SD were highly associated with general symptom severity. SD was found to have a greater impact on treatment outcome while adjusting for baseline GSI. Alexithymia and SD act as independent factors with no significant interaction in their impact on psychopathology at admission and discharge. As different interventions were shown to improve SD scores in previous studies, SD may represent a relevant psychotherapeutic target, worthy to be addressed especially in alexithymic patients. Future studies should investigate other dimensions of the TCI, especially harm avoidance and reward dependence.

1. Introduction

In the understanding of state-dependent psychopathology and its treatment, personality styles are supposed to play a key role. Alexithymia has been conceptualized as a relatively time-stable personality style including the reduced ability to realize, identify and express one's emotions, but also a concrete cognitive style of thinking and communication [1]. Previous studies found an association of alexithymia with all subscales of SCL-90-R [2,3], and especially with mood and anxiety disorders [4]. For example, Honkalampi et al. and Saarijärvi et al. found alexithymia to be strongly associated with depression [3,5], and, vice versa, that depressed patients show high rates of alexithymia ranging from 11% to 48%. In comparison, there is a relative paucity of studies

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investigating the impact of alexithymia on psychotherapeutic treatment outcome. While McCallum et al. and Ogrodniczuk et al. found the 'difficulties identifying feeling' facet of alexithymia to predict treatment outcome in complicated grief, Leweke et al. found alexithymia only to be a mild outcome predictor in a sample with various psychiatric disorders whereas Spek et al. found no correlation of TAS-20 and treatment outcome in subthreshold depression [6–9]. Grabe et al. found alexithymia to be associated with higher GSI scores at admission and discharge [10]. However, a significant treatment response in the alexithymic group of patients was also seen.

The mechanism of how alexithymia interacts with more state-dependent psychopathology remains unclear. Previous studies have found relationships between alexithymia and personality features as measured by Cloninger's Temperament and Character Inventory (TCI). The TCI is based on Cloninger's biosocial model with 4 temperament dimensions which are understood as more genetically determined and stable over time. Additionally, it includes 3 character dimensions which are considered as being influenced through learning processes throughout the lifespan, e. g. in therapeutic processes. The temperament dimensions include novelty seeking (NS), harm avoidance (HA), reward dependence (RD) and persistence (P). The character dimensions consist of self-directedness (SD), cooperativeness (CO) and self-transcendence (ST). Grabe et al. found low self-directedness (SD), low reward-dependence (RD) and, to a minor degree, harm avoidance (HA), as independent predictors for alexithymia [11]. Picardi et al., too, found low SD, low RD and high HA and, additionally, high cooperativeness (CO) to be associated with TAS-20 total score [12]. Lee et al. investigated the association of personality traits with alexithymia and their mediation through depression and anxiety in pathway analyses. Their results showed low SD, low RD and high CO to be the strongest factors to increase TAS-20 total scores. Lee et al. suggest, that low autonomous self-concept and self-confidence in subjects with low SD may be related to reduced emotion recognition and regulation in alexithymic subjects. Additionally, impoverished fantasy in alexithymia is named to be possibly related to decreased resourcefulness in low SD [13].

There has been extensive research on the relationship of the TCI and psychopathological states and various studies showed associations of especially HA and SD and psychopathology. For example, Jylhä et al. found in a community based sample a correlation of HA and a negative correlation of SD with depression [14]. Izci et al. examined a sample of patients with panic disorder [15]. They found high HA, low SD and low CO to be associated with panic disorder. Regarding the prediction of outcome, Cloninger et al. showed in a prospective study that high HA and low SD can also contribute to the prediction of change in depression [16]. Other studies found an inverse association of SD and treatment outcome of social phobia [17], bulimia nervosa [18] and obsessive–compulsive disorder [19]. Conrad et al. investigated the impact of both, alexithymia and personality traits measured by TCI on state-dependent psychopathology. They found in their study the 'difficulties identifying feelings' facet of alexithymia to be a strong predictor of all aspects of psychopathology while low SD was the strongest predictor of obsessionality, depression, interpersonal sensitivity and psychoticism [20]. Thus, low SD seems to be among the most important factors of the TCI with impact on psychopathology, treatment response, and, additionally with a strong relationship with alexithymia.

Taken together, these studies found evidence for an association of alexithymia and low SD with psychopathology and, to a minor degree, for a prediction of psychotherapeutic treatment outcome. Still, to our knowledge, no study has examined possible interactions of these two factors in their influence on psychopathology and treatment outcome.

In this study we sought to examine the relationship of alexithymia and SD in their impact on psychopathology and outcome of a psychotherapeutic treatment program. Our hypotheses were as follows: (i) Patients with alexithymia show lower scores of SD than non-alexithymic patients. (ii) High scores of TAS-20 and low scores of SD at admission are associated with more severe psychopathology compared to non-alexithymic subjects and patients with higher SD. (iii) High scores of TAS-20 and low scores of SD at admission predict a poorer therapeutic outcome compared to subjects with low TAS-20 and higher SD (iv) Alexithymia and SD are improved after treatment and this improvement is associated with an improvement of GSI. (v) Alexithymia and SD interact in their impact on psychopathology and treatment outcome.

2. Materials and methods

1089 patients were consecutively admitted to 6 psychiatric outpatient's day-clinics, all part of the University Hospital of Greifswald, Department of Psychiatry and Psychotherapy. 991 patients gave their written informed consent prior to inclusion in the study and completed the baseline testing. 275 patients were excluded from the sample due to discontinuation of the planned treatment program and/or not completing the testing at discharge, leaving 716 patients with fulfilled treatment program and complete test dataset to form the study sample. Table 1 provides data comparing basic sociodemographic and diagnostic characteristics between the final sample and drop-outs.

Patients' main diagnoses were made according to ICD-10 based diagnostic evaluation. Table 2 gives an overview of main diagnoses in the whole sample and the subgroups. Taking all psychiatric comorbidities into account, percentages of psychiatric diagnoses in the sample of patients completing the treatment program were as follows: Alcohol/drug dependence and abuse: 62 (8.7%); depressive disorders: 604 (84.4%); anxiety and somatoform disorders: 131 (18.3%), eating disorders: 4 (0.6%) and personality disorders