



Short Research Report

Relationship between Alexithymia as a Multi-dimensional Construct and Depression in University Students: Mediating role of Anxiety

Ayesha Akram¹ and Tehreem Arshad

Centre of Clinical Psychology, University of Punjab, Lahore, Pakistan

This study investigated the relationship between alexithymia and depression amongst university students and how it is mediated by anxiety. Data was collected from a sample of university students (n= 74, Men = 41, Women = 33) aged 18 to 25 (Mean = 22.05, SD = .38). The findings revealed a statistically significant gender difference with men being more alexithymic than women. There was a significant positive correlation between the alexithymic subscales difficulty identifying feelings (DDF) and difficulty describing feelings (DIF), depression and anxiety. DDF and DIF along with anxiety predicted depression. Anxiety partially mediated the relationship between DIF and depression but completely mediated the relationship between DDF and depression. Alexithymic features DDF and DIF predict depression in the sample but Externally Oriented Thinking (EOT) did not. Anxiety was found to be an underlying mechanism operating in the between alexithymic features and depression.

Keywords: alexithymia, depression, anxiety, DDF, DIF, EOT

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Introduction

Alexithymia refers to a person's difficulty in recognizing and explaining their subjective emotional state, a restricted capacity for imaginative experiences and a thinking style which is externally oriented (Taylor et al., 1991). Alexithymia is considered a disorder of emotional dysregulation (Taylor, Bagby & Parker, 1999) as it has a strong relationship with emotional dysregulation (Stasiewicz et al., 2012) and low emotional intelligence

¹ Corresponding author. Email address: ayashaakram1152136@gmail.com

(Parker, Bagby, & Taylor 1991). It is prevalent both in non-clinical populations (13%-17%, Loas et al., 1995; Saarijärvi et al., 2001) as well as clinical population with prevalence of 43.4% in anxiety disorders, 55.6% in psychotic disorders, 51.5% in depressive disorders, 45.9% in somatoform disorders (Yildirim et al., 2016). There is also a strong association between anxiety sensitivity and depression (Cam Celikel & Saatcioglu, 2007) and research shows that anxiety is known to mediate the relationship between depression and other psychological constructs such as stress and self-esteem (Nima et al., 2013). Hence, we aim to explore the role of alexithymia in developing/maintaining depression and the role of anxiety between the relationship of alexithymia and depression in a sample of university students.

Methods

The twenty-item version of the *Toronto Alexithymia Scale (TAS)* consists of three subscales: Difficulty Describing Feelings (DDF), Difficulty Identifying Feelings (DIF) and Externally Oriented Thinking (EOT) (Bagby et al., 1994). In the present study, the Urdu translated, and standardized version of TAS-20 was used (Ghayas et al., 2017)

The Symptoms Checklist-Revised (SCL-R) comprises of six subscales measuring depression, somatization, anxiety, obsessive-compulsive disorder, schizophrenia, and low frustration tolerance. In the present study, Scale I (depression) and Scale III (anxiety) were used (Rehman et al., 2009).

A total of 74 university students (Male=41, Female=33) aged 18 to 25 (Mean=22.05, SD=.38) constituted the sample. Sample size was determined through G power analysis ($\alpha = .05$, power = .95) with medium effect size (Faul et al., 2009). Data was collected both online and in person and research was conducted following the review of the departmental ethical committee.

The analyses were conducted using Statistical Package for Social Sciences (SPSS) version 23.

Results

Data was found to be normally distributed with Shapiro-Wilk's value $p > 0.05$. Pearson product moment correlation revealed a significant positive correlation between alexithymia and depression ($r = .65$) and anxiety ($r = .6$) at $p < .01$. DDF and DIF were positively correlated with depression (DDF; $r = .42$, DIF; $r = .73$) and anxiety (DDF; $r = .41$, DIF; $r = .70$) at $p < .01$.

A hierarchical multiple linear regression with stepwise method (forward selection) was conducted as data fulfilled the assumptions of linearity, homoscedasticity, independence and normality. In step 1, DDF significantly predicted depression explaining 18% of the variance with $F(1, 72) = 15.45$, $p < .001$. In step 2, DIF significantly predicted depression explaining 36% of the variance with $F(2, 71) = 42.12$, $p < .001$. In step 2, DDF was no longer the significant predictor of depression. In step 3, anxiety significantly predicted the criterion variable with $F(3, 70) = 100.73$, $p < .001$. Step 3 explained on the whole 81% of the variance with anxiety explaining 26% of the whole variance.

Mediation analysis was conducted using PROCESS macro on SPSS. The analysis of the indirect effect indicated that anxiety is a significant partial mediator between DIF and depression, ($b = 1.22$, Bootstrap SE = .06, 95% bootstrap CI .38-.63). Similarly, anxiety was found to be a significant complete mediator between DDF and depression, ($b = 1.34$, Bootstrap SE = .34, 95% bootstrap CI .68-2.03). The use of bootstrapping ensured better control over Type I error and a higher power.

These results were also supported by Sobel's test that proved that anxiety was a significant mediator between DIF and depression and DDF and depression at $p < 0.01$.

Discussion

This research aimed to study the relationship between alexithymia and depression in university student and the mediating role of anxiety. Previous empirical findings show a strong relationship between alexithymia and depression with a prevalence rate of 26.9% in people with depression (Leweke et al., 2012). The present study found a strong relationship between DDF, DIF and depression and no relationship with EOT.

DDF significantly predicted depression in the first step of the regression analyses but with the addition of DIF in the second step, DDF was no longer the significant predictor. These findings correspond to previous literature (Conrad, 2009; Grabe et al., 2004). In explaining DIF's role in predicting psychopathology, Grabe et al., (2004) speculates that people with psychopathology have perplexing and inexplicable emotional perception that renders it harder for them to convert those perceptions into meaningful emotions. On a similar note, Taylor (1991) asserts that people with alexithymia are susceptible to the stress caused by indistinguishable emotional arousal because they lack the mechanisms necessary for the regulation of their emotions and are unable to perform adequate cognitive processing of emotional stimulus.

This study also found that anxiety is a significant mediator in the relationship between DIF and depression (complete mediation) and DDF and depression (partial mediation). Based on the complete mediation between DIF and depression, it can be hypothesised that presence of anxiety symptoms potentially explains the relationship between DIF and depression. To our knowledge, this is the first study that studied this relationship hence the supporting literature is scarce and further research is needed to test this relationship.

This research provides some interesting insights and the clinicians designing and implementing alexithymia interventions could benefit from having knowledge of the underlying effects of anxiety in the relationship between alexithymia and depression. However, further research is needed with a larger and broader age range sample to confirm these results. In addition, since this study is cross-sectional in nature, no causal relationship can be established and studies using a longitudinal or prospective design need to be conducted to settle the debate of whether or not alexithymia contributes to psychological distress.

Disclosure

The authors declare that they do not have any conflict of interest within the article.

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