PERSONALITY TRAITS RELEVANT TO DEPRESSION: OLD ASSOCIATIONS, NEW PERSPECTIVES

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Abstract

Although depression is one of the most common mental health problems globally, there are few studies on the relationship between depressive symptoms and personality traits. It has been suggested that personality is an important risk factor for depression. However, due to the multidimensional structure of personality, there is a need for multivariate and large-scale studies involving individual participants. The aim of this study is to examine the effects of the multidimensional structure of personality on the relationship between depressive symptoms and personality traits. 528 women (mean age = 35.16, s = 11.93) who were reached by convenience sampling method and did not apply to a clinic were evaluated with the CES-Depression Scale, the Beck Depression Inventory and 220-item long form of the Five-Factor Personality Inventory. Participants were divided into three groups, those one standard deviation below and above the mean, using the CES-Depression Scale and the Beck Depression Inventory total scores. Then, the Five Factor Personality Inventory sub-dimensions and factor total scores of the three groups created using both the CES-Depression Scale and the Beck Depression Inventory total scores were compared with MANOVA. It was observed that the three groups formed using both the CES-Depression Scale and Beck Depression Inventory total scores differed in terms of all five-factor total scores. When the three groups formed by using the CES-Depression Scale total scores were compared in terms of sub-dimensions, differences were found between the groups in 15 (Liveliness, Assertiveness, Interaction, Tolerance, Calmness, Agreement/Reconciliation, Soft Heartedness/Altruism, Orderliness, Responsibility/Deliberateness, Emotional Lability, Proneness to Anxiety, Self Assureness, Analytical Thinking, Sensitivity, Openness to Newness) of 17 sub-dimensions, and no difference was observed in the Rules Boundness and Excitement Seeking sub-dimensions. When the three groups formed using the Beck Depression Inventory total scores were compared, there were differences between the groups in 15 (Liveliness, Assertiveness, Interaction, Tolerance, Calmness, Agreement/Reconciliation, Orderliness, Responsibility/Deliberateness, Excitement Seeking, Emotional Lability, Proneness to Anxiety, Self Assureness, Analytical Thinking, Sensitivity, Openness to Newness) of the 17 sub-dimensions, and no difference was observed in the Rules Boundness and Altruism sub-dimensions. Most of the personality traits examined were found to be associated with depressive symptoms. These findings are important in that they show the importance of personality in risk factors for depression.

Keywords: Depression, personality, trait, multidimensional personality traits.

1. Introduction

In many studies, the relationships between depression and personality traits (especially with the five-factor personality model) have been examined (Clark et al., 1994; Dunkley et al., 1997; Flett et al., 1995; Hicks & McCord, 2012; Kendler & Myers, 2010; Santor et al., 1997; Watson et al., 1994; Zuroff et al., 2004). It is stated that personality traits have an impact on the development, course, and symptoms of depression, and on the other hand, depression causes some changes in the personality structure of individuals (Aggen et al., 2005; Bagby et al., 2008; Clark et al., 1994; Enns & Cox, 1997; Hakulinen et al., 2015). In these studies, examining the relationship between personality structure and depression, it is revealed that some personality traits create a vulnerability to depression and that people with certain characteristics are more disadvantaged in terms of depression (Bagby et al., 2008; Barnhofer & Chittka, 2010; Flett et al., 1997; Hicks & McCord, 2012). In particular, there appears to be a strong relationship between depression and neuroticism, which includes states associated with the neurotic personality structure, such as a significant sensitivity to negative stimuli, a persistent feeling of frustration, self-doubt,

nervous tension, chronic negative affect, and anxiety (Jylhä & Isometsä, 2006; McCrae & John, 1992; Takahashi et al., 2013). Accordingly, as the level of Neuroticism increases, depression also increases (Barnhofer & Chittka, 2010; Jylhä ve Isometsä, 2006; Kotov et al., 2010; Malouff et al., 2005).

A high level of extraversion, which includes characteristics such as being friendly, warm-blooded, talkative, enthusiastic, joyful, and enthusiastic, is marked by preferring to spend time with people over loneliness, and indicates social activity, usually indicates a low tendency to depression (Farmer et al., 2002; Goodwin & Gotlib, 2004; Jylhä & Isometsä, 2006). However, extroverted individuals overcome depression in a shorter time than introverted individuals (Bagby & Parker, 2001). It is stated that people who are at the low conscientiousness factor level, have poor self-control, tend to procrastinate, have low motivation for success, make negative self-evaluations due to the repeated failures they experience, and experience more intense stress in daily life events, which causes an increase in depression levels (Anderson & McLean, 1997). The results support the view that there is an inverse relationship between conscientiousness and depression levels (Anderson & Mclean, 1997; Bagby et al., 2008; Malouff et al., 2005; McCann, 2010).

In many studies, personality traits (via the five-factor model) have been associated with depression (Farmer et al., 2002; Katz & McGuffin, 1987; Kendler & Myers, 2010; Morris & Robinson, 1995; Roelofs et al., 2008; Saklofske et al., 1995). It is also stated that immaturity of personality trait dimensions is a risk factor for the onset of depression and that these characteristics can help identify individuals at risk, early diagnosis, and possible treatment (Matsudaira & Kitamura, 2006; Puyané et al., 2022). It is observed that these studies especially focus on neuroticism, extraversion, and conscientiousness, and there are relatively fewer studies examining the relationship between personality traits such as agreeableness and openness to experience and depression (Kotov et al., 2010; Malouff et al., 2005).

However, in these studies, while the factors that form the high levels are considered as personality trait measurements, it is seen that the factor component sub-dimensions are not included as second-order structures. On the other hand, it is suggested that personality traits should be evaluated in more detail in the context of their relationship with depression (Jourdy & Petot, 2017). In terms of personality measurement, gender differences are clearly revealed in the literature (Goodwin & Gotlib, 2004; Schmitt et al., 2016; Vianello et al., 2013). For this reason, in this study, only five factors and their sub-dimensions were taken as predictors of the female group and depression level, and the variable relationships were tried to be presented more comprehensively.

2. Methods

2.1. Participants
The participants of the study were 528 female participants between the ages of 18-70 (M=35.16±11.93 years). The participants were 83 primary school graduates (15.7%), 56 secondary school graduates (10.6%), 150 high school graduates (28.4%) and 239 university graduates (45.3%); 214 were single (40.5%), 298 were married (56.4%) and 16 were widowed or divorced (3.1%).

2.2. Materials
CES-Depression Scale (The Center for Epidemiologic Studies Depression Scale) is a 20-item self-report scale, four of which are reverse-directed and contain four-point Likert-type response (Radloff, 1977). A total score between 0 and 60 is obtained from the scale translated into Turkish (Tatar & Saltukoğlu, 2010).

Beck Depression Inventory (BDI) is a 21-item self-report scale scored on a four-point Likert scale between 0 and 3 (Beck et al., 1961). A total score between 0 and 63 is obtained from the scale translated into Turkish (Hisli, 1988; 1989). The Five Factor Personality Inventory consists of 220 items with five-point Likert-type answer. The inventory consists of five factors, the first-order structure, and seventeen second-order sub-dimensions under these five factors (Somer et al., 2002).

2.3. Procedure and data analysis
The study was carried out as individual applications in Istanbul within one year. Participants with a history of psychiatric admission at any time in their lives were not included in the study, and this was used as the exclusion criterion of the study. Data were examined with Cronbach Alpha internal consistency reliability analysis, Pearson correlation analysis, multiple linear regression analysis, and MANOVA.

2.4. Results

First, the internal consistency reliability analysis of the scales used in the study and the correlation coefficients between depression scales and personality inventory factors and dimensions were calculated. Internal consistency reliability coefficients were calculated as 0.87 for the CES-Depression Scale, 0.88 for the Beck Depression Inventory, 0.88 for the Extraversion factor, 0.86 for the Agreeableness factor, 0.78 for the Conscientiousness factor, 0.93 for the Neuroticism factor and 0.83 for the Openness to Experience factor. Internal consistency reliability coefficients of all dimensions were between 0.63 and 0.87.

Correlation coefficients were calculated between the CES-Depression Scale and five factors (ranging from -0.24 to 0.64) and between the CES-Depression Scale and seventeen sub-dimensions (ranging from -0.05 to 0.63). Likewise, correlation coefficients were determined between the Beck Depression Inventory and five factors (ranging from -0.23 to 0.62) and between the Beck Depression Inventory and seventeen sub-dimensions (ranging from -0.06 to 0.61).

In the analysis using factor total scores, the CES-Depression Scale total score was predicted by (in order of importance), Neuroticism ($\beta = 0.55$), Extraversion ($\beta = -0.14$), and Agreeableness ($\beta = -0.11$). Only the Neuroticism ($\beta = 0.59$) total score was included in predicting the Beck Depression Inventory total score. In the analysis using sub-dimension total scores, the CES-Depression Scale total score was predicted by (in order of importance), Self Assureness ($\beta = 0.41$), Liveliness ($\beta = -0.26$), Excitement Seeking ($\beta = 0.14$), Agreement/Reconciliation ($\beta = -0.14$). Emotional Lability ($\beta = 0.13$) and Rules Boundness ($\beta = 0.09$). Only the Self Assureness ($\beta = 0.44$) total score was used to predict the Beck Depression Inventory total score.

Participants were divided into three groups, one standard deviation below and above the mean, using the CES-Depression Scale and the Beck Depression Inventory total scores. Then, the Five Factor Personality Inventory sub-dimensions and factor total scores of the three groups created using the CES-Depression Scale and the Beck Depression Inventory total scores were compared with MANOVA. It was observed that the three groups formed using both the CES-Depression Scale and Beck Depression Inventory total scores differed in terms of all five-factor total scores (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience). When the three groups formed by using the CES-Depression Scale total scores were compared in terms of sub-dimensions, differences were found between the groups in 15 of 17 sub-dimensions (Liveliness, Assertiveness, Interaction, Tolerance, Calmness, Agreement/Reconciliation, Soft Heartedness/Altruism, Orderliness, Responsibility/ Deliberateness, Emotional Lability, Proneness to Anxiety, Self Assureness, Analytical Thinking, Sensitivity, and Openness to Newness), and no difference was observed in the Rules Boundness and Excitement Seeking sub-dimensions. When the three groups formed using the Beck Depression Inventory total scores were compared, there were differences between the groups in 15 of the 17 sub-dimensions (Liveliness, Assertiveness, Interaction, Tolerance, Calmness, Agreement/Reconciliation, Orderliness, Responsibility/Deliberateness, Excitement Seeking, Emotional Lability, Proneness to Anxiety, Self Assureness, Analytical Thinking, Sensitivity, and Openness to Newness), and no difference was observed in the Rules Boundness and Soft Heartedness/Altruism sub-dimensions.

3. Conclusion

Personality traits have been shown to be risk factors for depression (Kendler & Myers, 2010; Hakulinen et al., 2015). Clarifying the relationship between personality traits and depression will allow for determining which personality traits constitute a risk factor for the etiology of depression and, accordingly, adopting more effective treatment/therapy methods (Alizadeh et al., 2018; Flett et al., 1995). In this study, the personality-depression relationship was examined by using the five-factor personality model, taking both the factors as first-order structures and the factor components as second-order sub-dimensions. Thus, it was tried to determine which personality traits are effective in predicting depression. In line with what was stated previously (Kendler & Myers, 2010), as expected, all five of the five factors measured as personality measurements were found to be risk factors for depression.

However, the factors Neuroticism, Extraversion, and Conscientiousness were clearly associated with depressive symptoms. In two different depression measurements, the effect of the Neuroticism factor was evident as stated in the literature (Barnhofer & Chittka, 2010; Jylhä & Isometsä, 2006; Kotov et al., 2010; Malouff et al., 2005; McCrae & John, 1992; Takahashi et al., 2013). As a sub-dimension of the factor component, the effect of Self Assureness came to the fore. Additionally, the effect of Emotional Lability as a component of the Neuroticism factor was observed in one of the depression measures.

In addition, as factor component second-order sub-dimensions, it was determined that Liveliness, Agreement/Reconciliation, Rules Boundness, and Excitement-seeking predicted depression scores in the results of multiple regression analysis. MANOVA results confirm the regression analysis results. The fact

that the results obtained for two different depression measurements in the same study are largely similar but contain differences reveals the importance of how depression is measured. Different measurement tools capture different areas of variance. However, this difference is also evidence that both measurements are inadequate compared to each other in measuring depression.

In this study, since it is known that there are gender differences in personality traits (Goodwin & Gotlib, 2004; Schmitt et al., 2016; Vianello et al., 2013), only women were included by controlling the gender factor. There are other risk factors for depression such as age, family history of mood disorders, substance abuse, low level of social integration and social interaction (Hölzel et al., 2011). The fact that these risk factors were not controlled in this study is an important limitation of the study.

This study examined personality traits for depressive risk factors, controlling for gender. It seems difficult to draw causal conclusions between personality traits and depression due to the cross-sectional nature of the study and the lack of control of some confounding variables in terms of depression. Therefore, it is understood that longitudinal studies in which the mentioned confounding variables are controlled are needed to obtain more reliable results.

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