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Please cite this article ANALYSIS OF PERSONALITY DISORDER PROFILES OBTAINED BY FIVE-FACTOR PERSONALITY MODEL

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UDC:

DOI: https://doi.org/10.2298/VSP180424175P

When the final article is assigned to volumes/issues of the Journal, the Article in Press version will be removed and the final version appear in the associated published volumes/issues of the Journal. The date the article was made available online first will be carried over.
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Abstract

Background/Aim: In spite of the growing body of evidence in the field of personality disorders, these disorders still retain the lowest diagnostic reliability of any major category of mental disorders. The aim of this study was to investigate the differences of personality profiles in patients diagnosed with personality disorder in comparison with the group of healthy control subjects, as well as to establish to what extent the five-factor personality model domains determine the specific clusters of personality disorders.

Methods: The study group was comprised of 97 patients diagnosed as personality disorders (according to DSM-IV criteria), aged between 18 and 65 years (M=35.78 years, SD=13.72), 67% were female. Control group included 58 healthy subjects (student population) aged between 20 to 35 years (M=22.48, SD=2.56), 56% were female. The assessment was carried out by the new version of NEO Personality Inventory-Revised (NEO-PI-R), form S and Structured Clinical Interview (SCID II) for DSM-IV disorders.

Results: The three clusters were found by the use of regression analysis: cluster A-eccentrics (low scores in agreeableness), cluster B-dramatics (high score in extroversion, low score in agreeableness, and cluster C-anxious (low score in extroversion). The findings have shown that the high level of neuroticism is a non-specific predictor of all three clusters, while dimension openness to experience had no predictive power for any of the three clusters.

Conclusions: Our findings support the meta-analysis which suggests consistently high level of neuroticism and low level of agreeableness in most personality disorders. The study has shown that it is possible to conceptualize personality disorders by using five-factor personality model of normal personality. Integrating the psychiatric classification with the dimensional model of general personality structure could enable the uncovering of essential parameters for setting the diagnosis.

Keywords: personality profile, personality disorders, five-factor model, neuroticism

Apstrakt

Uvod/Cilj: Uprkos rastućem broju istraživanja u oblasti poremećaja ličnosti, ove poremećaje karakteriše najniža dijagnostička pouzdanost u odnosu na sva druga psihijatrijska oboljenja.

Cilj ovog rada bio je da se ispitaju razlike profila ličnosti kod ispitanika sa dijagnozom poremećaja ličnosti u odnosu na kontrolnu grupu zdravih ispitanika i da se utvrdi koliko domeni petofaktorskog modela ličnosti doprinose određivanju specifičnih klastera poremećaja ličnosti.

Metode: Studijsku grupu činilo je 97 ispitanika sa dijagnozom poremećaja ličnosti (prema DSM-IV kriterijumima), starosti od 18 do 65 godina (M= 35,78 godina, SD=13,72), od kojih je 67 % ženskog pola. Kontrolnu grupu činilo je 58 zdravih ispitanika (studentska populacija), starosti od 20 do 35 godina (M= 22,48 godina, SD=2,56) od kojih je 56% ženskog pola. Primjenjeni su Revidiran novi upitnik ličnosti, forma S - NEO-PI-R i Instrument za procenu poremećaja ličnosti - Strukturisani klinički intervju SCID II.
Rezultati: Na osnovu regresione analize dobijeno je rešenje za tri klastera: klaster A - ekscentrici (niski skorovi na saradljivosti), klaster B - dramatici (visoki skor na ekstroverziji i nizak skor na saradljivosti) i klaster C - strašljivci (nizak skor na ekstroverziji). Rezultati pokazuju da je visok nivo neuroticizma nespecifični prediktor sva tri klastera, a da dimenzija otvorenost nema prediktorsku snagu ni za jedan klaster poremećaja ličnosti.

Zaključak: Dobijeni rezultati su u skladu sa nalazima meta-analiza koji ukazuju na konzistentno visok nivo neuroticizma i niske saradljivosti kod većine poremećaja ličnosti. Naša studija pokazuje da je na ispitivanoj populaciji moguće konceptualizovati poremećaj ličnosti primenom petofaktorskog modela normalne ličnosti. Integracija psihijatrijske klasifikacije i dimenzionalnih modela ličnosti omogućila bi iznalaženje esencijalnih parametara za postavljanje dijagnoze.

Ključne reči: profil ličnosti, poremećaji ličnosti, petofaktorski model ličnosti, neuroticizam

Introduction

Current nosological systems (DSM, ICD) assume that there are qualitative differences between healthy personality and personality disorder, as well as between specific types of personality disorders. The existing ICD-10 categorical perspective, based on the arbitrary nature of the given criteria and their threshold limit values, leads to a significant diagnostic overlapping, insufficient homogeneity and insufficient stability of diagnostic categories of personality disorders.

The need to reconceptualize personality disorders as dimensional taxonomies came as a result of numerous empirical studies conducted both on clinical and general population. According to the available literature, the basic domains of five-factor model have consistently proven to represent the common dimensions of healthy personality structure and personality disorders. In addition, the healthy personality domains could account for a significant part of variance of personality disorder syndrome.

Widiger and Costa suggested a model which implies that the personality disorder categories (DSM-IV-TR) are maladaptive and/or are extreme versions of the domains and facets of the five-factor personality model. Some other authors directed their research more specifically towards particular categories of personality disorders. Hence, Samuel et al. find that borderline personality symptoms lie alongside the same latent dimension as the neuroticism dimension of the five-factor model. In addition to neuroticism, the existence of significant comorbidity of personality disorders as well as other five-factor model dimensions were found.

The aims of this study were: a) to investigate the differences in personality profiles by applying NEO-PI-R in subjects diagnosed with personality disorder in comparison with the control group of healthy subjects, and b) to establish to what extent each NEO five-factor model domain contributes in determining the specific personality disorder clusters - eccentric (A), dramatic (B), anxious (C).
Methods

Sample

The study included 155 subjects divided into two groups. The study group was comprised of 97 patients of the Institute for Mental Health in Belgrade diagnosed as personality disorders (according to DSM-IV criteria), aged between 18 and 65 years (M=35.78 years, SD=13.72), 67% were female. Control group included 58 healthy subjects (student population) from Psychology Department of Faculty of Media and Communications, Singidunum University, Belgrade, aged between 20 to 35 years (M=22.48, SD=2.56), 56% were female.

Assessment

*The Revised NEO Personality Inventory, form S*9

NEO-PI-R is a questionnaire with 240 statements and a broad range of answers: the level of agreement or disagreement with item content is shown on Likert 5-point scale ranging from 0 (strongly disagree with the statement) to 5 (strongly agree with the statement). The Questionnaire is based on the five-factor model of personality interpreting the five basic dimensions (domains): neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. Each measurement scale includes six subscales which measure so-called facets or aspects, with eight items per subscale (five domains and 30 specific traits – one domain comprises six specific personality traits).

*Structured Clinical Interview SCID II*10

Structured Clinical Interview for DSM-IV Axis II Personality Disorders was used to assess personality disorders. The interview includes 125 yes or no questions. Afterwards, the positive answers are tested by using a semi-structured interview. Positive answers which indicate pathological, permanent, and all-embracing quality of conduct covered by the question are accepted as a sign of the presence of the symptoms. The instrument shows the total number of symptoms (0-9) in a subject on every of the 10 categories of personality disorders, as well as severity of personality disorder through the total number of personality disorder diagnoses (subject scores threshold limit value for the diagnosis on one, or more than one of the 10 categories of personality disorders).

Data analysis

Cronbach’s alpha was used to estimate the reliability, while the results were analyzed by the use of descriptive statistics and the one-way analysis of variance (ANOVA). In order to check the predictive role of personality domains in subjects with personality disorders, regressive analysis was carried out with the domains such as
neuroticism, extroversion, openness to experience, agreeableness and conscientiousness as predictive variables, and personality disorder clusters A, B, and C as criterion variables.

Results

According to Cronbach’s α coefficient, high reliability/internal consistency was found for domains N (α=.928) and C (α=.920), while the reliability of the remaining NEO domains, E (α=.877), O (α=.872) and A (α=.871) was good.

In our study group, the average number of personality disorder diagnoses was 2.84 (from 1 to 7), whereas one third of the subjects were diagnosed with a personality disorder (n=29; 29.9%).

Descriptive statistic factors and F-multipliers of NEO-PI-R shows in table 1.

Table 1 about here

ANOVA statistical test detected statistically significant differences in all domains of NEO-PI-R questionnaire. What is more, the subjects of our study had higher scores for N dimension (F = 83,421, p < .001), and lower scores for the remaining NEO domains in comparison with the control group of healthy subjects.

Regressive analysis results have shown that the coefficient of determination we obtained was statistically significant for all three criterion variables: cluster A - eccentrics \( (R^2=.268, F = 10,888, p < .01) \), cluster B - dramatics \( (R^2 = .427, F = 22,227, p < .01) \) and cluster C - anxious \( (R^2=.313, F = 13,570, p < .01) \).

After establishing statistical significance of all three models, specific predictive structures were set up for all three criterion variables as well. For cluster A – eccentrics, statistically significant predictors were N domains \( (β = ,006, t = 2,832, p < .005) \) and A \( (β = -.010, t = -4,091, p < .01) \). The most important predictors for cluster B – dramatics were N \( (β = ,013, t = 4,932, p < .001) \), E \( (β = ,008, t = 2,298, p < .001) \) and A \( (β = -.017, t = -5,607, p < .001) \), while predictive variables N \( (β = ,013, t = 4,974, p < .001) \) and E \( (β = -.008, t = -2,398, p < .005) \) accounted for 31.3% of variance of cluster C - anxious.

Discussion

Our findings have shown that people with and those without personality disorder diagnosis differ regarding intensity of all NEO domains, which is in accordance with previous findings - higher scores for N and lower scores for E, A, O and C have been confirmed in subjects diagnosed with personality disorders

Based on the personality profile we obtained by applying NEO-PI-R, the subjects of our study diagnosed with personality disorders are upset, low-spirited, perceiving life as difficult (low cores for N dimension combined with low scores for E), suspicious of other people’s intensions, cynical, egocentric, vindictive, antagonistic, competitive, preferring familiar environment, less prepared for any change (inflexibility), leading to frequent experience of negative affectivity in stressful situations (combination of low O and A). If lower scores for O dimension are interpreted as rigidity (having in mind that cognitive and
affective inflexibility lead to numerous disorders), then the results of our study showing that the subjects with personality disorders had lower scores for this dimension in comparison with healthy subjects could be regarded as convincing.

A combination of high N and low C scores in subjects diagnosed with personality disorders suggests more impulsive reactions, riskier behavior, and greater inclination towards substance abuse comparing to control group of healthy subjects. Additionally, a combination of high N and low A scores suggests a specific style of anger control in subjects diagnosed with personality disorders in comparison with the group of healthy subjects: it is easier for them to get angry; they are more direct in expressing their rage; they are inconsiderate of how their rage affects others; they are more prone to physical violence and verbal abuse.

NEO domains are accountable for a third of variance referring to each personality disorder cluster (from 26.8% to 42.7%), which is compatible with resent findings of Nestadt et al. Our findings support other authors’ claim that possible solution to this problem could be integration of dimensional models of personality disorders and those of healthy personalities.

High neuroticism (emotional instability) is a common feature of all personality disorder clusters. Differential diagnostic relevance is attributed to extraversion which makes diagnostic difference between dramatic cluster (positive pole) and anxious cluster (negative pole). Low agreeableness is typical of eccentric and dramatic clusters, which is not the case with anxious cluster. Our findings support the meta-analysis which suggests consistently high level of neuroticism and low level of agreeableness in most personality disorders.

This study has several limitations to be considered in the interpretation of the results. The study sample was relatively small. We did not perform objective assessment of comorbid mood and anxious disorders, therefore influence of state on a personality trait was conducted only by clinical assessment, which was made in the phase of clinical remission.

**Conclusion**

The results of this study confirmed that it was possible to conceptualize a personality disorder by the use of five-factor model of normal personality on the studied population. High neuroticism has diagnostic value for personality disorders, and other domains have differential diagnostic relevance. Integrating the psychiatric classification with the dimensional model of general personality structure could enable the uncovering of essential parameters for setting the diagnosis.

**Acknowledgment:**

This study was supported by the Ministry of Science, Republic of Serbia (project no. ON175013).
REFERENCES


Prilozi

Table 1

Descriptive statistic factors and F-multipliers of NEO-PI-R (n=155) domains

<table>
<thead>
<tr>
<th>NEO domains</th>
<th>Sample</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>F</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism (N)</td>
<td>N1</td>
<td>164.53</td>
<td>25.527</td>
<td>86</td>
<td>22</td>
<td>3</td>
<td>83.421</td>
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<tr>
<td></td>
<td>N2</td>
<td>126.22</td>
<td>24.816</td>
<td>75</td>
<td>19</td>
<td>0</td>
<td>19</td>
<td>153</td>
</tr>
<tr>
<td>Extroversion (E)</td>
<td>N1</td>
<td>142.23</td>
<td>22.453</td>
<td>77</td>
<td>19</td>
<td>3</td>
<td>27.881</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>N2</td>
<td>160.03</td>
<td>16.094</td>
<td>11</td>
<td>19</td>
<td>5</td>
<td>153</td>
<td>.000</td>
</tr>
<tr>
<td>Openness to experience (O)</td>
<td>N1</td>
<td>160.51</td>
<td>21.807</td>
<td>10</td>
<td>20</td>
<td>8</td>
<td>6.375</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>N2</td>
<td>169.52</td>
<td>20.985</td>
<td>11</td>
<td>21</td>
<td>2</td>
<td>153</td>
<td>.013</td>
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<td>Agreeableness (A)</td>
<td>N1</td>
<td>161.07</td>
<td>21.556</td>
<td>10</td>
<td>20</td>
<td>6</td>
<td>11.372</td>
<td>153</td>
</tr>
<tr>
<td></td>
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<td>172.52</td>
<td>18.430</td>
<td>13</td>
<td>21</td>
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<td>Conscientiousness (C)</td>
<td>N1</td>
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<td>21</td>
<td>4</td>
<td>27.106</td>
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<tr>
<td></td>
<td>N2</td>
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<td>19.291</td>
<td>12</td>
<td>21</td>
<td>3</td>
<td>153</td>
<td>.000</td>
</tr>
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</table>

Legend: N1 = 97 (study group diagnosed with personality disorders); N2 = 58 (control group without personality disorder diagnosis).

Received on April 24, 2018.
Accepted on October 31, 2018.
Online First November, 2018.