

PERSONALITY TRAITS AND PSYCHOPATHOLOGICAL FACTORS WITH PREDICTIVE VALUE FOR DELINQUENT BEHAVIOR

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Abstract

There is a wide range of studies linking Eysenck's model of personality with delinquency. Nevertheless, the results are contradictory and less well documented for adolescents. In this paper we aim to explore the link between the personality traits of the Big-Five model and the presence of a conduct disorder. In order to develop efficient prevention programs for delinquent behavior, we also realized a regression analysis in order to identify significant predictors for conduct disorder. The results obtained for 266 subjects with delinquent and non-delinquent behavior confirm some of the results in the literature, emphasizing the importance of a reduced consciousness and high emotional instability for the development of a conduct disorder. Other significant predictors for conduct disorder proved to be: social problems, thinking problems, rule breaking and aggressive behavior.

Keywords: delinquency, conduct disorder, personality, psychopathology, prevention

Introduction

Various studies (Forest, 1977; Eysenck, 1977; van Dam, Janssens, & De Bruyn, 2005; van Dam, De Bruyn, & Janssens, 2007; ter Laak, de Goede, Aleva, Brugman, van Leuven, & Hussmann, 2003; Moore, 2001) tried to identify whether delinquency is associated with a particular personality type.

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Most studies have tried to explain delinquent behavior in terms of two types of personality theories: psychodynamic theories and features theories. According to these theories, delinquent behavior is the outsourcing of internal pathology (Moore, 2011).

The explicative model of delinquent behavior in terms of Eysenck's proposed theory of personality is the best documented (van Dam & al., 2007; van Dam & al., 2005). Eysenck states that delinquents have high scores in all three dimensions of his model: psychoticism (P), neuroticism (N) and extraversion (E). Although most studies confirm a high level of psychoticism, the results are inconclusive regarding the neuroticism and extraversion (van Dam & al., 2007; van Dam & al., 2005).

Eysenck considers that his proposed personality factors have a biological basis. They are related to delinquency through the central nervous system's activity (van Dam & al., 2007). Due to the functioning of the central nervous system, delinquents are less sensitive to punishment, which leads to low level of compliance and, respectively, a smaller development of consciousness.

The personality features most commonly used in psychology today is the five factor model (Big Five Model) developed by Costa and McCrae (as cited in Sava, 2008). Regarding the relationship between this model study of personality and delinquency studies are scarce and sometimes contradictory. Even fewer studies have been able to highlight the relationship between delinquency and the five factors of personality for teenagers and preteens.

In the present study, we aim to capture the relationship between the Big-Five model dimensions and the presence of conduct disorder, in order to identify personality factors that may have predictive value for the development of conduct disorder and delinquent behavior.

Objectives

The overall objective of this research was to identify the personality dimensions and psychopathological aspects which may be predictive for the development of conduct disorder and delinquent behavior. More specifically, it aims at the following specific objectives:

1. Comparison of personality traits included in the Big-Five model of two groups of adolescents and preteens: without delinquent behavior and with delinquent behavior.
2. Identifying personality traits predictive of delinquent behavior.
3. Identifying predictive psychopathology factors for delinquent behavior.

Method

Study assumptions

In this study were tested the following assumptions:

- (1) Subjects in the control group scoring higher conscientiousness, agreeability and emotional stability, compared to the group of subjects with delinquent behavior.
- (2) Subjects in the control group had lower scores for extraversion dimension, compared to group of subjects with delinquent behavior.
- (3) There is a positive correlation between the extraversion level and score for conduct disorder.
- (4) There is a negative correlation between the score for conduct disorder and for the opening score, agreeability, conscientiousness and emotional stability.
- (5) There is a positive correlation between the score for conduct disorder and psycho-emotional disorders and score for thinking.

Participants

The study involved 266 adolescents and preteens aged from 11 to 18 years ($m=14,17$; $SD=1,41$). Of these 140 were boys (52,7%) and 126 were girls (47,3%).

Adolescents were contacted and enrolled throughout five schools in Arad county, from both urban and rural communities. They were the control group ($N = 136$) of subjects without a history of delinquent behavior. Also participated in the study were 130 teenagers and preteens from Oituz Placement Centre of the Direction of Social Assistance and Child Protection in Arad. The second group consisted of the subjects with at least one delinquent behavior. For each subject included in the study the consent of one parent or a legal representative was obtained.

The instruments used

The Empirically Based Assessment Achenbach System (ASEBA) by Thomas M. Achenbach and Leslie Rescorla, contains a set of questionnaires assessing competencies, adaptive functioning and problems of children and adolescents (Achenbach, Becker, Döpfner, Heiervang, Roessner, Steinhausen, & Rothenberger, 2008; Rescorla, 2005). This was adapted for the Romanian population and it is presenting a structure and factorial validity similar to the adaptations in other countries (Ivanova, Achenbach, Rescorla, Dumenci, Almqvist, Bilenberg, Bird, Broberg, Dobrea, Döpfner, Erol, Forns, Hannesdottir, Kanbayashi, Lambert, Leung, Minaei, Mulatu, Novik, Oh, Roussos, Sawyer, Simsek, Steinhausen, Weintraub, Winkler, Metzke, Wolanczyk, Zilber, Zukauskienė, & Verhulst, 2007).

ASEBA evaluates the behavior of children and adolescents between 6-18 years and consists of three questionnaires: a behavioral assessment questionnaire for children addressed to parents (CBCL 6-18), a self-assessment questionnaire (YSR) and a behavioral assessment questionnaire for children addressed to teachers (TRF). Based on the ASEBA scales we can assess adaptive functioning of children between 6 and 18 years old and the following categories of problems: Anxiety / Depression (I), loneliness / depression (II), somatic complaints (III), social relationship problems (IV), problems with thinking (V), attention problems (VI), inattention, hyperactivity / impulsivity, violation of rules behavior (VII), aggressive behavior (VIII). In terms of DSM criteria these problems cover the following disorders: affective disorders, anxiety disorders, somatic disorders, attention deficiency disorder / hyperactivity, oppositional-defiant disorder, conduct disorder.

DECAS personality inventory. The DECAS personality inventory was developed and validated on Romanian population to assess the five personality dimensions included in the Big-Five model proposed by Costa and McCrae (as cited in Sava, 2008). Therefore, the inventory measures five scales corresponding to the five dimensions of personality: openness (D), extraversion (E), Conscientiousness (C), Agreeableness (A) and Emotional Stability (S). Each dimension is assessed by answering the 18 items. The answer may be "Yes" or "No". In addition to the five scales mentioned, the inventory also has three scales of validating the Protocol: social desirability (SD), Responses to random (RD) and Approval (PA).

Validation studies indicate good internal consistency, with Cronbach's Alpha coefficients of between .66 and .81. Also, correlations with other scales of personality inventories show a good concurrent validity (Sava, 2008).

Procedure

The clinical interview and administration of questionnaires were conducted after obtaining consent from parents or a representative of the Oituz Placement Centre of the Direction of Social Assistance and Child Protection in Arad, for the respective subjects aged between 16 and 18 years old. After completing all items of the questionnaire, subjects were asked whether they wish to add other things that were not mentioned during the discussion. Due to lack of literacy or tediousness to read / write of many subjects, in order for the questionnaires to be completed a form of free discussion was organized, each question being scored properly by the responses received.

The information provided was confidential and the subject's responses were not shared with parents or guardians. For obtaining a more complex data set we correlated quantitative and qualitative methods, with information obtained from specialized personnel and from the subject's file. The first questionnaire completed was the DECAS which was followed by the YSR. This order was maintained for all subjects.

Variables and design

To test hypotheses (1) and (2) a comparative study was carried out, a single independent sample factor design, having as the independent variable the invoked presence of delinquent behavior: a_1 - without delinquent behavior, a_2 - with delinquent behavior. For the assumptions (3) - (5) the design was correlational. Dependent variables included in the study refer to the results of the evaluation system by the ASEBA scales and personality dimensions measured by the DECAS personality inventory.

Presentation and interpretation of the results

After data collection a database was built containing information regarding the study participants and their results. By linking information about the participants with the analysis of the results from each of the dimensions of

the DECAS personality inventory and with the ASEBA evaluation system we developed a comprehensive database.

Comparing personality dimensions group of delinquents and nondelinquents

In the first stage we compared the results obtained for the personality traits in the control subjects and subjects with delinquent behavior. As can be seen from Table 1, respectively Fig. 1, subjects in the control group scored higher than subjects with delinquent behavior for: openness, conscientiousness, and emotional stability agreeableness. Subjects with delinquent behavior have obtained a higher score ($m=12,71$) than the control group ($m=10,36$) for extraversion.

Table 1. Arithmetic mean values of gross scores for the five dimensions of personality in the control group and the group of delinquents

Personality dimensions	Control group	Delinquents group
Opening	7,52	7,31
Extraversion	10,36	12,71
Conscientiousness	11,87	8,02
Agreeability	8,92	5,17
Emotional stability	7,93	5,29

We tested whether the obtained differences were statistically significant using Student's t test for independent samples. According to these results, we have obtained significant differences between the control group and the group of subjects with delinquent behavior at a significance level lower than 0.01, for: conscientiousness: $t=14,782$; $p<.001$; agreeableness: $t=21,491$; $p<.001$, and emotional stability: $t=9,874$; $p<.003$.

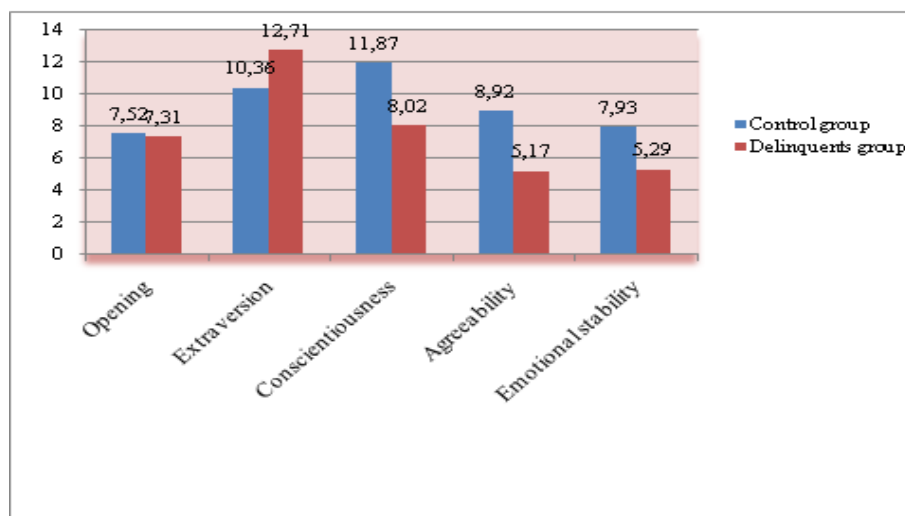


Fig. 1. Dimensions comparing figures for the two groups included in the study

For extraversion there is a significant difference at a threshold $p < .02$ ($t = 5.637$). We can say that delinquent subjects have significantly higher extraversion level. In the case of openness, the difference between the two groups was not statistically significant, because we obtained $t = 0.983$; $p > .65$.

The relationship between personality traits and conduct disorder

To analyze the relationship between intensity of conduct disorder and personality traits we calculated Bravais-Pearson correlation coefficients. After calculating the correlation coefficients we find a significant positive correlation between the score for conduct disorder and extraversion ($r = .33$; $p < .02$), confirming the assumption 3.

Significant negative correlations at a threshold of p less than 0.01 were obtained for conscientiousness ($r = -.72$; $p < .02$), agreeableness ($r = -.54$; $p < .001$) and emotional stability ($r = -.65$; $p < .001$).

The relationship between conduct disorder and psycho-pathological aspects

To identify the psycho-emotional aspects, that may have predictive value for the development of conduct disorder and a delinquent behavior, we studied correlations between scales I-VIII of the ASEBA evaluation system and intensity of conduct disorder. For this purpose we calculated the correlation

coefficients *r* Bravais-Pearson, whose values are summarized in the following table.

Analyzing the correlation coefficients obtained, we find that there are significant positive correlations for all scales that assessed psycho-emotional problems by the ASEBA: anxiety-depression ($r=.23$; $p<.005$), loneliness - depression ($r=.40$; $p<.001$), somatic complaints ($r = .23$; $p < .004$), social problems ($r=.79$; $p<.001$), thinking problems ($r=.38$; $p<.001$), attention problems ($r=.55$; $p<.001$), violations behavior ($r=.93$; $p<.001$), aggressive behavior ($r=.91$; $p<.001$). The higher score is obtained for these scales; even higher is the score for conduct disorder. These results support the last assumption.

Personality traits and psychopathological factors with predictive value for delinquent behavior

To identify which personality traits and which psychopathological disorders are predictive of conduct disorder intensity, we performed a regression analysis, having as dependent variable the score of the ASEBA for conduct disorder.

The ANOVA test is $F=97,867$ at $p<.001$ which means that the model obtained by regression analysis is significantly better than if we would have relied only on the frequency analysis and arithmetic mean obtained. This is underlined by the value of $R^2=.923$, which means that the obtained regression model explained 92,3% of the variation in results.

In Table 2 we can identify personality traits and psychopathological disorders which are statistically significant to predict development of conduct disorder and delinquent behavior by default. The results included in the study sample shows that the significant predictors at a threshold lower than 0.05 are: conscientiousness, emotional stability, social problems, thinking problems, behavior violation of rules and aggressive behavior.

Table 2. Regression coefficients

	Non standardized coefficients		standardized coefficients	t	p	Effect size
	B	Std. Err.	Beta			
(Constant)	93,024	5,209		17,860	,001	,739
opening	,002	,007	,044	,361	,71	,022

Table 2. Regression coefficients - *continued*

	Non standardized coefficients		standardized coefficients	t	p	Effect size
	B	Std. Err.	Beta			
extraversion	,104	,218	,147	,477	,63	,029
conscientiousness	-,537	,187	-,542	-2,689	,007	,163
agreeability	-,024	,026	-,341	-,942	,35	,057
emotional stability	-,519	,196	-,479	-2,648	,01	,160
anxiety-depression	-,256	,382	-,168	-,670	,50	,041
oneliness, depression	-,194	,382	-,094	-,507	,61	,035
somatic complaints	-,231	,371	-,105	-,621	,53	,038
social problems	,223	,105	,120	2,115	,03	,129
thinking problems	,126	,053	,074	2,353	,02	,202
attention problems	,032	,081	,013	,396	,69	,022
violation behavior	1,338	,369	1,041	3,628	,001	,217
aggressive behavior	1,073	,362	1,054	2,963	,004	,179

Note: Dependent Variable - intensity of conduct disorder

Conclusions

The results highlights differences in terms of personality traits in subjects with and without delinquent behavior. The differences obtained between these two groups for extraversion, conscientiousness, agreeableness and emotional stability are in accordance with some previous studies (van Dam et al., 2007; van Dam et al., 2005; ter Laak et al., 2003).

For the results to be conclusive in this area of identifying specific personality features of juvenile delinquency, such research should be undertaken and repeated in a number of studies. We make our contribution through this study to enrich the database and with our results to support the assumptions in this area.

The identified correlations between personality traits and conduct disorder intensity shows that extraversion, conscientiousness, agreeableness and emotional stability can be predictors for the development of conduct disorder and delinquent behavior.

The same approach may also be applied in the case of psycho-emotional disorder assessed by the ASEBA rating system. As shown by the

results, the intensity conduct disorder is even higher with higher scores for emotional problems, somatic, social and thinking.

The performed regression analysis highlights that among personality traits only conscientiousness and emotional stability have a predictive value for conduct disorder. Among psychopathological disorders, those proved to have predictive value are social problems, thinking problems, behavior violation of rules and aggressive behavior.

Making a screening by which to identify personality traits and psychopathological disorders that have proved to be significant predictors can lead to primary prevention of delinquent behavior. Preteens who show a reduced level and high emotional instability conscientiousness, with social problems, thinking problems, violation and aggressive behavior may be included in prevention programs to reduce the risk of delinquent behavior.

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