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Personality-based analysis of resilience and aggressive behaviour: A latent profile approach

Oparta na osobowości analiza odporności i zachowań agresywnych: podejście bazujące na profilach ukrytych

Abstract: Personality traits reflect patterns of thoughts, feelings and behaviour that are characteristic of people. A person who manifests an intensity of certain traits is expected to behave in a manner consistent with the behavioural repertoire accepted for those categories over time. Therefore, in our study, using latent profile analysis (in a person-centered approach), we proposed to replicate personality trait profiles in terms of tendencies toward certain aggressive behaviours and resilience abilities. The study involved 670 people aged 18-29. The study procedure consisted of filling out psychological questionnaires measuring resilience, aggressive behaviour and personality traits. We replicated three personality profiles. Those with the "resilient"

profile scored low on neuroticism and relatively high on conscientiousness, agreeableness and extraversion, in contrast to those with the "overcontrolled" profile, who scored significantly higher on neuroticism and lower on the extraversion domain. The "resilient" profile was characterized by the highest levels of resilience and the lowest levels of aggression. In contrast, the "overcontrolled" profile was characterized by low levels of resilience and high levels of aggression. The "adaptive" profile was the most numerous, with average scores in all Big Five domains and average scores in resilience and aggression. Our study shows that generalizable personality profiles can be identified empirically, and that the unique constellation of traits that define an individual has important implications for a wide range of behaviours including aggressive behaviour and resilience.

Keywords: personality, aggressive behaviours, resilience, person-centred approach**.**

Introduction

Why do people behave the way they do? What characteristics cause a certain regularity to certain behaviours? These questions are fundamental to personality psychology, social psychology, and criminology. Personality traits reflect patterns of thoughts, feelings, and behaviours that are characteristic of people, and they imply a certain cognitive consistency and stability – a person who manifests an intensity of certain traits is expected to behave in a manner consistent with the behavioural repertoire accepted for those categories over time. In view of this, research on personality traits and behaviour is growing in popularity (Denissen et al., 2019; Thielmann et al., 2020). An analysis of the literature on the subject indicates that they take on two main concerns, which are 1) the identification of traits and behaviours that allow for treating humans as individuals, and 2) the identification of traits that trigger tendencies toward certain behaviours, which can consequently lead to the design of an effective application (Coleman et al., 2022; Tasselli et al., 2018). In purpose of verifying the knowledge in this area, in this article we identify profiles of personality traits (Neuroticism, Extraversion, Openness, Conscientiousness and Agreeableness) in people's tendency towards aggressive behaviour (physical aggression, verbal aggression, anger, hostility) and resilience behaviour related to the skills and abilities to cope with difficult situations.

One area in the study of human behaviour is the dimension of aggression (Allen et al., 2018; Ndoro, 2020). There is a consensus among researchers

in this category that they take the form of so-called aggressive behaviours that are expressions of human aggressiveness or otherwise aggressive tendencies or antisocial behaviour. According to the concept of Buss and Perry (1992), aggression is defined both as an individual behaviour and a permanent property manifested in the tendency to behave aggressively (Buss and Perry, 1992). According to Buss and Perry's typology, physical aggression and verbal aggression represent the behavioural components of the aggression construct; anger represents the affective component, and hostility is its cognitive component. Theoretical models proposed to explain aggressive behaviour have been integrated into the general aggression model (GAM; Anderson and Bushman, 2002), providing explanations for why people behave aggressively in terms of three levels: personal and situational factors, internal states, and decision-making processes. According to this model, personal factors (e.g., personality traits) interact with situational factors (e.g., conflicts, perceptions of the situation) to create an internal state that influences decision-making processes, which may or may not result in aggressive responses. The GAM describes personality as a key variable for understanding the personal factors that influence aggressive behaviour. This process occurs through the influence of personality traits on emotions, behaviour, and thoughts (DeWall et al., 2011).

The second analyzed construct that depends on personality traits and is important in aggression prevention is resilience. Resilience can be defined as the result of successfully adapting to difficult or challenging life experiences, especially through mental, emotional and behavioural flexibility (Fullerton et al., 2021). More specifically, resilience can be conceptualized as the behaviours and abilities of individuals to resist or "bounce back from adversity" (Konaszewski, 2020; Smith et al., 2008). According to resilience theory, genetic determinants, personality traits as well as physiological indicators serve as a solid basis for explaining resilience in terms of an individual's abilities, skills as well as health behaviours across the lifespan (Konaszewski, 2020).

The concept of resilience has opened a very important and promising stream of research that contributes to a better understanding of the psychosocial determinants of positive adaptation in children, adolescents and adults, while providing a scientific basis for the development of mental health promotion and prevention programs for mental or behavioural disorders (Liu et al., 2017). In addition, the results of the study confirm that positive relationships between resilience and extraversion, openness, agreeableness, conscientiousness. Also confirmed a negative relationship between resilience and neuroticism (Oshio et al., 2018). In this area, attention can be drawn to the construct of negative resilience. Negative resilience, a concept

highlighted in recent research, refers to the misperception of one's resilience capabilities, leading to an overestimation of self-reliance and response capacity. This overestimation can result in personal fragility, especially under challenging conditions and crises. While independence is crucial for mental health (Wells, 2010), it must be balanced with a realistic assessment of one's abilities and the risks involved. Negative resilience manifests in two ways: first, when aspirations exceed actual resilience capabilities, resulting from underestimating risks or overestimating one's abilities (Tudor, 2011); second, when existing resilient structures or assumptions fail, thus preserving inappropriate or undermining views instead of enhancing resilience (Béné et al., 2012). This phenomenon is distinct from vulnerability, which is shaped by preset conditions. Instead, negative resilience is about believing one has made adequate preparations, while in reality, these preparations are insufficient, leading to greater exposure and fragility. This misperception places individuals at risk despite their efforts, differing from adaptive resilience trade-offs that embrace true adaptive capacity (Béné et al., 2011; Lauer et al., 2013). All these arguments point to the possibility of explaining resilience according to the identified personality profiles.

The Big Five is one of the most recognized theories of personality traits. According to Costa and McCrae (1985), the model allows the measurement of five personality traits: Neuroticism (i.e., the tendency to experience negative emotions, such as depression or shame), Extraversion (i.e., the tendency to seek companionship, experience positive emotions and interact with others and the world), Openness to Experience (i.e., openness to different ideas, emotions, values), Conscientiousness (i.e., the ability to defer gratification, persevere in the face of difficulties, and consider the consequences of one's behaviour before taking action), and Agreeableness (i.e., a positive or negative attitude toward other people; a type of personal orientation manifested in altruism or antagonism) (Costa and McCrae, 1985, 1992). They make up the universal structure of personality, or, as McCrae (2009) metaphorically put it, the universal physics of personality (McCrae, 2009). Arguing in favour of this rather strong thesis are the results of a huge number of studies, including many cross-cultural studies (Jiang et al., 2022; Soutter et al., 2020). In addition, the Big Five taxonomy can be used in research across the lifespan, even in childhood (Shiner and DeYoung, 2013), and is useful for understanding the relationship between personality traits and aggressive behaviour (Jiang et al., 2022). Also, DeYoung (2015) in the Big Five "CB5T" cybernetic theory argues for the possibility of an integrative approach in the understanding of personality and points to causal dynamics between personality traits and

characteristic adaptations and behaviours (DeYoung, 2015). Thus, it links the functions and dysfunctions of traits and characteristic adaptations showing their importance over the explanation of psychopathology including, but not limited to, aggression, undesirable behaviour or anger and also health outcomes (well-being or resilience).

A Person-Centred Approach

Most personality research takes a "variable-centred" approach and focuses on isolated personality traits and the associations they have with specific outcomes (Lamers et al., 2012; Leszko et al., 2020). The "person--centred" approach, on the other hand, seeks to identify subtypes of individuals, and in this regard attempts to build a more coherent explanation of personality functioning by incorporating a description as if of the whole person (Donnellan and Robins, 2010; Fisher and Robie, 2019). This approach assumes that there may be many unobserved subgroups in a population, and that the relationships between traits may differ across subgroups (Daljeet et al., 2017). By identifying subsets of individuals with similar trait configurations, researchers can gain greater insight into understanding the underlying mechanisms that cause both within-person variation and between-person differences in observed dimensions (Isler et al., 2017). By studying personality as a whole, researchers are better able to understand how, in the context of a person (rather than just individual traits), certain behaviour (Howard and Hoffman, 2018) or outcomes in a specific area such as health can be predicted (Ahmed et al., 2021).

In developing a better understanding of personality from a person--centred perspective, a number of studies have used this approach to establish latent personality profiles of the Big Five traits (Fisher and Robie, 2019; Specht et al., 2014). In this regard, Robins et al. (1996) were among the first to demonstrate three types of individuals, which they called "ego-resilients," "overcontrollers," and "undercontrollers," using terminology derived from Block's self-regulation theory proposed in the 1970s (Block, 2014). Most studies have consistently suggested just these three latent profiles (resilient: with low neuroticism, high conscientiousness and extraversion; undercontroller: with low conscientiousness and agreeableness; and overcontroller: with high neuroticism and low extraversion) (Asendorpf et al., 2001; Robins et al., 1996) or pointed to their derivatives: maladaptive, adaptive, and highly adaptive (Fisher and Robie, 2019), or well-adjusted, reserved, and excitable (Merz and Roesch, 2011). A number of studies have analysed these personality types in various samples, including children and adults in general and

clinical populations. It should be noted that these studies have produced mixed results – most studies have reproduced these personality types, but others have also indicated more than three profiles (Li et al., 2021). On this basis, personality profiles have been used to predict crime (Herzberg and Hoyer, 2009). 91 offenders were administered the NEO Five Factor Inventory (NEO-FFI, aggression (Dam et al., 2021; Grumm and von Collani, 2009), educational indicators (Donnellan and Robins, 2010), or health indicators (Li et al., 2021), among others.

Aim of Study

In our research, with the use of latent profile analysis[1] (in a person-centred approach) we proposed to replicate personality subtypes in the tendency to specific aggressive behaviours and resilience abilities. First, the purpose of our research was to identify profiles based on the Big Five traits (neuroticism, extraversion, conscientiousness, agreeableness and openness). Second, the goal was to verify the identified profiles based on aggressive behavior and resilience. With this approach, the following research problems were posed:

1. What personality profiles, given the Big Five personality traits, will be identified in the study group?
2. What is the relationship between the identified personality profiles and aggressive behavior and resilience?

The study formulated the following hypotheses: Using latent profile analysis and building on previous studies (Asendorpf et al., 2001; Dam et al., 2021; Donnellan and Robins, 2010), it was hypothesized that at least three profiles of individuals with different intensities of personality traits would be identified. The primary hypotheses regarding the differences between these profiles in terms of the severity of personality traits focused on individuals with low and high levels of aggressive behaviour (Dam et al., 2021; Grumm and von Collani, 2009) and those with low and high levels of resilience (Asendorpf et al., 2001; Robins et al., 1996). It was expected that people with high levels of resilience and low levels of aggressive behaviour would be characterized by higher Conscientiousness and Agreeableness, and their Neuroticism would be lower. In contrast, those with higher levels of aggressive behaviour and low levels of resilience

[1] Latent profile analysis (LPA): it is a type of mixture modeling that uses a person-centred approach to classify individuals from a heterogeneous population into homogenous subgroups.

would be characterized by higher Neuroticism and lower Agreeableness and Conscientiousness scores.

In justifying the choice of study group, we assume that most of the research focuses on adulthood, while personality development from adolescence to emerging adulthood remains relatively unexplored if variables related to personality traits, as well as resilience, are taken into account (Asendorpf, 2002). The structure of personality at this age predicts a number of important future outcomes, in areas such as parenting, internalizing and externalizing problematic behavior and also educational outcomes or future occupation (Asendorpf et al., 2008).

Method

Participants

The study included 670 people (70.45% women) aged 18–29 years (M = 22.55, SD = 3.77). Conducted from May 2022 to October 2022, the study was conducted with the approval of the Ethics Committee of the Faculty of Education, University of Bialystok. The sample consisted of students and graduates of pedagogy (N = 185), economics and management (N = 89), law (N = 79), psychology (N = 56), social work (N = 45), informatics (N = 44), nursing (N = 40), philology (N = 39), sociology and history (N = 37), biology and chemistry (N = 29) and mathematics (N = 27). The invitation to participate in the study was sent through the University of Bialystok platform. Individuals were informed of the voluntariness and anonymity of the study, and that they could withdraw from the survey at any stage, and that the results would only be presented in aggregate form. The recruitment criterion was age (minimum 18 years).

Measures

The Buss-Perry Aggression Questionnaire (BPAQ) was used to measure aggressive behaviour (Buss and Perry, 1992), with the Polish version developed by the Amity Institute in Warsaw, Poland (Siekierka, 2005). The questions in the tool refer to an isolated type of aggressive behaviour, to which the respondent is asked to assign a specific type of rank on a 5-point scale (from 1 – does not fit me at all to 5 – fits me completely). The tool examines four types of aggressive behaviour: physical aggression (α = 0.85), verbal aggression (α = 0.72), anger (α = 0.83), and hostility (α = 0.77). The general factor of aggression showed an alpha coefficient of 0.89.

Personality traits were measured using Costa and McCrae's (1985) self-descriptive NEO-FFI Personality Inventory, in Polish (Zawadzki et al., 1998). This inventory is designed to measure five major personality domains:

Neuroticism (α = 0.80), Extraversion (α = 0.77), Openness to Experience (α = 0.66), Agreeableness (α = 0.68), and Conscientiousness (α = 0.82). The inventory is a self-report method and contains 60 statements to which the respondent provides answers, ranging from 1 – strongly disagree to 5 – completely agree.

The Brief Resilience Scale (BRS) by Smith et al. (2008) was used to measure resilience, understood as the ability to return or recover from stress. The single scale consists of six items with a 5-point Likert response scale, where 1 means "Strongly disagree" and 5 means "Strongly agree." The Polish version of the BRS has a good internal consistency score (α = 0.88; Konaszewski et al., 2020).

Demographic data were obtained using a questionnaire developed for this study. It included questions about gender (0 = male, 1 = female) and age.

Procedure

For quantitative variables, mean scores were included in the analyses, which were carried out using the IBM SPSS Statistics Version 28.0 package and the mclust package in the R program. The optimal model and the number of profiles were determined using the Bayesian information criterion (BIC), sample size-adjusted BIC (SSABIC), and the entropy coefficient value; and the bootstrap reliability quotient test was also used for the obtained solution (bootstrapped likelihood ratio test – BLRT). The Akaike information criterion (AIC) and BIC provide information on model fit, with lower values indicating an improvement in model fit, while a statistically significant BLRT test result ($p < 0.05$) indicates that a given model is preferred over one with a fewer number of profiles (Berlin et al., 2014). Models with the number of profiles from 1 to 5 were analysed. Multivariate analysis of covariance (MANCOVA) was used to examine differences between Big Five personality profiles in terms of aggressiveness and resilience.

Results

Means, standard deviations, and correlation coefficients of aggression (and its factors: Anger, Physical Aggression, Verbal Aggression, and Hostility), the Big Five personality domains (Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness) and Resilience are reported in Table 1.

Table 1. Means and Correlations (N = 670)

	M *(SD)*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Anger	2.91 (0.76)	-										
2. Physical aggression	2.24 (0.83)	0.47***	-									
3. Verbal aggression	3.10 (0.77)	0.49***	0.45***	-								
4. Hostility	3.15 (0.76)	0.61***	0.38***	0.40***	-							
5. Aggression total score	2.82 (0.61)	0.83***	0.78***	0.69***	0.78***	-						
6. Neuroticism	3.23 (0.77)	0.37***	0.01	0.04	0.49***	0.30***	-					
7. Extraversion	3.24 (0.62)	–0.12**	–0.08*	–0.05	–0.25***	–0.17***	–0.42***	-				
8. Openness to experience	3.18 (0.52)	–0.09*	–0.09*	0.01	–0.03	–0.07	0.10**	–0.01	-			
9. Agreeableness	3.42 (0.57)	–0.47***	–0.56***	–0.58***	–0.44***	–0.65***	–0.11**	0.22***	0.06	-		
10. Conscientiousness	3.53 (0.67)	–0.20***	–0.23***	–0.07	–0.18***	–0.23***	–0.36***	0.32***	–0.04	0.26***	-	
11. Resilience	2.93 (0.86)	–0.20***	0.07	0.02	–0.30***	–0.14**	-0.67***	0.38***	–0.02	-0.03	0.20***	-
Sex		0.06	–0.28***	–0.13**	0.03	–0.11**	0.25***	–0.01	0.10**	0.23***	0.09*	0.29***
Age		–0.02	–0.01	–0.05	–0.09*	-0.06	-0.07	0.01	–0.01	0.04	0.04	0.02

Note. ***p < .001, **p < .010, *p < .050.

Latent Profile Analysis of the Big Five

Table 2 shows the model fit statistics and profile membership distribution of participants for the Big Five personality domains. The average posterior probabilities for the final three-profile model chosen were as follows: Profile 1 = 0.81, Profile 2 = 0.79, and Profile 3 = 0.78. Figure 1 shows the plot of three distinct Big Five personality profiles in the Polish sample (N = 670).

Table 2. Table of Model Fit Statistics for the Big Five Personality Domains (N = 670)

Model	Fit statistics			
	BIC	SSABIC	BLRT	Entropy
One-profile	17220.50	17139.39	NA	NA
Two-profile	16283.77	16157.57	1002.32**	0.79
Three-profile	15944.98	15683.55	879.36**	0.81
Four-profile	16008.20	15898.47	827.65**	0.77
Five-profile	16069.74	15791.85	828.41**	0.78

Note. **p < .010.

Profile 1 participants (n = 133) had relatively high scores on Extraversion, Agreeableness, and Conscientiousness, while displaying relatively low scores on Neuroticism and moderate scores on Openness to Experience. Profile 1 identified 19.85 % of respondents. Profile 2 (n = 68) was characterized by high scores on Neuroticism, low scores on Extraversion, and moderate

scores on Openness to Experience, Agreeableness and Conscientiousness. Profile 2 identified 10.15 % of respondents. In contrast, Profile 3 (n = 469) displayed moderate scores on all the Big Five domains. Profile 3 identified 70 % of respondents (Figure 1).

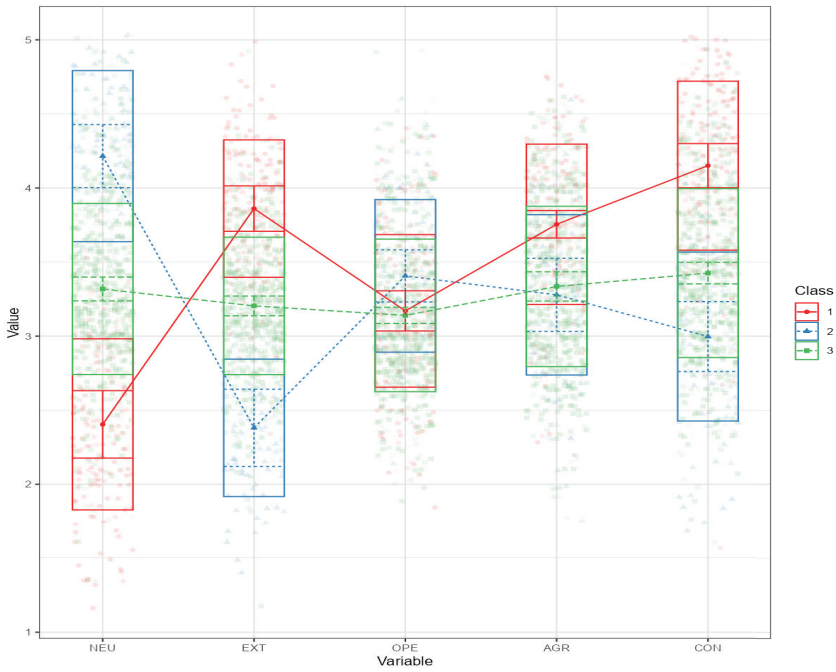

Figure 1. Means of the Three Big Five Personality Latent Profiles
Note. NEU - Neuroticism, EXT - Extraversion, OPE - Openness to Experience, AGR – Agreeableness, CON - Conscientiousness.

Big Five Profile Differences in Aggression and Resilience

Our MANCOVA showed significant differences between the three different profiles on aggression and resilience, Wilks' Lambda $F_{(10, 1180)} = 30.62$, $p < .001$. Follow-up univariate tests confirmed differences between profiles for all aggression variables: Anger, $F_{(2, 594)} = 27.32$, $p < .001$; Physical Aggression, $F_{(2, 594)} = 14.97$, $p < .001$; Verbal Aggression, $F_{(2, 594)} = 4.89$, $p < .01$; and Hostility, $F_{(2, 594)} = 58.78$, $p < .001$. The tests also confirmed the differences between the profiles for resilience: $F_{(2, 594)} = 118.00$, $p < .001$. Profile 1 is low physical and verbal aggression, anger and hostility, and high resilience. Profile 2 is high hostility, moderate verbal aggression and anger, low resilience and physical aggression. Profile 3 is moderate physical aggression, verbal aggression, anger, hostility, and resilience. Post-hoc comparisons (with Hochberg

adjustment) for personality profiles on aggression and resilience subscales are shown in Table 3.

Table 3. Means and standard errors of resilience and aggression in three Big Five latent personality profiles (N = 670)

	Profile 1		Profile 2		Profile 3		
	M	SE	M	SE	M	SE	post hoc
Anger	2.24	0.06	3.14	0.09	3.00	0.03	a, b
Physical aggression	1.89	0.05	2.15	0.09	2.35	0.03	b
Verbal aggression	2.90	0.06	3.08	0.11	3.15	0.03	b
Hostility	2.57	0.06	3.60	0.08	3.25	0.03	a, b, c
Resilience	3.71	0.06	2.11	0.09	2.83	0.03	a, b, c

Note. a = Profile 1 differs from Profile 2; b = Profile 1 differs from Profile 3; c = Profile 2 differs from Profile 3. Standard errors and post-hoc comparisons are based on 95% bias-corrected bootstrapped estimates.

Finally, significant differences in aggression and resilience were also found for sex (0 = male, 1 = female) as a covariate, Wilks' Lambda $F_{(5,594)} = 26.39$, $p < .001$. Follow-up univariate tests showed that males rated themselves higher than females on Physical Aggression, $F_{(1, 594)} = 52.60$, $p < .001$, Verbal Aggression, $F_{(1, 594)} = 13.76$, $p < .001$, and Resilience $F_{(1, 594)} = 57.12$, $p < .001$. No significant differences were found for age as a covariate factor.

Discussion

This study used latent profile analysis to identify groups of people with similar personality traits. Three profiles emerged and were validated using measures of aggression and resilience. The results showed differences between profiles for all aggression variables: physical aggression, verbal aggression, anger, hostility and resilience. In our study, we distinguished three profiles of individuals due to a specific pattern of Big Five personality traits, similar to previous studies (Dam et al., 2021; Donnellan and Robins, 2010; Merz and Roesch, 2011).

Those included in Profile 1 scored high on Agreeableness, Conscientiousness, and Extraversion, and relatively low on Neuroticism. The level of Openness to Experience in this group can be described as moderate. Resilience levels were highest in such a group. In general, these individuals were characterized by emotional stability, determination, sociability and activity, cooperativeness, and self-control. These individuals can be compared to the "resilient" subtype described by Herzberg and Roth (2006) and the

"well-adjusted" described by Merz and Roesch (2011). High levels of these traits (Conscientiousness, Agreeableness, and Extraversion), including low levels of Neuroticism, can act as a "buffer" against aggressive behaviour, which in effect can enable individuals to cope with difficult situations and thrive despite traumatic events and stress. Emotionally balanced individuals are stable, calm, and relaxed. They cope well with difficult life situations. They have no sense of insecurity. Difficult and stressful situations do not throw them off balance. They are able to cope with stress without experiencing anxiety, tension, and irritability. Accounting for the suggestions of Costa and McCrae (1991) that people with higher levels of Agreeableness treat people kindly and are altruistic and ready to help others and believe that in a difficult situation they will get help from others; and a person with higher levels of conscientiousness, who has chalked out their goals, shows determination, and takes their responsibilities seriously; we can conclude that these are important traits in minimizing behaviours that are undesirable (Costa et al., 1991; Gleason et al., 2004). Also, Milad and Bogg (2021) suggested that lower Neuroticism and higher Extraversion, Agreeableness, and Conscientiousness are significantly associated with behaviours that are in line with social norms (Bogg et al., 2021; Milad and Bogg, 2021). In addition, Merz and Roesch (2011) suggest that this personality profile is associated with higher self-confidence and stress coping beliefs, as well as fewer depressive and anxiety symptoms. Thus, it can be concluded that the conglomeration of these traits (high scores on Extraversion, Agreeableness, and Conscientiousness and relatively low scores on Neuroticism) acts as a buffer and in a sense causes individuals to score low on aggressive behaviours including physical aggression, verbal aggression, anger, and hostility. The results also indicate that the system of personality traits determines the ability to overcome difficult situations and resilient behaviour.

Profile 2 was characterized by high scores in Neuroticism, low scores in Extraversion, and moderately scores in the domains of Openness to Experience, Agreeableness and Conscientiousness. This is a profile with a fairly low level of resilience. Similar results were obtained for the overcontrolled profile type (Robbins et al., 1996). Overcontrol refers to excessive inhibition of impulses, delayed gratification, the inhibition of actions and affects, and isolation from environmental distractors (Block and Block, 1980). This range of traits was combined with moderate levels of psychological aggression, anger, and hostility. It can be concluded that Type 2 individuals are more prone to unnecessarily restrict their needs and inclinations, with, as Robin et al. (1996) argued, the "brittle" overcontroller appears immobilized, anxious, and

overwhelmed by a world they perceive as threatening and unpredictable. This profile also confirmed the hypothesis according to which high Neuroticism was usually associated with aggressive behaviour. Neuroticism in a person is described as a general tendency to experience negative emotions (Costa and McCrae, 1992), including higher reactivity to stress, increased feelings of hostility and anger, poor impulse control, and increased sensitivity to frustration and provocation (Bettencourt et al., 2006), which in the case of our profile was evident in increased psychological aggression, anger, and hostility, but not physical aggression. In addition, this profile was characterized by relatively low Extraversion (high Introversion). As suggested by McCrae and Costa (1991), introverted people avoid social contact, which does not imply this person's pessimism or sense of happiness; rather, Introversion is about a certain shyness and secretiveness and the need to be alone, which in our study was associated with increased aggressive behaviour in terms of psychological aggression, anger, and hostility (McCrae and Costa, 1991). These traits suggest that a person with this profile probably enjoys solitude, places more emphasis on their inner world, and behaves more cautiously (McCrae and Costa, 1987). It seems interesting that such a personality profile characterizes people who do not exhibit physically aggressive behaviour, indicating that people with this profile are more likely to suppress and inhibit behaviour that could cause physical harm to another person.

In contrast, individuals in Profile 3 had moderate scores in the Big Five domains, and moderate scores in the four domains of aggressive behaviour (verbal aggression, physical aggression, anger, and hostility). This is the profile with the moderate level of resilience. This was the profile to which the largest number of respondents were assigned. This is a similar profile to the "adaptive" type identified by Fisher and Robie (2019). It can be indicated that the average results in terms of profiles, that they are quite balanced. The average neuroticism score indicates that, in general, people in this profile can be characterized as calm, but sometimes experiencing sadness. The average extroversion indicates that they enjoy interacting with others, but also value privacy. An average openness score indicates that such people try to keep a balance with the traditional and the new. Agreeableness average indicates that they are generally pleasant people but may sometimes have a competitive preference. Average conscientiousness, on the other hand, has specific goals but does not pursue them at all costs (Zawadzki et al., 1998). The results of the profiles agree with the scores on the aggression and resilience scales. Average resilience scores indicate that they know how to handle difficult situations, as they sometimes need support, for example.

Average aggression suggests that, in general, such people are not oriented toward aggressive behaviour, but, for example, in stressful situations they may react with hostility and anger (Gentile and Bushman, 2012).

Jones et al. (2011) argued for the inclusion of personality-related constructs in broader theoretical and empirical efforts in the field of criminology, which is an interdisciplinary science. In this light, our research indicates that certain personality traits arranged in a given profile may be significant indicators of violent behaviour and resilience. With this approach, the disciplines of science become "richer," better theoretically structured, and appropriately empirically grounded (Jones et al., 2011). According to DeYoung's (2015) cybernetic theory, we point out that personality traits with their respective functions and dysfunctions are important for aggression and resilience.

Moreover, in the case of our research, we note that psychological interventions to reduce aggressive behaviour can be focused on learning techniques for resolving conflicts and regulating negative emotional states; learning strategies for recognizing and controlling impulsive behaviour; and identifying and learning about one's personality traits. On the other hand, some studies have indicated that interventions for the adaptive expression of functional needs revealed through problem behaviors (e.g., aggression) can lead to a reduction in the severity of various personality disorders (Daffern and Howells, 2009; Martínez-Ferrer et al., 2019).

Future Directions and Limitations

First, future research may concern itself with the generalization of personality profiles to other populations. This is an empirical question, and it is worth thinking about conducting studies with other populations. We can speculate that the profiles we have identified will also emerge fairly consistently, as in the case of preceding studies. For example, Profile 1, which we described similarly to its predecessors as Resilient, is noted in most studies analysing the Big Five domains (Asendorpf et al., 2001; Grumm and von Collani, 2009). This result is likely to get replicated with other groups. According to Specht et al. (2014), we might also expect to see a higher percentage of older individuals with the resilient profile (presumably reflecting higher levels of maturity) and a lower percentage in delinquent or socially maladjusted populations (Specht et al., 2014). Similarly, profiles 2 and 3 might provide lower scores in the Agreeableness and Conscientiousness domains and higher scores in Neuroticism, for instance in clinical or criminal populations. Second, a future study might fruitfully use the HEXACO trait model (Ashton and Lee, 2007). HEXACO adds Honesty-Humility as a sixth

personality domain. Individuals with high levels of this trait are sincere, honest, and humble, while those with low levels of this trait are manipulative, narcissistic, and self-centred. Thus, it seems that using LPA with this trait in mind could help in understanding aggressive behaviour. One can also focus on analyzing the meta-traits of personality that is, plasticity and stability in cybernetic approach (DeYoung, 2015). Third, the identification of personality profiles is important because it leads to an understanding of individual differences in other variables of interest to researchers. For example, future studies conducted with college students might address differences in profiles in the context of academic dishonesty, coping with stress, or social interactions (Konaszewski et al., 2019).

It is also important to include situations when analyzing variables in terms of the person and behaviour in the future, which may be relevant, for example, to the "personality triad." As Funder (2008) points out, the "personality triad" of person, situation and behaviour, in which each element is understood and predicted in terms of the other two, allows for the development of conceptualization, research and measurement from this area. That is, traits and behaviours can play a significant role in understanding intra-individual differences in situation perception (Funder, 2008; Rauthmann et al., 2015).

Limitations of the current study include the use of a convenience sample of students, self-report instruments, and a cross-sectional design that precludes inferences about personality as a causal mechanism for violent behaviour outcomes. Despite these limitations, this study provides an example of how LPA can be used to model common features between personality and behavioural variables. The study also had the advantage of assessing the level of aggressive behaviour on the basis of four types of variables, including physical aggression, psychological aggression, anger, and hostility. In addition, we want to note that in addition to aggression, the study also analyzed resilience as an indicator of good adaptation and behaviour to cope with difficult situations. Such analysis is in line with the current research trend, which considers both negative indicators (aggression) and positive indicators (resilience).

Conclusion

This study's results serve as preliminary research using LPA to summarize the relationship between personality traits, resilience and aggressive behaviour in order to 1) describe different personality profiles and 2) validate these profiles using other important psychological constructs, in this case aggressive behaviour. We replicated three profiles of personality. Those with

a resilient profile scored low on Neuroticism and relatively high on Conscientiousness, Agreeableness and Extraversion, in contrast to those with a more sensitive profile (overcontrolled), who scored significantly higher on Neuroticism and lower on the Extraversion domain. The "adaptive" profile was the most represented, with average scores in all Big Five domains. Moreover, our research indicates that the Big Five domains accurately predict aggressive behaviour and resilience, for examples, with high Conscientiousness, low Neuroticism, and high Agreeableness predicting successful performance at work (Tett et al., 1991), or high Neuroticism, low Agreeableness, and low Extraversion indicating psychological distress (Oldham, 2010). In other words, our study shows that repetitive and generalizable personality types can be identified empirically, and that the unique constellation of traits that define an individual has important implications for a wide range of behaviours, including aggressive behaviour and resilience.

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