

EXPLORING THE RELATIONSHIP BETWEEN RESILIENCE (PERSONAL STRENGTH), EMOTIONAL STABILITY, EMOTIONAL SELF-CONTROL, ATTACHMENT, AND PERSONAL FEAR OF COVID-19

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Abstract: *The research examines correlational and predictive relationships between resilience (personal strength), emotional stability, strategies of emotional self-regulation, the style of attachment, and personal fear of Covid-19. At this study took part 130 adults (91 women and 39 men), the average age being 39 years old. The results indicated statistically significant medium and high levels of correlation among most of the analysed variables, the greatest correlation being obtained between emotional stability and emotional regulation strategies. Another significant result is the predictive relationship between emotional stability, attachment style and self-perception (subdimension of personal strength), which in turn proved to be a predictor for personal fear of Covid-19.*

Key words: *Resilience, attachment, emotional stability, emotion regulation, fear of Covid-19.*

1. Introduction

In hostile and adverse contexts, whether they were intentional (experiments in death camps, wars, shootings), conjectural (poverty, crime, domestic violence) or accidental (natural catastrophes), there have been individuals who against all vicissitudes underwent deep personal development, turning trials into occasions for growth. For this reason, we found opportune the analysis of the possible characteristics that sustain a successful adaptation of individuals. We approach such analysis from the perspective of the most recent unfavourable context at a global level - the Covid-19 pandemic - during which significant increases were registered in the rates of anxiety, depression, and suicide among the general population (Brenner & Bhugra, 2020).

Resilience (personal strength). The study of resilience was introduced in the field of psychology through the longitudinal studies on child populations from various

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disadvantaged areas (Rutter, 1985; Garmezy et al., 1990; Werner, 1993). The concept did not receive in literature a unanimously accepted definition, being considered in turn: a personality trait (Earvolino-Ramirez, 2007; Southwick et al., 2014) that models negative effects of stress (Wagnild et al., 1993); a human capacity that allows for transformation and change regardless of the risk (Richardson, 2002) and that facilitates successful adaptation after a significant turbulence (Masten, 2007); a process (Masten, 2007) of adaptation in the face of adversity and trauma (Luthar et al., 2000); a model of growth and development (Masten, 2007); a result of behaviour adaptation (psychological resilience) quantified through a state of well-being and good functioning (Garmezy et al., 1990). While these mentioned approaches were conducted at an individual level, more studies have focused on the last years to groups and communities (Bonanno et al., 2015; Masten & Motti-Stefanidi, 2020, as cited in Troy et al., 2023, pp. 549). Considering the conditions of life development influenced by the current epidemics, we consider the analysis of resilience from the perspective of personality traits (personal strength that derives from the perception of the self – self-image - and the perception on the future - openness, optimism, aims, objectives) to be relevant.

Attachment. The Theory of Attachment in adults (Hazan & Shaver, 1987; Pietromonaco & Beck, 2015) represents an extension of Bowlby's Theory of Attachment (1969, as cited in Nofhle & Shaver, 2016, pp. 180) in the case of children, subsequently developed through the research efforts of Bowlby's student (Ainsworth & Bowlby, 1991). The theory explains individual differences of a cognitive, emotional, and behavioural nature that occur from childhood (Bahmani et al., 2023), delineating the so-called attachment styles and which depending on choices and life experiences can be preserved or changed at an adult age depending on the attachment styles of relationship partners and close friends (Brumbaugh & Fraley, 2006). According to the Theory of Attachment, there are insecure attachment styles (anxious, avoidant, disorganised) and secure (Bowlby, 1969, as cited in Delfos, 2018, p. 30). In this research, two general attachment styles were taken into account: secure - insecure.

Emotional stability. The Big Five model represents one of the models that synthesize and operationalise the concept of personality from the point of view of five super factors: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness; super factors that are presented as fundamental psychological dispositions, served by biological structures (Costa & McCrae, 1992a, as cited in Nedelcea, 2015, pp. 179-185). Among the five factors, this research will focus on the analysis of the Neuroticism factor (also called the absence of emotional stability) (Friborg et al., 2005), indicating a chronic level of emotional instability and a tendency to psychological distress (VandenBos, 2020, pp. 380).

Emotional self-regulation. Self-control refers to the ability to have command and control over one's own behaviour (cognitive, emotional, physical, and spiritual levels) by inhibiting and directing impulses (VandenBos, 2020, pp. 70). According to the study conducted by Gratz and Roemer (2004), emotional regulation is not synonymous with emotional control, involving the immediate reduction of negative emotions as outlined by Thompson (1994). Instead, it constitutes a complex phenomenon that involves awareness and understanding of emotions, acceptance of emotions, the ability to

control impulsive behaviours, and to promote behaviours in line with set goals by using appropriate regulation strategies for each context. In this study, two directions for testing and achieving emotional self-regulation (Gratz & Roemer, 2004) were included: impulsivity and emotional regulation strategies.

Fear of Covid-19. According to Pakpour and Griffiths (2020), the fear of Covid-19 has been defined as an unpleasant emotional state triggered by exposure to the threatening stimulus of Covid-19. In December 2019, a series of severe pneumonia cases were reported in the Hubei province (Wuhan) of China. This led to the identification of new strains of coronavirus, belonging to the same virus family that causes the Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). On the 11th of May 2020, the World Health Organisation (WHO) declared the outbreak of the new coronavirus (COVID-19) a global pandemic (Cucinotta & Vanelli, 2020). This pandemic has not only resulted in over 6 million deaths (according to WHO), but it has also caused significant socio-economic disruptions, leading to a substantial increase in cases of depression and suicide (Killgore et al., 2020).

2. Method

2.1. Research Objectives and Hypotheses

This research aims to explore the relationships between resilience (personal strength), emotional stability, attachment, emotion regulation and personal fear of Covid-19. Out hypotheses were:

- H1: Resilience (self-perception and perception of the future) is associated with emotional stability and personal fear of Covid-19.
- H2: Insecure attachment correlate with increased emotional stability, impulsivity, and ineffective emotional regulation strategies.
- H3: Insecure attachment style and emotional stability predict self-perception (as a dimension of resilience).
- H4: Self-perception predicts personal fear of Covid-19.

2.2. Participants and Procedure

The research included 133 participants, aged between 20 and 80 years, with an average age of 39.17 years (SD = 10.24 years). Women make up 70% of the total sample.

The data was collected online using the Qualtrics platform from January 8th to March 18th, 2021. Participants were informed (in writing) about the purpose of the study and confidentiality clauses. Each participant provided written consent to participate in the research. The sample was randomly selected, and participation was voluntary.

2.3. Measure

To measure the *resilience*, we used the Adult Resilience Scale (RSA) (Friborg et al., 2003), a self-reporting instrument developed by the authors, taking into consideration

protective factors described in longitudinal studies by Werner (1989), Rutter (1990), Garmezy (1993), and Cederbland (1996). The version used in this research is the RSA with 33 items, distributed across five dimensions: personal strength (with the subdimensions self-perception and perception of the future), structured style, social competences, family cohesion, and social resources. From these, ten items were selected for testing, belonging to the personal strength dimension. The RSA instrument uses a five-point semantic differential scale; five of the ten items are reversed. Higher scores indicate a lower level of resilience. In this study, RSA proved a good internal reliability for the selected subscale, ranging from .79 to .82.

For the *attachment styles*, the Adult Attachment Questionnaire (AAQ) was applied, consisting of seventeen items that draw upon Hazan and Shaver's (1990) Adult Attachment Theory, distinguishing between three types of attachment (Ravitz et al., 2010): secure attachment, avoidant attachment, and anxious attachment. In the hypotheses outlined, this research used the AAQ's overall score. Scoring was done on a seven-point Likert scale, where 1 = strongly disagree and 7 = strongly agree. The instrument contains six items with reverse scoring. Higher scores indicate the presence of avoidant and anxious attachment styles. In this study, the AAQ demonstrated acceptable internal reliability, with coefficients ranging from .64 to .69.

For the *impulsivity* and *emotional regulation strategies* we utilized the Difficulties in Emotion Regulation Scale (DERS), developed by Gratz & Roemer (2004). The version used in this research is DERS-36, which groups the items into six factors: non-acceptance, goals, impulsivity, conscientiousness, emotion regulation strategies, and emotional clarity. For our study, the impulsivity and strategies subscales were selected, having an internal consistency coefficient ranging from .87 to .91. Scoring was done on a Likert scale of five points, where 1 = almost never, and 5 = almost always. Higher scores indicate a deficit in emotional regulation. The selected subscales contain two items with reverse scoring.

In order to measure the *emotional stability* variable, the Big Five Personality Inventory (Costa & McCrae, 1995) was used. The questionnaire groups items according to five personality factors: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. In the present study, the Short Scale of Factor IV [Emotional Stability] from the Big Five Personality Questionnaire (Iliescu et al., 2015) was applied. Scoring for the ten items was done on a five-point Likert scale, where 1 = almost never, and 5 = almost always. The instrument contains reverse-scored items. A high score indicates a good level of emotional stability. The selected scale for this research proved a good level of internal consistency, ranging from .77 to .89.

The personal fear of Covid-19 was measured by applying The Personal and Altruistic Fear of Covid-19 Questionnaire (Sloan et al., 2020). The scale was developed in the context of the epidemic that started in Wuhan, China, and spread globally, inspired by models of fear of murder and terrorism. The instrument consists of thirteen items, grouped on the two scales: personal fear (six items) and altruistic fear (seven items). For this research, the score of the personal fear of Covid-19 subscale was used. Scoring was done on a four-point Likert scale, where 0 = not worried at all, and 3 = very worried. In this study Cronbach's coefficient range from .94 to .95.

2.4. Data analysis

Data belonging to participants who did not complete the online questionnaire set were excluded. All questions were marked as mandatory; therefore, incomplete information was not included in the database. The preliminary data analysis procedure involved investigating the level of internal consistency of the applied psychological instruments. Subsequently, descriptive statistical indicators were calculated, along with t-tests to check for possible gender differences. Statistical queries were subsequently applied to examine the correlations between variables (by calculating the bivariate correlation coefficient and estimating the effect size), followed by an analysis of regression indicators. The interpretation of the results followed Cohen's (1988) guidelines regarding the thresholds for correlation coefficients and effect sizes.

3. Results

3.1. Descriptive statistics

Descriptive statistical indicators and Pearson correlation coefficients between the research variables are presented in Table 1.

Table 1
Analysis of the intercorrelation matrix for the research variables (Pearson correlation coefficients)

Variable		M (AS)	1	2	3	4	5	6	7	8
1.	Age	39.42 (10.21)	-							
2.	Self-perception	13.49 (4.32)	-.11	-						
3.	Perception of the future	8.82 (3.12)	.01	.60***	-					
4.	Insecure attachment	54.37 (11.86)	.13	.41***	.31***	-				
5.	Impulsivity	10.84 (4.00)	-.07	.54***	.37***	.32***	-			
6.	Emotional regulation strategies	15.22 (6.33)	.21*	.62***	.32***	.37***	.60***	-		
7.	Emotional stability	35.85 (6.06)	.19*	-.63***	-.31***	-.26**	-.47***	-.70***	-	
8.	Personal fear of Covid-19	10.51 (5.60)	.00	.28**	.13	.14	.24**	.17	-.25**	-

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$, n.s. = not significant

All variables are relatively symmetric and normally distributed, except for the emotional regulation strategies variable ($Skw = 1.39$, $K = 1.89$). In general, statistically

significant medium, and high levels of correlation can be noted.

The results of correlation indicators support the first and second hypotheses of this research. No gender differences were found.

3.2. Predictions

Prior to reporting the results related to the predictive hypotheses, we mention that we have verified the necessary conditions for using the statistical function of multiple and simple regression. From the analysis of the regression coefficients obtained (Table 2), it can be observed that high levels of emotional stability and secure attachment predict high levels of self-perception (reverse scoring). In this regard, in the obtained model, multiple linear regression shows that 46% of self-perception (a dimension of resilience) is predicted by the level of neuroticism and the extent to which a person has or does not have a secure attachment style. The model is statistically significant.

Table 2

Simple Regression Coefficient for Predicting Self-Perception

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Std. Error	β		
1 (Constant)	22.35	2.45		9.11	< 0.001
Emotional stability	-.40	.05	-.56	-8.26	< 0.001
Attachment	.09	.03	.27	4.01	< 0.001

VD: Self-perception, $R = .68$, $R^2 = .46$, $F = 16.07$, $p < 0.001$.

Furthermore, the data also support the predictive hypothesis regarding personal fear of Covid-19. Thus, from the analysis of the obtained regression indicator (Table 3), it can be noted that high levels of self-perception (reverse scoring) predict high levels of personal fear of Covid-19. In the obtained model, simple linear regression shows that 8% of personal fear of Covid-19 is predicted by how individuals perceive themselves in being capable to face with difficult situations. The model is statistically significant, with the predictor variable also being statistically significant.

Table 3

Simple Regression Coefficient for Predicting Personal Fear of Covid-19

Model	Unstandardised coefficients		Standardised coefficients	t	p
	B	Std. Error	β		
1 (Constant)	5.57	1.56		3.58	< 0.001
Self-perception	.37	.11	.28	3.33	= 0.001

VD: Personal fear of Covid-19, $R = .28$, $R^2 = .08$, $F = 11.1$, $p = 0.001$.

4. Discussions, conclusions and limitations

This research aimed to explore the correlational and predictive relationships between resilience (personal strength dimension operationalised through the self-perception and future perception subdimensions), emotional stability, emotional self-control (impulsivity and emotional regulation strategies dimensions), attachment (insecure), and personal fear of Covid-19.

Statistical analysis has shown that all formulated hypotheses are supported by the data. In the first stage, self-perception correlates significantly with future perception, confirming the results obtained by Friborg and colleagues (2005). Thus, persons who believe in their abilities, decision-making and problem-solving capacity are open and optimistic about achieving future plans even in unfavourable socio-economic contexts (such as the example of the pandemic crisis). On larger approach, the results are also consistent with studies confirming the connection between resilience and well-being (Connor & Davidson, 2003 as cited in Smith et al., 2012, pp. 22; Kocjan, et al., 2021), resilience and optimism (Maheshwari & Jutta, 2020).

Furthermore, the correlations between insecure attachment style and: neuroticism (Wijngaards-de Meij et al., 2007; Baryshnikov et al., 2017), impulsivity (Wilke et al., 2020), and emotional regulation strategies (Gegieckaite & Kazlauskas, 2022) have been reconfirmed. Future investigations regarding each type of insecure attachment style (avoidant, anxious, adding disorganized) would bring a deeper understanding with reference to their relation to emotional instability and impulsivity, in the context of a similar future pandemic. Impulsive manifestations can lead for example to a superficial approach of the real consequences of contamination with Covid-19.

Another interesting future clinical research could explore the best emotional regulation strategies for each insecure attachment style. One could examine whether inefficient coping strategies reinforce avoidant, anxious and disorganized behaviour.

In addition, secure attachment and emotional stability have proven to be predictors of resilience, explaining 46% of self-perception (the subdimension of resilience, according to Friborg et al.'s (2005) model). The results obtained are consistent with other research in the field (Pourkord et al., 2020; Gonneaud et al., 2021; Kennison & Spooner, 2023). These data could also add value to the psychotherapy field.

In turn, self-perception accounts for 8% of personal fear of Covid-19, a result also confirmed by Baltaci's research (2021). Resilience subdimension - personal strength - has been defined and included by RSA authors (Friborg et al., 2003) in the category of 'dispositional attributes', referring to: self-esteem, self-efficacy, self-acceptance, hope, life realistic orientation. From this view, we suggest further investigations towards correlations between self-efficacy defined by Bandura (1978), locus of control (Rotter & Murly, 1965), congruence (Rogers, 1957) and fear of Covid-19.

One limitation of the present research, results from the fact that 70% of the total sample consists of women. In a future study, having a more balanced sample, would make gender differences testing, statistically significant. Another limitation derives from the sample size.

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