

# The relationship between big five personality traits, coping strategies, and emotional problems through the COVID-19 pandemic

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#### **Abstract**

Considering the impact of pandemic condition on mental health and functioning in daily life, the main purpose of this study was to investigate the relationship between Big Five personality traits, coping strategies and emotional problems such as symptoms of depression and anxiety, during the COVID-19 pandemic period. Specifically, the purpose of this study is to create a model of the impact of coping strategies as mediating factors in the relationship between Big Five personality traits personality traits and emotional problems. For the purposes of this study, a sample of 200 Kosovar respondents was used, where the age of the participants varies from 18 to 54 years. As a result of the pandemic situation created, the method of data collection for this study was done in the form of self-reporting, divided into physical questionnaires and online ones. The BFI Personality Inventory is used to classify Big Five personality traits, the Coping Control Checklist (WCCL) to classify coping strategies, and the Adult Self-Reporting Questionnaire (ASR) used to identify emotional problems. The analysis of the results in this study was done by means of the statistical package of SPSS and R program. After the analysis, it is seen that there is a significant correlation between Big Five personality traits (extraversion and neuroticism) and coping strategies (seeking social support and avoidance), as well as there is a correlation between Big Five personality traits (compliance and neuroticism) and emotional problems (symptoms of anxiety and depression). An association was also found between coping strategies (avoidance) and emotional problems (anxiety symptoms). As for gender differences in experiencing anxiety and depression symptoms and using desired thoughts as coping strategies, it was found that women are more predisposed to experience anxiety symptoms and use desired thoughts than men. The findings highlighted the part that coping strategies are significant mediator factors in the relationship between Big Five personality traits and emotional problems.

Keywords Personality · Coping strategies · Emotional problems · COVID-19 · BFI · WCCL · ASR · Mediating factors

### Introduction

The importance of the impact of personality traits on mental health is known from the moment these two very important concepts are defined for the individual. Each individual, going through psychic situations and processes during different periods of life, forms certain personal and individual traits. These psychic processes can be: perception, thought, feeling, learning, motivation and finally their product,

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behaviors (Lyrakos, 2011). Based on these processes, each individual builds a unique way of experiencing events of emotional expression, and personality traits (Cherry, 2018). Often the way we live and think is not always the way we imagine and desire it. The moment an individual becomes unable to function properly for a certain period of time, where his thoughts, feelings, and behaviors change, and it can become very difficult to function and cope properly with these changes, can be seen as something problematic for mental health (McCarter, 2008). Looking at these changes in the individual, we can also see that these behaviors and ways of thinking are related to personality traits, that to understand some relevant behaviors that make an individual, we must also understand the traits or personality traits that distinguish him from other individuals.

Depending on what challenges certain people go through, when we are dealing with them, we are aware



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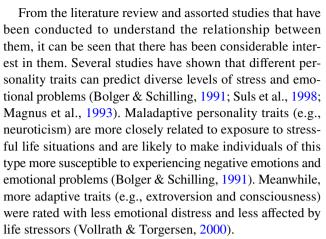
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that there are different types or natures of problems that we experience, including emotional problems or concerns (American Psychological Association [APA], 2019). Knowing the impact of emotional experience on our body, we should also know that strong experience of a negative emotion, or exposure to unpleasant situations that affect our thoughts and emotional state, can also affect the presence of emotional concerns or problems such as anxiety or depression (John & Srivastava, 1999). Emotional symptoms that are characterized as disturbing are: anxiety, depression, stress, fear, joy, sadness, which can cause problems in various areas, such as legal problems, difficulty in establishing and maintaining relationships, problems at home, problems at school or work (Shavers Agee, 2014). These problems are seen as disturbing and affecting mental health (Bhandari, 2018), where as a result cannot be used appropriate coping strategies and that help in coping with life situations.

When it comes to worries and life situations, the recent Covid-19 pandemic found most of the population unprepared, not only medically, but also by the part of experiencing distancing and quarantine that was experienced worldwide. The restriction that was made, affects mental health, not to mention the emotional side. All of this came as a result of the uncontrolled and rapid spread of the COVID-19 virus. The virus was contagious and easily transmitted, meaning that minimal contact between people could lead to infection (World Health Organization [WHO], 2021). As a result, many places had to be isolated, creating a not so pleasant situation. According to the study of Zager Kocjan et al. (2021), it was observed that the COVID-19 pandemic brought changes in areas such as: problems in the mental health of persons, quarantine, unemployment, or even doubts about the future of mankind. Taking into consideration all these factors, a correlation can be explored between personality traits, coping strategies and emotional problems that persons have experienced during the time of the pandemic and that still persists.

It is important to understand this relationship in the pandemic period, because it can be more easily understood what could be the coping mechanisms that have helped people who have been or are infected by the coronavirus. Apart from the coping mechanisms, it is also possible to understand how the personality traits influence the experience of different situations that can also induce emotional disturbances. It is also possible to understand how people coped during quarantine or when they experienced health difficulties. Through the research of this connection, we can also have results that can help to improve the best conditions at institutions that provide services, whether they are medical or psychological. This is because, with the understanding of the interaction of these concepts, the needs for change in broad terms can also be understood.



When it comes to the relationship between personality traits and coping strategies, various studies have been done that have emphasized the relationship between these two variables. The maladaptive personality trait (e.g. neuroticism) is positively associated with coping skills, more specifically with avoidance as coping skills (Watson & Hubbard, 1996). On the other hand, individuals who have more adaptive personality traits are more associated with positive or active coping skills, such as coping (Penley & Tomaka, 2002). The association between personality and coping strategies suggests that individuals with maladaptive personality are at greater risk of experiencing psychological distress as they may use the wrong coping strategy (e.g., avoidance) (Van Berkel, 2009). But we must always keep in mind that each of the individuals, depending on personality traits and coping strategies, experiences these situations differently and reacts differently from the other.

Nowadays every individual experiences unpleasant feelings which are seen as a form of reaction to unpleasant situations. Usually when we talk about emotional concerns, we mean every time there is a stressful situation which causes us these concerns and can affect our mental health (Afshar et al., 2015). But besides the situations, emotional disturbances also depend on the personality trait that an individual has. Personality characteristics can be predisposed to think or act in a similar style in relation to a variety of different stimuli or situations (Carver et al., 2000). As mentioned above, personality traits can have both positive and negative correlations with different coping strategies, where their interaction in an individual can result in different emotional experiences. Considering this fact, coping strategies influence the way we, as human beings, experience emotions, always taking into consideration personality traits. And this means that their influence, except the emotions that we experience, also determines the way we respond to our life situations and experiences. Therefore, taken together as concepts, personality traits and coping strategies can influence how we develop or experience emotions in different situations. As a result, it would



be important to understand the relationship between these three concepts and to note the influencing factor of the time of the pandemic and the experiences during this year.

Based on the summaries made so far, it is hypothesized that there is a positive correlation between personality traits and coping strategies, and in the other hand there is a negative correlation between coping strategies and emotional problems. As well as based on the model of mediation of several factors in the relationship between personality traits and emotional problems, it is assumed that coping strategies are evaluated as influential factors that play an especially important role in the relationship between these two variables.

# Methodolody

When it comes to the methodology used to conduct this research, it is worth noting that the research is quantitative, cross-sectional in nature, and correlational.

## **Participants**

In this study the sample consisted of 200 respondents of the general population from the Republic of Kosovo. Participants were recruited simple random sample through self-report questionnaires, in two forms, physical and online throughout the pandemic time. The age of the participants ranged from 18 to 59 years old, and the gender included 106 females (53%) and 94 males (47%), with a mean age of 29.1 years.

Inclusion criteria of the sample was, being from age 18 to 59 and exclusion criteria of the sample was, being under age 18 and above 59.

#### Instruments

## The Big Five Inventory (BFI)

The first instrument that was used for the purposes of measuring personality traits is the Big Five Inventory which is the short version of Neo-Pr. The Big Five Inventory (BFI) is a short version of the NEO-P-R instrument (Costa et al., 1991) and contains 44 statements, which has in itself the great five features; extraversion, neuroticism, openness to experiences, agreeableness and conscientiousness. Every aspect in this inventory is measured on a Likert scale (1–5), ranging from 1 (strongly disagree), 2 (strongly disagree), 3 (neutral), 4 (strongly disagree), and 5 (strongly agree). Regarding the 5 domains of the BFI inventory, we have the first personality trait; extraversion which showed an acceptable scale of consistency, with a value of 0.61. The neuroticism trait has shown an acceptable scale of consistency, with a value

of 0.67. The trait of openness to experiences has shown a good consistency rate of 0.76. The trait of agreeableness, in contrast to the other traits, showed a poor scale of consistency with a value of 0.56. And the last trait, the trait of conscientiousness, showed an acceptable scale of consistency, with a value of 0.66. All these values were determined by Cronbach's Alpha value.

#### The Ways of Coping Checklist List (WCCL)

The Ways of Coping Checklist List (WCCL) was used to measure coping strategies (Vitaliano et al., 1985). This list is a relatively new model but derived from the transactional stress model according to Lazarus (1966; as cited in Vitaliano et al., 1985). In this model, an event is considered stressful when a person assesses it as potentially dangerous to his or her psychological well-being. The new WCCL List form is the one with a total of 42 statements, grouped into five main scales: problem focus level, seeking social support, self-blame, desired thoughts, and avoidance. Each coping scales contains questions with 4 options in the answer, the Likert scale from 0 (I did not use it at all) to 3 (I used it a lot). As for the reliability of the subscales of the WCCL, starting from the problem focus level, this subscale showed the value of a good consistency, determined by the value of Cronbach's Alpha of 0.87. Moving on to the subscale of seeking social support which showed a good consistency, also determined by the Cronbach's Alpha value of 0.77. The other subscale is self-blame, which showed good consistency, determined by the Cronbach's Alpha value of 0.836. The next subscale is the desired thoughts, which showed a scale of good consistency, with a value of 0.79. As well as the last subscale of this questionnaire, which is avoidance, also showed a good scale, with the value of 0.78, determined by Cronbach's Alpha. In terms of validity and reliability from the previous studies, the scales of this list have shown a consistent reliability and validity and have been related to the criterion that this List helps measure coping skills in cases where it is in our interest to receive responses regarding environmental stressors (Vitaliano et al., 1985).

## The Adult Self-report Questionnaire (ASR)

The third and final instrument used to measure the construct of emotional problems was the Adult Self-Report Questionnaire (ASR) (Achenbach System of Empirically Based Assessment [ASEBA], 2021). The profile of this list includes normative scales for adaptive functioning, persons forces, empirically based syndromes, substance use, general, external, and internal problems. Furthermore, this degree represents an orientation from the DSM-5 (which includes problems with anxiety, depression, somatic problems, aggression, attention problems, emotional problems), and



that serve for each gender, and ages 18–35 and 36–59 years old, always based on national probability samples (American Psychiatric Association [APA], 2013).

In addition to the scale of consistency described by other studies, the scale of consistency of the questionnaires used in this research is also important. The BFI questionnaire showed an acceptable consistency scale, as determined by Cronbach's Alfa value of 0.66. The ASR questionnaire showed a scale of good consistency, as determined by Cronbach's Alpha's value of 0.87. And the checklist of coping ways has shown a scale of good consistency, as determined by Cronbach's Alfa value of 0.87.

### **Procedure**

After the selection of the respondents and the confirmation of the cooperation by the participants, the administration of the questionnaires was done. Data collection for this study was done in the period between June and July 2021, where the probability for infection with COVID-19 was remarkably high. The completion of the physical questionnaires was done in such a way that the respondents were not hindered by anyone and were in a comfortable environment. Prior to the start of the survey, respondents were informed about the form of testing or administration of the questionnaires and their conditions, as well as about maintaining confidentiality, research goals and ethical issues. They were also told that the questionnaire should be read carefully and that no questions should be left unfinished. While completing the questionnaires in the online form included the appropriate instructions for each self-reporting inventory. The whole survey procedure took approximately 30 to 35 min.

As for the entry of respondents' data in the database, two different databases were used, with two forms of data analysis. Initially, to analyze the personality traits and coping strategies questionnaire data, the data were entered and analyzed from the SPSS program database, while the ASR questionnaire data for emotional problems were entered into the ADM (Application Data Management). ADM is a database which analyzes results in clinical terms and creates totals for individual cases. After such results were obtained, the data were entered into the system and downloaded in order to be entered into the final database in SPSS, where all the necessary analyzes were made. While for the part of the Mediation Analysis, R software was used, where the data obtained from SPSS was entered in order to create a model that clarifies the role of coping strategies on the relationship between personality traits and emotional problems.

The studies involving human participants were reviewed and approved by the Heimerer College Ethic committee. The participants provided their written informed consent to participate in this study. They were informed that participation is completely anonymous, that they do not need to write identifying information and was assured that their answers will be kept secure and will only be used for the purpose of this research (Fig. 1).

## **Data analysis**

After collecting data and based on the purpose of this research, certain statistical analyzes were used. First descriptive analysis of the research sample were performed, then Cronbach's Alfa for the reliability of the research questionnaires and other statistical analyzes related to the research questions and hypotheses raised. In the case of the correlation between the variables of this research- Big Five personality traits, coping strategies and emotional problems, Spearman Correlation was used, and to find gender differences in terms of experiencing anxiety symptoms and desired thoughts, Mann Whitney U test was used. Meanwhile, to understand how coping strategies serve as influential factors in mediating the relationship between Big Five personality traits and emotional problems, Mediation Analysis was done through the R program. For the normality of the total sample's distribution, The Shapiro-Wilk normality test was used. While other analyzes were done through the SPSS.

## Results

According to the analyzed results, it can be seen from the total number of respondents, where out of 200 participants, 94 were male (47%) and 106 were female (53%). The average age is 29.1 years with a standard deviation of 10.16, and the minimum and maximum varies from 18 to 54 years. Previous infection with COVID-19 shows that 79 (39.5%) participants were previously infected, while 121 (60.5%) participants were not infected. Whereas from the current infection with COVID-19, it is seen that only 5 (2.5%) of them were currently infected, and 195 (97.5%) were not currently infected.

Table 1, explain data for Anxiety and Depression from ARS questionnaires, respectively, regarding the normality of the total sample's distribution. The Shapiro–Wilk normality test's results indicate that scores from the scales of both constructs did not follow a normal distribution. Therefore, I performed a nonparametric analysis to analyse group differences.

Of interest for this research are also the results where they show the correlation between the variables. From the results it was found that extraversion has a significant positive correlation with seeking social support, r(200) = 0.371, p = .000, which means that people who score high levels of extroversion trait are more likely to seek social support or



**Fig. 1** Flow chart of the selection procedure

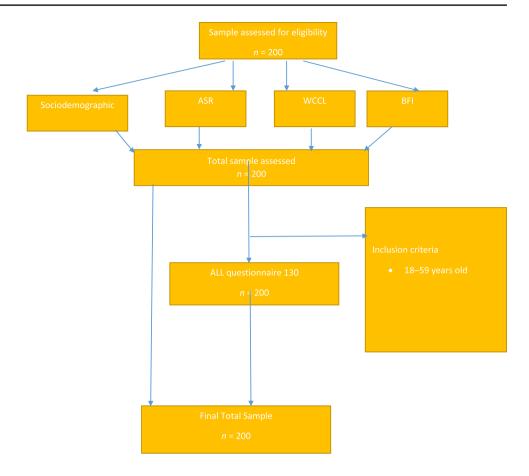


Table 1 Test of normality

	Shapiro-Wilk			
	Statistic	df	Sig.	
Depression	0.946	199	0.000	
Anxiety	0.977	199	0.003	

use the search for social support as a coping strategy against stressful situations. Another important result is the correlation between neuroticism and anxiety symptoms, where according to the results r (200) = 0.342, p = .000, this means that persons who score high levels on the neuroticism trait

tend to show more anxiety symptoms. In the same line with the trait of neuroticism we have the significant positive correlation with the symptoms of depression, r(200) = -0.331, p = .000, which means that persons who tend to have higher levels of neuroticism trait, are more likely to experience symptoms of depression.

While another interesting finding is the correlation of the avoidance strategy with the symptoms of anxiety and depression, which based on the result can be seen that people who used the coping-avoidance strategy, are more predisposed to experience symptoms of anxiety, r (200) = 0.301, p = .000, and symptoms of depression, r (200) = 0.375, p = .000 (see Table 2).

**Table 2** Spearman correlation between BIGFIVE, coping skills and emotional problems

	Seeking social support	Avoiding	Focusing on the problem	Symptoms of depression	Symptoms of depression
Extroversion	0.371**	-0.034	0.416**	-0.242**	0.002
Neuroticism	0.022	$0.282^{**}$	-0.067	0.331**	0.342**
Avoiding	0.036	1	0.026	0.375**	0.301**
Focusing Problem	0.464**	0.026	1	$-0.296^{**}$	$-0.175^*$

<sup>\*</sup> The correlation is significant at the 0.05 level



<sup>\*\*</sup> The correlation is significant at the 0.01 level

**Table 3** Mann–Whitney U test gender differences in the ASR scales (n=200)

	Male $(n = 93)$	Female $(n = 106)$				
YSR scale	Mean rank	Mean rank	Mann -Whitney U	z	p	Cohen's d/η2
Depression	87.72	110.77	3787.0	-2.83	.009	0.040
Anxiety	84.79	114.43	3505.5	-3.64	0.001	0.066
Emotional problems	84.95	113.21	3529.0	-3.46	0.001	0.060

The effect size was calculated with the formula  $d/\eta^2 = Z^2 / N - 1$ 

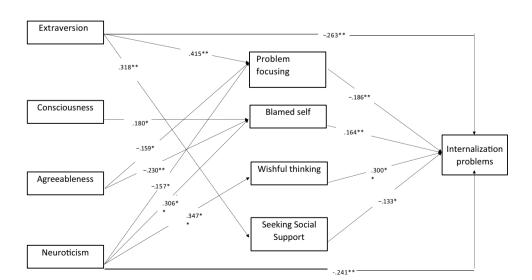
We conducted a post-hoc power analysis using G\*Power (Faul et al., 2007). The study sample size provided power = 0.99 for the correlation analysis.

Table 3 shows the Mann–Whitney U test for testing gender differences on the Anxiety, Depression and Emotional Problems scales from the ASR questionnaire and the effect size. Both groups differed significantly on Anxiety, Depression, and Emotional/Internalizing Problems scales. Female Sample scored significantly higher on three scales, Anxiety scale showed the highest effect size (n2 = 0.066), followed by the Emotional Problems (n2 = 0.060) and Depression (n2 = 0.040) scales.

We conducted a post-hoc power analysis using G\*Power (Faul et al., 2007). For the gender differences in anxiety and depression, the study sample size provided power = 0.96

The final research question and hypothesis were interested with the influence of five personality traits on experiencing internalization problems, and seeing coping strategies as mediating factors (desired thoughts, problem focus, seeking social support, blaming oneself and avoiding). As a result, it was considered appropriate to use a model through which can be seen the direct impact and indirect impact of coping strategies in this relationship (see Fig. 2). The model does not fit good even there is significant values.

Fig. 2 Mediation model the relationship between personality traits, coping skills, and internalization problems. Note:  $X^2 = 175.271$ , df = 10, p < .000, CFI = 0.595, TLI = -0.825, RMSEA = 0.288



We conducted a post-hoc power analysis using G\*Power (Faul et al., 2007). The study sample size provided power for a medium size effect, our study sample size generated power = 0.99.

### **Discussion**

Considering that there are numerous studies on the relationship between Big Five personality traits and emotional problems, the peculiarity of this research is also the study of coping strategies as important mediating factors in this relationship. In addition to these parts, an added value of this research is the part of focusing on the pandemic situation which has challenged the mental health status of all people around the world, especially in Kosovo, where the high mortality rate has affected well-being, psychological problems of people and has added to emotional problems including problems with depression, anxiety and somatic ones. As a result, health professionals have given importance to the use of appropriate coping strategies as a way of coping with the created pandemic situation COVID-19 (Prekazi et al., 2021). Such a study is important for the fact that we can understand how different types of personality traits are correlated with emotional problems and how they face stressful situations with different coping strategies.



H1: Neuroticism related positively with coping strategies such as avoidance.

The first hypothesis of this study is the correlation between the trait of neuroticism and coping strategyavoidance, where according to several studies conducted by various researchers (Leandro & Castillo, 2010; Leszko et al., 2020; Wang & Miao, 2009), in order to understand the relationship between Big Five personality traits, coping strategies and emotional problems, have concluded that the neuroticism trait was correlated positively with avoidance when they are exposed to a stressful event, in this case the pandemic situation. In line with these studies it has been concluded and confirmed by the results obtained, that these persons used avoidance as coping strategies in stressful situations. In addition to the above-mentioned studies, there is also study by other authors (Kardum & Hudek-Knezevic, 1996). Which means that people who are classified as neurotic, tend to live life as if nothing had happened, have slept more than usual, have tried to forget events completely, or have avoided contact with people in general. This way they feel better and more comfortable with themselves the moment they face stressful situations in such a form.

H1b: People who score high on the extraversion trait are more likely to use seeking social support as a coping strategy.

The second hypothesis of this study was focused on the correlation between extraversion trait and seeking social support as coping strategy. The hypothesis from this study states that extroversion trait correlates positively with seeking social support as a coping strategy, and this hypothesis was also supported by research conducted by various authors (Leandro & Castillo, 2010; Russell et al., 2006). In addition to the support from the above studies, the hypothesis was also supported by the results of this study, where extroverts are characterized by acceptance of empathy from others, acceptance of professional help, talking to someone about how they felt, and such that usually characterize persons who are extroverted, also knowing the nature of collaborating with people in general.

H1c: People who use focusing on the problem as a coping strategy are less likely to have emotional distress, such as symptoms of depression.

The third hypothesis of the study was focused on the correlation between coping strategy such as focusing on the problem and the symptoms of depression, where it was noted that using the strategy of focusing on the problem, may also promote the onset symptoms of depression. This hypothesis, in addition to being confirmed by the research

of numerous authors (Leandro & Castillo, 2010; Wang & Miao, 2009; Schacham et al., 2020), is also supported by the results of this study, because taken in practice, people who are focused on problem solving and focusing on how problems are solved and how a situation is overcome, usually or in most cases do not have emotional distress, much less experience symptoms of depression in this case. This can also be seen in the part that the focus on the problem is characterized by the part that such persons change a few things in order to feel better, take things step by step, and come up with solutions to many problems.

H1d: People who use avoidance as a coping strategy are more likely to have emotional distress, such as symptoms of anxiety.

The fourth hypothesis was focused on the positive correlation between coping strategy-avoidance and experiencing anxiety symptoms. This can also be explained by the fact that people who avoid situations in order not to face stress or other similar situations, as a result they are more predisposed to experience anxiety symptoms which appear at the moment when we are not able to to cope with situations. These findings, in addition to being supported by this study, were also supported by other studies conducted (Leandro & Castillo, 2010; Wang & Miao, 2009). The last hypothesis regarding the correlation between the study variables, was the one which state that there is a positive correlation between neuroticism and anxiety symptoms. This hypothesis is supported by studies which are elaborated in the review section (Nikčević et al., 2021; Oh et al., 2019; Lu, 1994), where based on the results it was proved that individuals who usually score high in the neuroticism trait, tend to exhibit even more anxiety symptoms. Here one should consider the part that individuals who are classified as neurotic are those who tend to have characteristics such as nervousness, fluctuating mood, anxiety, and an instability in certain decisions. Based on this, we can see how these features also lead to an association with the experience of anxiety symptoms, such as nervousness, somatic complaints, mood swings, feelings of discomfort, fear, which are characteristics of neurotic individuals.

Given that everyday life is full of challenges and there is a mixture of feelings and events that happen, we can see and make a connection between life stressors and psychological stress or emotional problems that they experience, and here we can make a distinction between their experience of the female and male gender. With the new constraints of daily life and social life indefinitely, the general population have experienced numerous symptoms of stress and anxiety which has made them lose faith in a better future and caused mental health to affected in many areas in the population. Studies by various authors (Luo et al., 2020;



Moghanibashi-Mansourieh, 2020; Wang et al., 2021; Zhou et al., 2020), on how the COVID-19 and quarantine have affected the prevalence of mental health problems or psychological problems, have concluded that females were more predisposed to experience psychological problems, specifically to experience Emotional problems. Considering that women have different professional roles, have different social roles than men and are more sensitive and delicate when it comes to different life experiences. And this can be thought that these are some of the reasons why women are more predisposed to experiencing anxiety symptoms.

Another important focus in this study is the research on how coping strategies affect the relationship between Big Five personality traits and emotional problems. To understand this type of relationship a model has been made which shows the direct and indirect role of coping strategies, considering that there has been no research other than that done by Oh with collaborators (Oh et al., 2019) on people who are diagnosed with depression. In this study, it is estimated that the trait that has shown a greater role and association with experiencing depressive symptoms is neuroticism (Oh et al., 2019). Consequently, this hypothesis is supported because neuroticism in relation to the desired thoughts, raises the predisposition to experience internalized problems. This hypothesis, in addition to the above-mentioned study, was also supported by the results of the model obtained from the data of the current study.

Other coping strategies that have also played a significant role in the relationship of neuroticism with internalization problems, are focusing on the problem which is negatively affected by neuroticism because people with this trait do not focus on certain problems to solve, and as a result this also affects the appearance of internalization problems. Selfblame is another strategy that is positively influenced by neuroticism, as a result individuals with high neuroticism tend to blame themselves more, which in turn promotes many internalization problems. Seeking social support has not shown a mediating role, due to the fact that people with high neuroticism are not considered to seek social support from others because they are very sensitive and cannot be involved in a social interaction with others. In summary, the recent hypothesis is also supported by the result of the model of mediation of coping strategies in the relationship of neuroticism with internalization problems.

Another important finding, regarding to the last hypothesis is how the relationship between extraversion and internalization problems is mediated by seeking social support strategy. From the results of this study, we see that the direct role of extraversion on the problems of internalization is smaller than when looking for support as a mediator. So, people who are extroverts are considered to use the seeking social support as a coping strategy in stressful situations, which leads to a predisposition to reduce the

internalization problems. On the other hand, extraversion has not shown a correlation with self-blame and desired thoughts, whereas reasoning can be used the part that even in the literature review has been seen that such a feature has shown a correlation and role only on strategies focused on the problem, and not those that are emotion-oriented, which emphasizes that self-blame and desired thoughts are more related to the emotional part, and therefore have not shown a significant role on the relationship of extraversion with internalization problems.

We need to look at all these data carefully, because of the exploration of the current situation, and the reliance on dealing with the situation created around the world, but this does not mean that the data are not representative. In relation to the findings of the current study, international studies may report other findings considering the inclusion of a larger sample, with a more specific population, or even with a clinical sample for the purpose of obtaining specific outcomes for certain disorders.

#### Limitations

Regardless of the results obtained from this research, some limitations should be mentioned which encourage other researches in order to address such issues and supplement the current findings. As a start, one of the first limitations is the part of the clinical sample, which is missing in this research, so the limitation is the non-inclusion of the clinical sample for comparative results. One of the other limitations is that this study provides descriptive data, so it is qualified as a cross-sectional study. Questionnaire administration can be considered as a limitation, due to the fact that the administration also includes the online form, because the online form limits the researchers' control over how respondents understood the instructions and may also raise concerns about the reliability of the answers. But in this period, has been almost impossible to avoid the online form, due to the fact that the research was done at the time of the pandemic and the risk of coronavirus infection was high. Another limitation is the age of the respondents, due to the fact that based on the instrument of identification of emotional distress was with age restriction, the age over 59 years were not included, taking into consideration the impact of the pandemic period on the mentioned age. And the last limitation of this research can be considered the test battery, where respondents were asked a large number of questions about the fact that there were three different variables, which may have had an impact on the form of their answers.

### Recommendations

Among the first recommendations is the involvement of a clinical sample which would further improve the results, so



there would be comparisons between the two samples. It is recommended that the questionnaires should be administered only in physical form, as the data may be more representative and easier to control. When it comes to questionnaires, it is also important to obtain such questionnaires that allow the involvement of individuals older than 59 years, from all cities of Kosovo, so that the sample is as representative as possible. In addition to the sample part, another recommendation that is also important, is the one which includes the part of the study of more factors that may affect the relationship between personality traits and internalization problems. This is due to the fact that, in addition to the personality and emotion's part, we can also research the behavioral side and the quarantine, how they have affected these conditions and how it is manifested in different people, so that we pay attention to protective factors in order to prevent the occurrence of further concerns.

Other recommendations may include the recommendation to conduct more researches that explores the relationship between personality traits, coping strategies and emotional problems in our context, because in Kosovo there was no such researches. As well as the last recommendation is to focus on mental health and methods of providing more adequate and comprehensive services for all age groups of the population, especially in the time of the pandemic working on strengthening coping mechanisms against stressful situations.

# **Conclusion**

Some of the conclusions that can be drawn from this study are, that current findings of this study show that there are correlations between personality traits and coping strategies on one hand, and personality traits and emotional problems on the other. From this we can understand that personality traits affect the way we deal with stressful situations, as well as consequently affect the way we respond emotionally to those situations.

The findings have shown that females are characterized by a higher average of experiencing anxiety symptoms, compared to males. Considering the lack of such studies in Kosovo, this study provides an important basis and adds valuable information on the relationship between personality traits, coping strategies, and emotional problems - symptoms of anxiety and depression.

**Data availability** 1. The datasets generated during and/or analysed during the current study are available in the Florim Gallopeni repository, we do not have a link.

- 2. The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.
- 3. All data generated or analysed during this study are included in this published article (and its supplementary information files).

- 4. The datasets generated during and/or analysed during the current study are not publicly available due to the data were gathered in the field and it is not part of any national or international dataset but are available from the corresponding author on reasonable request.
- 5. Data sharing not applicable to this article as no datasets were generated or analysed during the current study.
- 6. The data that support the findings of this study are available from Heimerer but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of Heimerer.

#### **Declarations**

Our study respected all ethical standards based on Helsinki declaration, also our team get an approval from Heimerer college ethical committee. Because the respondent's were Adult it was not needed to get an signed inform consent but they with their willing took part in the study.

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