

Associations Between COVID-19 Difficulties, Well-Being, and Personality Traits

Neringa Grigutytė

Vilnius University, Institute of Psychology
neringa.grigutyte@fsf.vu.lt
<https://orcid.org/0000-0003-4750-0363>

Kristina Engesser

Vilnius University, Institute of Psychology
engesser.kristina@gmail.com

Karolina Petraškaitė

Vilnius University, Institute of Psychology
karolina.petraskaite@gmail.com
<https://orcid.org/0000-0003-3333-0324>

Abstract. During the Coronavirus disease (COVID-19) pandemic, everyday life has changed; people faced various difficulties and overcame them differently. This study aimed to identify how subjectively named difficulties, the ability to cope with these difficulties, and psychological well-being reported by individuals during the first quarantine of COVID-19 in Lithuania were related to gender, age, and personality traits. Three hundred fifty-one participants aged 18 to 70 years completed an online questionnaire. Results revealed that half of the respondents reported various difficulties, classified into six categories, related to the first COVID-19 quarantine. Furthermore, 51% of the participants indicated poor well-being; the well-being of women and young adults (aged 18–29) was significantly lower compared to the other groups. Those who indicated COVID-19 pandemic difficulties showed higher levels of Neuroticism, and Neuroticism was positively related to the severity of the difficulties. Coping with these difficulties and well-being were positively related to Extraversion, Agreeableness, Conscientiousness, and Openness, and negatively associated with Neuroticism. The manifestation of the particular personality traits in different groups of indicated difficulties is discussed in the article.

Keywords: COVID-19, difficulties, coping, well-being, personality.

COVID-19 pandemijos metu patiriamų sunkumų, psichologinės gerovės ir asmenybės bruožų sąsajos

Santrauka. Koronaviruso (COVID-19) pandemijos metu pasikeitė kasdienis žmonių gyvenimas – jie patyrė įvairiausių sunkumų ir skirtingai su jais tvarkėsi. Šiuo tyrimu siekiama nustatyti, kaip pirmojo COVID-19 karantino metu Lietuvoje subjektyviai žmonių vertinami patiriami sunkumai, gebėjimas juos įveikti ir psichologinė gerovė yra susiję su lytimi, amžiumi ir asmenybės bruožais. Internetinę anketą užpildė 351 respondentas nuo 18 iki 70 metų. Remiantis rezultatais, pusė tyrimo dalyvių įvardijo patyrę įvairių su pirmuoju COVID-19 karantinu susijusių sunkumų. Šie sunkumai, analizuojant rezultatus, buvo suskirstyti į šešias kategorijas. Nustatyta, jog 51 % dalyvių psichologinė gerovė

Received: 30/06/2021. **Accepted:** 04/08/2021.

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buvo prasta; moterų ir jaunų suaugusiųjų (18–29 metų) psichologinė gerovė buvo reikšmingai prastesnė, palyginti su kitomis grupėmis. Asmenys, patiriantys sunkumų dėl COVID-19 pandemijos, pasižymėjo didesniais neurotiškumo įverčiais. Neurotiškumas taip pat buvo teigiamai susijęs su aukštesniu subjektyviu sunkumų vertinimu. COVID-19 karantino metu patirtų sunkumų įveika bei asmens gerovė buvo teigiamai susijusios su ekstraversija, sutarumu, sąmoningumu ir atvirumu patyrimui ir neigiamai susijusios su neurotiškumu. Straipsnyje aptariama atskirų asmenybės bruožų raiška skirtingose sunkumų grupėse.

Pagrindiniai žodžiai: COVID-19, sunkumai, įveika, psichologinė gerovė, asmenybė.

Introduction

The emergence of the Coronavirus disease COVID-19 in the world progressively resulted in various psychological and mental health problems, including stress, anxiety, depression, frustration, and uncertainty (Serafini et al., 2020). Sociodemographic factors are mainly the focus of the pandemic studies. Research reveals that young people have been unequally affected by the pandemic (Skruibis, 2021). However, not much is delved into how facing and coping with pandemic related difficulties can be linked to individual differences, such as personality.

The prevailing Big Five model of personality is particularly relevant as it can describe whether a person can adapt to unexpected life changes and how resilient is to the potential psychological stressors (Oshio et al., 2018). Studies confirm that personality traits are related to how individuals cope with the changes in everyday life caused by the pandemic (AL-Omiri et al., 2021; Rettew et al., 2021). Neuroticism predicts a more negative affect, and Extraversion shows a more optimistic stance (Aschwanden et al., 2021), while Conscientiousness and Agreeableness predict the endorsement of health-related behaviour and the appeal to public health messages (Blagov, 2020) or compliance with government rules (Asselmann, 2020). However, the relevance of COVID-19 related issues varies for different individuals and the individually perceived ability to cope with them. More research is needed to understand the subjective perception of the pandemic-related changes and their links to the personality traits to seek the inner psychological resources to improve mental health.

The aim is to identify the associations of the subjectively named difficulties, the ability to cope with these difficulties, and psychological well-being, reported by individuals during the first quarantine of COVID-19, with gender, age, and personality traits.

Methods

Participants

Overall, 351 participants aged 18 to 70 years completed an online questionnaire (40% men, 60% women; $M(SD) = 32.3(12.37)$). Participants were categorized into three age groups: 18–29 ($n = 142$), 30–50 ($n = 149$), and from 51 ($n = 60$) years old.

Methods

Participants were provided with an open-ended question to name the three greatest difficulties encountered during the quarantine. They were asked to rate each of their identified difficulties using a 5-point Likert type scale to mark how much the difficulty impaired one's life (from 0 – not at all to 5 – very much) and how successfully they could cope with the difficulty (from 0 – completely unsuccessfully to five = very successfully). The severity of impairment was calculated, scoring the average from indicated difficulties (the total score ranges from 0 to 5). Cronbach's alpha for these items is .60. The score for coping with difficulties was calculated by averaging all the scores of the perceived ability to cope with the difficulties (the total score ranges from 0 to 5). Cronbach's alpha is .63. Current mental well-being was measured by the WHO-5 Well-Being Index (WHO-5; Psychiatric Research Unit, 1999). The total score ranges from 0 to 100, while well-being is considered poor when the index is ≤ 50 (Topp et al., 2015). Cronbach's alpha for WHO-5 is .86. Personality traits were measured by using the Big Five Inventory (BFI; John, Naumann, & Soto, 2008). In this study Cronbach's alpha are .79 (Extraversion), .68 (Agreeableness), .76 (Conscientiousness), .85 (Neuroticism), .69 (Openness).

This research is a part of a bigger study for PANAS-X adaptation to a Lithuanian sample. The study was ethically approved by Vilnius University ethics committee for psychological research. The research was conducted during the first quarantine between 25th April and 19th May 2020.

Results

COVID-19 difficulties and well-being

Almost half of the respondents (49.6%) indicated they had experienced difficulties during the first COVID-19 quarantine. Participants stated their most significant difficulties related to COVID-19. All reported difficulties were classified according to the thematic analysis (Boyatzis, 1998) into six main groups (one person could indicate up to three different difficulties): *loss of job or significant decline in finance* ($n = 50$ (11.8%)); *changes in work activities* (remote work and homeschooling, combining both of them, increased workload) ($n = 92$ (21.6%)); *compliance with the requirements of the lockdown* (movement restrictions, health regulations, loss of physical activity) ($n = 105$ (24.7%)); *lack of social contact* ($n = 45$ (10.6%)); *5) health concerns* related to COVID-19 and in general, without the possibility of seeing the doctor (31 (7.3%)); *psychological difficulties* as uncertainty, loneliness, isolation, anxiety, insomnia (102 (24%)).

Those who have experienced difficulties during the first COVID-19 quarantine had a significantly lower score of well-being ($M(SD) = 44.41(18.73)$) than the rest of the respondents ($M(SD) = 52.32 (19.86)$; $t = -3.836$, $df = 348.39$, $p < .001$) (see Table 1). The scores of the WHO-5 index showed that 51% of the participants indicated poor well-being, which was negatively related to the severity of the impairment of COVID-19 difficulties and positively associated with coping with them (see Table 2).

Gender and age differences

Almost 60% of all female respondents (70.1% of the total sample) experienced difficulties related to COVID-19 (Table 1). The proportion of women who reported any difficulty was significantly larger compared to men ($\chi^2 = 13.62$, $df = 1$, $p < .001$). Women's WHO-5 index was significantly lower ($t = 2.32$, $df = 349$, $p = .021$), and the larger proportion of women had poor well-being ($\chi^2 = 10.01$, $df = 1$, $p = .002$) in comparison with men, see Table 1. The severity of the difficulties and the ability to cope with them successfully did not differ between genders and age groups. Almost the same proportion (49% to 51.7%) of respondents from three different age groups experienced COVID-19 difficulties. However, the results revealed group differences in well-being. The mean score of WHO-5 of young adults (aged 18–29) was significantly lower than in other age groups ($F = 4.49$, $df = 2$, $p = .012$; Bonferroni $1 > 2$, $1 > 3$, $p < .05$). Although there were no significant differences in WHO-5 between the rest of the age groups, the proportions of respondents with poor well-being significantly differ among all age groups ($\chi^2 = 8.48$, $df = 2$, $p = .014$), see Table 1.

Table 1

Distribution of scores of Well-being and COVID-19 difficulties' measures between gender and age groups

Groups	Participants					
	All N = 351	Men n = 139	Women n = 212	Age 18–29 n = 142	Age 30–50 n = 149	Age 51–70 n = 60
Experience of COVID-19 difficulties (n, %)	174 100	52 29.9	122 70.1	70 40.2	73 42	31 17.8
Experience of COVID-19 difficulties (% within group)	49.6	37.4	57.6	49.3	49	51.7
Impairment of one's life (M, SD)	3.48 (.9)	3.44 (.98)	3.5 (.87)	3.55 (.87)	3.44 (.97)	3.44 (.84)
Coping with indicated difficulties (M, SD)	2.92 (.87)	2.97 (.94)	2.89 (.84)	2.91 (.85)	2.92 (.87)	2.93 (.94)
WHO-5 well-being index (M, SD)	48.39 (19.68)	51.39 (20.25)	46.43 (19.1)	44.65* (18.3)	51.28 (19.89)	50.13 (21.15)
Poor well-being** (%)	51	31.5	68.5	47.8*	36*	16.3*

Note. Significant differences between gender groups are marked in bold.

* Significant difference among age groups.

** well-being index (WHO-5) ≤ 50 .

Personality traits

In terms of the relation of personality traits to COVID-19 related difficulties, and to the respondents' well-being, it was found that those who indicated having difficulties during the pandemic showed higher levels of Neuroticism ($M(SD) = 3.28 (.84)$; $M(SD) = 3.01 (.78)$; $t = 2.125$, $df = 346$, $p = .002$).

Correlations between age, personality traits, COVID-19 difficulties' measures, and well-being are presented in Table 2. The severity of the impairment related to the COVID-19 difficulties was positively related to Neuroticism. Coping with these difficulties and well-being were positively related to Extraversion, Agreeableness, Conscientiousness, and Openness, and negatively associated with Neuroticism.

Table 2

Correlations for Age, Big Five Inventory scales, COVID-19 difficulties' measures and Well-being

Variable	1	2	3	4	5	6	7	8	9
1. Age	–								
2. Extraversion	.1	–							
3. Agreeableness	.15**	.28**	–						
4. Conscientiousness	.17**	.31**	.36**	–					
5. Neuroticism	–.21**	–.39**	–.43**	–.34**	–				
6. Openness	–.06	.381**	.15**	.08	–.02	–			
7. Impairment of one's life	–.06	–.03	.03	–.15	.26**	.01	–		
8. Coping with difficulties	.01	.17*	.26**	.23**	–.34**	.11	–.28**	–	
9. WHO-5 index	.12*	.43**	.28**	.32**	–.54**	.17**	–.21**	.37**	–

Note. * $p < .05$. ** $p < .01$.

A comparison of personality traits between groups of respondents with certain difficulties revealed that Conscientiousness was significantly lower in the group of respondents who indicated the difficulty of loss of job or finance ($M(SD) = 3.27 (.61)$; $M(SD) = 3.46 (.61)$, $t = -1.99$, $df = 149$, $p < .05$), and was significantly higher in the group of difficulties related to the changes in work activities ($M(SD) = 3.56 (.59)$; $M(SD) = 3.34 (.61)$, $t = 2.23$, $df = 155$, $p = .03$) compared to respondents who expressed other kinds of difficulties. Neuroticism was significantly lower in the group of the difficulty to comply with the requirements of the lockdown ($M(SD) = 3.06 (.85)$; $M(SD) = 3.5 (.79)$, $t = -3.28$, $df = 151$, $p = .001$), and significantly higher in the group of psychological difficulties ($M(SD) = 3.5 (.86)$; $M(SD) = 3.1 (.83)$, $t = 3.06$, $df = 149$, $p = .003$). Furthermore, Extraversion was significantly lower in the latter group of psychological difficulties ($M(SD) = 3.19 (.71)$; $M(SD) = 3.4 (.64)$, $t = -2.02$, $df = 153$, $p = .045$). There were no significant differences between the Agreeableness and Openness scales and the two other groups of difficulties (lack of social contacts and health concerns).

Discussion

As reported earlier, this study confirms the negative outcomes of the first quarantine of the COVID-19 pandemic on well-being (Spinter, 2021). Overall, more than half of the

participants indicated poor well-being, and these numbers are higher in comparison with the pre-pandemic level of well-being (39 percent had poor well-being) and well-being during the second quarantine (41–46%) (Skruibis, 2021). Furthermore, women experienced more difficulties compared to men. The well-being of women and young adults was significantly lower compared to the other groups. Several studies (Justo-Alonso et al., 2020; Rossi et al., 2020) 79.6% women. Selected outcomes were post-traumatic stress symptoms (PTSS in other countries show a similar picture: the most affected groups are women and young people. It seems that women are more vulnerable to experiencing the first COVID-19 related difficulties: the closure of educational institutions and unequal household workload are particularly felt during the quarantine. Also, the pandemic restrictions could possibly bring the realization of the need for communication at a young age. Overall, these results are in line with current research on the stressors of the pandemic (Geleželytė et al., 2021) and mental health difficulties during the first pandemic period (Serafini et al., 2020) that the pandemic is associated with a complex combination of stressors that may disrupt mental health and the general well-being.

Our results reveal that the perceived ability to cope with difficulties successfully did not differ among genders and age groups. However, the results are not in line with some studies that show that females (Rana et al., 2021) and older people in general (Justo-Alonso et al., 2020) focusing on how different generations coped with it. Method: An online survey was conducted during the early stages of the quarantine. Sociodemographic, health and behavioral variables were compared for five age groups. Mental health was assessed by the Depression, Anxiety and Stress Scale (DASS-21 were found to cope better in response to COVID-19. This might indicate that gender and age differences are found when the results are gathered by standardized measures instead of subjective evaluation. However, the results of our study might suggest that subjectively people tend to believe that they can cope with various burdens of the pandemic rather successfully.

In terms of personality traits, as expected, higher levels of Neuroticism were associated with the indication of any pandemic related difficulties, and subjectively evaluated higher impairment of those difficulties. These results suggest that more neurotic individuals may be more vulnerable to the changes caused by the pandemic, as they may have more negative reactions to these stressors and perceive the impairment of one's daily life as more severe, which supports the results of previous research (Aschwanden et al., 2021; Oshio et al., 2018). Higher levels of Neuroticism and lower levels of Extraversion were characteristic of those who experienced psychological difficulties, such as uncertainty, loneliness, or anxiety. Those who identified compliance with the requirements of the lockdown as a difficulty exhibited lower levels of Neuroticism. Lastly, lower Conscientiousness was characteristic of those who had experienced difficulties related to job and finances, which supports earlier research results that higher Conscientiousness predicts adaptive behaviour in academic and job performance (Blagov, 2021). Also, higher Conscientiousness was characteristic to those experiencing difficulties related to changes in work activities, which may be related to Conscientiousness as a personality trait that reflects the tendency to be responsible and organized. However, changes in work activities disturb the established

norms. Although more research is needed to understand the complexity of the manifestation of personality traits in the case of particular difficulty or different groups of difficulties, these results indicate that individual personality differences show other tendencies of resilience to specific challenges during the pandemic.

Another finding of this study provides an insight into associations between personality traits, well-being, and coping with difficulties. To be more precise, it was found that higher levels of Extraversion, Agreeableness, and Conscientiousness, as well as lower levels of Neuroticism were associated with better ability to cope with COVID-19-related difficulties more successfully. The same characteristics, as well as higher levels of Openness, were positively related to well-being. It indicates that those who are characterized by these traits were likely to cope more easily with the encountered difficulties during the pandemic, and their well-being possibly was less affected. These results are in line with the recent data showing the links between higher levels of Neuroticism and more negative COVID-19-related impacts and associations between higher levels of Extraversion, Agreeableness, Conscientiousness, and less negative effect COVID-19 difficulties (AL-Omiri et al., 2021). However, there are few studies regarding this topic, which hinders the ability to compare the results. Overall, these findings demonstrate the importance of the relation between personality traits, well-being, and COVID-19-related difficulties.

In summary, our results are valuable in highlighting different dimensions of individual differences when seeking to understand the impact of the pandemic better.

References

- AL-Omiri, M. K., Alzoubi, I. A., Al-Nazeh A. A., Alomiri, A. K., Maswady, M. N., & Lynch, E. (2021). COVID-19 and Personality: A Cross-Sectional Multicenter Study of the Relationship Between Personality Factors and COVID-19-Related Impacts, Concerns, and Behaviors. *Frontiers in Psychiatry, 12*, Article 608730. <https://doi.org/10.3389/fpsyt.2021.608730>
- Aschwanden, D., Strickhouser, J. E., Sesker, A. A., Lee, J. H., Luchetti, M., Stephan, Y., ... Terracciano, A. (2021). Psychological and behavioural responses to Coronavirus disease 2019: The role of personality. *European Journal of Personality, 35*(1), 51–66. <https://doi.org/10.1002/per.2281>
- Asselmann, E., Borghans, L., Montizaan, R., & Seegers, P. (2020). The role of personality in the thoughts, feelings, and behaviors of students in Germany during the first weeks of the COVID-19 pandemic. *PLoS ONE, 15*(11), Article e0242904. <https://doi.org/10.1371/journal.pone.0242904>
- Blagov, P. S. (2021). Adaptive and dark personality in the COVID-19 pandemic: Predicting health-behavior endorsement and the appeal of public-health messages. *Social Psychological and Personality Science, 12*(5), 697–707. <https://doi.org/10.1177/1948550620936439>
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. London: Sage Publications Inc.
- Geleželytė, O., Nomeikaitė, O., Kvedaraitė, M. ir Kazlauskas, E. (2021). Psichikos sveikata COVID-19 pandemijos eigoje. Paimta iš <https://www.sf.vu.lt/psichologijos-institutas/psichologijos-instituto-struktura/centrai/vu-traumu-psichologijos-grupe#covid-19>
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114–158). New York: Guilford Press.
- Justo-Alonso, A., García-Dantas, A., González-Vázquez, A. I., Sánchez-Martín, M., & del Río-Casanova, L. (2020). How did different generations cope with the COVID-19 pandemic? Early stages of the pandemic in Spain. *Psicothema, 32*(4), 490–500. <https://doi.org/10.7334/psicothema2020.168>

- Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences, 127*, 54–60. <https://doi.org/10.1016/j.paid.2018.01.048>
- Psychiatric Research Unit (1999). *PSO (5) Geros savijautos rodiklis*. WHO Collaborating Centre in Mental Health, Hillerod.
- Rana, I. A., Bhatti, S. S., Aslam, A. B., Jamshed, A., Ahmad, J., & Shah, A. A. (2021). COVID-19 risk perception and coping mechanisms: Does gender make a difference? *International Journal of Disaster Risk Reduction, 55* (January). <https://doi.org/10.1016/j.ijdr.2021.102096>
- Rettew, D. C., McGinnis, E. W., Copeland, W., Nardone, H. Y., Bai, Y., Rettew, J., ..., Hudziak, J. J. (2021). Personality trait predictors of adjustment during the COVID pandemic among college students. *PLoS One, 16*(3), Article e0248895. <https://doi.org/10.1371/journal.pone.0248895>
- Rossi, R., Socci, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., ..., Di Lorenzo, G. (2020). COVID-19 Pandemic and Lockdown Measures Impact on Mental Health Among the General Population in Italy. *Frontiers in Psychiatry, 11*, 7–12. <https://doi.org/10.3389/fpsy.2020.00790>
- Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *An International Journal of Medicine, 113*(8), 529–535. <https://doi.org/10.1093/qjmed/hcaa201>
- Skruibis, P. (2021). Visuomenės psichikos sveikata COVID-19 pandemijos metu [Pranešimas konferencijoje]. Lietuvos Respublikos Seimas.
- Spinter research (2021). *Pandemijos poveikio visuomenės psichikos sveikatai ir paslaugų naudojimo tyrimas*. Lietuvos Respublikos sveikatos apsaugos ministerija.
- Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: A systematic review of the literature. *Psychotherapy and Psychosomatics, 84*(3), 167–176. <https://doi.org/10.1159/000376585>