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Robert Piec
Main School of Fire Service (Poland)
ORCID: 0000-0002-5234-5639
e-mail: rpiec@sgsp.edu.pl

Barbara Szykuła-Piec
Main School of Fire Service (Poland)
ORCID: 0000-0002-4533-232X
e-mail: bpiec@sgsp.edu.pl

Izabella Helena Grabowska-Lepczak
Main School of Fire Service (Poland)
ORCID: 0000-0003-4695-3993
e-mail: igrabowska@sgsp.edu.pl

Weronika Jakubczak
Main School of Fire Service (Poland)
ORCID: 0000-0003-1501-5064
e-mail: wjakubczak@sgsp.edu.pl

Psychosocial Effects of the Pandemic.
Stress and Sense of Safety Experienced by Poles During the COVID-19 Pandemic in 2020–2021

Abstract: The pandemic that broke out in 2019 had a significant impact on the lives of all social groups around the world. The imposed restrictions and mandatory quarantine were crucial to limit the virus's spread. The research comprises an analysis of the psychosocial impact exerted by the pandemic that attempted to determine the response to the crisis caused by the COVID-19 pandemic and its aftermath. For this purpose, a study on social resilience in the pandemic era was worked out. The study consisted of several parts: stress and the sense of safety, education, trust and defined needs and the mass media in COVID-19. The research team decided to present the study's results in a series of articles that will contribute to forming a complete picture of the community in the context of the analysed variables. The paper is the first in this series. It contains an analysis of variables intended to determine the level of the experienced sense of safety and its constituent, i.e., stress, and the identification of socio-demographic data strongly influencing the studied variables. The study comprised 559 individuals who were surveyed between May 2020 and November 2020 with the use of

an online survey questionnaire. SPSS Statistics version 21.0 and PQStat were used to conduct statistical analyses and correlate and assess the correlation of responses. Also used were Chi-square, Fisher's test and Pearson's linear correlation coefficient. A logistic regression analysis was carried out for dichotomous variables. The results of the study indicate that the level of experienced stress is influenced by age, place of residence, gender and job security. The sense of safety is inversely correlated with stress, i.e., as stress increases, the sense of safety decreases, indicating a need to undertake appropriate measures to reduce stress. It may be interesting to compare the level of stress with, among other things, information retrieval from different sources. These results will be presented in the subsequent studies.

Keywords: *COVID-19, level of stress, sense of safety, resilience, community, safety, psychosocial effects*

1. Introduction

Pandemic is a term that must be used responsibly. If misused, it can create unwarranted fear and cause social unrest. However, the growing number of people infected with COVID-19 as of 2019 has forced international medical organisations to call the epidemiological threat outright. The place where the pandemic originated was the Chinese city of Wuhan. The World Health Organisation (WHO) announced the first case of infection on December 8, 2019. In early 2020, the pandemic moved to Europe and beyond. However, its epicentre is Europe (Kancelaria Senatu, 2020). According to WHO data, there have been 462,758,117 confirmed cases of COVID-19 worldwide (as of March 17, 2022), including 6,056,725 deaths. By March 15, 2022, a total of 10,783,650,787 doses of the vaccine had been administered (WHO, n.d.).

To minimise the impact of the epidemiological threat, most countries in the world have implemented numerous restrictions, such as remote working and learning, increased social distance, the need to use protective masks, limits on the number of people in public places and the need for COVID certificates.

The pandemic caused a cascading effect. The introduction of lockdowns entailed intensifying existing social problems and the emergence of numerous new ones. The lockdown of workers, students and schoolchildren at home was intended to limit the spread of the disease, but the imposed social distance caused many other adverse phenomena, such as sleep disorders, anxiety, stress, and a reduced sense of safety (Chaturvedi et al., 2021).

Undoubtedly, the COVID-19 pandemic has significantly affected the former way of life and lifestyle of the population. The imposed restrictions not only forced a reorganisation of daily life (Saladino et al., 2020). For society, it also meant the onset of uncertainty, psychological discomfort, increased anxiety, depression, growing fear and stress (Nunes & Viola, 2021; Giuntellaa et al., n.d.). Stress during the pandemic has been investigated in numerous studies. Stress is the relation between a person and their environment, which is perceived by the given person as burdensome, exceeding their resources, or even threatening their well-being

(Polskie Towarzystwo Psychologiczne, n.d.). Selye defined stress as a non-specific reaction of the organism to the demands imposed on it. Apart from the concept of distress, i.e., negative stress, he has also introduced the concept of eustress, i.e., stress that can positively affect an individual. He referred to the negative meaning of stress as a situation when the body's ability to cope becomes suppressed (Selye, 1977). The COVID-19 pandemic can be described as a long-term chronic stressor affecting people worldwide. There are concerns that it could cause an unprecedented public mental health crisis (Pfeifer et al., n.d.). In these situations, we are dealing with classic long-term traumatic stress. It is considered characteristic when there is a likelihood of death, a threat to one's own life or health or that of others, including bodily integrity. Experiencing strong fear, helplessness and terror is a normal reaction accompanied by a lack or reduced sense of safety (Helzer et al., 1987, pp. 1630–1634).

Stress is a physiological reaction to a stressor, while the sense of safety is a state characterised by adequate control of physical, mental and material threats contributing to the perception of being protected from danger (Helzer et al., 1987). Based on the classical theory of humanistic psychology, which places security in a set of basic needs (Maslow, 2006), and which includes physical security but also a sense of certainty, constancy, order, care, and guarantee of a steady income and work, the team decided to investigate whether and to what extent the pandemic affected this basic need, i.e., a sense of safety and closely related stress levels. The following research hypothesis was adopted: the COVID-19 pandemic, which has been ongoing since 2019, significantly impacted Poles' sense of security and stress levels in 2020–2021. The research problem was formulated: How and to what extent has the COVID-19 pandemic impacted Poles' sense of security and stress levels in 2020–2021? The study's main objective was to assess the impact of the COVID-19 pandemic on Poles' sense of security in 2020–2021. Another goal was to diagnose to what extent demographic variables affect the stress experienced during the pandemic.

2. Methodology

The cross-sectional research was conducted using an online survey questionnaire between May 2020 and November 2020. The survey was shared via social media and sent by electronic mail. The data were compiled using a specially designed Google Forms questionnaire. Filling in and sending the questionnaire was understood as simultaneous consent to participate in the study. The respondents were aware of this fact. The submitted questionnaires were collected in a catalogue and subjected to verification to eliminate erroneous or illegible samples. The survey was anonymous; however, the data collected prevented the identification of the person surveyed.

The variables were questions from the questionnaire, which consisted of demographic inquiries (age, gender, education, number of inhabitants in the place of residence, income security) intended to characterise the research sample and a specific section of questions intended to assess subjective levels of stress and subjective levels of the sense of safety. The

survey covered many aspects of social resilience and contained 31 questions. The publication uses respondents' answers to solve the research problem and achieve the study's goal. The questions were close-ended. Possible answers are shown in Table 2 in column 2. The stress level was assessed on a 10-point scale, where a value of 1 means that the respondent did not feel stress and 10 means that the respondent felt it strongly. The subjective sense of safety was assessed on a 5-point scale, where 1 means the respondent did not feel safe and 5 means the respondent felt very safe. New variables were created; the first variable was the low and the high stress level: based on a 10-point scale, a dichotomous scale was developed, and a value of 0 (low stress level) was assigned to the values 1, 2, 3, 4, 5 indicated by the respondents in the stress level question and a value of 1 for the values 6, 7, 8, 9, 10. Also, the variable of a low and high level of sense of safety was created. Value 0 (low stress level) was assigned to values 1, 2, 3 indicated by the respondents in the question concerning the level of safety, and values 4, 5 was assigned 1.

The authors found that the score of 3 is not unambiguous – it determines the average state, so the hypothesis that the sense of security is unambiguously high cannot be rejected. In the logistic analysis, the authors were interested in determining the influence of demographic variables and stress on high levels of feelings of security, so values of 3 were excluded.

Respondents in the preamble to the study were asked to indicate their feelings in the context of the pandemic, the phrase "current situation" was meant to emphasise and remind that the authors of the study care about feelings at the time of COVID-19. However, the influence of another variable cannot be completely excluded. However, as presented in the discussion section, other studies strengthen the accepted hypothesis.

The survey was voluntary and anonymous and was distributed only via the Internet and social media. Nowadays, most people use the Internet and social media, particularly those educated ones, but still, it cannot be excluded that there may be people who do not use it or do so very rarely. It is reflected in the distribution of the educational level of the people surveyed – 78% have a university degree.

The pandemic has resulted in movement restrictions, so the information about COVID that is of concern is obtained primarily from the media, and it has been assumed that, regardless of actual residence, the restrictions are the same on the territory of the whole country (Poland).

560 people filled in the internet questionnaire and 559 questionnaires were qualified for further analysis following an evaluation of the correctness of the data entered, including 51% of women and 49% of men. The proportions of men and women in the study group were similar to the general distribution characterising the gender distribution in Poland (Ambroch et al., 2021). Only those questionnaires in which the respondent answered all the questions were admitted for further analysis. For the entire Polish population, assuming a significance level of 0.05 and an error of 0.05, the required number of persons undertaking the survey is 384.

SPSS Statistics version 21.0 and PQStat were used to carry out statistical analyses and correlate and assess responses' interdependence. The study employed Chi-square, Fisher's test, Pearson's linear correlation coefficient, and linear regression. Logistic regression analysis was performed for dichotomous variables.

3. Results

The distribution of surveyed respondents is presented in Table 1.

Table 1. Demographic data

Demographics	**Group**	**N (%)**	
Gender	Female	286	51.163%
	Male	273	48.837%
age	below 18	9	1.61%
	18–26	183	32.737%
	27–34	124	22.182%
	35–43	141	25.224%
	18–26	65	11.628%
	18–26	26	4.651%
	over 60	11	1.968%
education	primary/high school education	9	1.61%
	vocational/secondary education	19	3.399%
	secondary education	96	17.174%
	higher education	435	77.818%
place of residence	*rural area*	181	32.379%
	town with up to 50 000 inhabitants	87	15.564%
	town with 50 000 to 150 000 inhabitants	53	9.481%
	town with 150 000 to *500* 000 inhabitants	39	6.977%
	town with more than 500 000 inhabitants	199	35.599%
status of relationship/relation	*single, divorced or widowed*	26	4.651%
	in a civil partnership/married couple living together	334	59.75%
	in a relationship but living separately		
	single	72	12.88%
		127	22.719%
job security	*difficult to say*	81	14.49%
	yes	381	68.157%
	no	97	17.352%

The study aimed to determine the level of the subjective sense of stress and the sense of safety among the surveyed people. The average stress level is 4.7 on a 10-point scale, where 1 means negligible, functional stress; 10 – extreme, even paralysing stress; a small standard deviation of 2.23 indicates that most responses oscillate around the average. Fig. 1 shows the distribution of respondents' answers to the question, "Please indicate the level of perceived stress related to the current situation".

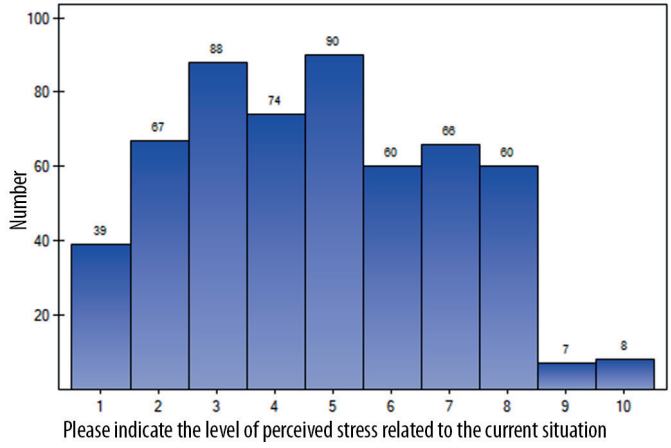

Fig. 1. Level of experienced stress

Respondents were also asked to determine their sense of safety by asking them. The arithmetic mean of their answers is 3.19 on a scale from 1 to 5, where 1 means no sense of safety and 5 – a very high sense of safety.

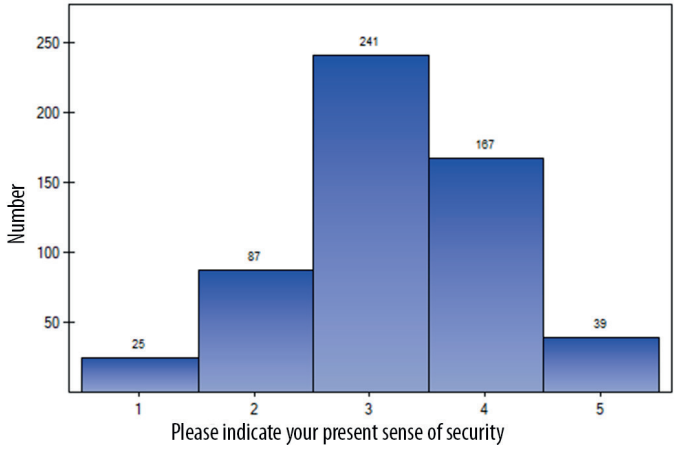

Fig. 2. Sense of safety

In the next step, an analysis was carried out of the influence of demographic data on the level of perceived stress, and afterwards, the variables influencing the sense of safety were determined. A new variable stress with values of 0 and 1 was adopted in the analysis. Chi-square test, Fisher's test, Pearson's linear correlation coefficient and linear and logistic regression analysis were applied.

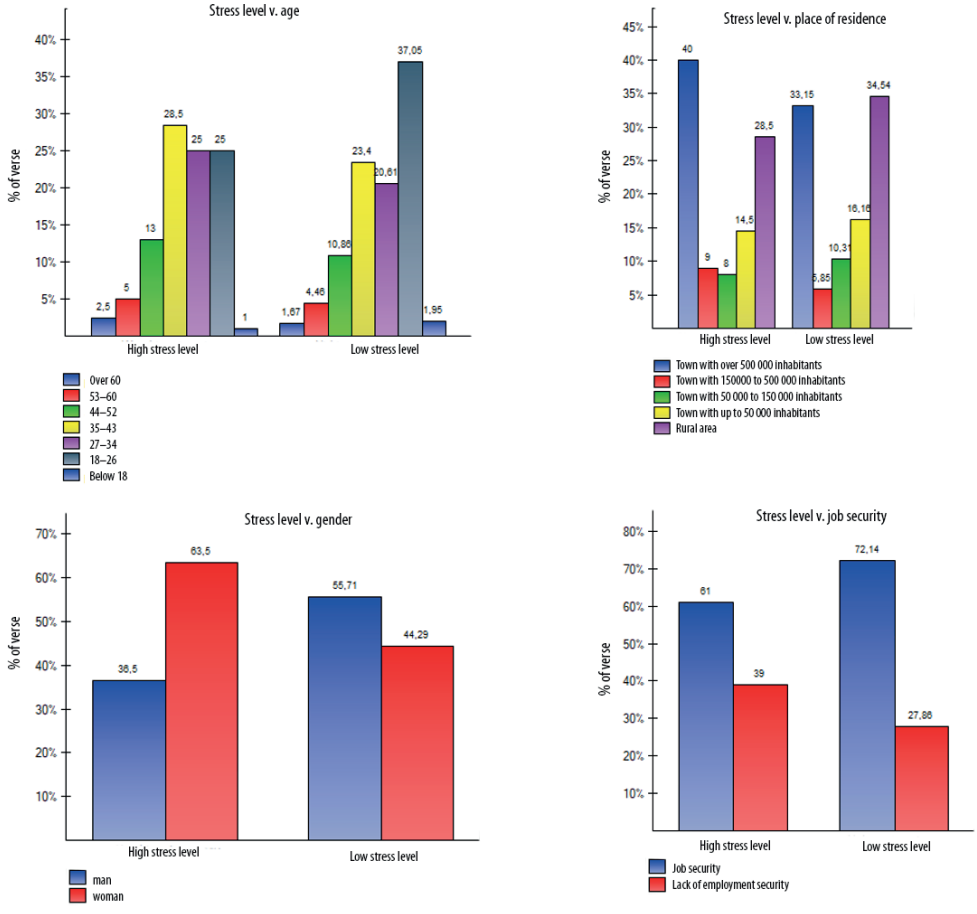

Fig. 3. Distribution of respondents' answers for: stress v. age, stress level v. place of residence, stress level v. gender, stress level v. job security

The results of the analyses do not allow concluding that the relationship status variable affects stress or the sense of safety. The results of conducted analyses of the remaining variables were as follows.

The calculations suggest that age has a statistically significant effect on stress. The older the person, the higher the level of stress they indicate. The correlation coefficient r=0.15 and the coefficient of determination r2=0.02 indicate an insignificant relationship. However, age has a statistically significant effect on stress determined by low and high levels. The logistic regression model concludes that the chance of high stress level increases by 1.2 for the next age group, Age: OR[95%] = 1.18 [1.03; 1.34]

The place of residence also has a statistically significant effect on stress defined by two levels. The chance of having a high level of stress increases by 1.1 for the subsequent larger place of residence. Stress level: OR[95%] = 1.11 [1.00; 1.23]

Gender has an evident effect on stress, which can be seen in the 10-level and two-level stress responses. It is confirmed by figure 4 analysis, a chi-square test ($p<0.05$) and a logistic regression model. The chance of a high stress level statistically tends to increase significantly if the respondent is a woman. The chance of a low stress level in a man is more than twice as high as in a woman, Gender (for high stress level): OR[95%] = 0.46 [0.32; 0.65], Gender (for low stress level): OR[95%] = 2.19 [1.53; 3.12].

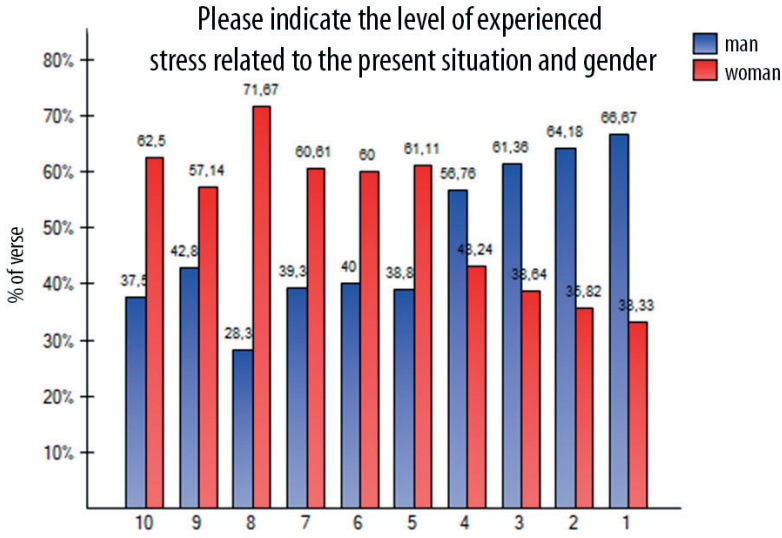

Fig. 4. Distribution of respondents' answers for: "Please indicate the level of experienced stress related to the present situation and gender"

Job security also has a statistically significant effect on stress. The chance of high stress levels decreases for people with assured earnings, Job security: OR[95%] = 0.60 [0.42; 0,87].

Next, the variables that influence the sense of safety were verified. A new dichotomous variable was developed for the analysis, i.e., the level of the sense of safety.

Table 2. The level of the sense of safety

	Number	Percentage
Low sense of safety	353	63.15%
High sense of safety	206	36.85%

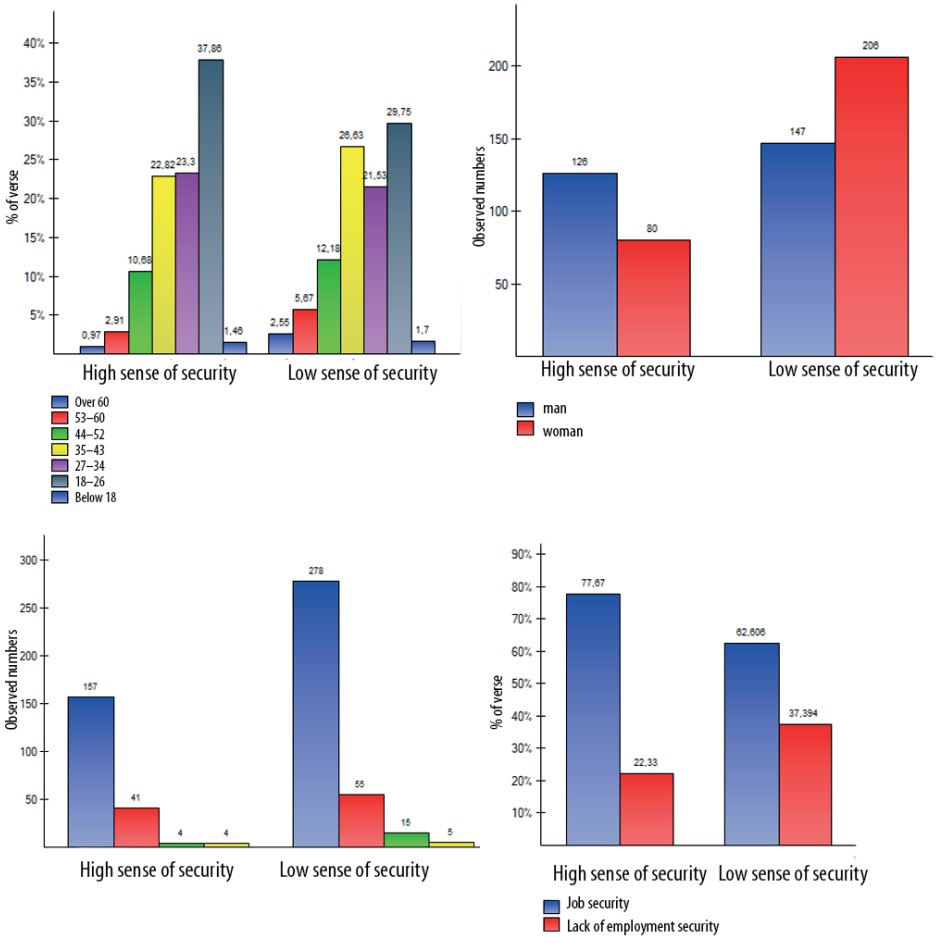

Fig. 5. Distribution of respondents' answers for: the sense of safety v. age, sense of safety v. gender, sense of safety v. education, sense of safety v. job security

The correlation analysis indicates that the variables of age and place of residence have a statistically significant ($p<0.05$) effect on the sense of safety, yet values of the correlation coefficient remain close to 0. Therefore, it cannot be assumed that there is a relationship. The results obtained for the logistic models allow more precise identification of interdependencies.

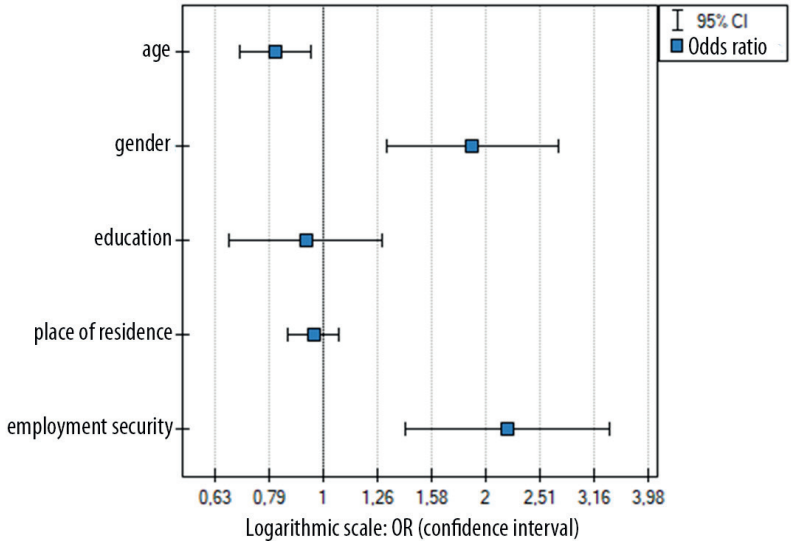

Fig. 6. Distribution of respondents' answers for: the sense of safety v. age, gender, education, place of residence, employment security

The chance of having a high sense of safety decreases with age, Age: OR[95%] = 0.84 [0.73; 0.96].

The results of the chi-square test and Fisher's exact test for $p<0.005$ indicate that women and men perceive the level of security differently. The chance of having a high level of feeling safe is 2.2 times higher in men, Gender: OR[95%] = 2.21 [1.55; 3.14].

The results of conducted calculations indicate that in the surveyed group, education does not influence the feeling of safety.

Job security significantly ($p<0.05$) influences the feeling of safety expressed on a scale of 1-5 and 0.1. The chance of feeling a high sense of safety increases by more than twofold (by 2.11) among people who declare regular employment, Job security: OR[95%] = 2.08 [1.40; 3.08].

A logistic regression model for age, gender, and job security show how age, gender and job security affect the sense of safety.

Table 3. A logistic regression model for age, gender and job security

Variable	factor b	error b	-95% CI	+95% CI	Wald's stat	value p	odds ratio	-95% CI	+95% CI
single	-1.37	0.39	-2.13	-0.60	12.17	0.000485	0.25	0.12	0.55
age	-0.21	0.08	-0.36	-0.06	7.92	0.0049	0.81	0.70	0.94
gender	0.66	0.18	0.30	1.02	12.78	0.000351	1.93	1.35	2.76
job security	0.75	0.21	0.33	1.17	12.53	0.000401	2.12	1.40	3.21

Age: OR[95%] = 08.1 [0.70; 0.94]
Gender: OR[95%] = 1.93 [1.35; 2.76]
Job security: OR[95%] = 2.12 [1.4; 3.21]
Further, an assessment was carried out of how stress affects the sense of safety.

For stress expressed on a ten-point scale and sense of safety on a five-point scale, there is a correlation dependence for $p < 0.05$ because as stress increases, sense of safety decreases, Pearson's linear correlation coefficient r=-0.47. The results of estimating linear regression coefficients show that the relationship can be described by the formula: the sense of security = -0.195 + 4.111 * stress level, the coefficient of determination r2=0.22, indicating that stress explains 22% of the variation in the sense of security.

The results are also statistically significant for the dichotomous variables at $p<0.05$ by chi-square and Fisher's exact test.

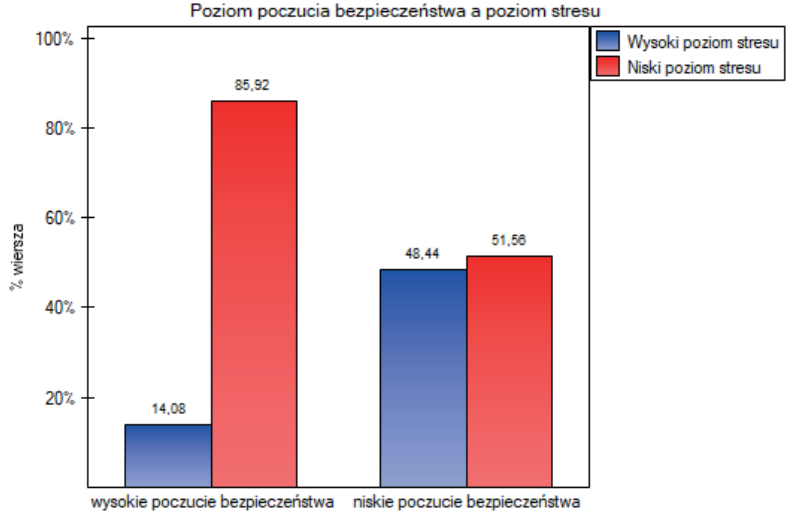

Fig. 7. Level of safety sense v. stress level

The logistic regression results suggest that a 5.7-fold increase occurs in the chance of a low sense of safety for the group with a declared high stress level.

Discussion

Our study aimed to identify the level of stress and the sense of safety among Polish residents during the COVID pandemic and to establish the influence of selected socio-demographic variables on stress and sense of safety. The COVID-19 disease has caused a significant increase in anxiety with profound effects on all aspects of societal life, including mental and

physical health. Research shows that the uncertainty and fear of a viral outbreak, social isolation and economic recession can lead to increased suicide rates and mental disorders (McIntyre & Lee, 2020; Mamun & Ullah, 2020; Thakur & Jain, 2020).

In a study by Wang et al. (2020) in which an online survey collected information including demographics, physical symptoms, COVID-19-related knowledge and concerns, and other information in relation to COVID-19 to better understand anxiety, depression and stress during the early stages of the COVID-19 epidemic 67.9% were found to have a normal stress score, 24.1% were individuals with mild stress; 5.5% declared moderate stress and 2.6% were found to be suffering from severe and very severe stress (Wang et al., 2020). Our study shows that the average stress level among the respondents is 4.7 on a 10-point scale, with 1 indicating negligible functional stress and 10 indicating extreme, even paralysing stress. A small standard deviation of 2.23 indicates that most responses oscillate around the mean. It indicates a moderate level of stress in the surveyed population. Assuming that the first three marks on the scale represent stress as a natural, negligible phenomenon marks 4 and 5 light stress, 6, 7 moderate stress and 8, 9, and 10 severe stress, our study shows that the level of stress among the community analysed by the team is significantly higher.

Table 4. Stress level based on a variable combination

points on the stress scale	type of stress	percentage	percentage in the study of Wang et al. (2020)
1; 2; 3	negligible stress, its correct level	34.70%	67.9%
4; 5	mild stress	29.30%	24.1%
6; 7	moderate stress	22.50%	5.5%
8, 9, 10	extreme stress	13.40%	2.6%

In the study sample, age had a statistically significant effect on stress. The higher the age index, the higher the stress level. Age significantly affects stress by two levels – low stress and high stress. The chance of a high stress level significantly increases with the respondent's age. It is in contrast to studies conducted in Italy (Mazza et al., 2020), where younger age groups are often associated with higher stress levels compared to older people. The place of residence significantly impacts stress as determined by two levels. People residing in a place with a higher population density are more likely to experience stress. A correlation was observed between gender and the occurrence of stress. The chance of high stress levels increases statistically significantly if the person surveyed is a woman; the chance of low stress levels in a man is more than twice that in a woman. It has been confirmed in other studies (Wang et al., 2020; Mazza et al., 2020; Samadarshi et al., 2020). Also, job security generally statistically affects stress. The chance of high stress levels decreases for individuals with job security.

Respondents were also asked to describe their sense of safety. The arithmetic mean of their answers is 3.19 on a scale from 1 to 5, where 1 means no feeling of safety, and 5 is a very

high feeling of safety. The variables age and place of residence have a statistically significant effect on feelings of safety. The chance of having a high sense of safety decreases with age. The sense of safety in men is more than twice as high as in women. The education level of the respondents does not affect the sense of safety. However, having a regular income already significantly increases the sense of safety. It was twice as high as for people who did not have a regular income. As stress increases, the sense of safety decreases. The chance of a low sense of safety increases almost six-fold for the group with a declared high level of stress

Conclusions

The sense of safety is undoubtedly closely related to perceived stress by referring to the threat and risk associated with that threat, to which the individual can subjectively relate (Gromek, n.d.). A sense of safety is an important factor that includes the experience of being safe and is the object of social reality interactions (Klamut, 2012). The coronavirus pandemic (COVID-19), the largest viral epidemic of the 21st century, gave rise to unprecedented threats to mental health worldwide. The mental health of the general public requires particular attention, as it both determines a sense of safety and contributes directly to social resilience. Resilience is the ability to cope with a crisis, to survive the 'sickness' of the community using the resources at one's disposal without actually exhausting them. It is connected in the first place with having these resources at disposal and, secondly, the ability to use and manage them effectively. Social resilience is also the ability to recover after experiencing a crisis. Resilience can be measured by the time it takes to return to a normal situation and to start creating and storing resources necessary for the development and functioning of societies.

These activities are possible when community members are not experiencing dysfunctional stress and have a high sense of safety. In our study, women, older people and individuals with a limited regular income without income safety tend to experience stress more strongly. It correlates with a declared lower sense of safety. Such an epidemiological profile may facilitate the identification of people at greater risk of psychological dysfunction, which may have consequences in terms of social functioning by forming a weaker link in the system of social resilience.

The results may be useful in adjusting the necessary psychological support. One limitation of this study is that without baseline data on pre-pandemic stress levels and a sense of safety, it was impossible to conduct accurate pre-post analyses; therefore, we cannot be sure whether stress levels increased or whether this increase (if confirmed) was indeed associated with COVID-19.

Our results provide an overall picture of the stress level and sense of security during COVID-19 in Poland, providing a benchmark for future research.

References:

Ambroch, M. et al. (2021). *Polska w liczbach 2021*. Główny Urząd Statystyczny, Departament Opracowań Statystycznych.

Chaturvedi, K., Kumar Vishwakarma, D., & Singh, N. (2021). COVID-19 and its impact on education, social life and mental health of students: A survey. *Children and Youth Services Review, 121*, 105866. https://doi.org/10.1016/j.childyouth.2020.105866

Giuntellaa, O., Hydea, K., Saccardob, S., & Sadoffc, S. (n.d.). Lifestyle and mental health disruptions during COVID-19. *PNAS, 118*(9), e2016632118. https://doi.org/10.1073/pnas.2016632118

Gromek, P. (n.d.). *Poczucie bezpieczeństwa a badania w dyscyplinie nauk o bezpieczeństwie*. DOI: 10.5604/01.3001.0015.0049

Helzer, J. E., Robins, L. N., & McEvoy, L. (1987). Post-traumatic stress disorder in the general population. Findings of the epidemiologic catchment area survey. *New England Journal of Medicine,* 317, 1630–1634.

Kancelaria Senatu. (2020). *Pandemia Covid-19 Sytuacja w wybranych krajach europejskich*. Opracowania tematyczne OT–680.

Klamut, R. (2012). Bezpieczeństwo jako pojęcie psychologiczne. *Zeszyty Naukowe Politechniki Rzeszowskiej*, *19*(4).

Mamun, M. A., & Ullah, I. (2020). COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty? – The forthcoming economic challenges for a developing country. *Brain Behav. Immun*. DOI: 10.1016/j.bbi.2020.05.028

Maslow, A. (2006). *Motywacja i osobowość*. PWN.

Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: immediate psychological responses and associated factors. *Int. J. Environ. Res. Public Health, 17*, 3165. DOI: 10.3390/ijerph17093165

McIntyre, R. S., & Lee, Y. (2020). Projected increases in suicide in Canada as a consequence of COVID-19. *Psychiatry Res, 290*. DOI: 10.1016/j.psychres.2020.113104

Nunes, M. L., & Viola, T. W. (2021, September 20). Social and environmental effects of the COVID-19 pandemic on children. *Journal de Pediatria*. https://doi.org/10.1016/j.jped.2021.08.003

Pfeifer, L. S., Heyers, K., Ocklenburg, S., & Wolf, O. T. (n.d.). Stress research during the COVID-19 pandemic and beyond. *Neuroscience and Biobehavioral Reviews*. https://doi.org/10.1016/j.neubiorev.2021.09.045

Polskie Towarzystwo Psychologiczne. (n.d.). *Słownik Instytutu Psychologii Zdrowia*. https://psychologia.edu.pl/slownik

Saladino, V., Algeri, D., & Auriemma, V. (2020, October 2). The Psychological and Social Impact of Covid-19: New Perspectives of Well-Being. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2020.577684

Samadarshi, S. C. A., Sharma, S., & Bhatta, J. (2020). An online survey of factors associated with self-perceived stress during the initial stage of the COVID-19 outbreak in Nepal. *Ethiop. J. Health Dev., 34*(2), 1–6.

Selye, H. (1977). *Stres okiełznany*. PIW.

Thakur, V., & Jain, A. (2020). COVID 2019-Suicides: a global psychological pandemic. *Brain Behav. Immun*. DOI: 10.1016/j.bbi.2020.04.062

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *Int. J. Environ. Res. Public Health, 17*(5), 1729. DOI: 10.3390/ijerph17051729

WHO. (n.d.). https://covid19.who.int