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The Social Roots of Fears at the Start of the SARS-CoV-2 Pandemic. An Online Study of the Ethnic Hungarian Population in Romania

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Abstract. The paper addresses the issue of contamination fear within the context of the SARS-CoV-2 pandemic. The everyday lives and feelings of the ethnic Hungarian population in Transylvania, Romania, were investigated with an online survey in the middle of the lockdown, in April 2020. In the search for the socioeconomic and demographic determinants of perceived infection risk, we rely on descriptive and two-variable analysis as well as explanatory regression models controlling for covariates. The results show that respondents perceive public places to hold the highest risk of contamination from the virus. In the article, we also draw the sociodemographic profile of the "fearful" and "brave" attitudes towards the threat represented by the virus. Perceived infection risk is higher for the elderly, the more educated, and the non-religious people. The paper reveals that respondents' concerns, beyond that of infection, are predominantly economic in character.

Keywords: SARS-CoV-2 pandemic, fears, infection threat, personal concerns

The General Context of the SARS-CoV-2 in Romania

The existence of the pandemic was officially declared on 11 March 2020 by the World Health Organization (WHO). In Romania, the lockdown started after a short delay, on 16 March 2020, when the president decreed a state of emergency. As for the opinions and feelings at this time, the initial period of the pandemic can be described rather as one of confusion, as there were many more questions than answers at both the individual and societal levels. In this social context, as Juheon (2020) concluded, uncertainty and the perceived risks of disaster among the citizens had a negative impact on the out-group and generalized trust, while the disaster experience is positively associated with trust. As our research focuses on the first period of the pandemic in Romania, especially during the lockdown period, between March 15 and May 15, for most of our respondents – as the results will show –, the perceived risk was much more real than the disease itself.

The solidarity among the citizens had various degrees during the lockdown. As Voicu et al. (2020) reveal, at the beginning of the lockdown period, solidarity in Romania and Hungary decreased, while after a longer period of several weeks it started to increase. From these results, we can conclude that the first period of the pandemic outbreak and lockdown created a specific state of mind among the citizens, which negatively affected people's trust, solidarity, and mental health. Therefore, our paper focuses on the personal, subjective perception of the pandemic during its first period in Transylvania, Romania. This paper addresses the issue of the self-rated risk of infection with SARS-CoV-2, the issue of possible infection mediators, and further threats as perceived by individuals during the first wave of the pandemic in April 2020.

The Perception of the Risk and Personal Fears

In the first period of the pandemic, numerous authors conducted research among different groups of healthcare workers (e.g. Kinariwala et al. 2021, Urooj et al. 2020). At the outbreak of the SARS-CoV-2, initial simple measurements of the fear of contamination were performed. For instance, in Canada, approximately every third person was afraid of infection (Angus Reid Institute 2020); other surveys measured about 40% (Pollara Strategic Insights 2020), whereas in the rates USA were assessed between 37% (Morning Consult 2020) and 56% (Aubrey 2020).

Papers analysing the fears of the population during the pandemic focus on the different aspects of it. Generally, at the personal level, several experiments have shown that uncertainty increased anxiety, which then increased the perception of threat (e.g. Endler et al. 2000, 2021). Also, at the personal level, a subjective perception of the threat, which can result in fears and worries, shows some specific

manifestations. As Pakpour and Griffiths (2020) reveal, there are significant differences among the individuals regarding the information, knowledge, and personal, subjective sensitivity when facing a threat, which influences their perceptions and reactions towards infection threat.

At the time of our survey, there was hardly any literature on the social determinants of self-perceived infection risk. Therefore, in an attempt to identify these, we draw on the existing literature on the fear of death and death anxiety, of which the perceived infection threat may be one element, even if not a perfect indicator. Literature suggests that the intensity of religiosity is associated with less death anxiety, as religious convictions work as a buffer against such fear, offering consolation in the face of death (Malinowski 1954). A further plausible explanation is the integrative and regulative power of religions reaching back as far as Émile Durkheim's 1897 work on suicide (Durkheim 2005). According to this theory, the more integrative and regulative power a religion has, the less likely it is for its adherents to suffer from anomie and commit suicide. From this point, it is plausible to assume that religious people experience a lower contamination fear than their non-religious counterparts do.

A meta-analysis of the literature on the concepts fear and anxiety reveals that although these two terms often overlap and are used as synonyms, they are in fact two distinct emotions and only moderately correlate with each other (Sylvers et al. 2011). With a large base of evidence from the neurobiological and clinical literature, it is claimed that in spite of their similar defining characteristics, these two emotional states are separable constructs. Kranz et al. (2020) make the same differentiation regarding coronavirus anxiety: the somatic anxiety, which they identify with the level of emotionality and increased psychological arousal, and the cognitive component, which refers to the worries and negative expectations.

In our analysis, we focus on fears, and we use the term fear as distinct from anxiety. Although a large body of literature in the context of the pandemic focuses on the anxiety aspect, in this paper we depart from the conceptualization of the state of fear as a cognitive response to threat and of anxiety as an emotional response to threat (Beck–Emery 2005). Literature suggests that the subjective experience of fear can best be assessed by self-report (Gray–McNaughton 2000), as proceeded in the present research. In our endeavour to address contamination threat and subjective perceptions of infection risk, we use the notion of fear.

Besides contamination fear, there are some other existential and interpersonal fears strongly related to the pandemic's consequences. In a Canada-wide study, the main fears are of economic character, both with respect to the country and to personal lives (Pollara Strategic Insights 2020). Across Europe, 16% of the workers were afraid of losing their jobs in the near future, and among those without a permanent contract, this rate rose even to 20% (Eurofound 2020).

At the interpersonal level, as the lockdown is targeted at constraining human interactions, negative effects are the consequence of lifestyle and personal freedom limitations. This situation generates different types of fears and states of mind. People experienced the escalation of loneliness and anxiety, and mental health indicators dropped (Eurofound 2020). As Casale and Flett (2020) point out, one of the negative effects of the lockdown is the fear of missing out – after Pryzbylski et al. (2013) – and the fear of not mattering – after Rosenberg and McCullough (1981). The "Fear of Missing Out" (FoMO) is a subjective experience that a person might encounter when his or her need for relatedness remains unsatisfied (Pryzbylski et al. 2013). The fear of not mattering to other people is likely associated with the fear of missing out because they both reflect a negative or uncertain sense of self and a need for validation through connection with other people. Mattering is both a need and a feeling that involves knowing that you are significant to other people, and it is a stronger predictor of distress and poor adjustment than self-esteem (Rosenberg–McCullough 1981). Mattering is a psychological resource that should prove highly protective in terms of buffering anxiety during SARS-CoV-2 pandemics (Flett–Zangeneh 2020). Casale and Flett (2020) point out regarding the two fears (i.e. missing out and not mattering) that although they both reflect a negative or uncertain sense of self, they have different mechanisms, as missing out is not more than a fear, but mattering is both a feeling and a need. As both concepts can be derived from an interpersonal perspective, lockdown and social distancing can be the roots of these fears, too.

Research reveals that the different types of fears cannot be discussed homogenously as their effect is differentiated within the population. Fitzpatrick et al. (2020) contend, for instance, that women and families with children under 18 years of age reported a higher level of perceived fear and distress than the other segments of respondents. Younger people were reported to struggle psychologically to a greater extent than older ones did (Eurofound 2020).

Materials and Methods

Research Design and Data Collection

This study proposes to identify the social roots of perceived infection risk experienced by ethnic Hungarians in Romania in the time of the first lockdown in the spring of 2020. Our survey addressed the way of life and several pandemic-related issues in ethnic Hungarians in Transylvania, Romania. Thus, perceived infection risk and the potential sites for contamination are only a small part of the questions we addressed. Implemented in April (between 16 and 26) 2020, in the period of the first lockdown in Europe, the survey had

a cross-sectional design. The anonymous questionnaire was made available online, on social media sites.

As we conducted our research during the lockdown period, the sole option to collect primary quantitative data was the online questionnaire. This type of questionnaire has a great many limitations; however, it is now a valid and widely accepted data collection tool. As Evans and Mathur (2018) state: "Internet-based research has come of age" (Evan–Mathur 2018: 855). This statement can be argued by three major developments: increasing broadband connectivity, the increasing spread of the smartphones, and the increasing number of social media and social network sites (Pew Research Center 2018).

At the beginning of the questionnaire, our adult respondents were informed about the data collection purpose and about the fact that their answers would be processed for statistical purposes. After having read this information, interviewees gave their consent to filling in the questionnaire and then proceeded to completion. Inevitably, the opt-in survey design entails a selection bias (Dutwin–Buskirk 2017).

Instruments

The present paper is part of a larger research study carried out on various pandemic-related topics. Our questionnaire entailed standardized and open-ended questions related to everyday activities, work–life balance, information sources about the pandemic, trust in people and in the authorities, values, self-rated health, and wellbeing.

We addressed the perceived contamination threat with a quite simple question, which asked respondents to self-rate the probability of getting contaminated on a scale from 0 to 100. This methodological decision is due to two considerations. First, we aimed at addressing several issues connected to the way of life during the pandemic, and we needed a brief measure of contamination fear. Second, more elaborated and validated measurement tools were non-existent at the time of our study, i.e. at the very beginning of the pandemic.

There were attempts to standardize this new type of stress syndrome. After our survey had been completed, the COVID Stress Syndrome (Taylor et al. 2020a, 2020b) and the Fear of COVID (FCV-19S) scale were elaborated, validated, and tested (Ahorsu et al. 2020). The COVID Stress Syndrome consists of five dimensions: 1 – COVID danger and contamination fears, 2 – COVID fears about economic consequences, 3 – COVID xenophobia, 4 – COVID compulsive checking and reassurance seeking, and 5 – COVID traumatic stress symptoms (Taylor et al. 2020: 3). The second standardized measure, the FCV-19S was validated in relation to other psychological tools. The scale scores were significantly and positively correlated with instruments assessing depression and anxiety. Besides these

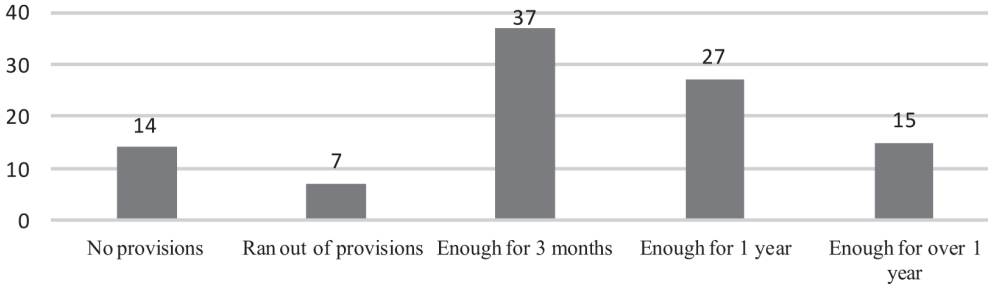
harmful dimensions, the fear of COVID-19 also has its positive side, particularly compliance with public health measures: the FCV-19S score was associated positively with a behaviour change assessing preventive behaviours (Harper et al. 2020). In spite of the complexity of these latter measures, our study assessed contamination fear with a one-item rating scale of subjective perceptions.

Analysis

Descriptive analyses are performed to reveal the perceived infection risk altogether and in different settings. Two-variable associations are used to assess the differences in perceptions across respondents' sociodemographic categories. To identify the pure determinants of contamination risk, linear regression is performed with the perceived infection threat as an outcome variable and sociodemographic features as potential explanatory variables. The stepwise method is used.

Sample Characteristics

1,269 respondents provided fully completed questionnaires, out of which 80% were women and 20% men. The age of respondents ranged from 18 to 87 years, with a mean of 37.1. 70% of the respondents were married or partnered, 21% singles, and 9% widowed or divorced. Preceding the pandemic, 57% were employees, 9% self-employed, 15% students, 16% inactive, and 3% performed occasional work.

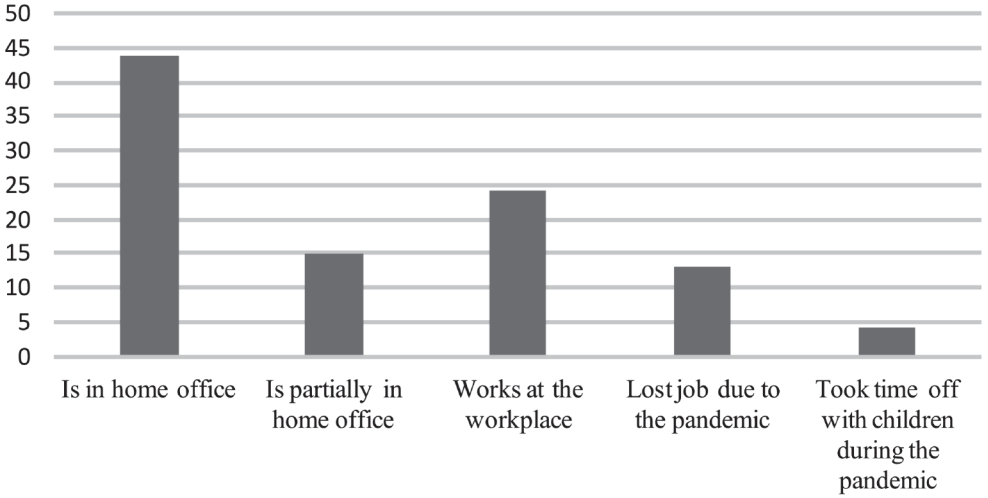


Source: authors' computation

Figure 1. *Self-perceived economic status of respondents (%), N = 1,269*

Most respondents had a university degree (66%), 25% had finished high school, and the rest of 3% had only a primary school degree. This bias is due to the survey design and the online data collection procedure in the sense that our respondents were more educated and better integrated in the labour market than

the national average. The figures below display the subjective economic status of our respondents and the labour market status of those of active age among them.



Source: authors' computation

Figure 2. *Labour market status of active age respondents (%), N = 1,121*

The self-rated financial situation and the eventual job changes – as reflected in the figures above – indicate that even in this relatively affluent population segment, there are substantial economic risks brought about by the pandemic.

Results

The Probability of Getting Infected

In our research, the fear of contamination was measured on a self-rated probability scale ranging from 0 to 100%. On the average, respondents established a 42.1% probability of not getting infected; however, there is a huge dispersion (32.6%) in the perceptions.

Respondents were asked to assess the probability of getting infected through different mediators/settings. *Table 1* displays the possible mediators of infection and their probabilities as assigned by respondents from 0 to 100%.

Table 1. *The self-rated infection probability in different settings (%, means), N = 1,121–1,269*

Medium	Mean	SD
Shop	44.2	28.4
Street	24.0	25.2
Family	27.4	28.0
Neighbour	17.6	20.7
Friend/acquaintance	17.2	19.9
Workplace	19.0	26.4
Other (courier, volunteer)	21.4	22.7
No infection risk	42.4	32.7

Source: authors' computation

Taking a look at the mediators (*Table 1*), respondents attached the highest probability to becoming infected in shops. On the other extreme, we found a reduced probability of contamination through friends and acquaintances as well as through neighbours and from the street.

In the two-variable analyses below, we consider the most and the least probable scenarios as well as that of not getting infected, and we compare their probabilities across sociodemographic categories and respondents' pandemic-related news consumption profiles.

Older respondents found it the least probable to get infected through any of the listed mediators. Their perception difference is significant with respect to the "shop" medium. However, the elderly also rated as lowest the probability of not getting infected at all (37.5%). The youngest respondents are overrepresented among those who find their infection unlikely.

Infection risk in the "shop" setting is homogeneously perceived across educational attainment levels. Nevertheless, the risk of infection in the street decreases with the increase in educational level. Most remarkably, the least infection risk is perceived in the less educated respondent groups. Disparities across settlement types only appears with respect to overall risk perception, that is, village dwellers find it less probable to get infected than town dwellers do.

With respect to gender, two-variable analyses reveal no significant difference between men and women in perceived infection risk in any of the settings discussed.

When asked about the overall risk perception, there are significant differences across religious affiliation. Adherents of neo-Protestant religions find it almost twice as unlikely to get infected than non-religious people do.

Table 2. *Perceived infection probability from the street and in the shops across sociodemographic categories (%, means). T-tests and analysis of variance. N = 1,121–1,269*

Setting: Street	Mean	SD	Setting: Shop	Mean	SD
Total	**24.1**	**25.3**		**44.2**	**28.4**
Age			**Age**		
< 25	26.0	26.8	< 25	48.1	29.6
25–34	25.3	26.4	25–34	46.6	28.4
35–44	23.8	24.0	35–44	43.9	28.2
45–55	23.2	24.9	45–55	43.0	27.3
> 55	17.9	22.6	> 55	31.1	26.7
F: 1.68, p: 0.151			*F: 5.842, p: 0.000*		
Gender			**Gender**		
Male	23.9	23.3	Male	44.9	27.6
Female	24.3	25.7	Female	44.3	28.7
t: -0.581, p: 0.561			*t: 0.287, p: 0.774*		
Religious affiliation			**Religious affiliation**		
Roman Catholic	24.9	25.4	Roman Catholic	44.7	28.5
Protestant	22.4	24.2	Protestant	43.9	28.1
Neo-Protestant	16.1	18.2	Neo-Protestant	34.5	27.1
Non-religious, not affiliated	26.9	32.3	Non-religious, not affiliated	40.6	34.6
Atheist	25.5	29.6	Atheist	51.7	25.3
F: 1.491, p: 0.203			*F: 1.602, p: 0.171*		
Education*			**Education**		
Low	42.4	31.8	Low	48.2	29.9
Middle	25.2	25.7	Middle	45.1	28.2
High	22.6	24.2	High	43.8	28.5
F: 10.744, p: 0.000					
Settlement type			**Settlement type**		
Rural	23.9	25.3	Rural	44.3	28.5
Urban	24.0	24.6	Urban	44.4	28.6
t: -0.051, p: 0.960			*t: -0.034, p: 0.973*		

Note: significant differences are marked with *.

Source: authors' computation

Table 3. *Perceived probability of not getting infected at all across sociodemographic categories (%, means). T-tests and analysis of variance. N = 1,121–1,269*

Self-assessed probability of not getting infected					
	Mean	**SD**			
Total	**42.1**	**32.6**			
Age*			**Education***	**Mean**	**SD**
< 25	52.1	34.4	Low	54.5	33.7
25–34	40.1	32.7	Middle	46.7	34.3
35–44	40.4	31.6	High	39.8	31.6
45–55	41.4	30.3	*F: 7.330, p: 0.001*		
> 55	37.5	33.8			
F: 5.894, p: 0.000			**Settlement type***		
			Rural	46.3	32.8
Gender			Urban	41.1	32.4
Male	42.5	32.7	*t: -2.183, p: 0.029*		
Female	42.2	32.6			
t: 0.130, p: 0.897					
Religious affiliation*					
Roman Catholic	42.6	32.7			
Protestant	42.0	32.3			
Neo-Protestant	56.1	38.2			
Non-religious, not affiliated	39.1	35.1			
Atheist	30.4	23.5			
F: 2.390, p: 0.049					

Note: Significant differences are marked with *.

Source: authors' computation

The Social Determinants of Perceived Infection Fear

As the results have shown, significant, large differences were revealed across respondents' sociodemographic characteristics, so that we now proceed with linear regression models to assess the controlled effects of these variables upon the overall perceived infection risk.

Sociodemographic variables introduced stepwise in the model are: gender, age (continuous), level of education, settlement type, and religious affiliation (dummy variables). These are considered potential determinants of the perceived infection threat, the latter being the outcome variable.

Table 4 displays the model with the largest explanatory power and the variables with significant effects.

Table 4. *Sociodemographic determinants of perceived infection risk. Linear regression*

Explanatory variables	**B**	**p**	**β**
		Perceived risk (0–100%)	
Educational attainment	-4.783	0.015	-0.076
Neo-Protestant vs. other religions	13.821	0.016	0.074
Age	-0.192	0.027	-0.069
Atheist vs. others	-14.697	0.039	-0.063
Constant	*61.822*	*0.000*	
Adjusted R^2 = 0.147, f^2 = 0.17, F = 5.840, p = 0.000			

Source: authors' computation

Sociodemographic variables explain a total of 14.7% of the variance of perceived risk. Cohen's f^2 value reflects a rather small explanatory power (effect size $f^2 = 0.17$) of the regression model. The F statistic is significant, and there is no indication for multi-collinearity among variables according to VIF and tolerance measures.

After controlling for covariates, four variables prove to impact upon the perceived infection risk, and all of them have quite similar effects. First, educational attainment is the best predictor: with its increase, the perceived risk increases.[1] Neo-Protestant religious affiliation compared to all other convictions predicts in itself an infection probability decrease of 13.8% (B = 13.821). The older the respondent, the more s/he finds an infection probable. Lastly, controlling for other variables, atheist respondents rate their infection risk 14.7% (B = 14.697) higher than religious people of any kind or non-believers. The rest of the sociodemographic variables introduced in the regression model have no significant effect on risk perception.

Further Threats Far and Near

Respondents were asked to freely name those phenomena/issues/problems they find most worrisome for mankind in general and for our country and themselves as individuals in particular.

Participants wrote down their concerns in their own words, without pre-defined choice options. The answers in the tables below were coded according to the first concern mentioned by each respondent.

1 Note that the statement was formulated in a negative way ("I will not get infected."), i.e. the increase in the numbers indicates that the probability of infection decreases.

Table 5. *Dangers for mankind beyond the pandemic (%). N = 1,020*[2]

Danger type	Relative frequency (%)
Moral and value crisis	17.5
Environmental pollution	16.1
Climate change and global warming	13.7
Economic crisis	13.5
Ignorance, belief in fake news	10.1
Certain groups of people or mankind itself	9.3
Social inequalities and rights restrictions	5.1
Secret interests, lies, false information	4.8
Illnesses (other than COVID-19)	4.0
Fear	3.1
War and arming	2.5
Other	0.3
Total	*100*

Source: authors' computation

Respondents rated human weaknesses as the biggest problems for mankind (17%). Features such as selfishness and greediness were coded into this category. These environmental issues are listed second and third in the row: pollution and its consequences (16%), climate change and global warming. These were followed by the economic crisis envisioned as the result of the pandemic (13.5%). Human ignorance, lack of information, and manipulability through fake news were also mentioned by a relatively high number of respondents.

The importance of religion shows significant ($\chi^2 = 82.619$, df = 33, $p < 0.000$) differences among the nominated threats, even if this variable has no strong predictive value (Cramer's V = 0.169, $p < 0.000$). For instance, among those respondents who marked religion as "very important", the biggest threats were war and arming (32%) followed by illnesses (other than COVID-19) (30.8%) and 5G technology (28.6%). On the other hand, among the respondents who marked religion as "not important at all", the biggest threats were ignorance and belief in fake news (33.7%) followed by certain groups of people (33%) and climate change (26.9%). Religious affiliation is not responsible for significant differences among respondents, so we concluded that in our case it is the importance of religion rather than affiliation that differentiates among our respondents with respect to their biggest concerns.

2 The slight decrease in the number of cases is due to the fact that open-ended questions are not too popular among respondents in general. However, in this case, a large proportion of our participants answered these questions, too.

Gender is also a significant ($\chi^2 = 41.435$, df = 11, $p < 0.000$) variable regarding the different dangers which threaten mankind, as women feel threatened by the general fear (93.8%), followed by social inequalities and rights restrictions (88.5%) and other diseases (i.e. besides COVID-19) (87.8%). Male respondents perceived certain groups of people or mankind itself as the greatest danger (33.7%), followed by war and arming (32%), ignorance and belief in fake news (31.1%).

Finally, educational attainment also led to significant ($\chi^2 = 19.818$, df = 11, $p < 0.048$) differences among our respondents. Due to their low number (N = 21), we excluded those respondents from our analysis who had only finished primary school, and we tested the differences between those people who possess a university degree and those who do not. For respondents with the highest educational level, the biggest threat was represented by environment pollution (82.2%), followed by ignorance and belief in fake news (80.6%) and by secret interests, lies, and false information (75.6%). On the other hand, respondents without a university degree regarded the general fear as the biggest threat (43.3%) as well as social inequalities and rights restrictions (36.7%) and certain groups of people or mankind itself (34.5%).

We asked respondents to list the problems and threats for our country as well. The categories following the coding process can be found in *Table 6*.

Table 6. *Dangers for the country, beyond the pandemic (%). N = 1,000*

Danger type	**Relative frequency (%)**
Economic crisis	22.8
Incompetent governance	20.4
Politicians and political parties	15.9
Corruption	9.7
Poverty	7.7
Ignorance	7.1
Certain groups of people	5.9
Balkan mentality	3.5
Environmental problems	3
Other	4
Total	*100*

Source: authors' computation

Respondents found economic crisis to be the most serious threat for the country (22.8%). Governance incompetence and the conflicts in the political sphere were mentioned with high frequency (20.4% and 15.9% respectively), revealing a high rate of mistrust in state institutions. Almost every tenth respondent (9.7%) names corruption as the most considerable threat for our country.

The intensity of the religious belief shows also significant differences regarding the dangers the country is facing ($\chi^2 = 63.298$, df = 36, $p < 0.003$). For those who consider religion very important, the biggest threat for the country is war (45.5%), followed by the environmental problems (33.3%) and the Balkan mentality (23.3%). On the contrary, among respondents for whom religious beliefs were not important at all, the biggest threat for the country are ignorance (32.9%), corruption (31.1%), and environmental problems (26.7%). As far as religious affiliation is concerned, there were no significant differences from this perspective either.

The perceived intensity of the threats faced by our country also differ significantly by gender ($\chi^2 = 33.425$, df = 12, $p < 0.001$). Among male respondents, the biggest dangers are represented by certain groups of people (42.9%), followed by the environmental problems (34.5%) and by the Balkan mentality (28.6%), while the female respondents enlisted three different problems not mentioned by their male counterparts – namely war, crime, and emigration.

Educational attainment also creates significant differences ($\chi^2 = 24.060$, df = 12, $p < 0.020$) among the respondents: for those who possess a high school degree, the biggest danger which faces the country is a possible war (50%), followed by poverty (32.9%) and by certain groups of people (32.7%). For those who hold a university degree, the biggest threats are the background powers (100%), followed by ignorance (85.7%) and corruption (81.1%).

Finally, our open-ended question attempted to identify the threats individuals perceive with respect to their private lives.

Table 7. *Dangers for the individual, beyond the pandemic (%). N = 951*

Danger type	**Relative frequency (%)**
Economic problems	25.9
Possible new health problems	10.5
Uncertainty, stress	9.7
Existing health problems	9.1
Isolation, loneliness	6.0
Environmental problems	6.0
Wrong political decisions	4.9
Own bad decisions	4.7
Ignorance	4.7
Certain groups of people	3.0
Deficiencies of the health system	2.1
Total	*100*

Source: authors' computation

As seen in *Table 7*, most respondents (25.9%) name economic concerns such as price inflation, job loss, or wage cut-offs, followed by possible health problems.

At the individual level, neither religious affiliation nor the intensity of religious beliefs (the importance attached to religion) caused statistical differences among respondents. In this case, gender was also a significant differentiating variable ($\chi^2 = 27.265$, df = 13, $p < 0.011$): among the male respondents, the biggest perceived individual threat was represented by the background powers (50%), followed by the own bad decisions (31.1%) and the consequences of bad political decisions (27.7%). Female respondents perceived accidents (100%), uncertainty and stress (93.5%), and the consequences of isolation and loneliness as the biggest individual threats.

Discussion

Based on the two-variable analysis above, the typology of the fearful and the brave in the context of the SARS-CoV-2 pandemic may be drawn carefully. The fearful are middle-aged/older, have high educational attainment, and are typically non-religious or atheist persons and town dwellers. The brave, on the contrary, are the young village dwellers with low education, frequently of neo-Protestant religion. Our dichotomous categorization of settlement types is somewhat arbitrary, and a more nuanced differentiation based on the number of inhabitants might provide more accurate information. Nevertheless, it is plausible that differences across settlement types practically reflect differences in the educational attainment levels of the respondents. This is the more probable as the impact of settlement type disappears when controlled for covariates.

Comparative studies from the period of the first lockdown (March–May 2020), i.e. the exact time of our research, refer to a series of indicators regarding the emotional status of the European population. Uncertainty, helplessness, and fear were common feelings throughout Europe, with considerable variations across sociodemographic categories. Throughout Europe, women were more worried than men (European Parliament 2020). However, this gender difference does not appear with respect to the infection fear among our ethnic Hungarian respondents.

Evidence from Europe is inconclusive as to the correlation between age and negative psychological emotions during the pandemic. In the whole of Europe, younger people were more frustrated than older ones, and there was evidence that, particularly during the lockdowns, younger people struggled psychologically more than other age-groups (Eurofound 2021). However, younger people also experienced less uncertainty and more hopefulness (European Parliament 2020). In our survey, younger respondents rated the probability of infection lower than older ones did.

When controlled for covariates, education and religious affiliation are further variables that significantly impact upon our respondents' perceived infection risk. Put simply, the more education, the more worry. Neo-Protestant religions provide the most support for their adherents in terms of infection fear, whereas atheists rate infection as much more probable than religiously affiliated respondents do. Explaining the impact mechanism of religious affiliation upon fear, and particularly the low levels of fear experienced by our Neo-Protestant respondents, would exceed the scope of the present paper. However, in an attempt to do so, it is plausible to draw on the Durkheimian theory of religions' integrative and regulative power (Durkheim 2005). In Romania, some neo-Protestant religions with rigorous rules for their membership's conduct and lifestyle – most particularly, the Pentecostal cult – have experienced a skyrocketing increase in the last three decades, and others, such as the Adventist or the Jehovah's Witnesses Church, also grew larger, while traditional Christian churches experienced a loss of membership (Kiss 2014).

A further explanation for the association of infection fear and religious affiliation is not hard to find. Infection fear belongs to the category of worry, unlike anxiety, and as such – as pointed out by Lucchetti et al. (2020) in a research conducted among the Brazilian population – the lower level of worry is associated with a higher level of private religious activities. This significant association was also true for the level of fear and the level of private religious activities, as more private religious activities reduce the level of fear. These results were also confirmed by a study conducted by Kranz et al. (2020) in a USA-based research: here, the highly religious respondents scored higher on coronavirus anxiety but lower on worry.

A strength of this cross-sectional, non-representative research is the answers to some open-ended questions with respect to the threat perceptions of our ethnic Hungarian respondents. From these notes, it can be inferred that fears related to economic and health issues were primary in relation to their own lives, whereas social connectedness fears (missing out and not mattering) were only rarely mentioned. Human weaknesses and value devaluation were primary with respect to mankind in general; however, when coming closer to their everyday surroundings, economic concerns gain in importance. As far as concerns for mankind and our country are concerned, the intensity of religious beliefs – but not religious affiliation – showed a significant differentiation among respondents, as the perceived fears besides the coronavirus showed a particular order.

To our knowledge, in Europe, this research was the first and one of the very few addressing the interconnections of religiosity and fear in the context of the pandemic. In a larger context, Bentzen (2020) proves that the online research for prayers has risen by 50% in comparison with the pre-pandemic period, which can be the consequence of the absence of the physical church presence, but this alone does not explain the high demand for online prayers. Bentzen concludes

that the high demand meant that people would cope with the virus and the pandemic – at least in the first period of the pandemic – through prayers.

Regarding the biggest concerns for the country as a context for our results, we could use the findings of other researchers. All in all, according to the worldwide study of IPSOS (2020) carried out at the beginning of April 2020, besides the spread of the coronavirus, other big concerns of people around the globe are mostly of an economic character: unemployment (35%), poverty and social inequality (27%), financial and political corruption (22%) as well as healthcare (28%). However, variations of these rankings are revealed. Unfortunately, Romania was not among the participating countries, but the case of Hungary offers some insights in this respect, even more so as our respondents are ethnic Hungarians and share similar cultural values and norms with residents of Hungary (Veres 2015). In Hungary, people ranked the most frequent concerns in a slightly different order, being most worried by healthcare (59%), followed by financial and political corruption (38%), poverty (34%), and unemployment and jobs (28%). Moral decline is perceived as worrisome for the country by only a minority of the Hungarian population (8%).

Although the worldwide study of IPSOS was carried out with a different methodology than our survey, its results reinforce some of our findings with respect to the biggest concerns of people. The answers provided by our respondents to the open-ended questions of the survey revealed that Transylvanian Hungarians, too, find economic problems, corruption, uncertainty, and health issues worrisome.

In the time of the first lockdown in spring 2020, in most EU countries, people tended to perceive the health benefits of the lockdown as greater than its economic damage. On the contrary, Eastern Europeans in particular shared the view that, in spite of the health benefits brought about by the period of confinement, its negative economic impact on their countries' economies exceeded its benefits (EP 2020). The workplace of the future is definitely a digital workplace with yet unsolved legal regulations and immeasurable consequences upon employees in Romania (Vallasek 2021). Further, in our region, precariat is not limited to people with low education, but it also prevails among graduates (Fedor–Erdei 2019). These worrisome phenomena provide the context for our respondents' fears and worries of predominantly economic character.

Summary and Limitations

This paper provides some insights into the fears and its social determinants of a sample of ethnic Hungarian respondents in Romania in the context of the first months of the SARS-CoV-2 pandemic. Results based on a cross-sectional online survey carried out in April 2020 reveal a social gradient in the self-rated infection risk perception. Besides socio-economic status as a widely

acknowledged determinant of socially relevant issues (here approached by educational attainment), religious beliefs have proven to be equally strong predictors of infection probability perceptions. Further, the older a respondent is, the more likely s/he finds his/her own infection to occur. Respondents claim value devaluation and environmental concerns as the most important threats for the world; however, with respect to the country and to private lives, economic concerns emerge as primary.

This study has some limitations to consider besides the ones mentioned in the methodology chapter. Thus, the explanatory power of our regression model is not very high, which indicates that contamination fear is impacted by other social and individual factors, too. In a future paper, we intend to address respondents' pandemic-related news consumption profile and to complement our model with this element in the hope of a more accurate understanding of the nature of self-perceived infection risk. Further, had we conducted our research at a later point, the question on SARS-CoV-2 infection history and eventually death within the family and microsocial environment might have influenced the self-rated contamination probability. However, in April 2020, there were only very few known cases of the disease in the country, and this issue could not be addressed.

Further, the generalizability of our results is restricted due to the bias resulting from the online opt-in survey design. In spite of these limitations, this study provides some valuable insights into the lives and fears of a segment of the ethnic Hungarian population in Romania at the outbreak of the pandemic.

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