

Research article

# RELIGION INFLUENCE ON DISASTER RISK REDUCTION: A CASE STUDY OF SERBIA

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**Abstract:** Human perception of nature and God have always been inextricably linked. In order to understand nature and its inherent processes, including various natural hazards, the reasons for their origin were often attributed to God's will, suffering for sin and the similar. Fear of material and human losses prompted a man to pray and offer sacrifices/gifts and other rituals to appease the "wrath of the gods". The progress of civilization and technology has not alleviated the destruction and trauma that natural disasters inflict on all aspects of social life. A major obstacle to this is the exponential population growth in vulnerable areas. The frequency of natural disasters and the fatalistic attitudes that limit the effective fight against them have motivated religious communities and individuals to cooperate with international and international organizations and institutions to reduce the risk of local disasters. Believers thus receive the necessary psychological and financial assistance and support from religious communities during all phases of disaster management. Therefore, the subject of this paper is a comprehensive examination relationship between the degree of religiosity of the population and how this connection impacts the policy of reducing disaster risk. The aim of the research is to scientifically describe the nature of the relationship between the degree of religiosity of citizens and different segments of disaster risk reduction.

Keywords: disasters, influence, risk reduction, religion, Serbia.

#### 1. Introduction

The impossibility of preventing and predicting natural hazards (Sergey, 2021; Dukiya & Benjamine, 2021; Adamović et al., 2021) caused continuous anxiety and fear among people. Nature, for the man of that time, represented something great and inexplicable for the man of that time the myth of Noah's Ark, ancient human communities felt powerless before its destructive effects (Korstanje, 2019). One example is the Aboriginal culture, in which disasters have been attributed to gods and deities since time immemorial, and all events in nature are perceived as punishments and revenge for their sins, i.e. violated moral codes (Korstanje, 2019). Such examples can also be found in Slavic mythology – Perun punishes with thunderbolts, while in Greece, Poseidon reprimands with waves (Dragnea, 2013). By offering sacrifices and gifts, a man tried to appease the wrath of the gods and satisfy their will (Harl, 1990).

Religion is a set of human norms and values based on faith in something more than human authority – faith in an order that transcends human authority (Harari, 2019). To unite vast expanses, religion must follow a comprehensive order that transcends human authority and extends belief to all men. Therefore, it must be comprehensive and missionary in order to unite the vast expanses. Islam and Buddhism are two examples of such religions. Ancient religions were limited to a small geographical area and were exclusive. These religions, in addition to money, make a key contribution to the unification of humanity (Harari, 2019).

In different religions, similar deities exist in parallel, as well as similar behaviors of people. Thus, Slavs celebrate God Perun – God of thunder, sky and atmosphere; Greeks Poseidon – God of the sea; Scandinavians – God of the sea Aegir; Polynesians - Earthquake God Mafuia (Adeney-Risakotta, 2009). The testimonies of survivors of disasters and various prophecies are recorded in epics, fairy tales and holy books; for example, the Biliblia describes various disasters over time, from solar eclipses and the Great Flood to hail and storms. In addition to the Bible, the phenomenon of the Flood is also mentioned in the Epic of Gilgamesh, the Indian Mahabharata and the Greek Deucalion (Hossieni, 2018). The fear of water and floods, which today are one of the most frequent and devastating natural disasters, originates from myths and legends. With the development of human society, there have been changes in the perception of the world and the environment. Thus, people begin to see specific patterns and cycles in nature, seasons, create calendars, etc. The desire for survival necessarily led to adapting to nature, following cycles and changes.

Natural hazards are primarily the result of the action of natural forces, but an increasing share in their generation nowadays is also attributed to the human factor (Sherry & Curtis, 2017; Domingo & Ormila, 2022; El-Mougher, 2022; Dukiya & Adelete, 2022; Odero & Mahiri, 2022; Podder et al., 2022). Through inadequate management of natural resources, continuous and increasingly serious pollution of air, soil and water, man contributes to the occurrence of various disasters, from landslides to nuclear disasters, climate and relief changes. Despite this, deity-enhanced explanations of natural hazards are still present to some extent around the world (Kulatunga, 2010). For example, there is a noticeable tendency in Christianity to describe actual and potential victims in theistic terms, even when they are familiar with alternative scientific achievements and explanations; "Theodicy" is a term that describes an attempt to reconcile God's love, justice and omnipotence with human sacrifice and suffering (Chester, 2005).

Disaster risk perception is a multidimensional concept for understanding which information on how to interpret disaster misunderstanding conditions is imperative (Stumpf et al., 2017). For example, the very decision to evacuate in the response phase to a natural disaster is primarily determined by risk perception (Kinateder et al., 2015). The factors that participate in the process of forming risk perception are numerous. The social community to which an

individual belongs, including its cultural framework, is undoubtedly one of them (Schmidt, 2004). Thus, people's perceptions of natural, spiritual and social phenomena are socially constructed categories. Social perception is important because it helps people understand and interact with the physical and social world (Bempah & Øyhus, 2017). The psychological connection between religions and disasters is manifested in the adaptation or tolerance of negative events in religious persons, in three ways (Bentzen, 2019): maintaining closeness to God, nurturing a sense of meaning and purpose in life; participation in various religious adjustment activities, committing minor sins, participating in the work of church groups; searching for reasons for certain events, tragedies that are God's work, God's punishment, etc.

## 1.1. Literary review

During the past few years, the role of religion in disaster management has attracted the attention of researchers (Gianisa & Le De, 2018), although research on this topic in domestic literature is still scarce. The relationship between human behavior and perception has long been documented (Bempah & Øyhus, 2017), and the belief system of individuals is one of the dominant factors that influence the way of interpreting and responding to disaster risks (Sherry & Curtis, 2017). These socio-cognitive patterns are of particular importance for the phase of prevention and preparedness, because they can shed light on certain behaviors of the population and their attitude towards disaster risks. However, there is no consensus in the literature as to the nature of this effect. For example, one discourse emphasizes the positive role of religion in disaster conditions and after it (Sun & Han, 2018), while others indicate that religion can generate a low perception of disaster risk (Sachdeva, 2017) and fatalistic attitudes in the face of such events (Gianisa & Le De, 2018).

According to one theory, new generations of young people are more educated than previous generations, which reduces their commitment to religion and its practice (Arias-Vazquez, 2012). However, Schwadel (2015) emphasizes that the negative effect of education on the scale of religiosity should be taken with a grain of salt, bearing in mind that there is significant variation among nations, and that this effect is most pronounced in nations that are relatively religious. Therefore, when mitigating the effect of education on the level of religiosity, it is vital to know the national context. On the other hand, in the literature we come across theories that claim that young people become more religious with the passage of years in life, especially when they have children (Bengtson, Silverstein, Putney, & Harris, 2015; Gallagher, 2007). When it comes to young people, the most important predictors of religiosity appear to be church attendance during high school by peers and ethnicity. Also, the role of gender, place of residence, religious education and church attendance during childhood, mother's religiosity and mother's attitude towards religious education during childhood, as the primary religious role model in childhood, is not negligible (Gunnoe & Moore, 2002).

Gianisa and Le De (2018) indicate that religious customs and beliefs influence the connection of people in the local community and lead to successful coping with disasters. The role of religious communities is particularly prominent in eliminating gaps in response and recovery, especially when external intervention is inadequate or insufficient (Gianisa & Le De, 2018). Through religion, people get support, collective thinking and response to specific dangers are formed. In most countries, there are multiple religions and religious communities. All of them show both similar and their own specific behavior. Spiritual beliefs positively affect health, increasing optimism and reducing depression, substance use and abuse, suicide, and risky behavior (Weber & Pargament, 2014; Abdel-Khalek & Lester, 2007). The benefits of religion on mental health are also reflected in encouraging forgiveness, gratitude and compassion, a sense of belonging and easier coping with stressful events. In addition, the results

of the study conducted by McFarland (2010) are significant, indicating that men derive more mental health benefits from religious engagement than women, as well as that men who are highly religiously engaged have significantly better mental health. from other men.

Starting from the previously elaborated, the aim of this paper is a scientific description of the influence of various aspects of religion on the effectiveness of disaster risk reduction policy, as well as the way in which religious beliefs, motives and fatalistic attitudes shape the perception of the risk of natural disasters. In this way, it contributes to existing debates about the nature of the role of religious elements in the practice of disaster response and recovery.

### 2. Materials and Methods

The goal of the research is a scientific description of the nature of the relationship between the degree of religiosity of citizens in the area of Belgrade and different segments of disaster risk reduction, including their readiness to respond, providing assistance to others and the state, support for the involvement of religious institutions in disaster management processes, and predictors of disaster risk perception in the domain of religion. The explicative goal of the research involves elucidating the ways in which religious factors shape awareness of the risks of natural disasters. The paper is based on a general hypothesis according to which there is an influence of the perception of religiosity on attitudes about reducing the risk of disasters, that is, preparedness and resilience. Specific hypotheses arise from the general hypothesis: there is an influence of religiosity on attitudes about preparedness for disasters; there is an influence of religiosity on citizens' attitudes about resilience to disasters; there is an influence of religiosity on undertaking disaster risk reduction measures.

# 2.1. Basic Characteristics of Respondents

The sample included a total of 250 respondents in the area of Belgrade. In accordance with the proportional representation of the sexes in the Republic of Serbia, the sample consisted mostly of female respondents (62.8%), while members of the male population represented 37.2% in the sample. In relation to the age of the respondents, it was determined that the largest number of respondents belonged to the age group of up to 50 (32.8%) and up to 30 years of age (33.2%). Then, 63 respondents (25.2%) included in the sample are up to 40 years old (25.2%), while 22 respondents (8.8%) are in the over 50-year-old category. When it comes to the level of education, it was determined that the smallest number of respondents (3.2%) have completed doctoral studies, while, on the contrary, the largest number of respondents have secondary education (40%). Then, 40 respondents (16%) stated that they had completed higher education, 60 respondents (24%) had completed basic academic studies, while 42 respondents (16.8%) reported completed master's academic studies. Furthermore, it was determined that the largest number of respondents included in the sample achieved an excellent (48.4%) and a very good average (42%) during their secondary education. In addition, 4 respondents (1.6%) achieved a sufficient average, while 20 respondents (8%) pointed out that they achieved a good general average during secondary education. Regarding the current marital status of the respondents, the results indicate that 64 respondents (25.6%) are not in an emotional relationship, 48 respondents (19.2%) are in a relationship, 20 respondents (8%) are engaged, 106 respondents (42.4 %) is married, 8 respondents (3.2%) are divorced, while 4 respondents (1.6%) belong to the widow/widow category. When asked about their current employment status, 198 respondents (79.2%) indicated that they were employed, while 52 respondents (20.8%) were unemployed. The answers to the question about the amount of average monthly income that respondents earn indicate that 5.6% earn incomes up to 25,000 dinars, 20.8% up to 50,000 dinars, 74 respondents (29.6%) up to 75,000 dinars, while the incomes of 29.6% reach over 90,000 dinars on a monthly basis. Also, 14.4% pointed out that they have no personal monthly income.

# 2.3. Questionnaire Design

In order to create the questionnaire, questions from previous research (Merli, 2012; Ha, 2012; Aten et al., 2019; Feener & Daly, 2016; Adiyoso & Kanegae, 2013) on the impact of religiosity on disaster risk reduction were used. After detailed analyses, starting from the operational definition of disaster risk reduction, individual questions and adaptations to the designed research were adapted. The survey questionnaire consists of 30 questions, which include questions about the basic demographic and socio-economic characteristics of the respondents, as well as a special part related to the subject of the research. Before starting the research, a pilot study was conducted with the aim of determining their comprehensibility to all annexed persons of different socioeconomic characteristics.

# 2.4. Analyses

The data obtained in the survey were entered into the statistical program SPSS (Statistical package for social sciences). After that, a data check was performed in order to eliminate possible errors when entering the answer. The collected data were analyzed using descriptive statistics, and the frequency and percentage were determined. In the next step, the obtained data were crossed, i.e., the demographic characteristics of the respondents with the perception of risk, e.g., the connection between the level of education of the respondents and the preparedness for earthquakes. T-test and One-way ANOVA were used to examine the relationship between the variables and the earthquake risk perception. All tests were two-tailed, with a significance level of p<0.05. Statistical analysis was performed using SPSS Statistic 17.0 (IBM SPSS Statistics, New York, United States).

#### 3. Results

Contrary to the ideological views that prevailed in the past, according to which disasters were understood exclusively as the work of God, the findings of modern research indicate an increase in public awareness regarding the contribution of the human factor, as vital, to the occurrence of natural disasters. Accordingly, respondents were asked to what extent they agree with the statement that the human factor contributes to the occurrence of disasters and their frequency. The findings indicate that the largest number of respondents largely (40.8%) and absolutely (28.4%) agree with the mentioned statement. Also, 2.4% disagree to an absolute extent, 7.6% strongly disagree, while 20.8% believe that the human factor moderately contributes to the occurrence of natural disasters and their frequency.

When asked, "What feeling does the news of a disaster that hit a certain area cause in you?", the largest number of respondents stated sadness (66.4%), followed by fear (23.6%). In addition, 2.4% pointed out that in the mentioned circumstances they feel anger, 1.6% indifference, 0.8% helplessness, 0.8% concern - if the disaster happened in the immediate vicinity of our country, 1.2% empathy, while 0.8% emphasized that such news makes them want to provide the necessary help. When it comes to the intensity of the fear of disasters that the respondents experience, the findings indicate that 11.6% do not feel fear at all, 30%

do not feel fear to a great extent, 32.4% feel fear to an average degree, 15.6% in feels fear to a great extent, while the smallest number, 10.4%, points out that they are absolutely afraid of potential disasters.

When asked whether natural disasters can be prevented, 58.8% gave an affirmative answer, while 24.4% of respondents believe that it is not possible. As the perception of the risk of disasters plays a significant role in different phases of risk reduction, especially in the phase of preparedness for natural disasters, the respondents were asked the question to what extent the religious beliefs of individuals determine the perception of the risk of natural disasters. They expressed their views on a Likert scale from 1 to 5 (1 - do not determine to an absolute extent; 5 - determine to an absolute extent). According to the findings, 20.8% of respondents believe that religious beliefs absolutely do not determine the awareness of the risk perception of natural disasters, while 18.8% believe that they do not determine it to a large extent. In contrast, 43.6% point out that religious beliefs moderately determine the perception of risk, 13.6% determine it to a large extent, while 3.2% believe that the religious beliefs held by individuals absolutely determine their perception of disaster risk. To the question, "Can religious stories and myths inhibit action in disaster conditions?", 42.8% gave an affirmative answer, while 48.4% believe that religious stories, by themselves, do not have the power to inhibit action in disasters.

The largest number of respondents included in the sample largely (38.8%) and absolutely (29%) agree with the statement that people turn to God only in difficult moments of life. Also, 22.8% moderately agree with the mentioned statement. Conversely, 5.2% point out that they absolutely disagree, while 10 respondents (4%) strongly disagree with the statement that people turn to God only in difficult moments of life. To the question, "Do religious attributes represent a resource that can motivate preparatory actions and improve the psychological resistance of individuals and society to natural disasters?", the largest number of respondents (65.6%) answered in the affirmative. In contrast, 86 respondents (34.4%) believe that religious attributes do not represent a significant resource in the examined context. In relation to the statement that believers help the population threatened by the consequences of natural disasters to a greater extent than the rest of the population, the largest number of respondents (52.8%) disagree, while 97 respondents (38.8%) believe that the mentioned statement faithfully reflects reality.

On a Likert scale from 1 to 5 (1 – absolutely disagree; 5 – absolutely agree), respondents then rated the extent to which they agree with the statement that disasters bring out the best in all people. According to the findings, 7.6% absolutely disagree with the mentioned position, 14% disagree to a greater extent, 29.6% agree to a moderate extent, 32% agree to a greater extent, while 16.8% absolutely agrees with the statement that disasters draw the best out of people.

Extremist attitudes of individuals and society have often shaped their preventive activities, preparatory actions, as well as the response to disasters caused by natural hazards (such as disobeying evacuation orders, etc.). Accordingly, respondents were asked to what extent they agree with the view that only true believers will be protected from the effects of disasters. More than half of respondents included in the sample (52.4%) absolutely disagree with the mentioned position, 16.4% strongly disagree, 22.4% moderately agree, 6.4% strongly agree agree, 2.4% of respondents absolutely believe that only true believers will be protected from the impact of disasters. Starting from the radical attitude that dominated in the past, according to which natural disasters were understood as God's work, that is, the way in which he communicates with mankind and punishes his sins, the respondents were asked to what extent they agree with this opinion. According to the findings, the largest number of respondents (40%) absolutely disagree, 49 respondents (19.6%) strongly disagree, 48 respond-

ents (19.2%) moderately agree, 29 respondents (11 .6%) agree to a greater extent, while 24 respondents (9.6%) expressed absolute agreement with the notion that the causes of natural disasters lie in the will of God.

This was followed by an assessment of respondents' attitudes on a Likert scale on the question of whether humanity's adequate care for nature would not cause the suffering we are witnessing today. The largest number of respondents in an absolute measure 43.2%, to a greater extent 32.8%, as well as in an average measure 18.4% agree with the mentioned position. In addition, 8 respondents 3.2% strongly disagree, while 6 respondents 2.4% absolutely disagree with the statement that adequate care for nature would prevent the suffering we are witnessing today. The assessment of respondents' views on the extent to which joint efforts between disaster managers and religious leaders would improve preparedness, response and recovery from natural disasters revealed the following: 8.8% believe that joint efforts between the aforementioned actors would absolutely not improve the various phases of management in natural disasters, 14% believe that they would not improve to a large extent, 39.6% that they would improve to a medium extent, 20% that they would improve the situation to a large extent, while 17.6% pointed out that joint efforts between managers in disasters and religious leaders absolutely improved preparedness, response and recovery from natural disasters.

Finally, on a Likert scale from 1 to 5, the question of the importance of including religious institutions in the disaster risk reduction program was evaluated in order to build a more resilient community. According to the findings, 12.8% believe that the inclusion of religious institutions is absolutely not important, 12.4% that it is not important to a large extent, 34.4% rated the importance of inclusion with a medium score on the scale, 24% attributed more importance to the inclusion of religious institutions institution, while 24% believe that the inclusion of religious institutions in the risk reduction program can absolutely contribute to building a more resilient community.

The results of the T-test show that there is a statistically significant association between gender and variables related to the degree of own fear (p = 0.000); claims that the human factor contributes to the occurrence (p = 0.001); religious beliefs determine attitudes (p = 0.011); disasters bring out the best in people (p = 0.001); true believers protected from disasters (p = 0.010); inclusion of religious institutions in risk reduction programs (p = 0.016). Further analyzes show that women rate their level of fear of men to a greater extent than men. In addition, to a greater extent, they believe that the human factor contributes to a greater extent to the occurrence of disasters and that it is not God's work; then, they emphasize to a greater extent that religious beliefs determine the perception of risk; they bring out the best in people; point out that true believers will be protected from disasters; point out that there is a greater importance of including religious institutions in disaster risk reduction programs (Table 1).

**Table 1.** T-test results between gender and observed variables on the influence of religion on disaster risk reduction.

	t	Sig. (2-tailed)	Mean Dif- ference	Std. Error Difference
The intensity of one's own religiosity	-0.900	0.369	-0.137	0.152
Susceptibility of the territory of the Serbia to disasters	-1.76	0.079	-0.199	0.113
Preparedness of the population of the Republic of Serbia for natural disasters	0.684	0.494	0.081	0.118
The degree of own fear of natural disasters	-6.02	0.000**	-0.845	0.140
The human factor contributes to the occurrence of natural disasters and their frequency	-3.38	0.001*	-0.432	0.128
Religious beliefs determine the perception of risk from natural disasters		0.011*	-0.350	0.137

Relying on God's protection (assistance from higher powers) in disaster conditions	-1.79	0.073	-0.325	0.181
People turn to God only in difficult moments of life	0.493	0.623	0.068	0.139
Disasters bring out the best in all people	-3.24	0.001*	-0.477	0.147
True believers will be protected from the effects of disasters	-2.60	0.010*	-0.372	0.143
Natural disasters are God's work, message and way of punishing the sins committed by mankind	-0.098	0.922	-0.017	0.177
The importance of including religious institutions in the disaster risk reduction program in order to build a more resilient community	-2.42	0.016*	-0.385	0.159

The research results show that there is a statistically significant correlation between age and the following variables: the claim that people turn to God only in difficult moments; disasters bring out the best in people; that natural disasters are the work of God. Namely, further analyzes show that with increasing age, support for the position that people turn to God, only in difficult moments, decreases. Then, it was found that with increasing age, support for the view that disasters bring out the best emotions in people also increases. In the end, it was determined that the support for the position that disasters are the work of God increases with age (Table 2).

**Table 2.** Results of Pearson's correlation between age and selected variables. Source: edited by the author.

		Age
	Pearson Correlation	-0.008
The intensity of one's own religiosity	Sig. (2-tailed)	0.904
	N	248
	Pearson Correlation	0.002
Susceptibility of the territory of the Serbia to disasters	Sig. (2-tailed)	0.969
	N	248
	Pearson Correlation	-0.013
Does the human factor contribute to the occurrence of natural disasters and their frequency?	Sig. (2-tailed)	0.838
	N	248
Do religious beliefs determine risk perception (awareness) from natural disasters?	Pearson Correlation	0.056
	Sig. (2-tailed)	0.379
from natural disasters:	N	248
Relying on God's protection (help from higher powers) in disaster conditions?	Pearson Correlation	-0.077
	Sig. (2-tailed)	0.229
	N	248
	Pearson Correlation	-0.170**
People turn to God only in difficult moments of life?	Sig. (2-tailed)	0.007
	N	248
	Pearson Correlation	0.130*
Disasters bring out the best in people	Sig. (2-tailed)	0.041
	N	248
True believers will be protected from the effects of disasters?	Pearson Correlation	-0.071
	Sig. (2-tailed)	0.263
	N	248
Natural disasters are God's work, a message and a way of punishing the sins committed by the human race?	Pearson Correlation	-0.208**
	Sig. (2-tailed)	0.001
punishing the sins committed by the numan face:	N	248

<sup>\*\* 0.01; \* 0.05</sup> 

The results of the ANOVA analysis show that there is a statistically significant association between education and the following observed variables: intensity of religiosity (p = 0.000); perception of the susceptibility of the territory to disasters (p = 0.000); preparedness of the population for natural disasters (p = 0.000); reliance on God's protection in natural disasters (p = 0.000); people turn to God only in difficult moments (p = 0.000); disasters bring out the best emotions in people (p = 0.000); true believers will be protected (p = 0.000); disasters are God's messages (p = 0.000). Further analyzes show that respondents with a high school diploma mostly emphasize that they are religious, that people rely on God's protection in the face of disasters and that they turn to God only in difficult moments. Respondents with a university degree mostly emphasize that the territory of the RS is subject to the effects of disasters and that disasters are God's messages, but on the other hand, they least emphasize that the Republic of Serbia is prepared for disasters. Respondents with completed primary school point out that disasters bring out the best emotions in people, and that only true believers will be protected from disasters. In addition, it was determined that there is a statistically significant relationship between marital status and the following observed variables: religious beliefs determine risk perception; relying on God's protection; disasters bring out the best emotions in people; disasters are God's messages. Further analyzes show that the respondents with a higher education degree mostly point out that religious beliefs determine the perception of risk. On the other hand, respondents with a high school diploma mostly emphasize that in disasters, people rely on God's protection, that disasters bring out the best emotions from people, and that disasters are God's message.

#### 4. Discussion

Regarding the relationship between fatalistic attitudes and reaction to disasters, we find evidence in the literature that mystical stories and fatalistic beliefs have a negative impact on the perception of disasters (they encourage people to take more risks and not take protective measures) (Kouabenan, 1998). In our research, the results are divided. While 42.% of the respondents believe that religious stories and myths can inhibit an adequate response in the face of disasters, 48.4% disagree with that view. On the other hand, the majority of respondents (52.4%) of our study reject fatalistic beliefs, e.g. that only true believers will be protected from the effects of disasters, as well as the understanding that the causes of natural disasters rest solely in the will and wrath of God. Nevertheless, respondents to the greatest extent (43.6%) emphasized the importance of religious beliefs in shaping the perception of disaster risk. Aksa, Utaya, Bachri and Handoyo (2020) found that higher levels of fatalistic attitudes cause lower risk perceptions of natural disasters, and that fatalism can lead to a lack of disaster preparedness.

When it comes to improving the preparedness of the population by integrating the efforts of disaster managers and religious leaders, the largest percentage of respondents pointed out that they would moderately improve risk reduction practices. In contrast, Sheikhi et al. (2021) found that religious communities have a key role and contribution to disaster mitigation. The claim that people turn to God only in difficult moments of life was evaluated positively in our research. Similarly, a study conducted by Bentzen et al. (2019) indicates that people resort to religion to a greater extent when overcoming major challenges and problems, such as illness, death of a family member, and various threats to life. In addition, the respondents of our study to the greatest extent believe that religious attributes represent a resource that can motivate preparatory actions and improve the psychological resistance of individuals and society to natural disasters.

Regarding the relationship between fatalistic attitudes and reactions to disasters, there is evidence in the literature that mystical stories and fatalistic beliefs have a negative impact on the perception of disasters, that is, they encourage people to take more risks and not take protective measures (Kouabenan, 1998). In our research, the results are divided. While 42% of respondents believe that religious stories and myths can inhibit an adequate response in disaster conditions, 48.4% disagree with that view. On the other hand, the majority of respondents (52.4%) of our study reject fatalistic beliefs, e.g. that only true believers will be protected from the effects of disasters, as well as the understanding that the causes of natural disasters rest solely in the will and wrath of God. Nevertheless, the respondents emphasized to the greatest extent the importance of religious beliefs in shaping the perception of the risk of disasters. Aksa et al. (2020) found that higher levels of fatalistic attitudes cause lower risk perceptions of natural disasters, and that fatalism can lead to a lack of disaster preparedness.

When it comes to improving the preparedness of the population by integrating the efforts of disaster managers and religious leaders, the largest percentage of respondents pointed out that they would moderately improve risk reduction practices. In contrast, Sheikhi et al. (2021) found that religious communities have a key role and contribution to disaster mitigation. The claim that people turn to God only in difficult moments of life was evaluated positively in our research. Similarly, in one of the studies (Bentzen, 2019) it was found that people resort to religion to a greater extent when overcoming major challenges and problems, such as illness, death of a family member and various threats to life. In addition, the respondents of our study to the greatest extent believe that religious attributes represent a resource that can motivate preparatory actions and improve the psychological resistance of individuals and society to natural disasters. Further analyzes revealed the existence of a statistically significant relationship between gender and the following observed variables: degree of own fear; claims that the human factor contributes to the occurrence of disasters; of the view that religious beliefs determine perception; disasters bring out the best in people; true believers are protected from disasters; the importance of including religious institutions in risk reduction programs. When it comes to the gender gap, it was found that women rate their level of fear to a greater extent than men. Such results are consistent with a large number of other empirical studies devoted to the gender issue of disaster risk perception (Cvetković, Öcal, & Ivanov, 2019; Cvetković & Sandić, 2016; Khan, Rana, & Nawaz, 2020). In addition to the explanations that rest in the social roles of women, the availability of more modest resources in the household compared to men (due to which the fear of losing them is greater) and greater physical vulnerability (Holgersson, Sahovic, Saveman, & Björnstig, 2016; Ho et al., 2008), it is important to point out a certain reluctance of men brought up in our culture to openly express weaknesses, such as fear.

In addition, women to a greater extent believe that the human factor contributes to the occurrence of disasters to a greater extent, and that it is not God's work; then, they emphasize to a greater extent that religious beliefs determine the perception of risk; they bring out the best in people; point out that true believers will be protected from disasters; point out that there is a greater importance of including religious institutions in disaster risk reduction programs. Here, it is important to state the implications of the study (Sohrabizadeh, Jahangiri, & Khani Jazani, 2018), which unequivocally indicate that women are more influenced by religion than men and that it is necessary to encourage their role in strengthening the positive effects of religiosity.

The research results also showed that there is a statistically significant correlation between age and the following variables: the claim that people turn to God only in difficult moments; disasters bring out the best in people; that natural disasters are the work of God. Namely, further analyzes show that with increasing age, support for the position that people turn to God,

only in difficult moments, decreases. Then, it was found that with increasing age, support for the view that disasters bring out the best emotions in people also increases. In the end, it was established that with the growth of years, the support for the position that disasters are God's work also increases. The existence of differences in attitudes towards disasters among different age groups is also found by other research (Nakao, Kawasaki, & Ohnishi, 2019).

In the end, a statistically significant connection between marital status and the following observed variables was determined: religious beliefs determine risk perception; relying on God's protection; disasters bring out the best emotions in people; disasters are God's messages. Further analyzes show that the respondents with a higher education degree mostly point out that religious beliefs determine the perception of risk. On the other hand, respondents with a high school diploma mostly emphasize that in disasters, people rely on God's protection, that disasters bring out the best emotions from people, and that disasters are God's message. These results are not surprising, given that educational attainment is one of the most significant predictors of disaster risk perception (Lee, Markowitz, Howe, Ko, & Leiserowitz, 2015).

#### 3. Conclusions

The discourse on the constructive as well as the harmful influence of religious beliefs is equally represented in the literature. Despite differing views on the nature of that influence, all agree that religious beliefs govern interpretations of natural hazards in many cultures and societies. During and after natural disasters, people need psychological support and comfort provided by religious institutions. Religious attributes can encourage a positive psychological response and, thus, improve the resilience of an entire society to natural disasters. When facing a disaster, people can seek spiritual support from God, and at the same time rely on resources and support in the social community to which they belong and participate in various group therapies for healing and alleviating the psychological consequences.

Therefore, religious institutions contribute especially in the recovery phase, by providing appropriate material and psychological support to the population in the affected areas. The content of the message that religious authorities send to the public in such conditions can be of critical importance, and disaster risk communication must integrate contemporary knowledge about the relationship between religion and risk reduction. Fatalistic beliefs are a special challenge for solving and reducing which it is necessary to engage and unite the efforts of the government, educational institutions, media and religious leaders. This requires effective cooperation, communication and coordination at all levels. Although the potential of religious institutions in various stages of disaster management is evident, their role is still largely overshadowed in the literature and in practice.

In addition to the capacity and state of the competent services, the prevention and mitigation of the consequences of disasters largely depend on the perception of the community. Human consciousness, therefore, emerges as a valuable resource in management efforts, particularly in the process of planning and designing programs, strategies, and response plans. It is shaped both by individual factors, such as age, gender, education, disaster experience, marital status, risk perception and income, and by social factors, such as religious identity. Along with the rejection of ideological understandings about the nature of disasters as the work of God comes a change in the perception of control and responsibility. The then help-lessness in the face of an insurmountable fate is replaced by the awareness of the possibility of controlling the consequences, that is, mitigating and minimizing the damage when a natural disaster occurs. In this way, a necessary precondition was created to improve the preparedness of the population, and then the response and recovery from the disaster.

This study opens up new research questions, including examining the various religious factors and dimensions that influence risk perception, preparedness, response, and recovery after a natural disaster. The implications of the research are critical for decision-makers in the Republic of Serbia, who are facing increasing demands to respect people's attitudes and beliefs that influence their behavior in disaster conditions. In combination with other mechanisms, they can be used to create appropriate strategies at the national level and programs adapted to different categories of the population. In future research, it would be important to investigate the coping strategies in response to disasters and traumatic events used by non-religious individuals versus those used by religious ones. The limitations of the research are reflected in the fact that a larger territorial area and a larger number of inhabitants of the Republic of Serbia were not covered.

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