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Global Fear, Hopelessness and Media Overexposure of the Danger of COVID-19: A Cross-cultural Research

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ABSTRACT: This study analyzes the role of mass media in inducing hopelessness and fear at the onset of the COVID-19 pandemic. It was conducted online in three Asian (China, India, and Indonesia) and three European (Bulgaria, Germany, and Hungary) countries. A total of 2617 participants, between 18 and 80 years, completed an online version of the Beck Hopelessness Scale (BHS) and an additional questionnaire including multiple demographic characteristics. Data obtained show that Asians, compared to Europeans, demonstrated a higher level of hopelessness at the beginning of the COVID-19 pandemic. Both gender and age have been found to influence levels of hopelessness, but their impact varies across cultures. In addition, data show that some demographic factors such as education, marital status, and established religiosity influence the degree of pessimism and hopelessness. This influence varies in Asian and European cultural environments. For example, highly educated representatives of both cultures display low levels of hopelessness, while those with less education demonstrate extremely high levels of hopelessness. Regarding family status and religiosity, the trends are different. The hopelessness levels increase among single and divorced Europeans and decrease among the married and those cohabiting with a partner. Unlike Europeans, only married Asians demonstrate low levels of hopelessness. Regarding religiosity, the results show that religious individuals display low levels of hopelessness, while among atheists in both cultures, these levels are dramatically high. Findings suggest that media overexposure to the danger of COVID-19, leads to an increase in hopelessness and, in turn, increases in stress, anxiety, and depression.

KEYWORDS: COVID-19, cross-cultural, fear, hopelessness, media

INTRODUCTION

Fear as a survival response in health risk situations

The present work explores the increase of pessimism, hopelessness, and fear induced by the influence of the mass media at the onset of the COVID-19 pandemic. As the pandemic has created a situation of *global health uncertainty* since the very beginning of the 2020s, this analysis examines the phenomenon of fear as a *global factor* that has become an essential determinant of the health behavior of people worldwide.

Fear as such is a survival mechanism in individuals, and it is their survival response in dangerous and health-uncertain situations. It should therefore be borne in mind that in extreme pandemic situations, individuals and social groups exist in an unusual, non-standard context, and *fear* is their essential characteristic, which appears as a determinant of their health behavior. In such

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situations, however, fear is sometimes artificially provoked and accumulates in huge amounts in people, leading to high levels of anxiety and restlessness. In this case, fear for one's own survival and the survival of loved ones creates enormous emotional discomfort, which in turn negatively affects people's health. They perceive the situation as hopeless and have a pessimistic view of the future. This worsens their health and leads to anxiety, stress, and depression, very often followed by suicidal behavior.

The overall findings and conclusions that can be drawn from a number of studies indicate that people's poor mental health during the pandemic, and high levels of stress and anxiety, leading to depression and suicide, are mainly due to fear of infection and the risk perception (Chi et al., 2021; Hou et al., 2020; Chen et al., 2021; Yang et al., 2021; Yıldırım et al., 2020). It can be argued that the mass fear of contagion, induced since the beginning of the pandemic, is a significant factor in global damage to people's mental health and the prevailing worldwide atmosphere of pessimism and hopelessness.

Humans, as biological beings, are always accompanied by a primary emotion of fear, however, the essential point, in this case, is that this emotion does not exist by itself but depends on external influences and interactions. According to the definition by the American Psychological Association, fear is a primary emotion that arises from the detection of an imminent threat, involving an immediate alarm reaction that mobilizes the organism by triggering a set of physiological changes (APA, 2015).

The experience of fear, however, has its physiological and unconscious determinants, which are not subject to absolute control by the individual. In humans, as biological beings, some threats are encoded at the physiological level (loud noises, huge sizes, high speeds, etc.). As a result of phylogenesis, the human brain has acquired the ability to respond automatically to physical threats of any kind, and even some words can provoke unconscious fear in ordinary people (Slovic et al., 1995). This means that perceived risk is inherently subjective and largely varies from individual to individual, insofar as experiences of fear are linked to metabolic, physiological, and subconscious processes that manifest differently in each individual. It is, therefore, not surprising that some risks may be estimated as a threat by individuals while others are not. That is, some risks are underestimated while others are overestimated by people (Bodemer & Gaissmaier, 2015).

Particularly dramatic are situations when the danger is perceived by individuals as a threat to their lives and to the lives of their loved ones. Whether the threat is real or not, heightened anxiety and emerging fear provoke extreme behavior. Characteristics of such behavior are most unusual, extraordinary, and even pathological since its main determinant, in this case, is the fear of death, which activates the survival instinct.

Therefore, it is the manner of risk perception that influences the behavior of individuals in situations of health uncertainty. Although fear and perceived risk depend on internal (physiological/psychological) factors, the influence of external factors (social, economic, and political) is significant. The influence of external factors may be hidden from individuals' consciousness and can be deliberately manipulated to steer people's health behavior in a particular direction.

Problems with the manipulation of perceived risk are related to the issue of risk management. In practice, manipulations can be carried out in such a way that natural hazards or extremely risky events may be disguised and presented as completely harmless, and vice versa, an ordinary event may be intentionally distorted and presented to the public as extremely dangerous and risky.

Therefore, fear of an infectious disease is a subjective construct, meaning that its characteristics, features, and functions depend on how the danger is perceived. Individuals' perceptions are subject to external control, whereby the process of contagion risk perception can be manipulated. For example, a situation in which there is no potential danger of contamination may be presented as extremely dangerous (pandemic), and a situation in which such a danger exists may be presented as safe. This means that fear as a determinant of individuals' health behavior in pandemic situations is an object of control and manipulation by external agents (media, governments, health institutions) possessing resources to manage the threat perception. As a result of such manipulation, fear builds up, causing feelings of pessimism and hopelessness, leading to increased stress and anxiety, and subsequently to depression and suicide.

Media Influence on health behavior at the Onset of the COVID-19 pandemic

People's perceptions are, to some extent, and under certain conditions, subject to manipulation by external agents. These manipulations are especially drastic in totalitarian societies or in times of war, but in standard situations, they are seen as something normal. They do not deserve attention at all if we are talking about single cases or local processes of influencing the behavior of a small social group. But if there is an extreme situation and the media impact on individuals is on an enormous scale, then we are talking about total media control of mass behavior. In today's digital world, consequences of such control over the

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behavior of vast masses of people exercised in an extreme situation through the mass media could be both favorable and unfavorable, and even tragic for the well-being of individuals.

A similar extreme situation was observed in the COVID-19 pandemic, which from the very beginning was characterized by a strong media pressure on the health behavior of people. This is not surprising, as mass media is a universal tool for external control of people's behavior. Media is, at the same time, a fundamental tool for managing the entire social life since information is the universal phenomenon that governs the functioning of human societies.

To control the risky behavior of people in a pandemic situation, the media rely on fear in perceived danger manipulation. For example, a study by Wise et al (2020) indirectly shows that the media is a crucial factor in increasing fear of the virus and engaging individuals in protective behavior. The study was conducted during the first week of the pandemic and found that subjects tended to perceive their personal risk of infection as being lower than the average. According to the authors, these results can be explained by the optimism bias, related to respondents' belief that they are less likely to get sick than other people. The explanation is correct but more important in this case is the fact that the reported risk increased between the dates of the study conducted from March 11 to 16, 2020. This magnification, which occurs in just a few days, can be explained by increased media pressure on people and massive propaganda about the coronavirus threat.

Subsequently, numerous studies have emerged that reveal the mechanisms of social media misinformation during the COVID-19 pandemic (Gabarron et al., 2021; Loomba et al., 2021; Pennycoo et al., 2020; Roozenbeek et al., 2020; Scales et al., 2021; Van der Linden, 2022) and their role in exacerbating the symptoms of anxiety and depression from the viral threat (Bendau et al., 2021). By influencing people's fears and negative emotions, the media are even able to create spurious phenomena such as "media pandemics" (Bechmann, 2020; Carlson & Dacey, 2014; Kim & Zúñiga, 2021; Soroka et al., 2015; Schiffer, 2008). Overexposure to the problem, fear-provoking, and transformation of the pandemic into a “media pandemic” fully applies to the COVID-19 pandemic (Hart et al., 2020; Mach et al., 2021; Pollock & Vakoch, 2021).

The World Health Organization (WHO) on March 11, 2020, declared COVID-19 a pandemic. Since the characteristics of the viral threat were unknown to people in early 2020, it was the media that, at the start of the pandemic, actually defined the way risk was perceived. Media all over the world, largely encouraged by international institutions and national governments, overexposed the threat and drove fear of the virus to an extreme turning the COVID-19 pandemic into a *media pandemic*. This targeted media invasion, which covered every segment of the pyramid structure of societies, created mass anxiety and fear of death, subordinating mass behavior to the survival instinct. The media used familiar psychological techniques and the entire available propaganda arsenal to turn " COVID-19" into a ***universal symbol*** of deadly danger to individuals and societies as a whole. In this way, the individual fear, underlying the survival instinct, was transformed into a ***global fear*** for the survival of societies and human civilization. In turn, global fear caused ***global submission***, seen around the world. This global obedience was a natural reaction of ordinary people who were suggested by the media that to preserve their health, as well as the health and lives of their loved ones, they must obey and follow orders of the authorities (WHO, government, doctors).

These mechanisms of artificially provoking fear and mass obedience are well-studied in psychology. For example, G. Le Bon made a psychological dissection of such a radical transformation of the mass behavior of people already in the 19th century. According to him, individuals, who are manipulated by an external source, are transformed into a faceless mass and become a hypnotic impulsive crowd, characterized by the inability to reason, lack of opinion, and absence of critical spirit (Le Bon, 2013). The psychological mechanism of turning people into an obedient "hypnotized mass" obeying the orders of the "hypnotist" is also described by other authors (Freud, 1922; McDougall, 2012).

People obey because they are conscious that someone has the power and resources to punish or reward them, recognize someone's competencies and abilities, or share the same values with others. A drastic example of psychological mechanisms underlying obedience to authority is Milgram's experiment conducted in the 1960s (Milgram, 1974). Obedience, however, is not always related to fear of punishments, desire for rewards, the influence of authorities, shared values, or law recognition. An individual may act servilely or submissively just because "others do so". In other words, in non-standard and unfamiliar situations, individuals usually act according to the ancient maxim – "When in Rome, do as the Romans do". In this case, the intuitive fear of death is absent, but the fear of deviation is present: there is a risk of being different and not doing what other people do. This applies with a significant force to extreme situations of uncertainty, such as the COVID-19 pandemic. In such situations, individuals tend not to think critically about laws and whether their behavior is right or wrong but rather tend to act like a large

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mass of people. Such a thesis is unequivocally supported by a study of the normative behavior of individuals made by S. Heiman and her colleagues during the COVID-19 pandemic. The findings of this study suggest that during uncertain and extreme situations, individuals' cooperative (joint) behavior is influenced by what others do rather than what others think should be done (Heiman, 2023).

In conclusion, we can summarize that at the moment of the outbreak of the COVID-19 pandemic, a global situation of uncertainty arose provoked by the information about the existence of a viral threat to the life and health of individuals.

As a result, it is hopelessness, caused by the fear of the lack of life perspective in the pandemic that dominates individuals' behavior. The cognitive dominance that illustrates the hopelessness at the outset of the COVID-19 pandemic is that the virus is deadly and that there is no medical solution to the health problem, i.e., that there is no vaccine to counter the lethal infection. The provoked global fear of contracting the virus gave rise to the mass hopelessness that gripped people at the beginning of the pandemic. There are many studies which empirically prove that, in principle, hopelessness and pessimism about the future generate suicidal thoughts and behavior (Beck et al., 1973; Minkoff et al., 1975; Beck et al., 1985; O'Connor et al., 2000; Wenzel & Beck, 2008). Based on these and many other studies, long before the outbreak of the COVID-19 pandemic, the WHO recognized hopelessness as an important risk factor for suicidal behavior (WHO, 2014).

Considering this fact, we decided to investigate hopelessness as a psychological construct that most adequately reflects the mental state of individuals at the beginning of the COVID-19 pandemic. It is not only an indicator of the current mental state of individuals but primarily reflects their pessimistic attitudes and expectations for the future.

MATERIALS AND METHODS

Purpose of the study and hypotheses

The conceptual framework of the study allows for the assumption that levels of hopelessness, as an indicator of the strength of fear accumulated in a pandemic situation, are influenced by features of individuals, social groups, and cultural contexts. To test whether this is the case, we set the aim to explore the degree of hopelessness that gripped people during the COVID-19 pandemic and to uncover whether this pessimistic experience varied across individuals, social groups, and cultures. In line with the aim of the study, the following hypotheses have been formulated:

Hypothesis 1: *Hopelessness is influenced by cultural context, and, as a result, its level in the COVID-19 pandemic will vary across cultures.*

Hypothesis 2: *Gender differences affect the level of hopelessness, with the result that during the COVID-19 pandemic, it is higher in women than in men.*

Hypothesis 3: *In the situation of health uncertainty, caused by the COVID-19 pandemic, levels of hopelessness vary across ages and are higher among older adults.*

Hypothesis 4: *During the COVID-19 pandemic, levels of hopelessness in Asian and European cultures are influenced differently by certain demographic factors.*

Participants

The research subjects were representatives of two cultural groups from Asia and Europe. The total number of respondents includes 2617 aged between 18 and 70 (M = 37.98, SD = 15.20), 1412 of which were representatives of Asian societies (45.9% identified as women, 49.6% as men, and 4.5% preferred not to answer) and 1205 were representatives from European countries (64.6% identified as women, 34.5% as men, and 0.9% preferred not to answer). The average age of participants in the study from Asia was 32 years (M = 31.50, SD = 12.77). The average age of participants in the study from Europe was 45 years (M = 44.96, SD = 14.51). The study included representatives of Asia – China (N = 500), India (N = 500), Indonesia (N = 412), and Europe – Bulgaria (N = 405), Germany (N = 400), Hungary (N = 400).

The selection of the countries included in the study was based on several essential criteria typical for the representatives of both cultural groups, such as geographic location, cultural tradition, and religious domination.

Materials and Procedure

The study was conducted online in the period from April to June 2020. The Beck Hopelessness Scale (BHS), developed by Aaron T. Beck (1974), was used to test the validity of the hypotheses. BHS is a 20-item self-report inventory designed to measure

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pessimism and hopelessness. In fact, this is a true-false test measuring negative attitudes regarding the immediate and long-range future. Each of the 20 true-false statements is scored 1 or 0, where 9 are keyed FALSE, and 11 are keyed TRUE. The maximum score is 20, with higher values indicating higher levels of hopelessness. The interpretation of results is as follows: 0 to 3 is within the normal range, absent or minimal hopelessness, 4 to 8 is mild, 9 to 14 is moderate, and greater than 14 is severe. The scale consists of three subtests that measure three main aspects of hopelessness – *feelings about the future, loss of motivation,* and *expectations.*

According to the researchers, the BHS is a well-constructed and validated instrument with good psychometric properties, measuring hopelessness, despair, and pessimism. Hopelessness, despair, and pessimism were the dominant feelings during the COVID-19 pandemic, and therefore the BHS was used in this study. In addition, the purpose of the BHS is precisely to evaluate negative attitudes concerning oneself and one's future, and hopelessness, as a psychological construct, primarily reflects the pessimism of individuals regarding the future (Beck, 1967; Beck et al., 1974; Stotland, 1969). According to many authors, even just item #7 of the Beck scale is sufficient to reflect this state of the subjects (Aish & Wasserman, 2001; Perczel Forintos et al., 2001; Tanaka et al., 1998). Therefore, in addition to analyzing the data obtained for all 20 items included in the scale, we also conducted a comparative analysis between the two samples regarding item #7, which states, *My future seems dark to me.* The reliability of the BHS in the present sample is high – α = .816.

To reveal the social profiles of the participants, a section, including demographic characteristics, was added to the questionnaire. Respondents were asked to answer questions about their gender, age, occupation, marital status, biological or adopted children, number of children in the family, serious childhood illnesses, current job, financial status, religion, political orientation, etc.

To reveal the influence of age on the level of hopelessness, the subjects were divided, according to the concept of Armstrong (2019), into three age groups: *Early Adulthood* – up to 35; *Midlife* – from 36 to 50; *Mature Adulthood* – over 50.

The *Research Ethics Approval Procedure* was not applied in this study, as the survey was anonymous, and respondents completed the online questionnaire voluntarily.

To examine the hypotheses, the following statistical methods were employed: Descriptive statistics, Chi-square test, Independent-samples t-test, One-Way and Two-Way ANOVAs.

RESULTS

The study postulates that the cause of people's despair, pessimism, and hopelessness at the onset of the COVID-19 pandemic is due to the inducement by media of fear of contracting the virus and the lack of medical countermeasures. Results obtained, however, show that the levels of hopelessness generated by the fear of contagion are not the same among representatives of the two different cultures, Asian and European. According to the formulated Hypothesis 1, the levels of hopelessness in the two samples differ from each other, as they are influenced by the specifics and characteristics of Asian and European cultures.

Student's t-test for independent samples was applied to assess differences between individual cultures on BHS. The results show that compared to individualistic cultures, collectivistic cultures demonstrate a higher mean level of hopelessness – $t(2258)=-4.11$, $p<0.001$, $d=0.17$ (Table 1).

Table 1. Descriptive statistics, T-test, and Cohen's d by culture

Variable	Culture	N	Mean	SD	t(df)	p	d
BHS	Europe	1205	5.03	4.48	-4.11 (2258)	0.000	0.17
	Asia	1412	5.69	3.49			

At the beginning of the COVID-19 pandemic, however, hopelessness was associated not only with the fear of infection but also with the lack of medical countermeasures to the virus, which further reinforces depressive tendencies and makes the future bleak and unclear.

It was essential for us to examine the individual's negative attitudes toward the future, which is why we separately analyze the results of the responses to item #7, which states - *My future seems dark to me.*

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Table 2. Cross-tabulation between type of culture and item 7: My future seems dark to me.

Variable			My future seems dark to me.		Total
			No	Yes	
Culture	Europe	Count	903	299	1202
		% within Europe & Asia	75.1%	24.9%	100%
	Asia	Count	1206	198	1404
		% within Europe & Asia	85.9%	14.1%	100%
Total		Count	2109	497	2606
		% within Europe & Asia	80.9%	19.1%	100%

Table 2 clearly shows that compared to Asians, European respondents are more likely to believe that the future looks bleak for them – 24.9% vs. 14.1%, χ^2=48.69, p<0.001.

According to the second hypothesis, in the COVID-19 pandemic, gender differences affect the level of hopelessness, and it is higher in women than in men.

A one-way ANOVA showed that both culture type and gender also significantly affect levels of hopelessness – F(3,2539)=9.96, p<0.001, η=0.11. Due to the inequality of variances, the Games-Howell post hoc test was used to assess differences in means. The results show that there is a statistically significant difference between Asian men and European women, p<0.001, as between Asian men and Asian women, p<0.01. Men from Asia demonstrate the highest degree of hopelessness – x=5.97. European men are positioned after them – x=5.44, followed by Asian women – x=5.32, and finally by European women – x=4.84 (Fig. 1).

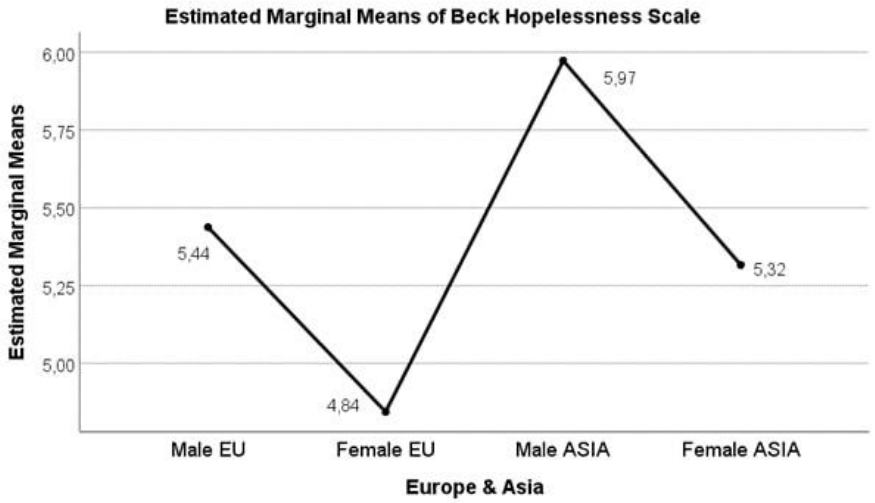

Figure 1 Hopelessness by gender and culture

One of the assumptions in the present study concerns the mediating functions of age on hopelessness. To check the validity of this assumption, as mentioned above, the respondents were divided into three age groups – *Early*, *Midlife*, and *Mature Adulthood*. Hypothesis 3 postulates that in the situation of health uncertainty, caused by the COVID-19 pandemic, levels of hopelessness vary across ages and are higher among older adults. The results show that age has a statistically significant, albeit slightly strong, effect on levels of hopelessness – F(2,2481)=4.03, p<0.05, η=0.05.

Levene's test highlights the inequality of variance of the groups studied, so the Games-Howell post hoc test was applied to measure contrasting differences in the means. It reveals that the most significant statistical differences are between the first group (*Early Adulthood*), including participants up to 35 years old, and the second group (*Midlife*), including participants between 36 and 50 years old – p<0.05. The intensity of hopelessness is the strongest in Early Adulthood – x=5.51 and Mature Adulthood – x=5.35, and the lowest in Midlife – x=4.96 (Fig. 2).

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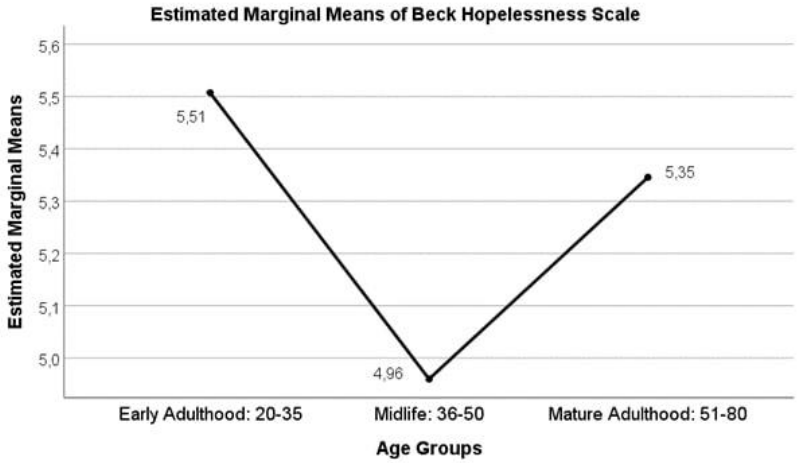

Figure 2. Hopelessness by age

According to the formulated Hypothesis 4, during the COVID-19 pandemic, levels of hopelessness in Asians and Europeans are influenced differently by certain demographic factors. In connection with this, as stated in the methodological section, the BHS was accompanied by a questionnaire that included numerous demographic characteristics, such as level of education, profession, number of children in the family, financial status, religion, political orientation, etc.

Data received suggests that only some demographic factors influence the hopelessness levels of representatives of two cultural groups, while others do not. To reveal whether, along with cultural context, education also influences levels of hopelessness, we separated individuals into five educational groups - primary education, secondary education, bachelor's degree, master's degree, and PhD or higher degree. Since the number of respondents with a Ph.D. was small, we separated a new group when processing the results – *"Master's & PhD or higher degree"*.

Two-Way ANOVA shows that both the independent effects of culture type – $F(1,2586)=5.28$, $p<0.05$, $\eta=0.04$ and education – $F(3,2586)=10.55$, $p<0.001$, $\eta=0.11$, and their combined effects – $F(3,2586)=7.25$, $p<0.001$, $\eta=0.09$ also significantly influence the degree of pessimism and hopelessness at the onset of the COVID-19 pandemic.

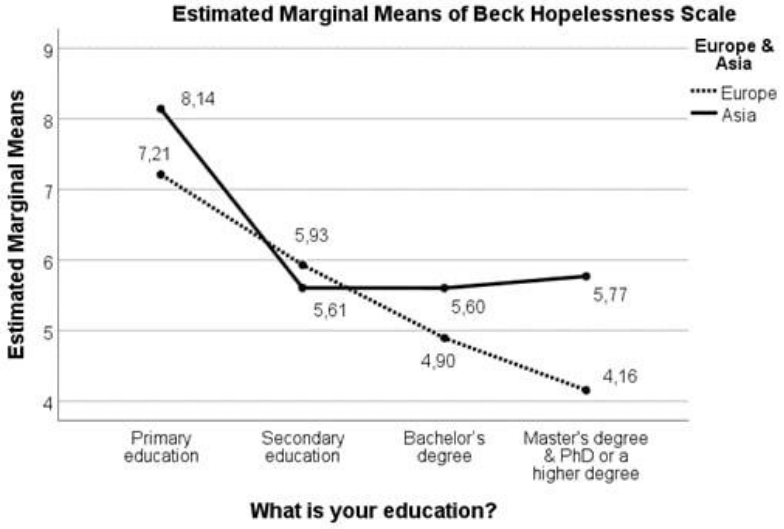

Figure 3. Hopelessness by type of culture and education

As can be seen from Figure 3, representatives of the two cultural types who are low in educational attainment demonstrate the highest levels of hopelessness. It is evident that for Europeans, as their educational level increases, the level of hopelessness

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gradually decreases, reaching its lowest level among those with a master's, doctorate, and higher degree, while Asians with higher educational degrees demonstrate equally low levels of hopelessness.

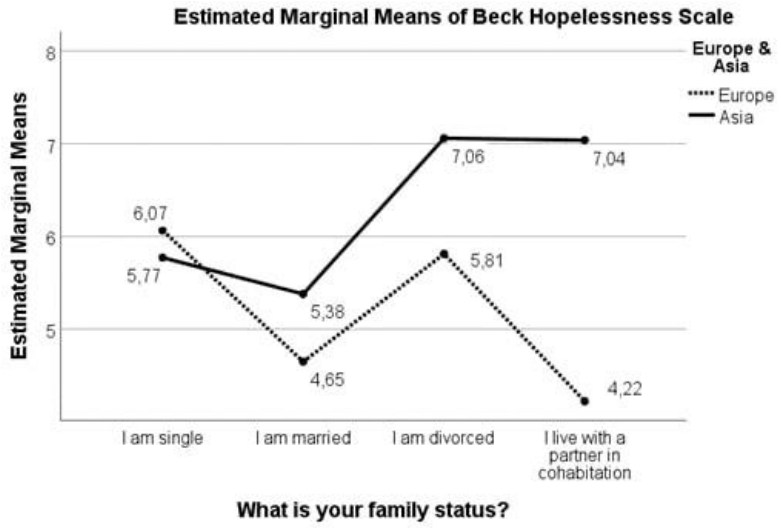

Figure 4. Hopelessness by type of culture and family status

We assumed that the family, as the basic unit of society, also influences the degree of hopelessness and pessimism at the beginning of the pandemic. To test the credibility of this assumption, respondents had to indicate whether they were single, married, divorced, or living with a partner in cohabitation. The obtained results show that there are both statistically significant independent effects of culture type – $F(1,2577)=13.10$, $p<0.001$, $\eta=0.07$ and family status – $F(3,2577)=9.34$, $p<0.001$, $\eta=0.10$, as well as their combined influence on levels of hopelessness at the beginning of the COVID-19 pandemic– $F(3,2577)=8.24$, $p<0.001$, $\eta=0.09$. Figure 4 shows that the intercultural distances between Asian and European respondents increase for married, divorced, and living with a partner in cohabitation. For Europeans, there is a clear trend for pessimism and hopelessness to increase for the single and divorced and to decrease for the married and living with partners in cohabitation. Compared to Europeans, the trend in representatives of Asian culture is different. In this case, levels of hopelessness are low among the married and somewhat among singles, while these are extremely high among the divorced and living with partners in cohabitation.

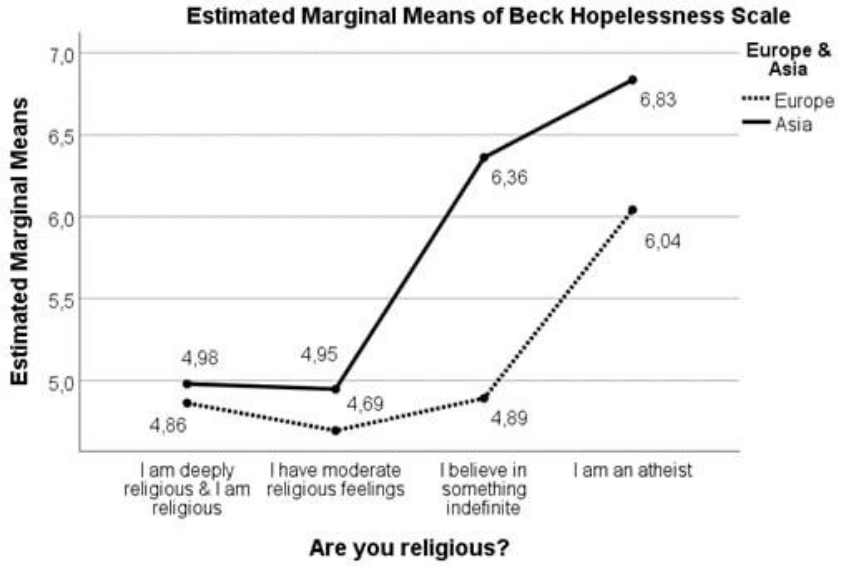

Figure 5. Hopelessness by type of culture and religious

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An essential characteristic that is related to pessimism and hopelessness is religiosity. To reveal the influence of religiosity on pessimism and hopelessness, respondents were asked to indicate their level of religiosity by selecting one of the options shown in Figure 5. Two-Way ANOVA shows that the type of culture – $F(1,2577)=15.99$, $p<0.001$, $\eta=0.08$ and religiosity – $F(3,2577)=22.48$, $p<0.001$, $\eta=0.16$ have both statistical significant individual and aggregate effects on hopelessness – $F(3,2577)=3.07$, $p<0.05$, $\eta=0.06$.

The results showed that differences in levels of pessimism and hopelessness were greatest between those Asians and Europeans who believed in something indefinite. It is striking, however, that the lowest levels of hopelessness are among those representatives of Asian and European cultures who are religious. Asian and European atheists differ dramatically from them, demonstrating the highest levels of pessimism and hopelessness at the onset of the COVID-19 pandemic.

In conclusion, it should be noted that in the Asian and European samples, there are data on many other demographic characteristics such as profession, length of service, position in the organization, financial status, children in the family, illness during childhood, political orientation, etc. The analysis shows that statistically significant effects between these characteristics and the type of culture are not revealed.

DISCUSSION

The behavior of individuals during a pandemic depends on specific external (objective) and internal (subjective) factors. Fear, as a subjective factor, plays an essential role in situations hazardous to human health, as it is a natural survival response to any danger. Thanks to fear, the individuals engage in protective or risky behavior that helps them avoid or assimilate or combat the threat to their health and life. Fear, as a primal emotion in itself, always generates a certain level of anxiety and worry in people. If people are for a long time in a state of anxiety and stress, caused by intense fear for their own survival and the survival of their loved ones, they fall into despair, pessimism, and hopelessness. Nowadays, however, during pandemics, it is possible for fear to be provoked on a large scale by external agents (governments, mass media, international organizations), and thus to become a *global source* of anxiety and stress, that is, to become a global factor in controlling people's behavior. In these circumstances, pessimism and hopelessness become *mass phenomena* that dominate people's daily lives. However, in this case, both the strength of fear generated by external sources and the levels of pessimism and hopelessness, vary among individuals, social groups, and cultures. This is because fear is also influenced by a number of specific characteristics of individuals and the environment. Among the latter can be mentioned the cultural context, sex, age, and some specific demographic characteristics. They have a significant impact on fear and consequently on levels of pessimism and hopelessness during an extreme pandemic situation.

All of this applies to the Covid-19 pandemic that erupted in early 2020. The present study has shown that individuals across cultures differ in the degree of pessimism and hopelessness engendered by mass media-induced fear of contracting the virus (Table 2). The reason for this lies in the peculiarities of the two cultures, resulting in the fact that the representatives of the Asian collectivist culture, in comparison with representatives of the European individualistic culture, demonstrate a higher average level of hopelessness. The results shown in Table 1, however, reflect a general picture of hopelessness that includes both individuals' vision of the future and some aspects of their psychological functioning that might predict depression and depressive suicidal ideation (Beck, 1985,1986). This means that the research data reveal the current complex mental state of hopelessness valid for Asians and Europeans, which includes awareness of a life-threatening situation, acceptance of impasse due to the loss of a life-saving vaccine, pessimistic vision of the future, and depressed suicidal ideation. In the conditions of European culture, however, this extreme mental state corresponds only to the personal being of the individuals and being of their loved ones. According to the cultural tradition in psychology (Kemmelmeier et al., 2003; Krumov & Larsen, 20013; Matsumoto, 2001; Singelis et al., 1995; Triandis, 1995; Triandis et al., 1988), the attitude of representatives of collectivist culture towards other people and groups arises from the cultural specificity of the societies in which they grow up. Individuals perceive themselves as closely related to the group – they are loyal to it and rely on mutual support (Hofstede, 1991, 2006). Therefore, not only their own families but also the groups of their membership, and society as a whole, are an integral part of their self-identity. As a result, Asian respondents, unlike Europeans, perceive the existential threat posed by the Covid-19 pandemic as not only dangerous to themselves but at the same time dangerous to the membership groups and to society as a whole. This multifaceted conditioning of danger perception in the Asian cultural environment actually leads to much greater increases in stress and anxiety and respectively to much greater increases in levels of hopelessness among Asians compared to Europeans.

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In addition, as indicated, the analysis has also been performed on the data obtained under item 7. The aim is to compare the extent of negative attitudes toward the future in Asians and Europeans. It should be noted that by answering this question, respondents are reflecting their attitudes towards their own future, not the future of groups or society. According to the results received, Europeans, in contrast to Asians, are more pessimistic about their future well-being. In this case, the factors that make Europeans more pessimistic about their future are in all likelihood also social, economic, and political in nature.

The results of the study show that at the onset of the Covid-19 pandemic, gender differences in levels of hopelessness vary across cultures. The prevalence of hopelessness in Asian men and women over that of European men and women, in this case, can also be explained by differences between the two cultural types. At the same time, however, the results show (Figure 1) that the hopelessness levels in both Asian and European men are higher compared to those in Asian and European women. These differences could be explained by the leadership role of men in extreme life-threatening situations. In all probability, men, who by nature are dominant, active, and more aggressive, compared to women, in situations of danger are engaged in risky or avoidance behavior to a higher degree, resulting in higher levels of stress and anxiety, which in turn leads to higher levels of hopelessness.

The data analysis also supports the assumption that in a pandemic situation, levels of hopelessness vary with age. They are higher among older and younger people compared to representatives of the midlife group (Figure 2). The result with regard to the elderly is quite logical as they were subjected to the greatest media pressure and were permanently suggested that the danger threatened them to the greatest extent. It is not surprising that young people demonstrate very high levels of hopelessness. This is because young people are the ones who feel most painfully the restrictive pandemic measures imposed by most governments - wearing masks, restricting communication, online education, imprisonment, etc. The low level of pessimism and hopelessness registered among people aged between 36 and 50 can be explained by the fact that this is the most emotionally stable group. It includes people who are supposed to be at the top of their careers and have financial security and families supporting them. These are factors that contribute to reducing the level of stress and anxiety and, accordingly, to reducing the degree of hopelessness.

Analysis of the data reveals that at the onset of the pandemic, a number of demographic characteristics influenced levels of hopelessness. It turns out, for example, that at the very beginning of the Covid-19 pandemic, levels of education affected the degree of pessimism and hopelessness (Figure 3).

Results revealed that members of both cultures who are more highly educated display low levels of hopelessness, and conversely, those with less education demonstrate extremely high levels of hopelessness. It can be assumed that the reasons for the extremely high level of hopelessness in low-educated people lie in the fact that they are more easily manipulated by the media. As a result, the induced fear of the virus and, therefore, the level of hopelessness is stronger. On the other hand, they may not have the necessary knowledge of what a pandemic actually is, so they tend to fear it more than highly educated individuals.

Family status is one of the demographic characteristics that, in both cultures, has a different impact on the degree of hopelessness of individuals during the pandemic (Figure 4). The trend among Europeans of an increase in hopelessness among the single and divorced and a decrease among the married and cohabiting with a partner has a logical explanation. The explanation is that during a pandemic, loneliness is a strong source of despair, pessimism, and anxiety, leading to a high level of hopelessness. Unlike Europeans, at the beginning of the Covid-19 pandemic, only married Asians demonstrated low levels of hopelessness. The characteristic of representatives of this culture is that both divorced and living with a partner in cohabitation demonstrate a drastically high level of pessimism and hopelessness. The high levels of hopelessness, demonstrated by divorced individuals, can also be explained by the influence of loneliness, however, for those living with a partner in cohabitation reasons for high hopelessness levels are of a different nature. We assume that in the context of the Asian collectivistic, in contrast to the European individualistic culture, cohabitation with a partner is not a commonly accepted practice and is accompanied by anxiety, which increases in the conditions of an extreme situation, and this leads to an increase in the level of hopelessness.

Another characteristic of the individual, which in both cultural contexts mediates the manifestation of hopelessness differently, is religiosity. Results show that in both individualistic and collectivistic cultures, religious individuals have low levels of hopelessness, whereas, among atheists, these levels are dramatically high. However, there are significant differences between the two cultures, since compared to Europeans, those Asians who "believe in something indefinite" demonstrate significantly higher levels of hopelessness.

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CONCLUSION

The results of the study, conducted at the beginning of the Covid-19 pandemic in three Asian and three European countries, show that the degree of hopelessness caused by mass media-induced fear is different in Asian and European cultural environments, being higher for Europeans compared to Asians. Both gender differences and age impact levels of hopelessness, but their influence manifests itself differently in different cultural contexts. The differences are due both to the specific features of each of the two cultures and to the influence of a number of physiological and personal characteristics of the individuals. Among the demographic factors that mediate pessimism and hopelessness during the pandemic are educational attainment, marital status, and degree of religiosity. Depending on the cultural context, their influence on hopelessness manifests itself differently.

The general conclusion is that informational media overexposure relating to the hazards increases fear of the disease and contributes over time to pessimism about the future, hopelessness, worry, and depression. Uncovering the factors that determine levels of hopelessness would help successfully manage people's health behaviors during pandemics and lead to reductions in depression and suicidal behavior in the future.

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