Perceived Threat of COVID-19 and Future Travel Avoidance: Results from an Early Convenient Sample in Slovenia

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The present study provides a snapshot of Slovenian tourists' perceptions in a historically unique point of time – the early days of the COVID-19-related lockdown. Based on an online survey performed in March and April 2020 the study provides first insights into Slovenian tourists' perceived threats of COVID-19 on two dimensions: severity and susceptibility; how this depends on their demography and past travel experience and what, in this specific point in time, they think about future travel avoidance. The results have shown that age affects the two measured dimensions of perceived threat and future travel avoidance, but only with women. Furthermore, people who have travelled the most in the past express the least likelihood of avoidance to travel due to the COVID-19 pandemic. Those who are more educated, on the other hand, perceive higher risk, yet education has no role in their expressed future travel avoidance. The results, moreover, show that the moral obligation towards taking care of others might be a highly important element in the success factor of COVID-19 measures and thus future appeals by the tourism industry. Finally, the results show that we cannot easily predict how the general population will behave regarding their future travel avoidance since the opinions are not polarised in the extremes. This does indicate, however, that tourists will be susceptible to the context-specific factors of future travel decisions, such as assurances of health safety provided by the tourism industry.

Keywords: COVID-19, tourism, health threat perception, future travel avoidance, fear appeals

Introduction

With the declaration of a pandemic, caused by the spread of the COVID-19 disease, the world is experiencing the biggest lock-down in recent decades, also affecting the developed countries of the western hemisphere. WHO released the announcement that COVID-19 disease is characterised as a pandemic on March 11th 2020, thus calling for action on a global level to fight against the disease. Even though this pandemic is not the first nor the only one of the 21st century (Mathis et al., 2015), the world is facing a global health crisis unlike any in the last 75 years.

The travel industry is amongst those first and most hit by the pandemic (OECD, 2020). Countries have taken different measures to limit the spread of the disease, including total or partial lock-down, strict limitations on meetings of people in public and closed public and private places, limited free mobility of residents and execution of services. The latest report by UNWTO shows that 96% of global destinations have imposed travel restrictions (UNWTO, 2020). Public and massive modes of mobility (i.e. airplanes, trains, buses, ships, etc.) have been recognised as a primary threat to the spread of this new disease and thus first to be made subject to preventive measures.

Furthermore, experiences vital to the tourism sector such as cruises, gambling, wellness, beauty and health services, group sport activities, concerts and events, culinary events and many others have been hit hardest by governmental restrictions and practically shut down for the related period. According to UNWTO estimation, tourist arrivals on a global level in 2020 will be down by 20% to 30% when compared with 2019 figures. This in turn will also affect millions of tourism jobs and it will take several years to recover from the fall.

A pandemic is classified in literature as one of the five major categories of disasters, next to political events, natural disasters, financial events and man-made events, and the travel and tourism sector have suffered the hardest thus far from the series of pandemics and epidemics like avian flu and swine flu, which have occurred in the 21st century (Bhati et al., 2016). The tourism industry has proven to be vulnerable to national disasters, even though on a global level such downturns are not always visible (UNWTO, 2011).

Since World War II, the tourism industry has experienced enormous growth which has also caused a change in the character of tourism. The early 20th century decades were characterised as the infancy period of mass tourism (Sezgin & Yolal, 2012). The Fordist model of mass production made mass tourism possible and turned tourism itself in effect into a Fordist mode of production and consumption (Torres, 2002). The after-war period has been marked, among other factors, by greater prosperity of the population at large, paid holidays for many European workers, better education, technological development, etc., which have resulted in greater numbers of tourist arrivals per year, increasing from 25 million in 1950 to 1,401 million in 2018 (UNWTO, 2019) and 1.5 billion in 2019.

This form of development has in turn created a feeling of existential angst or alienation amongst its citizens. According to Smith (2003), long working hours, and fragmentations of communities and traditions have exacerbated feelings of isolation, depression, and stress, causing individuals to seek solace and activities which enhance their physical, mental and spiritual well-being. Within the literature, escapism has been posited as a key motivation factor for travel, relating to escape from routine, making important decisions, desire to postpone work or other responsibilities (Cohen, 2010).

Considering the modern development of tourism and the latest events related to the pandemic, the tourism sector is expecting major challenges in the immediate future. Compared to the usual asymmetric distribution of the impact of economic recession, the impacts of pandemics are symmetrical. With COVID-19-related measures, tourism was practically suspended. According to UNWTO (UNWTO, 2020), 93% of destinations in Europe (as of 6 April 2020) have adopted COVID-19-related restrictions since January 2020. Europe as a destination alone still represents more than 50% of all international tourist arrivals, and the Americas an additional 15% (UNWTO, 2019).

The questions of when and how tourism will rebound are thus of a highly important focus with not enough early information on how potential future travelers will respond to the COVID-19 crisis. This re-

search builds on results of an online survey conducted in Slovenia in the first three weeks of COVID-19 self-isolation measures. The sample was a convenient sample, focusing on catching a specific timeframe of early responses to the COVID-19 pandemic. The research aims presented in this paper were threefold: (a) to analyse the perceived threat of the COVID-19 disease expressed by the survey participants, (b) to analyse the future travel avoidance expressed by the survey participants, and (c) to analyse how threat perception and future travel avoidance are correlated with age, travel experience, gender and education of the survey participants.

The research question is as follows: How do tourists in the early phase of lockdown perceive threats related to COVID-19 and express future travel avoidance with respect to their age, travel experience, gender, and education? The answer to the question could help the industry to address the key segments in the opening-up phase and identify the issues that potential tourists care and worry about most.

Literature Review

Threats, Risks, Security and Tourism

Safety and security have become key criteria in global travel decisions. The global importance and dimension of tourism as an economic activity have caused safety concerns not only to affect the individual and his or her travel choices, but also the economic and political stability of entire regions. Bajpai (2000) argues that the term 'human security' directs the concept of security towards the survival, well-being, and freedom of people. Contrary to Bajpai (2000), Inglehart and Norris (2012) refer to the concept of human security as a security concept that seeks to ensure the security of individuals and communities where there is a lack of agreement on its definition of content between 'freedom from fear' and 'freedom from desires.'

In the United Nations Human Development Survey (Bajpai, 2000; Oberleitner, 2002; Paris, 2001), human security also refers to the protection of personal safety and individual freedom against diseases that we define as indirect violence and set aside, under-development, environmental degradation, overpopulation, wars and refugee crises. The COVID-19 pan-

demic has highlighted the extreme vulnerability of the global population, both economically and physically. Protective policies are needed to reduce risks to the most vulnerable sections of the population. Moussa (2001) notes that human security is an acknowledgment of the right of people and nations to an equal share of global economic, social and political development and protection against threats arising from their own and other countries.

The consequences of global security crises demonstrate the impact of security on tourism, and on the other hand, tourism has very little impact on security at the macro level, as stressed by Mekinc and Dobovšek (2011), and that tourism is very dependent on security, as also claimed by Hall et al. (2003). This is additionally confirmed by the findings of Mansfeld and Korman (2015), who emphasise that the seemingly safe and developing tourism environment is very fragile since the reason for the restoration of environmental safety is not in the development of tourism, but in the fields of politics, the economy and society, which together must first create safe conditions for the development of tourism in an environment. The COVID-19 pandemic has shown that the global health crisis as a security threat has hit global tourism and travel particularly hard. When security threats occur at or near tourist destinations, this is generally reflected in a decline in the number of tourist arrivals in the wider area of influence. However, if the security threat is global, the imbalances in global tourism are even more affected. The reason for this is mainly information networking, which can transmit information from one end of the world to the other in real-time. Thus, information on escalating security threats reached potential tourists' homes in real-time and discourages them from making a travel decision (Kurež, 2011). A characteristic of the COVID-19 pandemic, as a global security crisis, is also the stringent action taken by countries regarding movement, border crossings, and closure of service activities, which hinders most tourism activities.

Global security threats, such as a pandemic, do not arise on their own but are a product of the security environment and its instability, which in COVID-19 is reflected in the development of individual health sys-

tems. International measures and proactive action will need to be taken to prevent and limit global health crises. As Kurež (2011) notes, the international community has many resources at its disposal to deal with security threats in tourism. The risks and threats need to be identified first, followed by risk and threat management. Proposals for security improvements should be based on an audit of the existing situation, which requires a thorough and in-depth analysis of vulnerabilities and security risks exposures, both internally and externally. Global risk management refers not only to the coherence of international measures but also to the understanding of individual countries' responsibilities to limit or counteract the security threat (Ivanuša et al., 2012).

An important element in threat management is how tourists perceive the threats and what tourists' characteristics affect their threat perception. We will turn to this question in the next sub-section.

Perceived Threats and Travel Research
In travel research, risk perception has long been recognised as one of the main predictors of travel intentions, with early research focusing on the topic of general risk perception (see e.g. Roehl & Fesenmaier, 1992; Sönmez & Graefe, 1998a) and becoming more case-focused in the last millennium. Risk perception is often researched in the context of destination image, with perceived safety being one of the common indicators of overall destination image measures (e.g. Karl, 2018b; Kim et al., 2019; Tavitiyaman & Qu, 2013; Tsiotsou et al., 2010).

Health-related risk perception, however, has received a relatively smaller focus in travel research to date. Yang & Nair (2014) performed a content analysis of 46 articles on risk and perceived risk. Out of the 46 articles, only one was specifically focused on health risks: Atherton and Wilks (1994), while not including risk perceptions. From 42 risk factors involved in travel identified by Mitchell & Vassos (1998) in their 'classic' study, none was related to health risks. At the time, the terrorism and sociocultural risk emerged as the most significant predictors of travel anxiety, with health risks remaining in the background (Reisinger & Mavondo, 2005).

As Seabra et al. (2013) point out, the past 50 years of study on risk perception reveal difficulties in operationalising this concept, mostly because risk perceptions are specific to each situation, and should therefore be evaluated using measurement instruments appropriate to the decision-making context. Twenty years ago, Sönmez and Graefe (1998a) tested which types of risk are most often associated with tourism to specific destinations. These were financial, psychological, satisfaction, and time risks. Resinger and Mavondo (2005) defined perceived risk as one's perceptions of the uncertainty and negative consequences of buying and consuming traveling services and at the destination.

Perceived health risks were measured with one item: 'possibility of becoming sick while travelling or at destination' (measured on a 7-point scale; 1 = none; 7 = very high). In their study it showed to be a part of a common factor named 'health and financial risk' including also physical, financial and functional risk perceptions – reflecting the relative lesser importance of health-related risks in the overall perception of travel risks and its measurements.

Health-related risks were in the past thus analysed primarily through the prism of becoming sick while travelling – what Hunter-Jones et al. (2008) termed 'everyday types' of health hazards while travelling. It was only after the foot and mouth disease outbreak affecting livestock in the UK (Frisby, 2003; Sharpley & Craven, 2001), and SARS and the bird flu epidemics (Mao et al., 2010) that the fear of pandemics, or 'crisis health hazards' (Hunter-Jones et al., 2008) started to be more prominently recognised in travel research. Both Seabra et al., (2013) and Yang & Nair (2014), for example, mention 'fear of pandemics,' 'health threats such as influenza' or 'a number of major tragedies, including the SARS outbreak' as main arguments as to why risk perception should be analysed in travel research, but do not include any measures in their research. Perceived threat is also recognised as one of the main independent variables affecting one's risk aversive behaviour in relation to the SARS pandemic (Brug et al., 2009; Smith, 2006; Vartti et al., 2009). The analysis of SARS-specific travel literature (Aro et al., 2009; Moreira, 2004, 2008; Rittichainuwat & Chakraborty, 2009;

Zeng et al., 2005) shows that more specific measures regarding perceived threats and pandemics were included, yet remained only at the level of comparing one disease against another. For example, Rittichainuwat and Chakraborty (2009) included questions on perceived risks for three types of disease: SARS, bird flu, and anthrax, but did not include a more in-depth measure of perceived risks related to these types of disease.

What the COVID-19 pandemic calls for at the moment are more specific analyses of the extent to which COVID-19 is perceived as a health risk and how this affects travel intentions. In order to analyse risk perception of COVID-19 in more depth, we turned to measures in the promotion of health behaviour. While travel research recognises the importance of communicating safety information to travellers (Abrams et al., 2020; Wang & Lopez, 2020), COVID-19 reflects a globally unprecedented need for public health risk communication of which we are currently witnessing the first analyses (Abrams et al., 2020; Zhang et al., 2020).

An important area of research is so-called threat or fear appeals (Dillard & Li, 2020; Yuen et al., 2020) with disease being a common threat in public-fears appeals such as anti-smoking campaigns (Pechmann et al., 2003). Following the protection motivation theory (Floyd et al., 2000; Rogers, 1975) and the extended parallel process model (Maloney et al., 2011; Witte, 1992) we can identify what Seabra et al. (2013) term a more context-specific, more in-depth definition and measurement of risk perception in relation to the COVID-19 pandemic.

Rogers (1975) was amongst the first to identify the two dimensions of perceived threat: (a) the magnitude of noxiousness of a depicted event ('Severity of the threat') and (b) the probability of that event's occurrence ('Susceptibility or vulnerability to the threat'). In the current research we build on Witte's (1992) operationalisation of the two dimensions (see the Methods section) and are primarily interested in the differences of the two dimensions of perceived threat according to travel experiences, gender, age, and education and how this correlates with future travel intentions of Slovenian travellers.

Travel Intentions and Perceived Threat According to Age, Travel Experience, Gender and Education

The literature review within tourism studies shows that various individuals perceive travel risk differently and react to it in distinctive ways (Garg & Kumar, 2017; Karl, 2018a, 2018b; Yang & Nair, 2014), especially when from different cultural backgrounds (Le Serre et al., 2013; Matyas et al., 2011; Park & Reisinger, 2010; Qi et al., 2009; Reisinger & Mavondo, 2006a, 2006b; Vartti et al., 2009).

Furthermore, even within the same nation or age group, tourists are heterogeneous in terms of their risk perception (Karl, 2018b; Seabra et al., 2013; Wantono & McKercher, 2020). While risk is generally studied as a factor that increases risk aversive behaviour, it is important also to note that for some people risk includes higher motivation to seek risky behaviour – a point of research covered especially within the area of sensation-seeking personality traits and tourism (Lepp & Gibson, 2003, 2008; Pizam et al., 2001, 2004). For example, Gibson and Jordan (1998a, 1998b) found that solo women tourists take calculated risks while traveling in order to gain a sense of empowerment and adventure.

In terms of demographic factors, risk perception is related to factors such as life stage, gender, nationality, education, and social class (Gibson & Yiannakis, 2002; Karl, 2018b; Lepp & Gibson, 2003, 2008; Matyas et al., 2011; Park & Reisinger, 2010; Pizam et al., 2014, 2004; Qi et al., 2009; Reisinger & Mavondo, 2005, 2006a, 2006b; Roehl & Fesenmaier, 1992; Sönmez & Graefe, 1998a, 1998b). Yang and Nair's (2014) study deals with 15 internal factors that can influence tourists' risk perception, categorised into four dimensions: sociocultural, socio-demographic, psychographic and biological. Nationality and past experience were found to be the most significant factors shaping tourists' risk perception.

Regarding age, Sönmez and Graefe (1998a) found that age did not influence an individual's perception of travel-related risk, which was also confirmed by the work of Garg and Kumar (2017). However, Gibson & Yiannakis (2002) found that preference for risk-related tourism tended to decrease with age. These were the results of many other researches as well (Ha-

jibaba et al., 2015; Hallahan et al., 2004; Lepp & Gibson, 2003; Pizam et al., 2004; Reisinger & Mavondo, 2006a, 2006b; Williams & Baláž, 2013). Williams and Baláž (2013) highlight that the general health and safety factor tended to be significantly more important for older people.

With age, riskier travel forms decrease and are explored within the non-institutionalised forms of tourism, such as travel of 'explorers and drifters' (Cohen, 1973), backpacking (Carr, 2001; Elsrud, 2001) and budget travelling (Riley, 1988). Hajibaba et al. (2015) found that tourists who are extremely resistant to risk are generally younger than other tourists with a more risk-averse behaviour. According to Pizam et al. (2001, 2004), young males showed more propensity for spontaneous vacations and are more adventurous. Higher age groups are more dominant in risk- and uncertainty-averse tourist types (Karl, 2018b).

However, there are large differences even within the same age groups, and non-institutionalised tourism styles are not homogeneous in terms of risk perceptions. Kozak et al. (2007) found that older experienced male travellers were less likely to change their travel plans when faced with potential terrorism, health, or natural disaster related risks. Williams and Baláž (2013, pp. 22–23) found that 'package tourists were more likely to be relatively younger (and therefore to have young children), while explorers are likely to be relatively older.' Organised mass tourists and independent mass tourists are generally more concerned about health risks than tourists engaging in non-institutionalised forms of tourism (Lepp & Gibson, 2003).

Another important factor affecting travel risk perception is travel experience, with the most experienced tourists perceiving less risk (Hajibaba et al., 2015; Karl, 2018b; Kozak et al., 2007; Lepp & Gibson, 2003, 2008; Park & Reisinger, 2010; Qi et al., 2009; Sönmez & Graefe, 1998a, 1998b). The survey of Sönmez and Graefe (1998a, 1998b) showed that previous visits to a destination considered risky were associated with greater likelihood of avoiding these in future, but Lepp and Gibson (2003) found positive relationships between travel experience and preference for destinations with higher risks.

Regarding gender and risk perception, the results are mixed. Although the research of Sönmez and Graefe (1998a, 1998b) showed no influence, other studies concluded that gender does influence travel risk perception and risk-aversive behaviour while travelling (Carr, 2001; Darley & Smith, 1995; Elsrud, 2001; Garg & Kumar, 2017; Hawes, 1988; Kinnaird & Hall, 1996; Kozak et al., 2007; Lepp & Gibson, 2003; Loker-Murphy & Pearce, 1995; Matyas et al., 2011; McGehee et al., 1996; Mitchell & Vassos, 1998; Pizam et al., 2004; Qi et al., 2009; Reichel et al., 2007; Squire, 1994; Williams & Baláž, 2013; Yang & Nair, 2014). Lepp and Gibson (2008) concluded that gender is only significant for subcategories of risk that may disrupt a holiday (i.e. strangeness of food) but not for life-threatening risk factors. According to Byrnes et al. (1999) men are more risk tolerant in 14 out of 16 observed types of risk behaviour and Boksberger et al. (2007) showed that women have been found to be more likely to be concerned about physical risks in tourism. Thus, in general, women are often shown as not as willing to take risks as men are (Garg & Kumar, 2017; Lepp & Gibson, 2003; Matyas et al., 2011; Pizam et al., 2004; Wantono & McKercher, 2020; Williams & Baláž, 2013), where risk aversion depends on the specific situation. In Lepp and Gibson's (2003) study, the results have shown that amongst most travel styles, men generally perceived less risk of terrorism than women, with one exception. The so-called 'drifters' group of travellers showed the opposite results – here women perceived less risk than men. On the other hand, Williams and Baláž (2013, p. 22) found that 'drifters were more likely to be men, which is consistent with their greater risk and uncertainty tolerance.'

With respect to health risks, Mattila et al. (2001) found gender differences in perceived health risk. According to Kozak et al. (2007), female tourists are more concerned about risks in terms of infectious diseases, terrorist attacks and natural disasters than male tourists. Lepp and Gibson (2003) reported that men are less concerned about health and food-related risks than women. Literature from the field of disease prevention showed that after the SARS outbreak, women reported higher perceptions of risk than men (Brug et al., 2004). Lau et al.'s (2004) investigation of SARS in

connection to preventive and risk behaviours showed that male travellers were much less likely to be using masks or washing their hands frequently.

An important warning about gender as a factor affecting risk perception is the fact that it is often only representative of other more comprehensive and in-depth differences. Carr (2001), for example, points out that other factors, such as personality type, are probably more influential on an individual's travel risk perception than gender per se.

Finally, many authors confirm that tourists' perceptions of travel risks vary depending on education (Chang, 2010; Hallahan et al., 2004; Karl, 2018b; Park & Reisinger, 2010; Sönmez & Graefe, 1998a; Williams & Baláž, 2013). Generally, the results show that higher-educated tourists perceive lower travel risk than less-educated tourists (Garg & Kumar, 2017; Halek & Eisenhauer, 2001; Hallahan et al., 2004). Williams and Baláž (2013) concluded that package tourists had relatively lower educational qualifications, while explorers and drifters had higher qualifications.

The research performed in Germany (Karl, 2018a, 2018b) has shown that high educational levels and high travel frequencies are distinct characteristics of risk-affine tourists. Garg and Kumar (2017) showed that tourists' decision-making is influenced by their risk-perception level in relation with socio-cultural factors and media influence. Park and Reisinger (2010) postulate that tourists with low educational attainment perceive a greater influence of social risk than high- and middle-educated tourists perhaps because they have relatively fewer social skills and are less confident about their vacation choice. Higher-educated tourists are likely to be more informed regarding natural disasters and travel risks and hold fewer misconceptions about the real risk than less-educated individuals (Laver et al., 2006). Similarly, Brug et al.'s (2004) survey of SARS conducted in the Netherlands has shown that people with less education expressed more worries about the disease.

In the remainder of this study we focus on how age, travel experience, gender and education affect COVID-19 threat perceptions and future travel risk avoidance amongst the sample of the Slovenian population.

Methods

Questionnaire

We used an on-line questionnaire (open from 17th March to 11th April 2020) that addressed variables for perceived threat, travel experience and future travel avoidance, and standard demographic variables. We adjusted the perceived threat measures from the extended parallel process model (Witte, 1992; Witte & Morrison, 2000) with 3 questions measuring perceived severity dimension and 4 questions measuring susceptibility or vulnerability dimension (see Table 3). The items were measured on a 5-point Likert scale from strongly disagree to strongly agree. We measured travel experience with three numerical questions, for example 'How many times a year have you on average gone on vacation (for 5 days or more) in the last three years?' Finally, we measured future travel intentions or travel avoidance as the extent to which the participants express planned travel avoidance after the COVID-19 lock-down measures.

Population, Sample and Source of Data

The data were collected from a convenience sample of respondents (N = 428), which is an acceptable form of data collection in tourism (Carr, 2001). The survey was made among residents of Slovenia, asking them about the new SARS-COV-2 virus and their perception of possibilities of self-isolation and traveling. Table 1 represents the sample we have collected; next to the information in Table 1 we have also calculated the average age of respondents was 32.7 years, some 10 years lower than the national average.

Data Acquisition and Analyses

We processed the acquired data in Microsoft Excel 2013 and IBM SPSS v.23. For simple data analysis we used Excel's built-in functions, such as counting individual responses, calculating percentages, and calculating mean values. IBM SPSS version 23 was used for statistical analyses. The threshold for rejecting a null hypothesis was set at α = 0.05. The correlations between dependent and independent variables were calculated using Spearman's Rho and differences between respondents' views based on parameters was calculated using the Kruskal-Wallis H test.

Table 1   Sample Demographic

Variable		*n*	%
Gender	Male	97	27.1
	Female	261	72.9
Level of education	Secondary education or lower*	124	35.3
	Higher professional education	51	14.5
	University education	98	27.9
	Post graduate education	75	21.4
	Do not want to disclose	3	0.9

Notes   * Post-secondary, pre-university.

Results

First, we tested the reliability of the collected data measuring the three main variables: perceived susceptibility of threat, perceived severity of threat and future travel avoidance (see Tables 3 and 5 for the exact items) by calculating the value of Cronbach's alpha. The value was 0.837 and this represents an acceptable reliability (Cronbach, 1951), which suggests that the 'measures were free from random error and thus reliability coefficients estimate the amount of systematic variance' (Churchill, 1979, p. 4).

Factor Analysis

We have performed a factor analysis on both sets of variables (perceived threats, future travel intentions) separately. First, we performed factor analysis on variables that have measured perceived threat levels amongst respondents. As seen from Table 2 and Table 3, there are two distinctive factors found. In line with past research (Witte, 1994) the first factor was 'susceptibility to threat' (explains 36.57% of variability). Again, in line with past research, the second factor was 'severity of threat' (explaining an additional 13.50% of variability). With both factors together we were able to explain 50.07% of variability of perceived threats.

The analysis of the mean value on each of the items shows that in general people perceive a relatively high probability that they themselves or their loved ones could fall sick to the COVID-19 disease (perceived susceptibility). Regarding the perceived severity, however, the mean values are lower, with the survey participants

Table 2   Factor Analysis – Total Variance Explained – Perceived Threats

(1)	(2)			(3)			(4)
	(a)	(b)	(c)	(a)	(b)	(c)	
1	3.012	43.022	43.022	2.560	36.568	36.568	2.322
2	1.416	20.235	63.257	0.945	13.499	50.067	1.805
3	0.772	11.030	74.287				
4	0.627	8.956	83.243				
5	0.502	7.177	90.421				
6	0.399	5.694	96.115				
7	0.272	3.885	100.000				

Notes   Extraction method: principal axis factoring. Column headings are as follows: (1) factor, (2) initial eigenvalues, (3) extraction sums of squared loadings, (4) rotation sums of squared loadings (when factors are correlated, sums of squared loadings cannot be added to obtain a total variance), (a) total, (b) percentage of variance, (c) cumulative percentage.

generally perceiving lesser gravity of the disease. There is an important exception, though: the indicators measuring perceived threat to oneself versus the indicators measuring perceived threat to one's loved ones show that survey participants generally perceive the COVID-19 more endangering the people that we love rather than ourselves, which is probably also a reflection of the relatively young sample. These results, however, indicate that the moral obligation towards taking care of others might be a highly important element in the success factor of COVID-19 measures. The results are in line with similar research, for example on effectiveness of antismoking campaigns (Goldman & Glantz, 1998).

Next, we have performed factor analysis on variables measuring future travel avoidance. As seen from Table 4 and Table 5, all the variables have positioned themselves in one factor, named 'Future travel avoidance.' With this factor we can explain 40.59% of variability of future travel intentions. The items we introduced to measure future travel avoidance are a relatively reliable scale for measuring this variable. The lowest travel avoidance is somewhat surprisingly measured with the item 'In the future I will no longer attend crowded events due to the fear of the new coron-

Table 3   Factor Analysis on the Group of Variables Measuring Perceived Threats

Factor	Variable	(1)	(2)	(3)
1 Perceived threat: Susceptibility (36.57% variability explained)	It is highly likely that I myself will fall sick with the new cor. disease.	0.891	2.62	1.136
	It is highly likely that my loved ones will fall sick with the new cor. disease.	0.773	3.12	1.052
	I myself am at risk of contracting the new coronavirus disease.	0.739	2.76	1.200
2 Perceived threat: Severity (13.50% variability explained)	The new coronavirus disease is extremely dangerous to one's health.	0.796	2.21	1.193
	The new coronavirus disease has a high mortality rate.	0.631	1.99	1.062
	The new coronavirus disease is not curable.	0.496	1.67	1.016
	My loved ones are at great risk of dying from the new coronavirus disease.	0.356	3.14	1.353

Notes   Column headings are as follows: (1) factor value, (2) mean value, (3) standard deviation. Extraction method: principal axis factoring. Rotation method: Oblimin with Kaiser normalization (rotation converged in 5 iterations).

Table 4   Factor Analysis – Total Variance Explained – Future Travel Intentions

(1)	(2)			(3)		
	(a)	(b)	(c)	(a)	(b)	(c)
1	3.372	48.173	48.173	2.841	40.593	40.593
2	0.994	14.203	62.376			
3	0.815	11.636	74.012			
4	0.632	9.034	83.046			
5	0.506	7.234	90.281			
6	0.370	5.285	95.565			
7	0.310	4.435	100.000			

Notes   Extraction method: principal axis factoring. Column headings are as follows: (1) factor, (2) initial eigenvalues, (3) extraction sums of squared loadings, (a) total, (b) percentage of variance, (c) cumulative percentage.

avirus.' Gathering with others was something the participants perceived as least likely they will give up in the future. This might indicate good news for future event management. The highest travel avoidance is measured with the item 'Once the problems are over, I will travel extensively in order to make up for the lost time.' This item, however, next to being reversely coded, also had the lowest factor value.

A deeper analysis of mean values per item shows that on average survey participants' travel avoidance, when calculated in an index (average of all items) performs very similarly to a normal distribution (see Table 6). The mean value of index of future travel avoid-

ance is 2.51 on a 5-point scale. In other words, we cannot easily predict how the general population will behave regarding their future travel avoidance since at the time of the results there was only a slight tendency for the participants to answer more often that they will not avoid future travel. It is thus important to analyse the differences in travel avoidance according to other variables to be better able to predict which groups of future travellers are those that will more likely and/or sooner be travelling again.

After performing the factor analysis, we have made an index for each of the three variables (the sum of all the items measuring the same variable) and performed basic descriptive statistics on newly formed indexes. In Table 6 we can see that the highest mean value (2.83) is for 'Susceptibility of threat,' followed by 'Future travel avoidance' (mean value 2.51) and 'Severity of threat' (mean value 2.22). In the continuation of the paper we will analyse the effects of age, gender, education, and travel experience on the three variables: susceptibility of threat, severity of threat and future travel avoidance. Since distribution is not parametric based on the Shapiro-Wilk test ($p < 0.005$), we are further treating the variables as non-parametric and using adequate statistical tests.

Differences Based on Age

We first investigated correlations between the three dependent variables 'susceptibility of threat,' 'severity of threat' and 'future travel avoidance' and the independent variable 'age of respondents.' We have

Table 5   Factor Analysis on the Group of Variables Measuring Future Travel Intentions

Factor	Variable	(1)	(2)	(3)
Future travel avoidance (40.59% variability explained)	I will be avoiding travelling abroad for at least a year.	0.782	2.14	1.266
	I will prefer to stay home this summer as a precaution and not go on any vacations.	0.751	2.04	1.268
	If travelling I will avoid public transportation.	0.705	2.62	1.387
	In the future I will no longer attend crowded events due to the fear of the new coronav.	0.637	1.79	1.107
	I will have no prob. about using planes, buses or trains as they will be safe again soon.*	0.601	2.65	1.292
	This year I will rather look for holiday possibilities within my own country.	0.575	2.66	1.308
	Once the problems are over, I will travel extensively in order to make up for lost time.*	0.266	2.91	1.371

Notes   Column headings are as follows: (1) factor value, (2) mean value, (3) standard deviation. * Reversely coded. Extraction method: principal axis factoring. Rotation method: Oblimin with Kaiser normalization (rotation converged in 5 iterations).

Table 6   Descriptive Statistics of Indexes of the Factors Gained from Factor Analysis

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Susceptibility of threat	409	2.83	0.974	0.089	0.121	−0.438	0.241
Severity of threat	399	2.22	0.830	0.569	0.122	−0.117	0.244
Future travel avoidance	313	2.51	0.604	0.633	0.138	0.543	0.275

Notes   Column headings are as follows: (1) number, (2) mean, (3) standard deviation, (4) skewness, (5) standard error of skewness, (6) kurtosis, (7) standard error of Kurtosis.

Table 7   Spearman's Correlation Coefficient of Correlation between Age and Three Variables

Variable	Correlation with age		
	Both	Man	Woman
Susceptibility of threat	0.158**	0.088 ($p = 0.397$)	0.188**
Severity of threat	0.202**	0.056 ($p = 0.592$)	0.253**
Future travel avoidance	0.107 ($p = 0.061$)	−0.087 ($p = 0.420$)	0.184**

Notes   ** $p \leq 0.01$.

used Spearman's correlation for this analysis. Table 7 shows that two out of three factors show statistically significant correlations to age of respondents. Older respondents evaluate susceptibility to threat higher than younger respondents; they also evaluate severity of threat higher than younger respondents, while age does not correlate with future travel intentions when both genders are included in the analysis. Since correlations made for both genders together were relatively

weak, we have decided to see if there are any additional differences with regards to difference in gender. We have determined that within the group of male respondents there is no statistically significant correlation with any of the three factors; however, within the group of female respondents correlation is now seen with all three factors. The results are thus only partly in line with the literature review. As in previous research, both threat perception and travel avoidance are affected by age – yet in our research this is confirmed only for women.

Differences Based on Past Travel Experience

We have furthermore analysed correlations between the variable 'future travel avoidance' after the COVID-19 crisis (see Table 6 for exact items, index was calculated as mean scores) and the three items measuring travel experience (see Table 8 for exact items). We have used Spearman's correlation for this analysis. Results are shown in Table 8. In accordance with expectations from the literature review, one of the three items for travel experience showed a statistically significant neg-

Table 8 Spearman's Correlation Coefficient among Variables 'Travel Experience' and 'Future Travel Avoidance'

Travel exp. in the past 5 years	Future travel avoidance
Number of holiday travels*	−0.153**
Number of international travels	−0.103 ($p = 0.073$)
Number of air flights	−0.051 ($p = 0.375$)

Notes * For 5 days or more. ** $p \leq 0.01$.

Table 9 Analysis of Differences among Males and Females on Susceptibility and Severity of Threat and Future Travel Avoidance

Variable	z	p	Mean rank	
			Male	Female
Susceptibility of threat	−1.171	0.241	162.94	176.88
Severity of threat	−1.568	0.117	156.59	175.15
Future travel avoidance	−0.537	0.567	151.40	157.84

Table 10 Analysis of Differences on Susceptibility and Severity of Threat and Future Travel Avoidance Based on Education

Variable	H	p	(1)	(2)
Susceptibility of threat	17.083	0.001	(a)	140.02
			(b)	182.13
			(c)	181.99
			(d)	198.95
Severity of threat	8.566	0.036	(a)	144.63
			(b)	179.06
			(c)	175.65
			(d)	175.46
Travel avoidance	1.735	0.629	(a)	145.88
			(b)	160.77
			(c)	147.73
			(d)	160.26

Notes Column headings are as follows: (1) level of education, (2) mean rank. Row headings are as follows: (a) secondary education or lower, (b) higher professional education, (c) university education, (d) postgraduate education.

ative correlation ($p \leq 0.05$) with future travel avoidance. The results thus show that people who have travelled the most in the past will be the ones who also express the least likelihood of avoidance of travel due to the COVID-19 pandemic.

Differences between Gender

Further, we tested for differences between respondents' views based on gender. As we can see from Table 9, even though women evaluate the variable higher than men in all three cases, the differences are not statistically significant. The results are thus again in line with the literature review: while women are often said to perceive more threat, the differences are not shown in every research and are generally not as significant as they are for age.

Differences Based on Education

Finally, we also tested if there are any statistically significant differences between respondents' views based on their level of education. Results are shown in Table 10. Regarding future travel avoidance, the results show no significant differences. However, from Table

10 we can see that there are statistically significant differences on both dimensions of perceived threat. On the dimension susceptibility of threat there is a statistically significant difference ($H = 17.083$, $p = 0.001$) among various levels of education. The lowest mean rank has respondents with secondary education or lower (mean rank 140.02) and the highest those with post graduate education (mean rank 198.95). Similarly, severity of threat is also statistically significantly different between the differently-educated groups of participants ($H = 8.566$, $p = 0.036$). The group with secondary education or lower has evaluated this factor lowest (mean rank 144.63) whilst the group with highest evaluation is the one with Higher professional education (mean rank 179.06). Compared with the literature review, however, these results are surprising. Namely, higher-educated persons tend to accept more risk and thus their susceptibility to threat is lower. But with COVID-19, higher-educated people feel that they are more susceptible to threat, and they also perceive that the threat is more severe. More future research is needed to analyse the reasons for the differences in

education. We can only speculate that the differences are a result of different information sources between the differently-educated groups. With regards to travel avoidance we did not discover any statistically significant differences between education levels.

Discussion, Limitations and Further Research Recommendations

The COVID-19 pandemic is an unpreceded event that shook global tourism industry to its core. It is too early to reliably say what kind of effects it will have for the future of tourism. The present study cannot provide answers to the questions of when and how tourists will be willing to travel again. Rather, it provides a snapshot of Slovenian tourists' perceptions in a historically unique point of time – the early days of the COVID-19-related lockdown. The value of the study is thus primarily in its analytical insight in the situation-specific state of tourists' perceived threats, how this depends on their demography and what they in this specific point in time think about their future travel avoidance.

As such, the study first has a methodological merit: to our knowledge this was the first study that developed a scale of perceived threat of COVID-19 on the two dimensions of severity and vulnerability. Perceived threat is a variable that is very context specific. In the past, travel research primarily focused on comparing several types of threats and providing only very general measures of health-related risks. The COVID-19 pandemic, however, is a specific situation that called for a more in-depth analysis of perceived threat. To achieve this, we have built on literature on health-related fear appeals in order to develop a scale that showed to be context specific, reliable and in-depth.

Similarly, the merit of the present study is the development of a scale for measuring one's expressions of future travel avoidance due to COVID-19. As with perceived threat, this variable, too, showed to include a reliable set of indicators, all showing one dimension of future travel avoidance. However, an important limitation of measuring future travel avoidance is its dependence on actual behaviour control – which is mostly not in the hands of the tourists but is rather an issue of policy regulation and how the disease will spread in the future. Future travel avoidance is a measure of

what people expect about the future, and not a measure of actual future behaviour. Therefore, it cannot be used as a valid predictor of actual future travels. It can, however, point to important early considerations.

The OECD (2020), World Tourism Organization (2020) and the European Commission (2020) recently published guidelines regarding tourism recovery after COVID-19. Common amongst these are three basic proposals that seem to be supported by the present research: providing health assurances to the tourists, promoting domestic tourism, and targeting younger tourists and those who have travelled more in the past.

First, the Slovenian early sample shows that people will be relatively highly susceptible to the context-specific factors that will affect their decisions, such as assurances of health measures. The European Commission (2020) highlights the importance of updated and easily accessible information to travellers in order to be reassured that public health and safety rules are respected. Our results show that we cannot easily predict how the general population will behave regarding their future travel avoidance since at the time of the results most participants were not on either of the two extremes of the opinion. However, while we cannot predict whether this means they will be more willing or less willing to travel in the future, it does mean that the general opinion might be highly susceptible to the context of the future. Extreme opinions are those that are the most difficult to change. The common sets of health standards and assurances of health safety in the after-COVID-19 scenarios are thus likely to fall on appreciative ears.

Second, a common assumption regarding the recovery of tourism is to focus on domestic tourists. For Slovenian tourism it is thus of highest importance that in general the data shows that the survey participants are slightly more inclined to intend travel domestically in the near future. Therefore, the support to domestic travel such as tourism vouchers, a focus on 'local gems' and general short-term localisation of tourism seem to be supported by the current data.

Third, the data supports the general proposals that younger tourists and those with more travel experience are those who should be primarily targeted in the recovery attempts. The results have shown that age af-

fects the two dimensions of perceived threat and future travel avoidance, but only with women. Men, on the other hand, do not seem to be affected by age differences, nor are there significant differences in gender in general. The results furthermore unsurprisingly show that people who have travelled the most in the past will be the ones who also express the least likelihood of avoidance of travel due to COVID-19 pandemic.

Contrary to the above three main research results, the current data also provides two unexpected and thus important research conclusions: the first is perception of threat in relation to education and the second is perception of threat in relation to one's moral position.

The results on perception of threat in relation to education are surprising compared to past research on risk perception in tourism studies. Past research generally showed that higher-educated persons tend to accept more risk. But with COVID-19, higher-educated people in the Slovenian sample feel that they are more susceptible to threat, and they also perceive the threat is more severe. Future research is needed to analyse the reasons for the differences in education. At the moment, we can only speculate that the differences are probably a result of different information sources between the differently-educated groups. This does mean, however, that the higher-educated tourists are those who perceive higher risk and are thus those who will pay more attention to health standards and health-related assurances. Such standards and assurances thus need to be prepared with the highest caution and information support for concerned tourists.

Finally, the analysis showed that in general the survey participants perceive COVID-19 as a disease more endangering to the people that they love rather than themselves. More research is needed; however, these results show that the moral obligation towards taking care of others might be of utmost importance in the success factor of COVID-19 measures for policy makers and the tourism industry. In future persuasive appeals on COVID-19-related threats, appealing to the safety of one's loved ones might show to be the most effective.

Future research is needed in order to assess how threat perception and future travel avoidance differ in later points in time and in other national contexts. Specifically, as the restrictions ease and new measures are being introduced such as, for example, spatial distancing on beaches and during transportation, more research is needed on how risk perception is related to perception of pleasure and travel value and to what extent these might be perceived as lowered due to the COVID-19-related measures. Additionally, more research is needed on how different generations differ regarding COVID-19 threat perception and especially why there seem to be generational differences amongst women, while not amongst men. The issue of moral stance (taking care of others) in relation to COVID-19 might have an important role in the future – more research is needed on how effective are appeals on safety to one's health and health for one's loved ones. And especially, how this moral stance might relate to the issues of sustainable tourism of the future. Finally, the roles of information sources and social class need to be analysed in the future in order to provide the answers as to why in relation to COVID-19 the more educated perceive more risk than the less educated.

Just as the September 11, 2001, attacks on the United States forever changed our understanding of security in international tourism, and we adapted to the consequences in the form of increased controls at airports, so will the COVID-19 global health crisis bring forth changes in the way international travel and transport are conducted. New security protocols will be implemented at airports, hotels, and border crossings. The new security protocols will become part of international security standards. After every security crisis so far tourists returned to their destinations as soon as the threat was eliminated. Even with the COVID-19 pandemic, we hopefully expect that 'tourists have a bad memory' about security threats, as claimed (McKercher & Huij, 2003) and that tourism will blossom again when conditions calm down and safety measures are transformed in a way that they allow safe travelling again.

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