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SAFETY PERCEPTIONS AT THE BEGINNING OF THE COVID-19 PANDEMIC IN POLAND

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ABSTRACT

Motives: The pandemic situation created unique opportunity to undertake research in the context of the changed living conditions of the population.

Aim: The main purpose is to assess broadly understood safety perceptions at the beginning of the COVID-19 pandemic in Poland. The key research tool used was a survey questionnaire (270 respondents), complemented by observations in Poznań (Poland) and photographic documentation. Hometown was chosen due to imposed restrictions on movement.

Results: The COVID-19 pandemic significantly changed people's life in many aspects and therefore affected perceived safety. Level of fear of the pandemic was varied and so was keeping up to date with information about the pandemic outcomes. Before the pandemic people felt safer in the analysed various places. Implication of the pandemic for everyday behaviour was significant, resulting e.g. in leaving home when it is absolutely necessary, working from home. Most of the imposed restrictions were rated positively.

Keywords: COVID-19 pandemic, perception of safety, Poland.

INTRODUCTION

The unprecedented events taking place in Poland since the beginning of March 2020 as a result of COVID-19 have affected, to a lesser or greater extent, the daily lives of all of us¹. The pandemic as well as the restrictions, bans and rules imposed to curb its spread prompt reflection on a number of aspects of our social and economic life. One of them is the broadly understood sense of safety, which is one of the basic

human needs [Maslow, 1954]. United Nations Habitat [2012] points out two dimensions of safety: actual and perceived. First is based on the risk of becoming a victim, second refers to people's perception of in security in the context of fear and anxiety. This research concentrates on the second dimension. Perceived safety depends on a number of factors. First, it depends on individuals emotional responses to crime, such as worry or anxiety which may influence higher level of fear of crime. Second, safety can differ in various physical and social environments [Iqbal, 2017]. In the light of this safety is influenced by three kind of spaces: physical, mental, and social.

¹ COVID-19 was first detected in December 2019 in the Hubei province in Wuhan, China.

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Nowadays, a sense of safety should be analysed in a completely new context in the light of COVID-19. As this is not an ordinary situation, it has not yet been repeatedly studied in different contexts around the world. The biological threat with which we were faced is both new and global. An unusual situation requires unconventional measures. The regulations introduced in connection with the pandemic have significantly impacted on our social and economic life. Reduced traffic on the roads, reduced public transport services, people wearing facemasks and keeping social distance, queues in front of grocery stores, closed cultural and catering facilities as well as empty playgrounds and other public spaces have become a common sight during the pandemic.

LITERATURE REVIEW

There are many publications on the virus and pandemic. However, for obvious reasons, they focus on medical issues². At the time of writing the paper, the author was not aware of any scientific publications exploring the perception of safety in Poland. There is a paper on spatial and functional dimensions of the COVID-19 epidemic in Poland [Krzysztofik et al., 2020], where basic data on the COVID-19 in the regional scale of Poland are presented.

There are some papers considering safety issues. Dryhurst et al. [2020] published a paper on risk perceptions of COVID-19 around the world. They assessed public risk perception of COVID-19 in ten countries: Australia, Germany, Italy, Japan, Mexico, South Korea, Spain, Sweden, United Kingdom, United States. The researchers included: risk perception, personal knowledge, social knowledge, direct experience, social amplification, prosociality, individualism worldview, trust in government, trust in science, trust in medical professionals, personal efficacy, collective efficacy, political ideology. Ling Wong and Jensen [2020] examined the interaction

between: trust in government, risk perception and public compliance in Singapore in the beginning of 2020.

Some papers focus on the strategies controlling COVID-19 pandemic. Kouřil and Ferenčuhová [2020] focused on the Czech response to the COVID-19 pandemic, “smart” quarantine and “blanket” quarantine, nationwide preventive measures, which in fact can contribute the safety on inhabitants. Wolfe [2020] gives some insights into Switzerland’s and Moisió [2020] into Finland’s responses into pandemic.

Won Sonn and Kwang Lee [2020] presents the successful South Korean strategy based on smart city to control pandemic. Lee et al. [2020] analyze effectiveness of the South Korean government in taming COVID-19 without forced interruptions of inhabitants’s daily lives. Mayer and Lewis [2020] give some insights into the COVID-19 global health emergency and present European (Germany, Italy, Sweden) and Asian (for instance: China, Hong Kong, Taiwan, South Korea, Singapore, Vietnam) various experiences.

Group of papers concerns the impact of the pandemic on the everyday life of society. Wolfe [2020] writes on the case of Switzerland, shows how pandemic interrupted daily life. Moisió [2020] explores the role of health care in Finland.

However, also publications on past pandemics, may serve as a certain theoretical background. Some researches on risk perception comes from previous pandemics: swine flu pandemic in 2009 [for instance Prati et al., 2011, Rudisill, 2013], the Ebola Outbreak [Prati & Pietrantoni, 2016, Fischhoff et al., 2018, Yang & Chu, 2018].

An example of such publications is the Routledge Handbook of Global Health Security edited by Rushton and Youde [2017]. McInnes [2017] discussed the many meanings of health security at national and international levels, pointing out that the link between security and health is not new, but it has most often been seen in very narrow terms relating to armed conflict. Diseases may affect military capacity and armed conflicts may affect health and health care. Interest in the problem grew at the end of the 20th

²They are published on a regular basis by the World Health Organization <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov>.

century and beginning of the 21st century, when it was noticed ‘that new global health risks had appeared as a result of emerging and re-emerging diseases, increased population mobility, spreading transnational crime, environmental change, and bioterrorism; and that these posed new security dangers’ [Brundtland, 2003, CIA, 2000, WHO, 2007, Yuk-Ping and Thomas, 2010].

The fight against viruses is difficult for humans because with a lack of immunity this is more of a game played by the virus on its own terms [Caduff, 2005]. The foreword to the book by Feinberg et al. [2018] mentions two resolutions of the United Nations Security Council relating to the threat posed by the Ebola virus in Africa to international peace and security [Resolution 2177, 2014, Resolution 2178, 2014]. Indeed, safety in local communities depends on joint international efforts.

THE OBJECTIVE OF THE STUDY, METHODS AND DATA USED

The aim of the paper is to assess broadly understood safety perceptions at the beginning of the COVID-19 pandemic in Poland in the light of the regulations in place. The aim was accomplished by analysing people’s (1) general fear of COVID-19, (2) keeping up to date with information on the pandemic and what implications it has, (3) perception of safety in selected urban places before and during the pandemic, (4) identification with selected statements concerning different aspects of life during the pandemic, (5) opinions on the restriction imposed. Two months of the COVID-19 pandemic were taken into account, starting from the end of March and finishing at the end of May. Results of the research and discussion of results are preceded by presentation of the COVID-19 situation in Poland and its impact on social and economic life in the light of available statistical data. It gives a background for further analyses.

The key research tool used in the study was a questionnaire. A survey questionnaire was conducted to check whether Poles keep up to date with information on the number of COVID-19 cases and deaths and

to determine what implications it has. In addition, the research examined the respondents’ perception of safety in selected urban spaces before and during the pandemic as well as their opinions on the restrictions, bans and rules imposed. The survey also examined which of the selected statements concerning different aspects of life in the current situation Poles identify with. The survey was carried out electronically between April 17th and 27th, 2020, using a Google form, on a sample of 270 respondents. Convenience sampling was used³. This type of sampling is not representative, but the aim of the research was to develop an initial understanding of safety perception in the new pandemic situation. The questionnaire was posted on the social media and it was possible to share it with other people interested in responding. At that time of many legal restrictions it was the way to gather information.

The majority of the respondents were women (66.2%). The age structure of the respondents was as follows: under 18 – 2.2%, 18–24 – 24.2%, 25–34 – 24.2%, 35–44 – 27.1%, 45–54 – 14.1%, 55–64 – 5.6%, 65 and over – 2.6%. As regards the professional status of the respondents, 3.3% of them were school pupils, 24.2% were students, 75.8% were professionally active, 3.7% were unemployed, 3.0% were retired and 1.1% were retired on ill health grounds⁴. As regards the place of residence of the respondents, the largest proportion of the respondents lived in cities of over 500,000 inhabitants – 48.3%. Of the remaining respondents, 10.8% lived in cities of between 100,000 and 500,000 inhabitants, 12.3% lived in cities of between 20,000 and 100,000 inhabitants, 10.4% lived in towns of up to 20,000 inhabitants and 18.2% lived in rural areas. The respondents were also asked about whether the financial situation of their households had changed. The financial situation of a vast majority of the respondents (67.3%) had not changed. The financial situation of 24.2% of the respondents had deteriorated and the financial situation of 4.2% of the respondents had deteriorated significantly.

³ Information about convenience sampling method: <https://www.scribbr.com/methodology/sampling-methods/>.

⁴ The respondents could give more than one answer.

According to 2.6% of the respondents, their financial situation had improved. The remaining respondents (1.7%) gave their own answers to the question (e.g. it will probably deteriorate in the near future, I had to give up my lease on my apartment and move back to an area with worse access to public services, which makes getting around the area and travelling from the area uncomfortable during the pandemic).

For the other complemented methods (namely observations and photographic documentation) the research area was the city of Poznań. It is located in western Poland and is the capital of Wielkopolska region. It covers an area of 261.9 km² and is inhabited by almost 540,000 people (population density is 2,042 pop./km². Poznań is author's hometown, was chosen due to imposed restrictions on movement at the time of the research. It was the only possible and eligible area, especially for observations and collection of photographic documentation. It is difficult to assess how the choice of research area affected the obtained results.

The survey questionnaire was complemented with the author's observations on: March 29th 2020 (Sunday), April 17th 2020 (Friday), April 24th 2020 (Friday), May 31st 2020 (Sunday). The photographic documentation was collected during observations. It allowed to observe people's behaviour in various spaces (recreational areas, shops, streets etc.) during the pandemic.

Study uses also data on mobility, social and economic life as a background for analyses (presented in the part 'General information on COVID-19 in Poland and its impact on social and economic life'). Google publishes COVID-19 Community Mobility Reports [<https://www.google.com/covid19/mobility/>] every week. It is to help people and public health officials understand responses to social distancing guidance related to COVID-19. The data shows how visits to places (concerning the following groups of places: retail and recreation, grocery and pharmacy, parks, transit stations, workplaces and residential) are changing in the geographic region. The reports are based on anonymised location data provided by, for example, Google Maps. In this study data referring

to Poland were used. Relevant data regarding social and economic life used in this study were published by the Statistics Poland. They concerned the consumer prosperity and the boom in manufacturing, construction, trade and services at the early stage of pandemic.

GENERAL INFORMATION ON COVID-19 IN POLAND AND ITS IMPACT ON SOCIAL AND ECONOMIC LIFE

The first COVID-19 case in Poland was announced by the Minister of Health, Łukasz Szumowski, at a press conference on March 4th, 2020 [The First Case of Coronavirus in Poland, 2020]. On March 11th, 2020, the World Health Organization declared the outbreak of the virus a pandemic, confirming the global nature of the phenomenon.

As of the date when the survey questionnaire began (April 17th, 2020) 8,379 infections, 332 deaths and 866 recoveries had been confirmed in Poland. As of the date when the survey was completed (April 27th, 2020), 11,902 infections, 562 deaths and 2,466 recoveries had been recorded. At the end of May 2020, Poland had 23,786 infections, 1,064 deaths and 11,271 recoveries⁵.

The government has gradually been introducing regulations aimed at curbing the pandemic. The regulations imposed related to, and quite significantly interfered with, different aspects of life, affecting the movement of people. Those regulations included for instance: restrictions on the organisation of mass events and gatherings, closure of educational settings and universities (and the introduction of online classes), ban on the use of green spaces, closure of shopping centres and such service businesses as hair salons, beauty parlours, etc., limits on customer numbers in shops and special shopping hours for the elderly. The restrictions have been changing⁶.

⁵ The current data is available here: <https://coronavirus.arik.io/>.

⁶ The full information is available on the government's website at: <https://www.gov.pl/web/coronavirus>.

On April 16th 2020, the Chancellery of the Prime Minister published a phased plan to lift the restrictions relating to coronavirus. At first, only the date when the first phase would begin (April 20th, 2020) was announced (Website of the Republic of Poland, 2020). As regards economic activity, new rules in trade and services were introduced, namely a limit of four people per till in stores of up to 100 sq. metres and a limit of one person per 15 sq. metres in stores of more than 100 sq. metres. As regards social life, Poles were permitted to use public spaces for recreational purposes (subject to social distancing and wearing a face covering) and access forests and parks (except for playgrounds), the limit on the number of people allowed in places of religious worship was increased to one person per 15 sq. metres and children aged over 13 were allowed to be in public places unaccompanied by an adult. The next phase of the reopening of the economy began on May 4th, 2020: hotels and other accommodation venues, shopping centres and some cultural venues (libraries, museums, art galleries) were permitted to reopen and rehabilitation services resumed. On May 6th, 2020, nurseries and kindergartens were reopened. The third phase began on May 18th, 2020: outdoor sport facilities (stadiums, pitches, ski jumps, tracks, ‘Orlik’ football fields) and open-air cinemas were permitted to open, work on film sets resumed and Poles were once again allowed to make photograph and audio-visual recordings in cultural venues, one-to-one

classes at art universities resumed, limits on passenger numbers on public transport were changed (eased) and catering facilities, hair salons and beauty parlours were allowed to reopen (subject to strict sanitary rules). The fourth phase began on May 30th, 2020. First of all, Poles were permitted not to wear masks in open public spaces, subject to social distancing rules. The limit on the number of people allowed in a catering facility at any one time was lifted and gatherings of up to 150 people in open public spaces were allowed. A week later, gyms, play rooms, swimming pools, amusement parks and fitness clubs were permitted to reopen. Limits on the number of people allowed in a place of religious worship, shop, market and a post office were lifted. Moreover, Poles were allowed to organise wedding receptions and other family celebrations for up to 150 people.

Decisions to lift other restrictions will be taken by the Prime Minister following a recommendation from the Minister of Health based on an analysis of the increase in the number of COVID-19 cases, health care capacity and implementation of sanitary guidelines by the entities in charge.

The coronavirus has significantly affected our social and economic life, which is reflected in the data published by Google and the Statistics Poland. Mobility changes are linked to the restrictions imposed. In most of the places analysed, a significant drop in the number of visitors has been observed (Tab. 1), with the largest drops seen for retail and

Table 1. Mobility changes in Poland at different points at the beginning of the pandemic

Places	April 5	April 11	April 17	April 26	May 2	May 9
Retail & recreation (ie. restaurants, cafes, shopping centers, theme parks, museum, libraries, movie theaters)	-71%	-76%	-53%	-54%	-56%	-37%
Grocery & pharmacy (ie. Grocery markets, food warehouses, farmers markets, specialty food shops, drug stores, pharmacies)	+41%	-57%	-28%	+73%	-19%	-11%
Parks (ie. National parks, public beaches, marinas, dog parks, plazas, public gardens)	-59%	-57%	-44%	+10%	+25%	+79%
Transit stations (ie. Public transport hubs – subway, bus and train stations)	-68%	-64%	-61%	-53%	-50%	-32%
Workplaces	-27%	-48%	-42%	-14%	-28%	-10%
Residential	+12%	+17%	+20%	+7%	+8%	+2%

Baseline of each date: 6 weeks prior to the date.

Source: <https://www.google.com/covid19/mobility/>, date: 15.05.2020.

recreation as well as transit stations. A continuous drop in visits to workplaces has also been observed. Where possible, people work from home during the pandemic. The only place where the number of visitors has gradually been increasing are residential places. In the case of two categories of places, namely grocery stores & pharmacies and parks, the number of visits has both decreased and increased recently. The initial increase in the number of people visiting grocery stores and pharmacies was due to people wanting to buy supplies of different products for a longer period of time and due to the uncertainty relating to the pandemic (there were even rumours that shops would be closed). The decrease in the number of people visiting stores may have been due to the limits on customer numbers in shops (queues were discouraging) as well as due to people buying larger quantities of products at a time or buying only essential goods, deterioration in the financial situation of Poles and the lack of fear that shops would be closed. When new, less strict guidelines relating to customer numbers in stores were introduced, a renewed increase in mobility could be observed.

Other relevant data regarding social and economic life was published by the Statistics Poland. It carried out surveys on consumer tendency [Statistics Poland, 2020a] and business tendency in manufacturing, construction, trade and services [Statistics Poland, 2020b]. According to the consumer tendency survey [Statistics Poland, 2020a], the current consumer confidence indicator⁷ in April 2020 was lower by 37.7 percentage points compared with the previous month (and by 43.6 percentage points compared with April 2019). In turn, the leading consumer confidence indicator⁸ was down by 45.4 percentage points (and by 51.2 percentage points compared with the same

month in 2019). The survey was complemented with additional questions relating to the current situation. It is worth noting that for 95.4 per cent of the respondents, the epidemiological situation had an impact on their responses. According to 69.8 per cent of the respondents, the current epidemiological situation poses a big threat to the health of the population of Poland as a whole. Twenty-seven per cent of the respondents considered the threat to be moderate. According to the respondents, the epidemiological situation poses a smaller threat to their personal health – 50.7% of the respondents considered the threat to be big, while 38.7% considered it to be moderate. The respondents were quite unanimous in their assessment of the threat the epidemic poses to the Polish economy. Eighty-eight per cent of the respondents considered the threat to be big. For 49% of the respondents, the current situation is a big threat to everyday life in their local community, while 43.1 per cent of the respondents considered the threat to be moderate.

Business tendency in different areas of the economy during the pandemic was the worst since the surveys began [Statistics Poland, 2020b]. General business climate indicators (6) were lowest for accommodation and food service activities (-70), retail trade (-49.5), transportation and storage (-48.3). The lowest drops were observed for financial and insurance activities (-18.2) and information and communication (-19.4).

The above data shows that the COVID-19 pandemic has a huge impact on the social and economic life of the Polish society. Major changes are associated with concerns about the current situation and uncertainty about the future.

RESULTS

General fear of COVID-19 pandemic

The first question in the questionnaire concerned the respondents' fear of COVID-19. The respondents were asked to rate their fear on a scale of 1 ('not afraid at all') to 5 ('very afraid'). The breakdown of responses is as follows: 1 – 7.43%, 2 – 14.50%, 3 – 35.32%, 4 – 26.39% and 5 – 16.36%.

⁷ Current consumer confidence indicator is the average of balances of the evaluations of changes in a household's financial condition, changes in the general economic situation of the country and currently made major purchases.

⁸ Leading consumer confidence indicator is the average of balances of the evaluations of changes in a household's financial condition, general economic situation of the country, trends in the level of unemployment and savings in the next 12 months [Statistics Poland, 2020a].

Keeping up to date with information on the COVID-19 pandemic and what implications it has

The next question related to whether the respondents keep up to date with information about the number of COVID-19 cases and deaths and to the potential impact of the information on the respondents' sense of safety (Tab. 2). The majority of the respondents keep up to date with the information (a total of 51.11% of the respondents). However, the impact it has on the respondents varies. The most frequently chosen answer was "I keep up to date with the information, but it seems unreliable and I am stressed about the current situation" (28.15%). The second most frequently chosen answer was: "I keep up to date with the information just to stay informed, but it does not affect my sense of safety" (20.37%). A significant number of the respondents (a total of 34.81%) declared that initially they had been keeping up to date with the information but had stopped doing so for various reasons, e.g. because

they considered the information to be unreliable, because they got used to the situation or because it made them feel stressed. Of the respondents, 4.07% do not keep up to date with information about the number of COVID-19 infections and deaths.

A group of the respondents gave answers other than those included in the form. Some of the answers were very similar to those listed in the questionnaire, but there were also different or more elaborate answers. The most interesting ones were: "I check the information every couple of days, but I think that the information is false (the statistics are understated). It does not affect my sense of safety, but it makes me more and more angry at the government, which has shown that it really does not care about citizens at all – they only care about their political agenda", "I check the information from time to time to keep myself updated. There is too much information" and "Minimum verification of communications. I try to avoid stress, but I have to know the necessary information".

Table 2. Keeping up to date with, and the impact of, information about the number of coronavirus infections and deaths – % of respondents' answers

Answers	% of respondents' answers
I keep up to date with the information, but the information seems unreliable and I am stressed about the current situation	28.15
I keep up to date with the information just to stay informed, but it does not affect my sense of safety	20.37
Initially I was keeping up to date with the information, but I stopped doing so because the information seems unreliable	14.07
I keep up to date with the information and I feel stressed about the current situation	12.22
Initially I was keeping up to date with the information, but I stopped doing so because I got used to the current situation	12.22
Initially I was keeping up to date with the information, but I stopped doing so because it made me feel stressed	8.52
I keep up to date with the information and it improves my sense of safety	2.59
I do not keep up to date with the information because I do not want to get stressed	1.48
I do not keep up to date with the information because I assume that it is unreliable	1.48
I do not keep up to date with the information because I am not interested in it	1.11
Other	5.19

Source: own calculations based on the results of the survey questionnaire.

Perception of safety in selected urban places before and during the COVID-19 pandemic

The next questions concerned the respondents' perception of safety in selected places before and during the COVID-19 pandemic. The respondents

rated the following places: house/flat, staircase, workplace, own kitchen garden, own allotment, street, grocery store, pharmacy, post office, public transport stop, public transport (buses, trams) and place of religious worship. In the case of each of the places, the respondents felt safer before the pandemic than during it (Fig. 1 and Fig. 2)⁹.

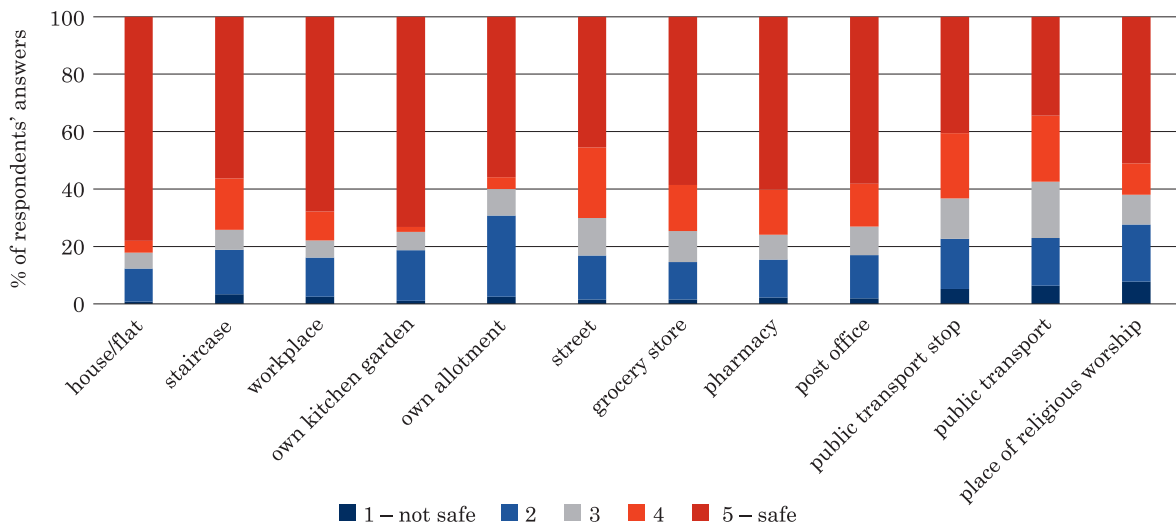


Fig. 1. Perception of safety in selected places before the COVID-19 pandemic – % of respondents' answers
 Source: own analysis based on the results of the survey questionnaire.

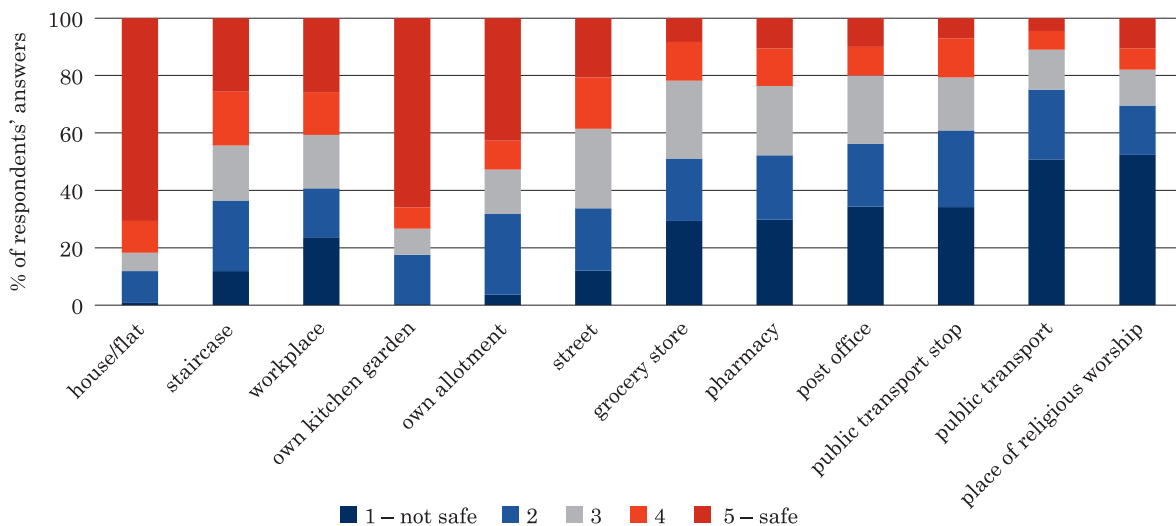


Fig. 2. Perception of safety in selected places during the COVID-19 pandemic - % of respondents' answers
 Source: own analysis based on the results of the survey questionnaire.

⁹ The structure of responses shown in the figures only relates to those respondents who rated a given place on a scale from 1 (unsafe) to 5 (safe). The respondents who answered "not applicable or I do not use the place" were not taken into account.

Table 3. Perception of safety in selected places before and during the SARS-CoV-2 pandemic – statistical measures

Place	Mode		Median	
	Before the pandemic	During the pandemic	Before the pandemic	During the pandemic
house/flat	5	5	5	5
staircase	5	5	5	3
workplace	5	5	5	3
own kitchen garden	5	5	5	5
own allotment	5	5	4	4
street	5	2	5	3
grocery store	5	1	5	2
pharmacy	5	1	5	2
post office	5	1	5	2
public transport stop	5	1	4	2
public transport	5	1	4	1
place of religious worship	5	1	5	1

Source: own calculations based on the results of the survey questionnaire.

Before the pandemic, the respondents felt most safe in their own house/flat (82.16% – answers “4” and “5” combined), workplace (77.97%) and a pharmacy (75.94%). In general, in the case of all the places, the majority of ratings were positive. The lowest proportion of positive ratings was found for: public transport (57.45%), own kitchen garden (60%) and place of religious worship (61.98%). The highest proportion of negative ratings was found for: own allotment (30.83% – answers “1” and “2” combined), place of religious worship (27.60%) and public transport (22.98%).

The safety ratings for the same places during the pandemic were much lower (Fig. 2). Three of the places had predominantly positive ratings. These were house/flat (81.78%), own kitchen garden (73.40%) and own allotment (52.73%). Half of the places analysed had predominantly negative ratings (ratings “1” and “2” combined). The respondents feel least safe: on public transport (75.14%), in places of religious worship (69.54%) and at public transport stops (60.87%).

The basic statistical measures (mode and median) concerning the perception of safety in selected places before and during the COVID-19 pandemic are shown in Tab. 3.

Identification with selected statements concerning different aspects of life during the COVID-19 pandemic

In the next question, the respondents were asked to tick those statements that are true for them during the COVID-19 pandemic. A vast majority of the respondents leave their house/apartment only when they absolutely have to (70%). The second most frequently ticked statement related to concerns about the health and lives of loved ones. Some of the respondents even made additional comments¹⁰ about it: “I am worried about my family members who are doctors. I am very worried about the health of my parents”, “My life has changed a bit and I am a bit worried about the health of my dad and grandmother, but I know that the likelihood of infection is limited”.

A group of statements concerned the professional activity of the respondents. A vast majority of the respondents work from home (60%). There were some who have lost their jobs during the pandemic (6.67%). Some of the respondents made various additional comments about their professional lives: “My working hours were reduced. I am employed

¹⁰ Additional comments (the statements included the option ‘other’) were given by 7.41% of the respondents.

under a contract of mandate”, “I work partly from the office and partly from home (changes)”, “I have not lost my job, but I am not working at the moment. I have difficulties obtaining the idle time benefit”, “I am self-employed and my turnover has fallen”. There were also comments from respondents who were worried about their professional future: “I am worried that the crisis will hit my industry in about 2 months and that it will be dealing with the impacts of the pandemic for a long time”, “I am concerned about my financial situation and job security next year”.

The survey showed interesting results regarding the financial situation of the respondents. The largest proportion of the respondents have a stable financial situation (45.19%). However, many of the respondents are worried about their financial security (39.63%). Some of the respondents have had their salary reduced (13.33%).

The pandemic has also affected the sense of safety of the respondents and their behaviour in public places. About one-fifth of the respondents feel nervous when leaving their home (20.37%). A large proportion of the respondents give other pedestrians a wide berth (45.22%). Being in grocery store or a pharmacy is stressful for 38.39% of the respondents. Almost one-fourth of the respondents try to order most products (groceries, cosmetics, etc.) to their home for safety reasons (24.44%). Fig. 3 shows a queue in front of a grocery store and a delivery to a parcel pick-up station.

A significant proportion of the respondents have stopped using public transport because they fear for their safety (38.52%). An increase in aggressive behaviour has also been observed (12.96%).

A large proportion of the respondents feel safe thanks to protective items (facemasks, single-use gloves, antibacterial gels, etc.) (21.11%). One additional comment made by one of the respondents was: “It irritates me that other people do not use masks and gloves properly (they take them off or touch them)”.

According to few respondents, their lives have not changed. This answer was given by 11.11% of the respondents. The least frequently chosen answers were: “I feel safe thanks to the measures taken by the police/municipal police” (6.30%) and “I think that



Fig. 3. Queue in front of a grocery store and a delivery to a parcel pick-up station at Piaskowa Street in Poznań
Source: own photograph.

the health service is well prepared to deal with the COVID-19 pandemic” (4.81%).

Some of the additional comments made by the respondents concerned leisure, and in particular physical activity: “I am not able to pursue my hobby”, “I am not able to be physically active (walks, cycling)”, “My life is almost like normal – I miss exercise, social contact and being able to go wherever I want”, “I miss people, walks and libraries”, “Let’s not panic, let’s keep a cool head. I think that outdoor physical activity is necessary”. There were also comments about remote learning: “My school results are worse because of the switch to remote learning”, “I learn at home” and “The remote education of my children is stressful for me”. There were also comments about the work of the government during the pandemic: “I feel deceived by the authorities”, “I am concerned about the government’s and PiS’s actions”.

Opinions on the restriction imposed during COVID-19 pandemic

The respondents were asked to express their opinion on the restrictions imposed during the COVID-19 pandemic (Fig. 4). The majority of the restrictions were rated positively by the respondents.

The following restrictions were rated most positively: restrictions relating to the organisation of mass events and gatherings (77.86% – answers “4” and “5” combined), mandatory quarantine for people entering Poland (72.31%), restrictions relating to participation in religious events (71.95%) and suspension of passenger flights (70.87%).

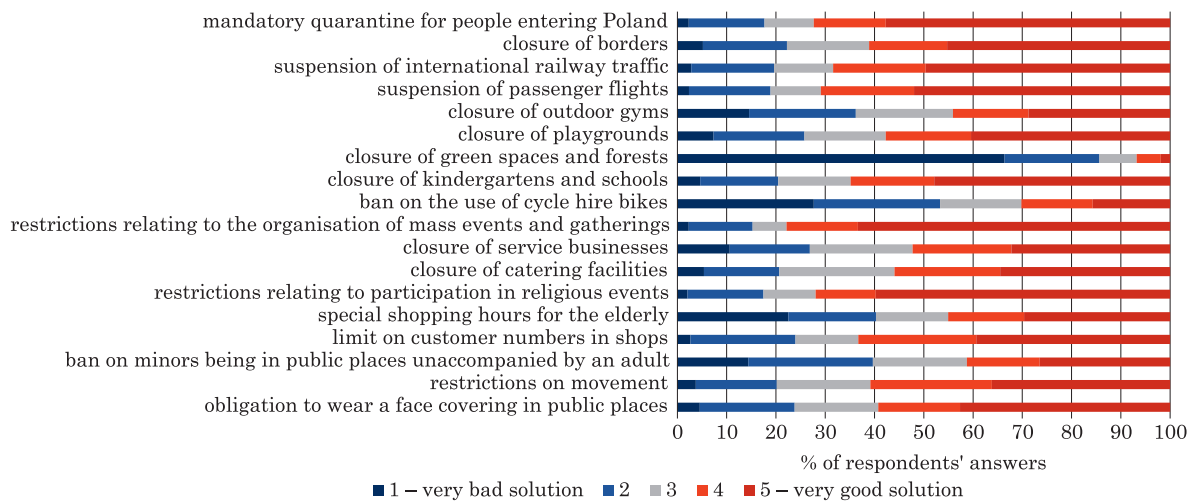


Fig. 4. Respondents’ rating of the restrictions imposed during the COVID-19 pandemic – % of respondents’ answers
Source: own analysis based on the results of the survey questionnaire.

Table 4. Respondents’ rating of the restrictions imposed during the COVID-19 pandemic – statistical measures

Restriction/rule/ban	Mode	Median
obligation to wear a face covering in public places	5	4
restrictions on movement	5	4
ban on minors being in public places unaccompanied by an adult	5	3
limit on customer numbers in shops	5	4
special shopping hours for the elderly	5	3
restrictions relating to participation in religious events	5	5
closure of catering facilities	5	4
closure of service businesses	5	4
restrictions relating to the organisation of mass events and gatherings	5	5
ban on the use of cycle hire bikes	1	2
closure of kindergartens and schools	5	4
closure of green spaces and forests	1	1
closure of playgrounds	5	4
closure of outdoor gyms	5	3
suspension of passenger flights	5	5
suspension of international railway traffic	5	4
closure of borders	5	4
mandatory quarantine for people entering Poland	5	5

Source: own calculations based on the results of the survey questionnaire.

Two of the restrictions were rated negatively by the respondents. These were: closure of green spaces and forests (85.66% – answers “1” and “2” combined) and the ban on the use of cycle hire bikes (53.31%).

The basic statistical measures (mode and median) concerning the respondents’ rating of the restrictions, bans and rules imposed during COVID-19 are shown in tab. 4.

Fig. 5a shows green spaces when the ban on using them was in place, whereas Fig. 5b shows the green spaces after the ban was lifted. Even though people had a negative view on the closure of green spaces, they adhered to the restriction. Once the restriction was lifted, those areas once again teemed with life,



Fig. 5. Warta riverside areas in Poznań when the ban on using them was in place (a) and after the ban was lifted (b)
Source: own photographs.

as if there was no biological threat, as large numbers of people flocked to them and as catering points appeared there.

DISCUSSION

The survey showed that the level of fear of the pandemic among the respondents varied. Similar findings were reported by the Public Opinion Research Centre (CBOS) [2020a] from an earlier survey carried out between March 5th and 15th, 2020, i.e. at the very beginning of the epidemic. The CBOS survey was conducted more than one month before our survey, and despite the variation in the opinions of the respondents, a decrease in the number of people who have a significant fear of coronavirus can be noticed. In addition, it is worth noting that according to half of the respondents (48%), there have always been some seasonal illnesses, influenzas, etc. and the current pandemic has been simply blown out of proportion by the media, while 46% of the respondents believed that the coronavirus epidemic might turn into a pandemic and have a lot of negative consequences for the world [CBOS, 2020a].

The majority of the respondents in our study keep up to date with information about the number of coronavirus infections and deaths. It should be noted that a large proportion of the respondents, both among those who keep up to date with the information and those who stopped doing so, believe that the information is unreliable. There is a lot of fake news in the media and, after some time, it becomes difficult to distinguish it from true news. In addition, a screaming headline that challenges our opinions may discourage us from reading a given text [Moravec et al., 2018].

A large number of people feel stressed about the current situation. As pointed out by McNaughton-Cassill [2001] and Bodas et al. [2015], stress may lead to numerous health problems. McNaughton-Cassill [2001] analysed the relation between exposure to negatively framed news on the media and anxiety and depression and found that negative stress is directly linked to anxiety and depression. In turn, a study by Bodas et al. [2015] showed that the number of people

that tune into television newscasts increases during extraordinary events and that increased frequency of viewing newscasts is associated with reported anxiety, which may be reflected in uncontrolled fear, physiological hyperarousal, sleeping difficulties, and fearful thoughts.

Before the pandemic, the respondents felt safer in the places analysed, i.e. house/flat, staircase, workplace, own kitchen garden, own allotment, street, grocery store, pharmacy, post office, public transport stop, public transport (buses, trams) and place of religious worship. The respondents feel most comfortably in their houses/flats. The proportion of positive ratings for this space during the pandemic was only 0.38% lower compared with the ratings before the pandemic and the decrease was the lowest of the declines observed. As a result of the pandemic, the respondents feel significantly less safe. In the case of many of the places analysed, a significant decrease in safety ratings was observed. The biggest drop in the proportion of positive ratings was observed for: post office (-53.12%), grocery store (-52.82%) and pharmacy (-52.27%). During the survey, a strict limit on the number of people allowed in those places, namely four people per till/window at any one time, was in place. As a result, for example, only 12 customers were allowed in a grocery store with four tills at the same time. Consequently, large stores seemed empty, which could have potentially led to increased anxiety. There were large queues in front of stores and people observed the two-metre distancing rule. A significant decrease in safety ratings was also found for places where large numbers of people can usually be seen, namely public transport stops (-42.60%) and public transport (46.40%) as well as places of religious worship (-44.10%). It is in those places that a lot of people gather and often have contact with one another for a longer period of time. The Section for Urban Sociology of the Polish Sociological Association has started the “Empty towns” campaign, encouraging people to send photographs from different towns showing the impact of the pandemic on social life¹¹. Photographs from many Polish towns were

received, including: Gdańsk, Kraków, Krosno, Radom, Warszawa, Wrocław. There were also photographs of towns in countries other than Poland: Leuven (Belgium) and Lviv (Ukraine). One may say that the personal geographies of Poles shrank in the time of COVID-19, just like in Switzerland observed Wolfe [2020].

The COVID-19 pandemic has implications for our everyday behaviour. A vast majority of the respondents only leave their home when they absolutely have to (70%). In a survey by CBOS [2020b], the respondents were not asked directly about it. However, their answers to other questions (48% of them avoided public places and 34% limited their social life) show that the number of people choosing to stay home has increased as the pandemic has progressed.

Our behaviour in public places has, too, been affected by the pandemic – we give other pedestrians a wide berth and find being in a grocery store or a pharmacy, i.e. running basic errands, stressful. We have also stopped using public transport. As a result, trams and buses in towns are mostly empty.

The pandemic has also changed the way we work – a vast majority of the respondents work from home. Many people have adjusted their lifestyles to the pandemic and the numerous restrictions imposed. The respondents also expressed their concerns about their work – they worried that they may lose their jobs and that the crisis may soon hit their industry. The issue of work is inextricably linked to finance. Almost half of the respondents have a stable financial situation. However, many of the respondents fear for their financial security. A prolonged pandemic may have a negative impact on our professional lives. The results of the weekly surveys carried out by IMAS [2020] show that people are concerned about their work – more and more people worry that many companies will go bankrupt, that they will lose their job as a result of the pandemic or that they will not have sufficient financial resources for the next three months.

Polish Sociological Association: <https://www.facebook.com/SekcjaMiastoPTS/>.

¹¹ Facebook page of the Section for Urban Sociology of the

People fear for the health and lives of their loved ones. The surveys by IMAS [2020] show that more and more Poles are worried that they or their loved ones would get infected. This seems normal in view of the increasing number of COVID-19 infections and deaths and increased coverage of the coronavirus pandemic across the traditional and social media.

The respondents had varied views on the restrictions imposed during the coronavirus pandemic to curb its spread, which significantly affected the possibilities of using their living space. Most of the restrictions were rated positively, including in particular restrictions relating to the organisation of mass events and gatherings, e.g. religious events, and restrictions relating to travel, i.e. a mandatory quarantine for people entering Poland and suspension of passenger flights. Two of the restrictions were rated negatively, namely the ban on the use of green spaces and forests and the ban on the use of cycle hire bikes. Those bans have received wide coverage in the media. Poles indeed complied with the restriction on the use of green spaces and forests. However, once the restriction was lifted, those areas once again teemed with life, as if there was no pandemic. In turn, the ban on the use of cycle hire bikes, in the light of significant public transport restrictions (reduced services, number of passengers limited to 50% of the number of available seats) is not understandable.

CONCLUSIONS AND RECOMMENDATIONS

The study made it possible to elicit and reflect on the views of the respondents regarding the broadly understood sense of safety in Poland during the COVID-19 pandemic. The exceptional situation relating to the introduction of numerous restrictions relating to social and economic life has significantly affected the sense of safety among Poles and, thus, their behaviour in different places, as confirmed by the results of this study. The situation is unprecedented so far and therefore the results are revealing.

This raises several questions and doubts about the issue discussed. First, we do not know how long the pandemic will last and what further effects it will

have on people's lives and their behaviour / sense of safety in different places.

Second, we do not know how the return to 'normality' will affect our functioning in different places and what consequences it will have for our behaviour / sense of safety in these places. One other question that needs to be addressed is: what is 'normality'? Does 'normality' mean the status quo of before the pandemic? Or maybe the pandemic is the so-called 'game changer' and we are facing a new reality?

Those questions/doubts confirm that further studies need to be conducted during the pandemic – once people have gotten used to the situation, immediately after the pandemic has ended – once the restrictions imposed have been lifted, and some time after the pandemic has ended – to check how the pandemic has really affected people's lives.

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