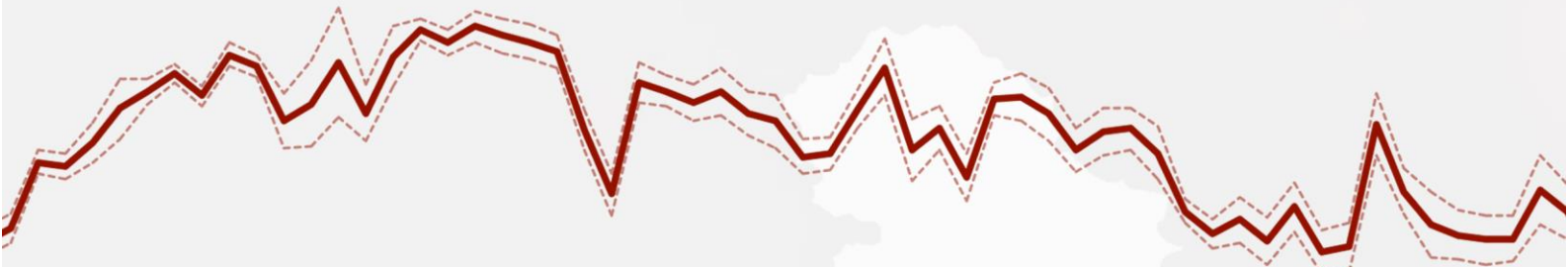


PSYCHOLOGICAL PROFILE OF THE PANDEMIC



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УНИВЕРЗИТЕТ У БЕОГРАДУ
ФИЛОЗОФСКИ ФАКУЛТЕТ

COVID-19 epidemic is a long-term process associated with dynamic changes within society, psychological reactions and human behaviour. In addition to the healthcare system and human behaviour, an efficient communication and reliable information sources during every phase of epidemic are the key factors for its mitigation. Appeals to comply with preventive measures are addressed at entire population, but it is, however, a population of people that are facing huge psychological challenges which arise from the response to pandemic. A complete change of everyday life, specific ways of getting information, cognitive and emotional reactions in these situations are intense and also have their stages. In our study we focused on how the rated credibility of information and trust in various information sources, self-protective and protective behaviour changed during the state of emergency caused by COVID-19, taking into account the critical events and development of the pandemic. Every day over nine weeks, starting from 8 March, i.e. 48 hours after the first confirmed case of COVID-19 in Serbia, a questionnaire has been distributed online in the entire territory of Serbia (N = 8972, female participants = 65.4%). We mapped three phases of psychological response: acute phase, adaptation phase and relaxation phase. Certain statistically significant regularities were found in the relation between self-protective behaviour and credibility of information and were later verified by appropriate analytical procedures, that confirmed, that reliability and credibility of information actually affect the degree of protective behaviour, although indirectly - through psychological distress. Although this relation was stable since Week 3, overall and direct effects doubled during transition from acute to adaptation phase, which suggests that, the psychological responses, as the epidemic itself, have their stages and that the manner and source of transmission of credible information and instructions are the foundation of successful fight against the infection and preservation of the community.

Key words: Epidemic, pandemic, coronavirus, SARS-CoV-2, COVID-19, psychological stages, psychological distress, credibility of information sources, protective and self-protective behaviour

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OUTBREAK OF THE EPIDEMIC AND DECLARATION OF PANDEMIC

Although there are presumptions about when the first case of human infection by SARS-CoV-2 virus (coronavirus) was actually registered, the search for the zero patient is still ongoing. Medicinal presumptions, that were based on genetic studies from the first part of 2020 showed that coronavirus jumped to human population somewhere between 6 October and 11 December 2019 (*van Dorp, Acman, Richard, Shaw, Ford, C. E., Ormond, ... & Ortiz, 2020*). From the end of 2019 until today, the virus continued to rapidly spread around the globe and came in our country by 6 March, at the latest, when the first COVID-19 case was officially confirmed in Serbia. Less than one week later, on 11 March, World Health Organization (WHO) declared the *pandemic* - a social phenomenon, which is declared only when a new disease, for which human kind has no immunity, starts to rapidly spread over large areas. From that date our country, as well as more than 70 other countries, declared the state of emergency that lasted from 15 March to 6 May. Today, almost one year after the first registered case in the world, the epidemic is still going on in Serbia. More than 33 thousand cases were registered until now just in our country, while more than 740 people lost their lives because of the coronavirus infection. There are currently almost 33.4 million confirmed cases of COVID-19 in the world and one million people have died. The end of the epidemic in Serbia, i.e. of the pandemic in the world will be declared when no new cases are registered in our country or in the world during the twice the maximum incubation period of the virus, which in case of SARS-CoV-2 is 28 days.

EPIDEMIC AS A PSYCHOLOGICAL CHALLENGE

The scope and speed with which the coronavirus spread was matched by scope and speed in which our lives and daily routines changed from their very roots - concerns and fears grew, but cooperation and understanding, as well. As in many other countries, government response in Serbia was swift and several measures were introduced from the mid-March, when state of emergency and curfew were imposed. In the atmosphere of total lockdown, reduced social contacts and increased possibility of getting infected by novel coronavirus, which was unknown to the general public, reliance on information from official sources became crucial (*Chauhan & Hughes, 2017; Austin, Fisher Liu, & Yin, 2012*). From the beginning of epidemic until its eventual ending, but after the threat of epidemic resurgence has been mitigated, public healthcare system officials and the media should share timely, true and accurate information on effects of epidemic and measures against it (*WHO, 2018*). Such undisputable facts are the core of information environment from which society's discourse is formed during epidemic, and thanks to the studies carried out during similar emergency circumstances, which showed that epidemics were extremely stressful events (e.g. *Cheng, & Cheung, 2005*), not only because of the increased fear of disease, but also because people were required to change their lives in a way that will prevent or slow spread of the infection (e.g. *Leung et al., 2005*), today we now that social responses that are based just on the biomedical approach are not sufficiently efficient. Pandemic of COVID-19 disease, as any other pandemic, is primarily a *public health* crisis and is both a social challenge and a medical one, if not for anything else, then certainly because it cannot exist without the human society. If a healthcare system of any society is not capable of "completely absorbing" the pandemic, the burden of saving the public health falls on individuals - the citizens. Health-protective behaviours, such as wearing masks, (self)isolation, if needed, and avoiding mass gatherings, are the key measures asked from the population in the fight to stop the spread of the disease. In order ensure high compliance with epidemiological instructions, psychologically speaking, the instructions given by the authorities have to be *more than simple medical* instructions. Systematic social response that is based on instructions of the crisis staff and local self-governments which mediate between the "experts" and the citizens through the media should also take into account the psychological aspects of the situation, i.e. the "psychological profile" of people that live in a society in a midst of a pandemic. Being able to understand the exposure of people to new and overwhelming information during an epidemic, expected rise of concerns and fear, as well as the ways how the information landscape in combination with such feelings makes it easier and/or harder for people to adapt their behaviour to protective and self-protective measures, are the information which are of key importance for adequate social response.

Therefore, while the officials were proposing and adopting the protective measures, while healthcare workers provided treatment and scientists worked on developing the vaccine, the psychological community and other helping professions contributed both by working directly

with people and by developing studies on psychological aspects of the pandemic. These studies allow us to understand how people felt, how much time did they need to adapt to new situation and did they successful adapt and why, why do people behave in certain way, why do or why don't they comply with the measures, which measures do they respect and which ones they don't, etc. Such findings are important because they allow us to distinguish between the things that could or couldn't be helpful in overcoming the period that is difficult in so many different ways, so that in the future we would be more ready to face similar smaller or larger challenges. In accordance with that, we started following the psychological aspects of the pandemic in Serbia from its very beginning in March - just two days after the first case of COVID-19 was registered in our country. Every day we asked people all around Serbia to share their thoughts, what they were doing, how did they feel, what worried them, where did they get information from, what did they buy and similar questions, as well as if they remembered how they used to do all that before March. We kept track of what people would like to know, who did they trust or not. In this way we were able to map the *changes* in people's feelings and behaviour, as well as the events that they found particularly disturbing or calming, which therefore led to changes in feelings and behaviour. Namely, although successful containment of the infection depends on implementation of and compliance with the measures, the literature on previous epidemics leads to a conclusion that emotional and behavioural responses drastically change after occurrence of certain critical events (*Theorell, Westerlund, Alfredsson, & Oxenstierna, 2005*). Taking all of that into account, in this study we examined how different contextual changes, i.e. important events that occurred before, during and immediately after lifting of the state of emergency in Serbia (*Table 1*) affected the emotions and behaviour of the people, their trust in information from different sources, the information sources themselves and public healthcare institutions.

Table 1

Dates and events during the two months of the state emergency and questionnaire survey

Date	Event
6 March	First registered COVID-19 case in Serbia
8 March	Study starts
15 March	State of emergency declared
17 March	Curfew imposed (from 8 pm to 5 am)
20 March	First death caused by SARS-CoV-2
21 March	Curfew extension announced
22 March	Curfew extended (from 5 pm to 5 am)
24 March	First talks about the plan to open temporary accommodation and treatment facilities for COVID-19 patients
28 March	The government adopts a decision on centralized dissemination of information on all matters related to COVID-19 disease
29 March	President of Serbia announces that he may recommend the Government to impose an extended 24-hours curfew (full isolation) Temporary accommodation and treatment facilities for COVID-19 patients open
31 March	Crisis Staff sends the following text message to users of certain mobile operator: "The situation is dramatic. We are very close to the scenario we've seen in Italy and Spain. Please stay at home. Crisis Staff for control of COVID-19 disease". Citizens receive a message from an unknown source about possibility that twenty-four-hours quarantine will be imposed, which is quickly dismissed by officials as fake news
1 April	Journalist publishes an article on alarming situation in Clinical Centre of Vojvodina and she gets arrested on the same day with charges of false reporting and panic spreading Crisis Staff sends the following text message to users of certain mobile operator: "The situation is dramatic. We are very close to the scenario we've seen in Italy and Spain. Please stay at your homes. Crisis Headquarters for control of COVID-19 disease".
2 April	The arrested journalist is released from custody The government revokes the decision on centralized dissemination of information on all matters related to COVID-19 disease Curfew extended to weekends (from Saturday at 1 pm to Monday at 5 pm)
3 April	Decision to open temporary accommodation and treatment facilities for COVID-19 patients
4 April	Start of weekend curfew
5 April	Extended curfew

· Psychological Profile of Pandemic in Serbia ·

Date	Event
6 April	End of extended curfew (at 5 am)
10 April	Start of sixty-hours curfew (at 5 pm)
11 April	Sixty-hours curfew
12 April	Sixty-hours curfew
13 April	End of sixty-hours curfew (at 5 am)
17 April	Start of eighty-four-hours curfew (at 5 pm)
18 April	Eighty-four-hours curfew
19 April	Eighty-four-hours curfew Easement of measures starting from 21 April announced: curfew will be one hour shorter (from 6 pm to 5 am), citizens over 65 years of age will be allowed to leave their homes every other day after 6 pm, small private companies can open for business. This will soon (but at a later date) be followed by reopening of bars, gyms, etc.
20 April	Eighty-four-hours curfew
21 April	End of eighty-four-hours curfew (at 5 am) The announced easement enters into force
26 April	A decision is adopted that during Labour Day holiday the curfew will be from 30 April to 4 May
29 April	The President announces that Labour Day curfew will not be from 30 April to 4 May but from 30 April to 2 May, instead
30 April	Start of Labour Day curfew
1 May	Labour Day curfew
2 May	End of Labour Day curfew
4 May	Bars and restaurants reopen Intercity road and rail transport are re-established Public transport reopens in some cities
6 May	The Government adopts a decision on abolition of the state of emergency and the end of curfew
7 June	Decision on abolition of the state of emergency and the end of curfew enters into force
8 June	Public transport reopens in more cities Shopping malls reopen
10 June	The derby football match between Partizan and Crvena zvezda attended by 20.000 spectators
21 June	Parliamentary elections

OBJECTIVE AND PSYCHOLOGICAL STAGES OF EPIDEMIC

Once it outbreaks, an epidemic has phases, and each of the phases, according to recommendations of WHO (2018), should include definition of adequate and specific social measures for every phase. According to WHO (2018), the first phase is emergence in a community (e.g. first confirmed case). It is followed by the second phase which includes localized transmission. After that the emergence becomes continuous and transmission from human to human reaches epidemic or pandemic scale (third phase). The fourth phase is characterized by reduced transmission, either because of acquired population immunity or effective interventions.

In accordance with the phases of epidemic, the preventive and protective measures are introduced in several phases in specific sequence (WHO, 2018). The first phase is anticipation of new infectious diseases. The second phase is early detection of emergence in animal and human populations, followed by efforts to contain the disease in early phases of transmission (third phase). The fourth phase is control and mitigation of epidemic during its amplification, which leads to the fifth phase - elimination of the risk of outbreak or eradication of the disease.

Once the infectious disease threat reaches an epidemic or pandemic scale, the goal of the response is not only to mitigate its impact and reduce its incidence, morbidity and mortality, but also to mitigate (permanent) disruptions to economic, political, and social systems (WHO, 2018). Each phase of the epidemic and implemented social responses have to be efficiently announced and communicated to the general public by authorities and health officials, as well as the media, because the behaviour of people, i.e. their compliance with protective measures is the basis for containment of the diseases, at least until the vaccine becomes available (van Bavel et al., 2020; Reynolds & Quinn Crouse, 2008; WHO, 2008a; Tumpei, Daigle, & Novak, 2018). This is exceptionally important in the early phases of the epidemic (Xiao et al., 2015) when the possibility of containment is the highest and the challenge of reorganizing the society is completely new.

PSYCHOLOGICAL PHASES OF THE EPIDEMIC IN SERBIA

Our study *Psychological Profile of Pandemic in Serbia*, mapped three psychological phases during the state of emergency. Starting from the initial shock and state of alarm, over adjustment to the new circumstances to sudden relaxation after the longest curfew. These three psychological phases of the state of emergency differ between each other in terms of negative *emotions* regarding the COVID-19 disease, *trust* in various information sources and preventive and protective *behaviour*.

· Psychological Profile of Pandemic in Serbia ·

When we found out about the first confirmed case, we entered the first, *acute phase*, which lasted from 8 to 25 March, during which the concerns caused by the situation suddenly grew. Along with concerns, the rated credibility of information from different sources also grew, as well as the frequency of and commitment to preventive behaviour. In other words, we were overwhelmed by everything that was going on around us, but determined to overcome the epidemic. The acute phase was followed by *adaptation* phase, which lasted from 26 March to 21 April, during which concerns, fears and thoughts of coronavirus, as well as the degree of compliance with protective behaviour stopped growing and remained at relatively stable level. In other words, after the initial shock, in this phase we became accustomed to the recommendations and started complying with them. Finally, in *relaxation* phase, from 22 April to 7 May, people slowly started rating their fears, concerns and preoccupation with coronavirus, as well as their preventive behaviour and credibility of information from different sources, as lower.



METHOD, SAMPLE AND RESEARCH MATERIALS

We started following psychological aspects of the pandemic in Serbia 48 hours after Friday, 6 March, the date on which zero patient was registered in our country. As for the method that was used, the study was cross-sectional, which required additional degree of control over data. For example, the control meant that double participation was not allowed, daily samples differed by distribution and mapped parameters that were relevant for our findings. We applied conservative, strict and non-content criteria to decide which data remained in the database for the report. Therefore, the findings we presented and analyzed for this report were obtained from the inputs that were complete, meaning that no respondents had any missing answers. The questionnaire was distributed all over Serbia over nine weeks - from 8 March to 9 May

PARTICIPANTS

All participants whose answers were analysed ($N = 8972$, female = 78,3%) were adult residents of Serbia. Distribution of sample by gender and age is shown in [Table 2](#).

PROCEDURE

The questionnaire was created and programmed in survey software 1ka.si, which operates in accordance with national and European General Data Protection Regulation, thus guaranteeing the anonymity of participants. The questionnaire was distributed by Facebook advertising. Participation in the study was voluntary and participants were not reimbursed for participation. They were first informed about the purpose of the study and terms of participation. After giving their consent, the participants were allowed to see the questionnaire. On average, it took participants 10 minutes to complete the questionnaire. Study was ethically approved (license no. 181-2020).

MATERIALS

The questionnaire consists of parts of larger battery of tests that were validated in studies carried out in other countries (e.g. [Lep, Babnik, & Hacin Beyazoglu, 2020](#)). In our study, we examined (1) psychological distress, i.e. alertness that comprised of emotional response to pandemic situation *and* focus on information on coronavirus epidemic, (2) credibility of information and trust in different information sources, and finally (3) self-protective and protective behaviour during epidemic. The measure of trust was obtained by asking the respondents to separately rate the extent in which they consider information on coronavirus to be credible when it comes from different sources - journalists, representatives of Ministry

of Health, representatives of Public healthcare institute, representatives of the medical chamber, physicians appearing in the media, and scientists (e.g. pharmacologists, microbiologists, epidemiologists).

Table 2

Demographic distribution of sample by week

Week	% Gender			% Age	
	Male	Female	Other	<i>M</i>	<i>SD</i>
1: 8 March - 14 March	17.2	82.5	0.4	34.39	11.924
2: 15 March – 21 March	24.9	74.1	0.9	38.41	14.680
3: 22 March – 28 March	12.1	86.9	1.0	40.70	11.071
4: 29 March – 4 April	22.3	77.3	0.4	40.88	11.771
5: 5 April – 11 April	17.6	81.6	0.8	40.50	12.068
6: 12 April – 18 April	11.3	88.5	0.3	41.55	13.028
7: 19 April - 25 April	42.8	56.9	0.2	34.66	13,324
8: 26 April – 2 May	24.3	74.8	1.0	43.01	12.925
9: 3 May – 9 May	23.0	75.9	1.1	43.36	12.852
Total	21.0	78.3	0.6	39.00	12.938

Note. *M* – mean, *SD* – standard deviation

In order to self-assess the level of distress the people were instructed to rate the extent in which they were concerned with coronavirus, the extent in which they were scared, how serious did they consider the pandemic to be, as well as how often did they think about coronavirus. Finally, health-protective behaviour was measured in two ways. The first method was to report on actual behaviour in the period immediately before the study, which focused on behaviour such as hand washing frequency, avoiding face touching and avoiding physical contact with other people. The second method focused on hypothetical health-related behaviour and in this case the respondents stated how they would act in case they were to have symptoms of coronavirus - would they self-isolate, would they avoid family members and would they stop going to work.

Below are the theoretical aspects, data and analysis by each measured concept, followed by their complex interconnections, which is in the basis of most people’s behaviour during the epidemic and the state of emergency.

PSYCHOLOGICAL DISTRESS

Every few days I wake up during the night, overwhelmed and pondering what will happen tomorrow, but besides that I'm fine. I have to calm down my old father, he is often worried, my wife, kids and I somehow keep going on. I'm afraid that I'll get infected and that I'll infect others, I'm no longer in the strongest health either.

Participant in the study, male, 52, from Kragujevac

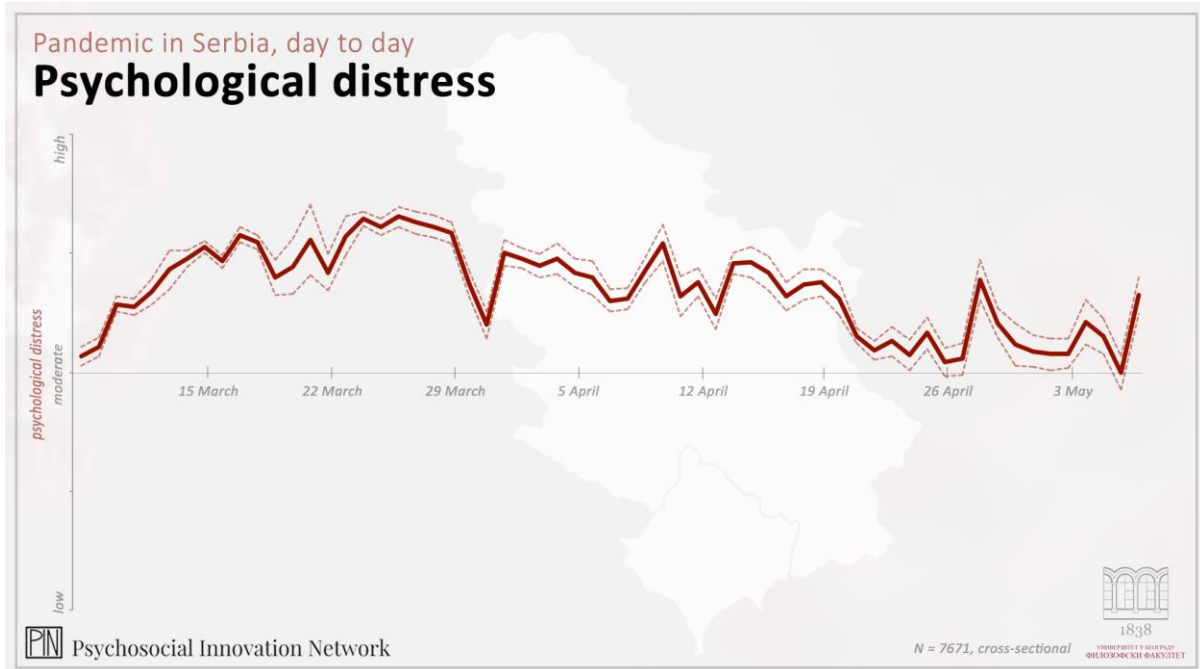
Speaking at the most general level, out of all people who participated in the study during the two months, only 13% of both male and female participants stated they were not at all afraid of getting infected by coronavirus. In other words, almost 90% of participants were afraid, but, of course, to a different extent. This is a normal consequence of the situation in which important aspects of life, such as health, livelihood and social support are jeopardized. However, the study did not focus just on traditional anxiety measures. The general pattern of cognitive-affective tendencies registered during our study was named “psychological distress”. This term means widespread mental state during which we experience disturbing emotions *and* vigilantly follow events and think about the epidemic. Additionally, these emotions and thoughts are related to present moment, but we are also oriented towards future and potential events, which puts a huge burden on all of us. Psychological distress therefore includes concerns regarding the coronavirus, fear of potential (future) infection, perceived severity of the infection and the frequency of thoughts about coronavirus.

Psychological distress, as it can be clearly seen in [Graph 1](#), grew from the first confirmed case of infection and peaked in the week 22 - 29 March. Moderate decline in psychological distress was observed after the curfew was imposed. From 29 March psychological distress continued to decline until the end of state of emergency with few exceptions. So, from the moment the first case of coronavirus infection was confirmed in our country, we were supposed to master and learn so many things in a fast manner, get organized and informed and at the same time take care of ourselves and those depending on us. In order to do all of that in such a short period of time, we were supposed to find a way to put our fears and concerns aside. We were supposed to “land on our feet”, in emotional terms, and calm down after the initial shock, which actually happened by the start of April. High increase in anxiety and similar psychological responses in the very beginning of the epidemic is not new and has also been observed in the studies carried out during early phase of COVID-19 outbreak in China, which showed that people experienced increased anxiety, nervousness and difficulties in controlling the emotions as early as during the first 14 days ([Vang et al., 2020](#)). This period also corresponds to the

length of the first psychological phase of the epidemic - the acute phase, which was singled out based on collected data and which lasted from 8 to 25 March.

Graph 1

Psychological distress



During the adaptation and relaxation phases that followed, psychological distress generally declined with few exceptions that occurred with certain regularity. First rapid decline in psychological distress was registered between 29 March and 1 April. However, this abrupt relaxation was quickly replaced by sudden increase in distress, to the levels before relaxation. Such instable events make the situation increasingly hard to bear. These changes in psychological distress happened when citizens received text messages from the crisis staff about the imminence of Italian and Spanish scenario, while at the same time being exposed to the announcements about the possibility of 24-hours curfew, that were quickly officially denied. The first and the second extended curfew during weekends 4-6 and 10-13 April were preceded by sudden increase in negative emotions and thoughts about the situation, followed by drop in psychological distress during the days of the curfew. Very sudden increase in concerns from 10 April was probably because that was the day on which the twice-longer, 60-hours curfew started. After the end of the curfew, we also registered an increase in general concern and alertness, which were declining up until the start, as well as during the next extended curfew that lasted from 17 to 21 April. Sudden increase in psychological distress was once again registered in the period between 27 and 28 April, which was the time when the five-days-long Labour Day curfew was announced and before 29 April on which the president announced that the curfew would be two days shorter. The Labour Day curfew, which was also the last one, started after that and lasted from 30 April to 2 May. During the curfew the level of psychological distress once again declined. In short, imposition of the extended lockdown

led to acute concerns immediately prior too or at the very beginning of every such period and it was followed by general pattern of *calming down during the curfew*. These findings are in accordance with several facts: firstly, during the lockdown, risk of transmission is minimal. Secondly, during the curfew there is less uncertainty, less feelings of being overwhelmed by necessity of making various potentially risky decisions, which includes decisions that have been made routinely before the pandemic, such as a decision to go to a market. There is also external control of the situation, i.e. the situation and personal everyday life which is hard and threatens to overburden people with its uncertainty are being structured from the outside (e.g. Government, local self-government...). Third, the announced long lockdown period causes increased distress and worrying about the situation, but when the situation starts, the uncertainty disappears, although only for a short period of time.

Since every pandemic inherently brings a lot of uncertainty, the emergence of the novel coronavirus jeopardized two feelings: the first one was the feeling of psychological safety as the world suddenly became an insecure place where no one knew what would happen tomorrow and the second one was the feeling of being in control over one's own life, health and health of the loved ones. In order to live through the period of epidemic, but also to provide any type of support to those depending on us, we have to contain the psychological distress, pull ourselves together and continue living under new circumstances, which become less novel, as the time passes by. This was exactly why the first acute phase of high concerns and non-stop thinking about coronavirus was replaced by adaptation phase and then the relaxation phase. However, we don't live in vacuum, and outside events, such as threat messages or full lockdown have almost an obvious, and now also confirmed, effect on our feelings and thoughts about the epidemic.

CREDIBILITY OF INFORMATION

I am sorry that things that are said are being refuted after some time. I think that the information shared with the public is not true. I'm afraid for my family and myself. I don't trust anyone. And that's what's really sad.

Participant in the study, female, 44, from Ruma

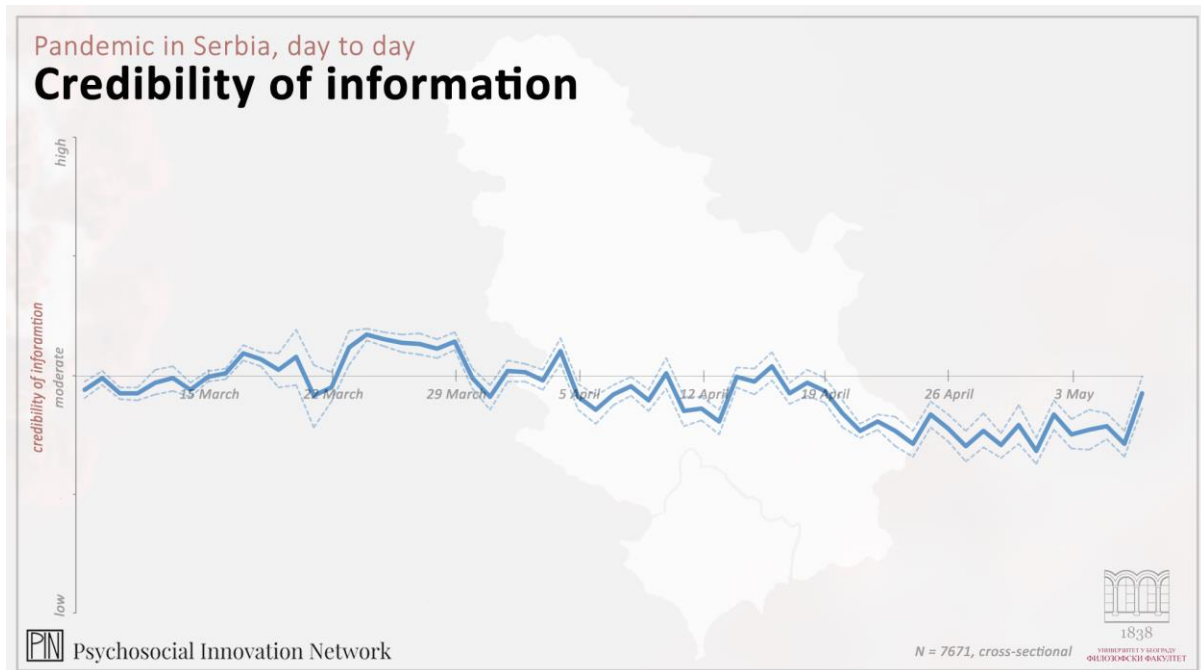
One of the ways in which we try to influence our emotions, i.e. to reduce our fear and concerns is to get informed about the situation and understand it. Following of news programs becomes particularly important in isolation and self-isolation - when other public spaces and social exchanges are not available, news programs become the only window on the world. In epidemic conditions, the media therefore becomes one of the main elements in promotion of protective behaviour (Sandman, 2009; Wakefield, 2010). Namely, the objective of people at the head of the healthcare system is to persuade the entire population of people to change their behaviour and the only way to address the entire population is through the media. The sources considered by people to be reliable, as a general rule, are those that are more convincing (Brinol & Petti, 2008; O'Keefe, 2016), and credibility of information derives from the level of expertise and reliability of the source (Van Bavel et al., 2020).

As shown in Figure 2, during the first seven days of the study the credibility of information from different sources was rated as moderate - not too low, not too high. From the beginning of the state of emergency on 15 March the ratings started to grow. During the entire third week the rated credibility of information was at its highest level. Information, however, come from numerous sources and in modern information environment, both global and local, besides true and verified information there are, sadly, false and wrong information, as well, so many respondents very early stated they "didn't know who to believe". In accordance with that, after the third week, the rated credibility started to decline and the first sudden drop was observed on 30 to 31 March. Once again, these were the days when the citizens received a message that an all-day curfew might be introduced in the following days. Although this "news" was very soon dismissed as fake, at the same time the crisis staff sent text messages through one of the mobile operators that the Italian and Spanish scenario were imminent. Besides that, the Government of the Republic of Serbia adopted a decision on centralized dissemination of all information epidemic related and the president of the Republic himself mentioned the possibility of 24-hours curfew that might take effect without previous and timely announcement. Intensive communication of information to the people through mass media, while emphasising the alarming aspects of the situation in order to increase the perceived level of danger may backfire - cause fear and panic (Brug et al. 2004; Lau et al. 2011; Van den Bulck & Custers, 2009), which then leads to reduced level of compliance with protection and

prevention measures (Sherlaw & Raude, 2013) and is contrary to the goals of the healthcare professionals and officials, as well as the interest of general public. The blaming discourse that follows, also has negative effects on communication during the pandemic (Reynolds & Quinn Crusoe, 2008).

Graph 2

Credibility of Information



In spite of a short-term increase in rated credibility between 1 and 4 April, by the end of week four ratings dropped to the level lower than at the beginning of the study. As shown in [Graph 2](#), immediately before the sudden drop in the rated credibility of information from different sources, came the news about alarming situation in Clinical Centre of Vojvodina, which was in disagreement with the statements of the crisis staff, after which the author of the news article was arrested, then released from custody and prior decision on centralized dissemination of information about epidemic was revoked. These four events occupied a large amount of the media space during this period. Rated credibility in the following days was relatively unstable and from 19 April they were consistently at the lowest level since the beginning of the state of emergency.

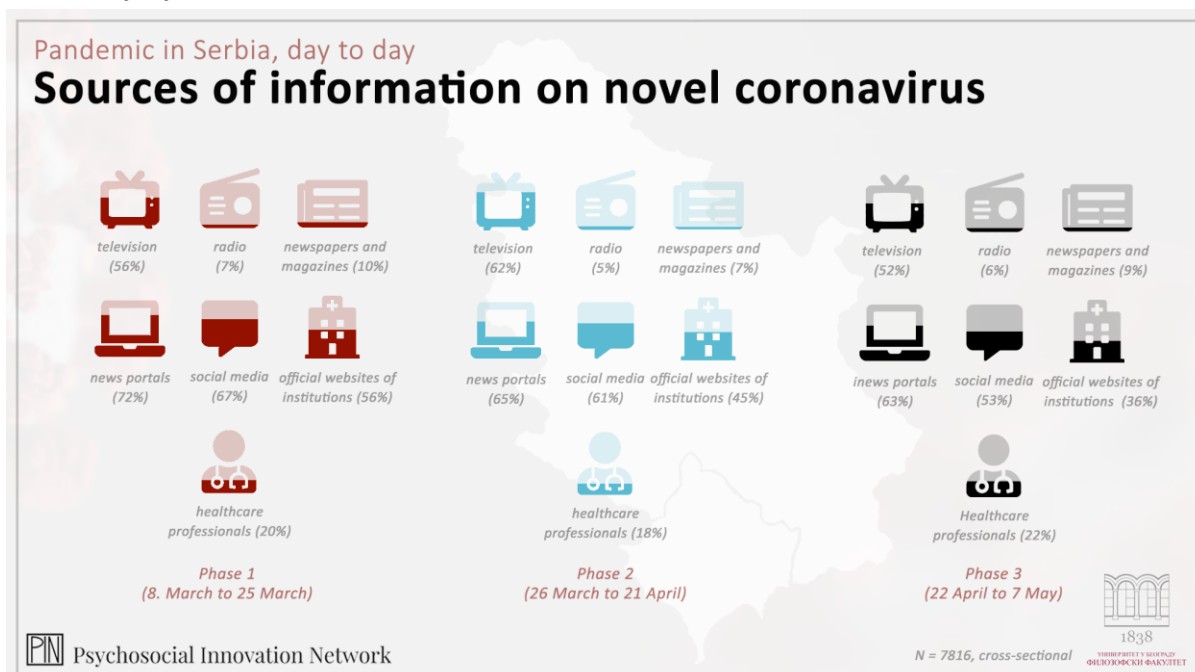
SOURCES OF INFORMATION

Besides credibility of the information itself, a closely related issue are the sources to which people rely to get the information. Use of credible sources to publish official facts on public health increases the effectiveness of public health messages by inciting the change of behaviour during epidemics (Greiling et al. 2016; Levandovski, Gignac, & Vaughan, 2013; Van Bavel et al., 2020; Vinck et al., 2019; Vijaikumar et al., 2018). Our trust in various information

sources was at moderate level during the epidemic - not too high, not too low. Respondents showed the highest trust in personal doctors, followed by scientists and had the lowest confidence in politicians as source of information - on average, no one believed them and it changed very little during the first 4 months.

Graph 3

Sources of information on novel coronavirus



In-between, but closer to the politicians falls the trust in traditional media, which are trusted as much as the Ministry of Health and slightly above them is the Public Healthcare Institute Batut and the healthcare system, as a whole. People trust the social media much more than they trust the public healthcare institutions. In accordance with that, the rated credibility of information on coronavirus depends on their source. Once again, the information coming from science are considered the most reliable, followed by information from doctors appearing on various shows, then from representatives of the medical chamber, Batut Institute, journalists, while the information from the representatives of the Ministry of Health are perceived as the least reliable.

An epidemic in a society, which applies to the epidemic in Serbia, as well, leads to various consequences depending on the system, so in Serbia, trust in various sources of information declined during the first four months. While we still have the highest trust in scientists and personal doctors, Batut Institute, which was the healthcare institution we trusted the most, fell to the fifth place. In June, people trusted Batut representatives less than they trusted the social media, which ranked third. Similarly, representatives of the Ministry of Health dropped from fifth to the seventh place, which they shared with the traditional media (TV, radio, newspaper).

Finally, based on our data, the overview of the psychological condition in the beginning of July, after the first four months of the epidemic in Serbia, shows that people are mentally exhausted, scared by the disease, the same as they were at the very beginning, but with destroyed confidence in institutions that were trusted the most at the beginning, such as Batut Institute.

Serbian *healthcare* officials held daily press conferences during which they presented summary reports on epidemic, while government representatives did not participate in this type of information sharing, but instead addressed the nation in various shows on epidemic in Serbia that were aired on televisions with national frequency. Lack of trust in officials which was registered during this study (but in prior studies, as well, e.g. [Alsan & Vanamaker, 2018](#)), may be the consequence of the events, such as those from the end of March and beginning of April, when statements of healthcare and political officials on the state of epidemic did not match the news reports from daily newspapers. Considering these findings, as well as the decline registered in rated credibility of information, it seems that healthcare official failed to retain the trust of citizens, so the credibility of information they continuously provided was perceived as lower.

KNOWLEDGE ON CORONAVIRUS

The matter of knowing and understanding the mechanisms of the epidemic is based on knowing the basic facts on the novel virus. Besides that, the facts are delivered indirectly - they don't come directly from scientists and physicians but from the media. Even if they came directly from scientists, the question of believability and comprehensibility of such information still remains. In other words, it is one question how much we really know about this phenomenon, and another question how much we think we know.

We asked 17 questions about the facts about coronavirus. The correct answer to some of the questions changed depending on the information that was available, i.e. published in the media and available to everyone. This made some of the questions easier (how is the virus transmitted), while, for example, information published by the media on minimum safe distance from infected person varied from half a meter to 3-4 meters. The same thing happened with explanations about if and when it is necessary to wear a mask. Answers to certain questions were impossible to know, because they were still unknown to the experts (e.g. how long can the virus survive on solid surfaces).

General knowledge of the facts on coronavirus that did not change was at a very high level - 80-90% questions were answered correctly. Such objective knowledge grew very quickly from the beginning of pandemic and the acquired level of knowledge remained the same over the previous period. Questions that confused us the most were the questions about if the transmission rate of COVID-19 was comparable with the transmission rate of seasonal flu and what is zoonosis. On the other hand, we gave the most correct answers to the questions how the coronavirus is transmitted, who is under high threat of developing severe form of the disease and if the antibiotics could be used to efficiently treat the disease.

We also asked participants in the study to rate their own confidence in their knowledge on coronavirus. Answers to these questions showed that people did not believe they had all the necessary information about the infection and spread of coronavirus, although from the moment state of emergency was declared people became slightly more confident in their knowledge. On the other hand, as the time went by, we became increasingly convinced that we knew the symptoms and the course of coronavirus infection and the same applied to the precautionary measures against transmission of coronavirus.

In the end, we would like to note that the people who scored better in our test, actually had more information and real knowledge on coronavirus, they more frequently used the media and healthcare professionals as their source of information. On the other hand, those who (wrongly) believed that they knew more than they really did, i.e. subjectively assessed that

they knew more and that they had all the necessary information on infection, spread, symptoms and course of the coronavirus infection, at the same time gave more wrong answers in the test and gathered more information directly from healthcare professionals, but used various media sources *less frequently*. Therefore, gathering information from sources we consider reliable contributes to our subjective perception that we have all the important information. The degree of objective knowledge and the degree of confidence in own knowledge were also related to subjectively assessed probability of contracting the coronavirus - the more we personally are convinced we have all the important information on coronavirus, the less it seems probable to us that we will contract it and on the other hand, the more we objectively know about the coronavirus, i.e. its spread, symptoms, dangers and proper methods of protection from the virus, we assess the probability of getting infected as higher. From this we can conclude that the high subjective assessment of own knowledge about coronavirus serves a calming function. On the other hand, objective, i.e. actual knowledge on the same matter has the completely opposite effect - it results in more objective view on reality and in accordance with that, to adequate assessment of risks.

Finally, those who had less correct answers, not only used media less as their source of information, but also *overrated* their knowledge - they thought that they knew more than they actually did. This is an important challenge for public policies and communication strategies, because it seems that in these situations in spite of their decision not to get informed or failing to get the correct information, the people quickly gain the feeling of “knowing everything they need”. This is particularly important having in mind the complexity of information environment in which we live and in which we are constantly bombarded by partial information, unchecked and quasi-medicinal stories and recommendations (ridiculous virus, ozone therapy, etc.).

“THE FEELING OF KNOWING SOMETHING”

The estimated own knowledge on coronavirus and how well-informed do we feel, which are measured by subjective assessment of the extent of our knowledge on coronavirus, do not have to match our actual knowledge, although information about pandemic has been continuously available in the media for months and the people had the need to understand the situation and know everything about the virus and spread of the disease. Considering that the presented information and messages were contradictory at times, it seems that people decide on one of the opposing positions, just to avoid the cognitive dissonance¹. This helps create clear and solid beliefs, ensuring an impression that we mastered the subject and giving us a slight feeling of safety. This is another confirmation of the findings from the beginning of

¹ Cognitive dissonance is defined as the state of increased discomfort caused by mismatch between at least two of the following phenomena: knowledge, beliefs, attitudes, emotions and behaviour. This discomfort is experienced as heightened mental tension, but also as a motivation to eliminate it, as quickly as possible, i.e. to *resolve* or *avoid* the cognitive dissonance (e.g. by changing an attitude on some person or object, by changing the belief, behaviour, etc.)

· Psychological Profile of Pandemic in Serbia ·

monitoring the psychological aspects of the pandemic, which is that we often inform ourselves to *calm ourselves down* (to meet the so-called emotional needs) and not only to satisfy our *cognitive needs* (in order to know something).

BEHAVIOUR

I always think that I maybe failed to take all precautionary measures on time. Whatever I do, I wonder if it makes sense, I don't know... But I always wear a mask or wrap something over my mouth and nose and I don't go out unless I have to.

Participant in the study, male, 34, from Zrenjanin

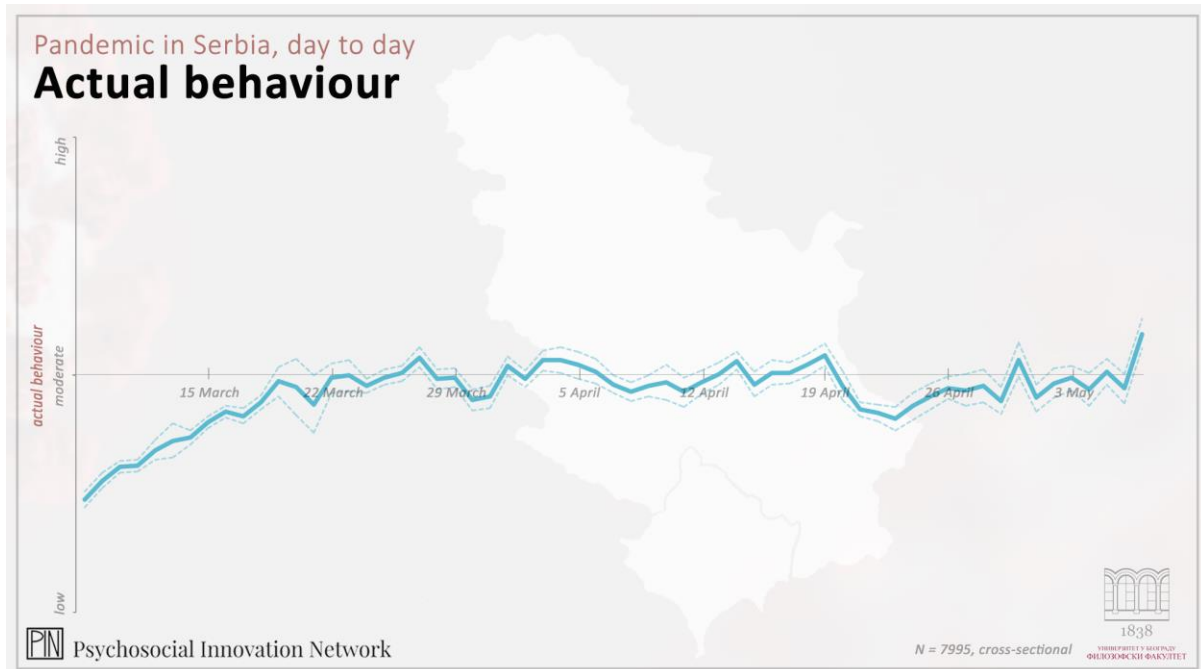
Containment of the epidemic depends on many factors, but every aspect of the strategy in the fight against coronavirus is based on reduction of physical contact between people in order to prevent or slow down transmission. The reduced contact, regardless whether it is ordered, asked for or imposed, means that *people have to change their behaviour*. In order to be efficient, such change in behaviour has to be fundamental and occur as soon as possible, because the first weeks are crucial. However, although it doesn't sound as much to ask, that was and still is a huge request. Changing behaviour is difficult, even when we are very well aware that it is harmful, such as smoking, but it is even harder to change the behaviour when we don't fully understand why are we expected to do so. One of the reasons why the behaviour was supposed to be changed was solidarity. The experts have therefore asked the people to behave in systematically disciplined manner for the sake of the proclaimed solidarity. The majority of people actually did it - they were solidary and disciplined, they stayed at home, they frequently washed their hands, avoided gatherings and close contact with others and cancelled their trips. Besides that, we all tried not to touch our faces, more or less successfully. Why were we so much better at getting used to wash our hands more frequently and at maintaining the physical distance than we were at avoiding to touch our faces? Face touching is an unconscious habit which makes it particularly challenging to lose, even temporarily.

Just as the emotional reactions, the frequency of various self-protective behaviour during the epidemic changes over time, which was observed both in our study and in the previous studies conducted in other countries. For example, over the course of the H1N1 epidemic in Hong Kong, different types of protective behaviour, such as use of face masks or avoiding touching the face, declined ([Leung et al. 2017](#)). Similarly, personal hygiene practices during SARS epidemic in Hong Kong increased at the very beginning of the epidemic. At the same time, the need for information gradually reduced ([Cheng & Cheung, 2005](#)), while another study showed that protective behaviour, such as mask wearing, hands washing, home disinfecting, avoiding crowded places and public transport are much more frequent during the first phase, but only mask wearing and hand washing remain at a high level during the second phase, while all other types of protective behaviour become visibly less frequent ([Lau et al. 2003](#)). The studies regarding reactions of the public during early phase and peak of the H1N1 epidemic (swine flu) in Greece also showed that during the first peak of the epidemic respondents reported lower

degree of protective behaviour (hands washing, crowds avoiding, asking a doctor for guidelines, etc.) compared to the early phase ([Karademas et al. 2013](#)).

Graph 4

Actual Behaviour



Whenever, in psychological studies or in any other situation, we ask a question “What would you do if x happened?”, for example, if you won a lottery, the answer someone gives is no guarantee that he/she will actually behave in that way. On the other hand, during the epidemic, implementation and efficiency of measures depends exactly on being aware of the answer to the question “What would I do if I got infected?” and on behaving consistently in the required manner. Such awareness protects us and makes us ready. For this reason, in our study we monitored both actual and hypothetical behaviour.

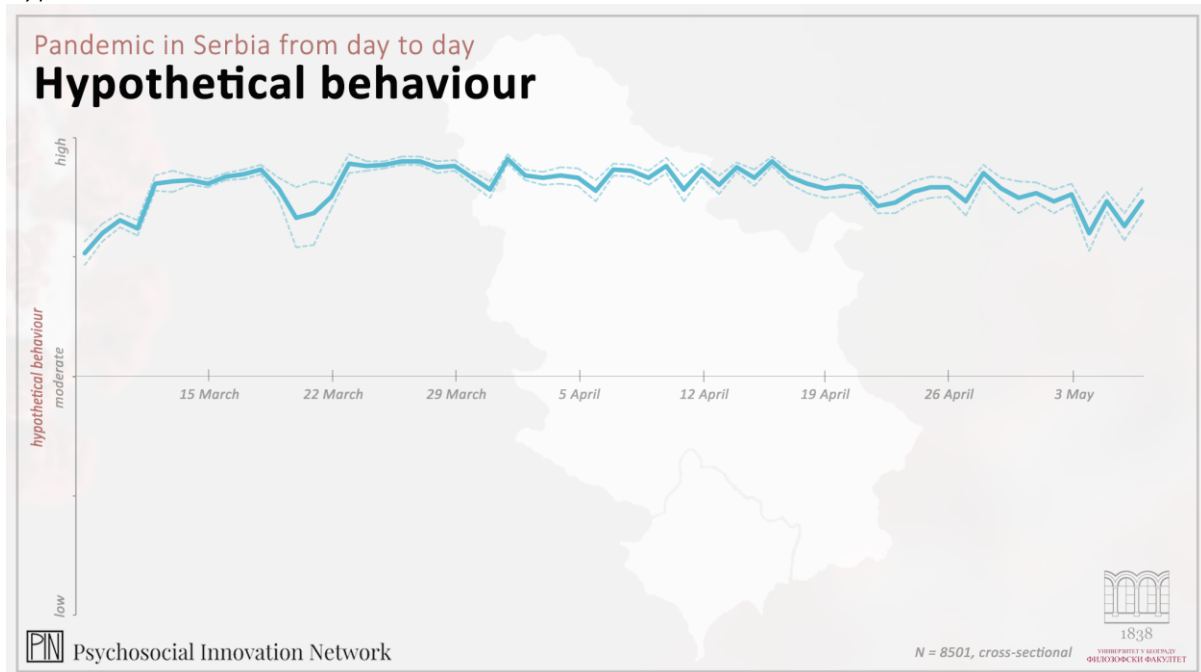
THE SPEED OF SWITCHING TO “PANDEMIC BEHAVIOUR”

If people are not communicated with and if citizens, while being requested to be disciplined and while measures are imposed, are not *at the same time* taught about what and *why* they are required to do, the “discipline” is achieved slower and lasts shorter. When citizens are (reasonably) expected to isolate or self-isolate, a paradoxical resistance and mistrust towards the measures start to appear. Such reaction is the consequence of the discrepancy between the request to “(self)isolate” and the expectation that the modern medicine and healthcare system are the ones that can and should treat the disease and prevent its spread by some active, material resources and not “just by preventing the transmission”. Such reaction, which has already been described in the literature and therefore comes as no surprise, ends up in losing precious time during the first weeks of race against the infection. It is therefore crucial

to timely, reasonably and calmly inform the citizens, explain them the measures and provide a psychosocial support. In short, people need time to adopt new behaviour. Even in much simpler situations, for example, on a new job, it takes about a month to learn the rules of conduct. We didn't have such luxury in the pandemic.

Graph 5

Hypothetical behaviour



We were very able to quickly achieve a high level of expected self-protective behaviour and as early as on 15 March we were highly involved in self-protective behaviour and kept such high level during this entire difficult period, even when the circumstances changed, and we witnessed difficult circumstances in which other people found themselves in and when we ourselves were scared, either because of the pandemic itself or because of the messages of the officials. Significant decline in compliance with measures or the so-called relaxation was observed on 19 April. Self-protective behaviour is, even with the decline, significantly more present than it was at the beginning of the pandemic.

FIRST RELAXATION

The longest curfew, full 84-hours continuous lockdown, started on 17 April, which was also the date when *decline* in self-protective behaviour was observed and it reached the lowest level on 19 April. This comes as no surprise, since the people were in their homes for four consecutive days and it seemed to them they didn't have anything to protect from. Regardless of the stress of being closed in home and organizational challenges, the people felt safe from the virus, because they were not outside. Psychologically speaking, these four days of curfew were very dynamical. On the second day, in the midst of the lockdown, in the evening of 18 April president Vučić announced easement of measures *immediately after the curfew*, i.e. from

21 April. The easement meant shorter curfew, opening of small businesses, restart of construction works. It was even announced that people older than 65 would be allowed to leave their homes, which was not only strictly prohibited until then, but was also used as motivation and sometimes even as a threat and a reason why we all had to stay at our homes. Such official statements, announcements and decisions on easement of measures that came during the longest lockdown up to that point, led to relaxation, because the message that the “end of pandemic is near” was contradictory to the lockdown and interpreted by tired citizens as a signal to relax. Concerns regarding the possibility of getting infected declined as we were getting closer to the end and it seems like we thought to ourselves “if I didn’t catch it by now, the chances are even slimer now”. It was on that 21 April when the society started to slightly open, the pensioners started going out and everything was eased, that a small increase in self-protection was recorded, but it lasted just for one day. By the end of June and start of July, although trained to deal with the new situation and to act in accordance with it, people were already exhausted by two months of continuous anxiety and uncertainty. However, after four months the self-protective behaviour grew into a habit to a certain extent. Minority of respondents in our study, who stated they did not comply with all recommended measures, explained it by stating they did not wear gloves and a mask, because they were unable to get one, that they considered some measures to be exaggerated and illogical, but there was also a not so small number of those who stated that they “comply with the curfew, although they consider it to be completely meaningless”.

Finally, the disciplined behaviour during the pandemic doesn’t take place in vacuum, it wasn’t like everything else in our lives was at the right place and the pandemic required us “just” to change our behaviour. It was necessary, but we were supposed to do it while organizing work, family life, taking care for our loved ones and pets, getting groceries, and all while juggling the anxiety, fear, uncertainty and feeling of losing control. It was very challenging to achieve all that while remaining in functional balance, both physical and behavioural. The real concern and realization of the vast majority of people, both amateurs and experts, that the infection and the situation were very serious was related with disciplined behaviour. Those who were more concerned and afraid and who viewed the situation as very serious were also the ones who protected themselves more. It is interesting that those who underestimated the seriousness of the situation in the early phases, are the ones who protect themselves more today, which may be an illustration of psychological defence mechanism called overcompensation. Self-protective behaviour is also related to, but to a much smaller extent, with the comprehension of precautionary measures and even less with the objective knowledge. So, if we know how to protect ourselves is less important than the fact that we find such behaviour meaningful - if we are afraid of the infection and if we consider that infection to be serious, we find the self-protective behaviour to be more purposeful than another person who feels less afraid of the current situation. Being well aware of the precautionary measures does not necessarily mean we will adhere to them and not everyone is afraid of getting infected the same, so some people protect themselves more than the others. Timely and clear

explanation of the purpose and meaning of self-protective behaviour serves exactly to prevent the fear from being the only driver of the behaviour which, although being called self-protective, actually protects all of us.

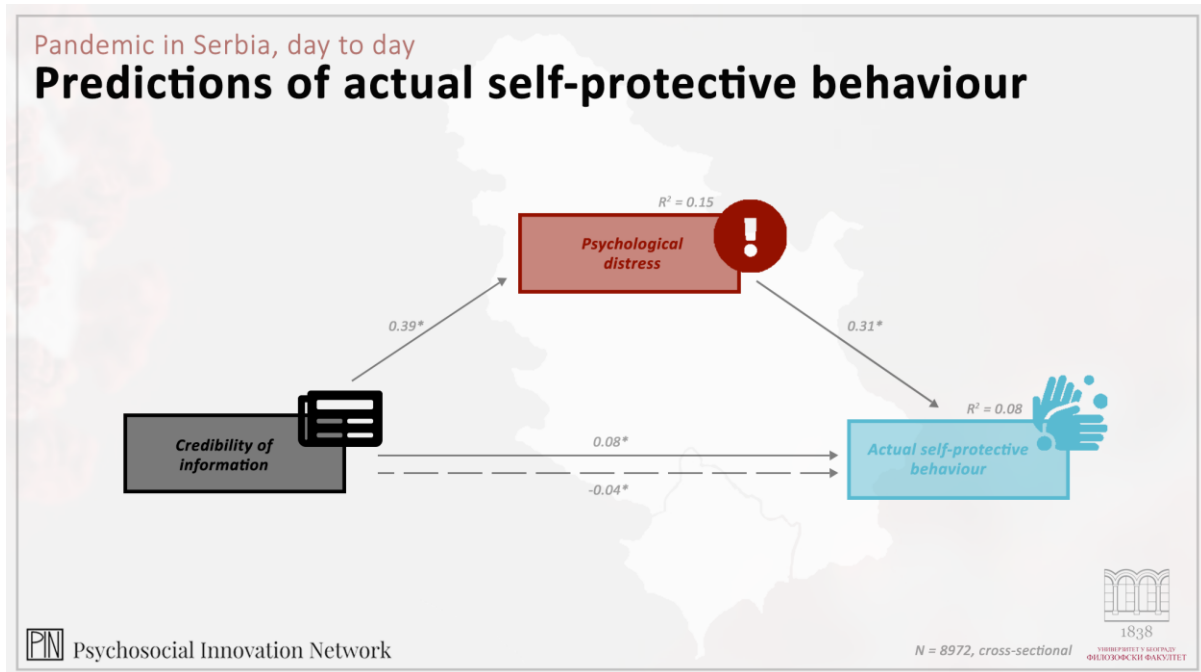
PSYCHOLOGICAL MODEL OF BEHAVIOUR DURING PANDEMIC

Finally, it is important to view the totality of behaviour during the pandemic by establishing connections between all the examined phenomena that comprise the behaviour, which in this case includes psychological distress, self-protective actions and getting information, and by creating a model that will subsequently be verified. In psychological studies we very rarely examine one aspect of the psyche or behaviour. Most often we are interested in mutual relations between observed, for example, emotions and self-protective behaviour. In this study, since the topic is “pandemic mode” of behaviour, we conducted the analysis to determine which psychological path leads to us behaving in compliance with the imposed measures. The path starts from doctors and looks as explained below. We observed that the trust in scientists, doctors and medicine is very high and those are exactly the sources we trust the most when it comes to coronavirus epidemic. When we hear that the situation is serious from those sources, we become actually worried and afraid. To calm the anxiety and establish subjective control over the situation, we inform ourselves, try to understand the situation and we develop a feeling that we know what is going on. That’s what in the end spurs us to comply with the measures. This path would be different if a doctor, healthcare professional or scientist says that the situation is not that serious, which actually happened at the very beginning of the state of emergency.

More accurately, in this study we examined the model of relations between the three phenomena - trust in information sources, psychological distress and health protective behaviour. Based on the prior studies, the model suggests that protective behaviour is affected by perceived credibility of information source (e.g. [Liao et al., 2010](#)), not directly, but rather indirectly - through psychological responses (alertness) to the pandemic, which was previously found to be related to protective behaviour ([Cheung & Tse, 2008](#)).

Graph 6

Predictions of actual protective behaviour



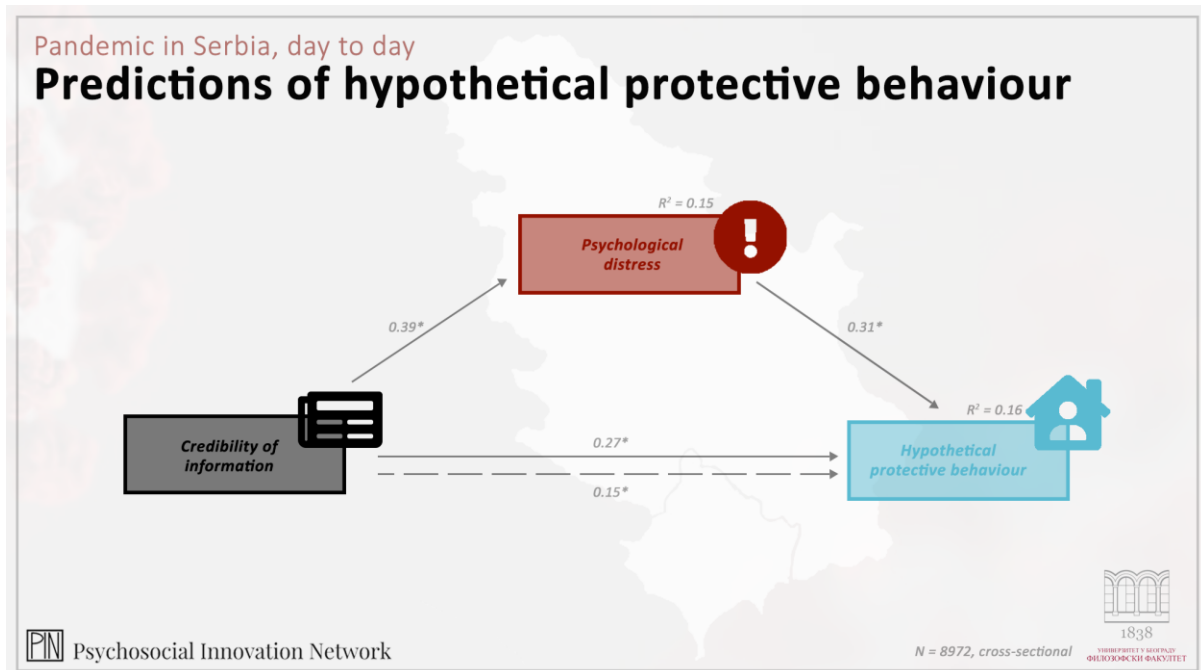
The central relation that was examined by this model was the relation between trust in information sources and health-protective behaviour. The results show that the connection between the trust and the actual protective behaviour was positive (higher level of trust led to higher rate of health-protective behaviour), although it was weak (correlation at .10 level), but stable during the study. In addition to the actual behaviour, an important aspect is also the hypothetical protective behaviour which is related to the readiness of people to implement certain self-protective measures, for example, to which extent and when are they ready to wear masks, rather than how often do they wear masks at the time of the study (which is an actual health-protective behaviour). The connection between the trust in sources and hypothetical health-protective behaviour was also positive, but much stronger - in the first stage of the study correlations were at .15 level, while in the second and third stage the measured correlation was between .30 and .35, which may be considered an important connection in this type of study. In short, this part of the results shows that the trust in information sources is an important predictor of responsible health-related behaviour, particularly in the case of behaviour that protects other people, as well as in the stages of the pandemic after the initial shock.

It is expected that the higher trust in sources would be followed by higher level of anxiety of the respondents, so the higher levels of anxiety lead to stricter compliance with recommended healthcare practices. The results of the analyses conducted on our data show that such assumption is grounded. So, although the connection between the trust in sources and perceived anxiety was negligible during the first week of the study ($r = .06$), and relatively low

during the second week ($r = .21$), later in the study it proved to be significantly stable and relatively high (approximately .45). In short, the people who had higher level of trust in information they received from relevant sources showed the higher level of concern, fear and readiness.

Graph 7

Predictions of hypothetical protective behaviour



Relation between the level of anxiety and actual health-protective behaviour also showed relatively high correlation, particularly during the first stage of the study ($r = .36$), while the relation weakened during the second ($r = .23$) and third stage ($r = .25$). In other words, the importance of the level of alertness for compliance with responsible health-related behaviour was particularly high during the first stage which featured higher levels of insecurity and uncertainty. The connection between the level of anxiety and hypothetical behaviour is in that sense more stable and the relation between these two phenomena was relatively stable during the entire study (correlations at .30 level).

The indirect effect the trust in scientific sources had on health-protective behaviour through alarming the public is moderate (.15 level) and relatively stable, i.e. it has approximately the same intensity both in case of actual and hypothetical health-related behaviour, as well as in various stages of the study. When all these connections are taken into consideration, we find that the effect of our trust in different sources of information on our behaviour is relatively weak and that it is actually completely mediated by the level of psychological distress. At the same time, a stronger effect of trust in information sources on hypothetical health-protective behaviour is only partially mediated by the degree of respondent's distress. Such combination of results unequivocally shows the importance of trust in information sources, as well as of the

mechanisms through which the trust influences the health-protective behaviour of people in pandemic circumstances.

ABOLITION OF MEASURES

THE FIRST EASEMENT OF MEASURES

The second wave or the second peak of infection came two weeks after the end of the state of emergency. In that period, due to easement of measures, large crowds gathered at a sports event, and election campaign and elections took place. In an emotional sense, the end of the state of emergency found us exhausted and finally the great fatigue took the place of fear, while we followed the elections and picked ourselves up trying to catch at least some of the peace and the summer, hoping that the economy was not too damaged. The consequence was that two months after lifting the state of emergency the psychological profile looks the same as it did at the very beginning. Levels of concern were once again high, as in the first, acute phase, when state of emergency and curfew were imposed, when the first death from COVID-19 was registered, when the curfew was extended and when we had no clue what was going on. The second peak came.

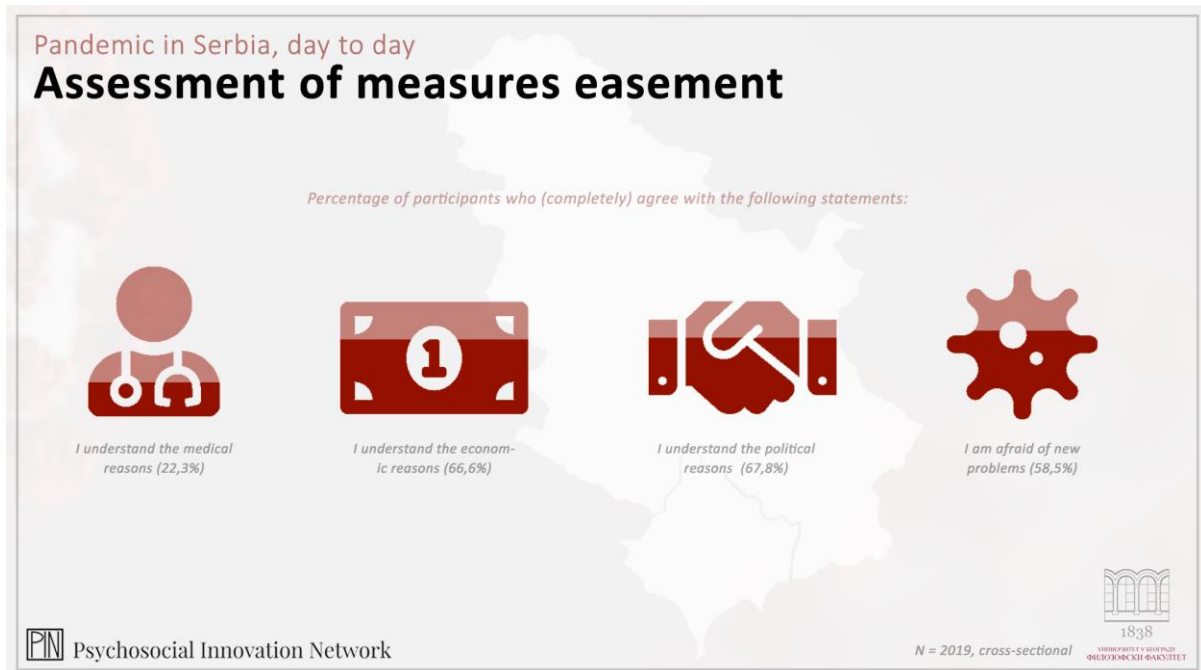
The second peak was different because at the time people already went through 4 months of psychological stress and fatigue, so they didn't enter the second peak with mental strength and freshness, but quite the opposite. Entire two plus two months of exposure to wide variety of information from various expert and non-expert sources did not prevent us from being solidary and united about protecting ourselves and the others, but strengthened the trust in doctors and scientists, and, sadly, led to loss of trust in healthcare institutions. During the second peak, our everyday lives still suffered due to current epidemiological situation - on the scale from "not at all" to "very much" most people still rated their fears and concerns as high, they stated that they spent much time thinking about coronavirus and considered COVID-19 to be a very serious disease. On the other hand, at that time people were no longer sure that the infection could be contained, although they emphasized their commitment to compliance with preventive behaviour.

THE END OF MEASURES

Virus infection did not disappear, but the state of emergency did along with many other necessary "measures". Curfew disappeared as if it was taken away by hand "washed for 20 seconds in hot water and soap". For example, public transportation in Belgrade not only resumed after the state of emergency, but it continues to work as the coronavirus epidemic had never happened. This situation opened new questions: do we understand the reasons why the measures were eased? Did our concerns disappear together with the measures? Did the fear that any time we go out might be our last became the fear of going out?

Graph 8

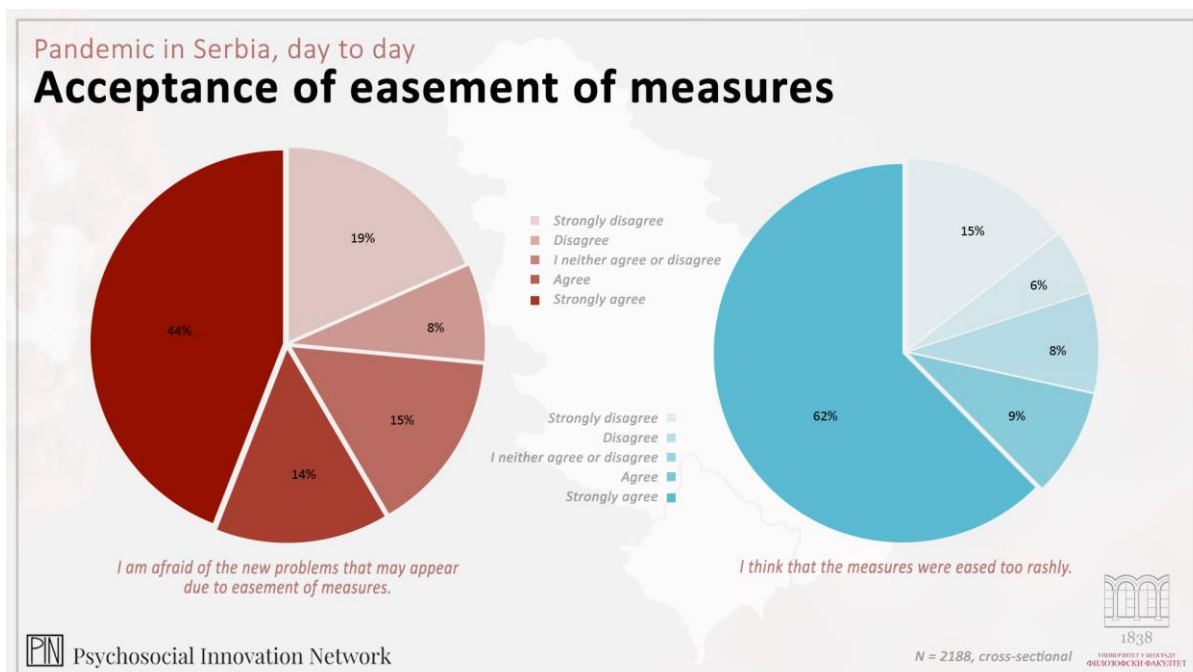
Assessment of measure easement



From the perspective of ordinary people, there were three main reasons for easement of measures: medical (epidemiological), economic and political. Considering that during two months our worlds almost exclusively orbited around the epidemic, that people found out and learned so much about the coronavirus and the ways to protect themselves, others and the healthcare system, which was about to collapse even if this situation had never happened, all the medical reasons for easement (and abolition) of measures should be comprehensible. However, that wasn't the case, and the measures were not eased, but from the perspective of an ordinary person, they were abolished. Out of the three reasons for easement of measures, the medical reasons are by far the least understandable. Only 22.3% of people in total say they partially or fully understand these reasons. On the other hand, almost three times more people say that they understand the political and economic reasons (67.8% and 66.6%). At that time, people were not primarily concerned by the real danger they were facing or the strictest possible measures that suggested that the panic was justified, instead they were *confused* and the fear of coronavirus became the fear of "easement" of measures and of what could happen next. In accordance with that, 58.5% of study participants stated that they were afraid that the easement of measures could cause new problems.

Graph 9

Acceptance of the easement of measures



The end of measures is the beginning of mental exhaustion for us. As we all remember, since it wasn't that long ago, the environment in which we found ourselves from the beginning to the end of the state of emergency was actually such that the epidemic was the main news, often the main topic of our conversations and the cause of the most of our concerns and fears. At the very beginning we worried about everyday contact with children, elderly and chronic patients, but that worries declined by mid-March, when curfew was imposed and when our contacts with the people become limited in terms of time and space. However, the concerns arising from the possibility of everyday contact with the elderly once again increased when the state of emergency ended. It seems that although the measures were not there, the personal concern for the others remained.

At the time passed, the disease has gone from being a theoretical possibility to being a tangible thing that exists outside the news and conversations and happens in our immediate surroundings. From the beginning, the number of people who knew someone that was infected gradually increased - by mid-March it was around 10% of the sample, by the end of March around 20% and in June between 40% and 50%. So, even then every other person knew someone who had the coronavirus. The closeness of the disease affects us, our intentions and our behaviour. Those who knew someone who was infected were more prone to visit a healthcare institution than those who didn't know anyone, which indirectly confirms the trust in the healthcare professionals and the medicine. Besides that, those who knew someone who got sick are more afraid of the easement of measures today, because they find the disease more real and more present than the people who still see the epidemic as an idea promoted by the media or on the Internet.

CONCLUSION

“THE OLD NORMAL”

At this moment, the coronavirus epidemic in Serbia is going on for half a year. The reminiscence of the life before the epidemic comes down to stories about tangible reality: how common were the house parties or how big were the crowds in concerts, i.e. to descriptions of old physical and social environment or the “old normal”. It is particularly hard and often impossible to recall and find ourselves *feeling* “normal” and ordinary. It is exactly the difference between the *then* and *now* feelings that is in the core of the psychological consequences of this six-months displacement from life. As in the 70 countries of the world, the response of the citizens of Serbia and the way they dealt with COVID-19 epidemic was direct and widespread. Serbian government imposed the state of emergency four days after WHO declared the pandemic. Then followed the curfew (although technically not the right term, it was the term used by the officials in public announcements), TV and online school classes and total lockdown for people older than 65 (see [Table 1](#) for all the measures). Hospitality industry stopped, cultural and sports events were prohibited, borders were closed and local and intercity public transport was suspended. The media, of course, treated the pandemic as news, and constant reports started even before the first case of COVID-19 was confirmed. That resulted in news about COVID-19 becoming a large majority of the content presented every day by the media. Even the coverage of other topics was put into context of the epidemic, e.g. theatre in the time of coronavirus, sports in the time of coronavirus, etc. The term and the concept that appeared and which was forged during this period was “new normal”, and we got used to hearing so many other words: hotspot, transmission, comorbidity, carrier, social and physical distance, solidarity, hygienic mats, testing, peak, wave, experts... The rate of the infection spread and efficiency of imposed protective and preventive measures seriously affect the everyday lives of people and community ([Wang, et al., 2020](#)). During these phases people experience psychological difficulties and problems of different level and severity ([Wang et al. 2020](#); [Xiang et al. 2020](#)), however, everyone is in the same situation. On one hand, it is easier when you know that everyone else has the same problems, but on the other hand, this causes people to withdraw, because everyone is overwhelmed by some type of concern and the solidarity based on empathy was not encouraged.

All this represents a huge psychological burden, mirrored in psychological distress, exposure to huge amount of information on one topic only, restrictions of daily activities as basic as movement and behavioural instructions. All these aspects were monitored in our study and every mental burden mentioned above is connected with the existence of the virus in the society, but primarily with communication and communication strategies in epidemic circumstances. This was recognized as one of the key issues in terms of social response to the epidemics and pandemics, and WHO gives clear recommendations how and what to

communicate with the community and what should be the psychological basis of the social response.

SOCIAL RESPONSE BASED ON EMOTIONS

Different countries applied different “models” of facing the pandemic, from total lockdown to waiting for something to happen. Psychologically speaking, the most relevant thing is the way in which measures are imposed, i.e. how they were communicated and which way of giving instructions to citizens regarding the change in behaviour is the most efficient and favourable for the mental health. The psychological mechanism underlying this social response could be based on intimidation or on positive messages. The explanation of the appeal for cooperation, solidarity and obedience could have been based on the empathy and understanding, instead of fear. For almost forty years the empirical psychology discusses if, for example, people would rather respond to a call to free preventive skin cancer checks if we scared them with symptoms and prevalence of skin cancer or if we told them that regular check-ups would help them stay healthy. Although the latter seems to leave people completely unconcerned and that, therefore, it is a weaker driver of change compared to the mighty and swift fear - the things seem to be completely opposite. People are readier to go to preventive check-up if the positive outcomes of such behaviour are explained to them. Such change lasts longer and it may be used as the basis for future health-related behaviour. There are two psychological reasons for that. The first one is that behaviour which was asked from us during the pandemic, just as any other preventive behaviour, was complex and as such required explanations and comprehension to settle in. The other one is: fear is a negative emotion and we “instinctively” want to get rid of it, particularly when we find ourselves in uncertain and difficult situation. So, although in this study it was registered that the level of compliance with state mandated protective measures represents the function of negative emotional arousal resulting from alarming information coming from sources we trust, psychological research shows that intimidation, although it is a potent and efficient way of inducing public to behave in a certain way, does not represent the best practice primarily because it does not lead to permanent behavioural change.

The second important element, which has already been observed many times in other scientific or expert events and phenomena, is that in this case, as well, scientific and expert facts on the virus and disease do not reach the general population and public directly (like citizens are looking at them directly through a microscope), but over healthcare (crisis staff, for example) and government officials (president, prime minister, ministers), and then through the media. All these sources gain different levels of trust, as shown in this report, and, to our regret, the trust in those sources decreased during the epidemic. In general, trust in Government and healthcare institutions favourably affects emotions in social crisis. For example, studies conducted in other countries during H1N1 virus epidemic showed that trust

in institutions decreases anxiety caused by the epidemic (*Cheung & Tse, 2008*), but also showed that during the epidemic, both in Asia and in Europe, the trust in and support for institutions declined (*Leung, et al., 2017; Bangerter et al. 2012*)

FEAR AS THE MEAN OF COMMUNICATION

That is why *communication* is so important in these situations. Scientific articles that discuss the issue of social response to pandemic, even from the period of Ebola epidemic in Sub-Saharan Africa, show that biomedical approach to treatment of these social problems is not the most effective one, because it is overshadowed by human factor. Firstly, it was observed that a paradoxical resistance and lack of trust towards healthcare system occurred when people were asked to isolate or self-isolate. This is not epidemiologically justified, but comes from a lay expectation that medicine has more complex solution than “simple isolation”. In order to avoid the loss of trust and preserve precious time in the race with the spreading disease, people who need time to adopt new types of behaviour, should be supported or encouraged by positive messages and explanations, as suggested by empirical psychology and mentioned by WHO in its instructions. It is important to note that this does not refer to campaign, because in such emergency situations there is not enough time or resources for that, but instead it refers to the method of communication and the type of messages we receive from officials and decision-makers, over and above everyone else.

In case of Serbia, clear communication strategy was either missing as the result of lack of preparation or the decision was made to base the strategy on transformation of the expected and natural responses, such as fear and concern, into “token” used to address people. Official communication started with negating and ridiculing the epidemic, proceeded to reckless text messages that were supposed to motivate people through fear, and not long after that the people were informed that it was possible that the graveyards would be overcrowded. These messages were mixed with random expressions of affection, but also with expressions of mild or less mild resignation by citizens’ disobedience. Both of these are considered the type of “emotional” communication that is different from the one that was supposed to be fundamental, which is the rational one - because people were already scared anyway. As study findings show, these messages only further disturb them and hinder implementation of measures which success relies on the behaviour of citizens.

SOLIDARITY BASED ON EMPATHY TOWARDS PEOPLE, AND NOT ON FEAR OF VIRUS

We should emphasize that emotions and particularly emotions such as fear and concern should not be negated and/or hidden by the officials, since they are susceptible to them, just as

everyone else. Moreover, psychologically speaking, the entire experience and understanding of the epidemic and social response includes emotions, knowledge and behaviour as well, and not only medical and economical aspects. Speaking in that sense, people were supposed to be called for solidarity based on empathy and rational understanding of the situation, not based on fear. Another example of the lack of communication strategy is the issue of mask wearing: officials continuously appealed for obedience, threatened with fines, implemented measures and asked people to wear masks, while they, who created the discourse and standards of epidemic behaviour, did not wear masks themselves. As many studies show, this significantly undermines the messages they are trying to send.

People lust for normal life, normal school and work, and everyday topics and matters that are not related to coronavirus. Our findings show that today we talk less and less about coronavirus, that we are slowly stopping to follow information, that these information are boring and tiring. Now we return to our old, pre-pandemic lives, but we cannot return to the emotional state in which we were before the pandemic. Between the beginning of March and today there are months of truly difficult events, 749 deceased, healthcare collapse at several locations, more than 30000 registered cases of infection, restrictions of movement and change in system of work, loss of jobs and financial insecurity caused by that. Most people grew a habit of keeping a physical distance in social environment. In psychological plane, behind us is a half year of fear, uncertainty, worry, anxiety, tension and lost trust in social system with elements of alienation among people. The anxiety did not vanish, but it changed: Now it is mostly directed towards the matters of livelihood. This is also confirmed by our finding that people much better understand economical than medicinal reasons for easement of measures. Finally, the difficulty of the previous seven-months period can also be seen in psychological consequence that it left behind, so we enter the following period psychologically different than we were at the end of February 2020. Over time we will learn if the main psychological difference between “old” and “new normal” was the presence of fear as an everyday emotion and a legitimate mechanism around which the society should gather. Fortunately, it is up to us to decide if we will face the fear and how we will deal with it.

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