BULGARIAN'S ATTITUDES ON COVID 19: SOCIAL OPTIMISM OR REALITY DISTORTION

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ABSTRACT

This article discusses the data collected from a national sample survey of the Bulgarian population; conducted in 2021, this survey is part of the International Social Survey Programme, implemented annually in over 50 countries across five continents on the basis of a common methodology and established world standards. The study covered a national representative sample consisting of 1,151 adult citizens1.The results analyzed here are related to three questions: 1) The respondents' degree of trust and expectations with regard to the healthcare system in Bulgaria; 2) Their attitudes to vaccination; 3) Their assessments of the consequences of the COVID-19 pandemic. The main results reveal that respondents had greater trust in the people representing institutions than in the institutions themselves; opinions were divided as to the need for vaccination; the respondents' assessments indicated no anxiety regarding the negative impact of the pandemic on their physical and mental health of people. The authors discuss the obtained results, responding to these and other relevant data specific to Bulgaria, and present their intentions to include new indicators in future surveys on people's opinions regarding COVID-19.

Keywords: COVID-19, Sociological interpretation, Pandemic, Crisis, Illness, Masks, Vaccination, Mortality.

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INTRODUCTION

COVID-19 is most often described in relevant sociological literature as a social disaster (Connell 2020) and a global crisis (Reicher 2021), on March 11, 2020, the World Health Organization declared the disease a "pandemic". It should be noted that sociologists and psychologists, but also other social scientists, began immediately to study the social dimensions of health, to clarify the parameters of the moral threats arising for high-risk (in terms of health and other inequalities) groups, the risks of stigmatization of, moralizing about, and ascribing blame to, certain groups; in other words, typical results known in history to follow from such crises. Some authors point attention to the fact that the sociological terms adopted to describe

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the current situation are used without regard for their normative sociological meaning (Connell 2020). For instance, social contacts between people become the focus of prevention; the sociological term "social distance" begins to refer to a means of survival; the facemask becomes a substitute for protective physical distance (Lupton 2021)[2]; the concept of "lockdown", borrowed from incarceration terminology, is adopted in many cases by governments as an acceptable procedure, although elsewhere it is rejected in the name of "freedom" or "the economy", or because the policy of the media is not to consider the epidemic significant (we know that in countries like Sweden, the UK, the USA, and Brazil, such an attitude has led to great numbers of lost lives and jumps of infection rates)[3].

Other authors draw attention to the need for an intersectional approach to the pandemic issue, inasmuch as studies on the social causes and social effects, for instance, of inequalities, consider a combination of different social identities (based on age, gender, income or education level) that all prove to be influenced in various ways by the pandemic (Maestripieri 2021).

The main debate is whether a new type of sociology or psychology is needed to explain this type of global crises. Are the theories and research methods we use adequate for assessing the crisis, which carries with it a biological danger but also undermines institutional power. Researchers in the sociology of emergency situations have usually tried to explain how matters were handled in past cases and how crisis management was improved, but they have rarely conducted their analyses during a time of crisis. Hence, their logical schemas cannot be directly applied. Hence, we should ask ourselves whether the pandemic has not contributed to a change in the social sciences, in the sense of exerting a pressure upon them to change their basic theses.

Indeed, it has been accepted as proven that, in the pandemic situation, awareness of the importance of science and scientific discourse is growing, and the public often seeks the opinion of professionals from all spheres of science. In many countries, groups of specialists in various sciences are being formed, including social scientists. And this trend of unification of all

[2] According to D. Lupton, wearing facemasks has a historical and cultural context: Asian countries have a long tradition in this respect, while elsewhere the wearing of masks has not been part of people's daily experience. Today, the facemask is a new market commodity from which companies, artists, designers, fashion houses, museums seek financial gains. The mask is a medical item but also a fashion product; in both cases, there is a search for individuality and a correspondence to the beliefs of the wearer and his/her ethical stance regarding his own and other people's health. (Lupton, D. et. al. (2021). The Facemask in Covid Times: A Sociomaterial Analysis. De Gruyter.

[3] In his book, Lupton asserts that, in the US and other countries, refusal to wear a mask is presented as a form of "sovereign individualism" or as a means to convey an anti-racist message or as a sign of political support for Donald Trump. Op. cit, Footnote 3.

sciences but also in the framework of separate sections of a science, is expected to enhance innovativeness in scientific analysis.

In other words, the pandemic not only does not set different sciences in opposition to one another but in fact strengthens their mutual ties, uniting them in the search for adequate solutions; in the words of Prof. Ettore Recchi, we see a "regeneration of the role of science"[4]. At the same time, there is a certain "scattering" of the efforts of sociologists studying public opinion on COVID-19, for instance, when they focus on different local communities, or when the attitudes of people in different countries remain little known because information on them is published in languages that are not widely used, which in turn stimulates the organization of projects for comparative analyses at transnational level.

As for the pressure to change the emphases of the social sciences, especially of sociology and psychology, scholars point attention to two basic trends. The first is to emphasize the view that sociology plays in the process of "comprehension" – in terms not of interpretive experience but for understanding the connections between the large structures of liberalism, the state, the market, and everyday consciousness. This sheds a light on the issue of inequalities that seem to have long been left in the margin of attention, concealed or invisible, under the influence of the assessment of averaged out possibilities resulting from digitalization and the digitalized Self. In the digitalized world, nature and the media have also been transformed, and from observers of democratization, the media turn into agents conducing policies for a "flat [global and similar] world (Anis et. al. 2020)[5]. It follows that we are now analyzing a changed, different, post-COVID society produced by the unexpected consequences of the pandemic. This is a society of inequalities, of groups marginalized by the market, of disempowered groups of people who in some cases are left to fatalistic religious beliefs. Research is focusing on versions of inequalities that are universal but also on those that are specific and have remained concealed until now. An open question is how to reinterpret the idea of society so that every member of the community may be clearly visible, and his/her place in society, clearly defined.

The second phenomenon that occupies social researchers, and specifically psychologists, are the behavioral contradictions that are changing current psychological views on society and people. We know that many social scientists have become popular during the

[4] This expression was used by Prof. Ettore Recchi during the discussion held on October 25 in the panel Researching and Understanding Covid Societies: Sociology and Beyond, organized by the International Science Council. www://council. science.

[5] This view has also been examined by Prof. M. Chaudhuri during his participation in the webseminar held on 25.10.2021 by the International Sociological Association.

pandemic because of increased public interest in scientific opinions but also due to the need to discuss phenomena like trust, achieving consensus, solidarity. The strategies of governments to introduce certain measures imply interference in the behavior of people. These strategies usually fail to take into account people's fears, marginalization, unequal access to vaccines across the world, etc. That is why the so-called non-pharmaceutical intervention (npi)[6], reworded in the jargon of psychologists as "non-behavioral intervention" (nbi), has, as a result of the pandemic, suddenly lost its importance: because the interest both among the public at large and among professionals proves to require joint, multifaceted and complex information relevant simultaneously to mathematical prognosis systems, to the interests of the pharmaceutical industry, to virology and epidemiology, and to the social and human sciences.

Due to psychological interests, in recent years political and state strategies for reform or changing the behavior of people proceed from the idea that human cognitive capacity is limited, that distortions and errors occur when identifying causes, and reform requires simplification in the course of decision-making, the introduction of certain "nudges", the correction of certain perceptual distortions when processing information, etc. It has been pointed out that this is particularly typical in situations of uncertainty, limited time, high stress, a complicated environment; in other words, in crisis situations we may expect irrational and unproductive behavior and ineffective decision-making (CERC 2019). That is why governments are accepting the idea that they are obliged to provide "protection", to be "guardians" or safety providers for the people they are governing.

But observations on the behavior of people in times of crisis indicate, on the contrary, that people are able to deal successfully with their problems, to make adequate and speedy decisions, that they are not benumbed and blocked but make quick and timely collective decisions (Hogan 2020; Drury et al. 2016; Ungar 2019; Demetriou 2021; Haslam et al. 2020; Drury et al. 2005; Cohen-Chen and Zomeren 2018). Hence, instead of looking for the problem at the level of individual motivation, we should direct our interest to studying impulsive action typical for collective psychologically supportive behavior, where interpersonal ties are particularly important, and when the common destiny and common danger bring people closer together and action is subject to collective decisions, to thinking in terms of "we" and not "I". And true enough, observations on the action of people in the pandemic period reveal intense

[6] NPI – A terms frequently used to distinguish therapeutic from pharmaceutical treatment. NBI (non-behavioral intervention) is, by analogy, a psychological intervention that seeks emotional and motivational rather than behavioral change.

activity for creation of mutual aid groups (Fernandes-Jesus et al. 2021). That is why the "Self" (a sacred and fundamental term for the science of psychology), self-interest, decision-making based on calculation of profit and cost for the individual, tends, in times of crisis, to be replaced by a shared identity, and personal identity is refracted by the social identity of group members. The ratio of cost/profit acquires different dimensions in the logic of social, collective, joint identity. It is no coincidence that the webinar of the International Science Council held on April 29, 2021 was entitled "The Two Psychologies of the Pandemic: from fragile rationality to collective resilience"[7].

The results analyzed and discussed in this article refer only to the responses of the Bulgarian population to questions concerning the pandemic and the measures connected with it. But the survey is part of an international study, and this makes it possible to make cross-country comparisons and thereby to trace more distinctly the trend, described above, of a change of emphasis in contemporary sociology and social psychology; in doing so, we should pay attention to seemingly "odd", vague or unexpected distributions, regularities and correlations.

Methods and Results

Current article presents and analyzes the empirical data obtained from a national representative sample survey of the Bulgarian population. The survey was conducted in the middle of 2021 as part of the International Social Survey Programme (ISSP). The research for Bulgaria was realized within the funding framework provided by the National Roadmap for Research Infrastructure (2020-2023) and was prepared and implemented by a Consortium of Bulgarian sociologists and economists, with leading partner the University of National and World Economy and participant partners the Institute of Philosophy and Sociology – BAS, the Bulgarian Sociological Association and the Union of Economists in Bulgaria. The fieldwork was carried out by the Institute of Philosophy and Sociology – BAS. The survey sample is representative for the adult population of the country (18+); the chosen sample model was a stratified two-stage cluster. In all, 1,151 persons were surveyed. The gathered data are representative for the adult population of Bulgaria. The research collected the respondents' opinions and assessments on 214 indicators, based on which the research has studied existing health inequalities and social inequalities.

[7] Along with this, there has also been a change in the understanding of "solidarity", a term carrying as strong a charge as the concept of the Self; we shall not dwell on this issue here.

The subject of discussion in this article are only few empirical assessments that we consider of key importance and that serve to draw grounded conclusions in three areas:

1) The Bulgarian population's degree of trust in the healthcare system amidst the unprecedented COVID-19 pandemic.

2) The self-assessment as to being happy in the context of the COVID-19 pandemic.

3) The attitudes of the adult Bulgarian population to vaccination and to the alternative options of "infection-induced immunity versus immunity through vaccination".

Trust in the Healthcare System

The condition and efficacy of healthcare systems has become a foremost issue in the context of the unprecedented world-scale pandemic, in which people's lives are direct risk. While in a normal situation the healthcare systems are seen as a self-evident part of the public systems, healthcare becomes a central issue for public attention when threatening challenges to health arise. Depending on the course of the pandemic (its spread, peaks and waves) and the ability of a healthcare system to provide adequate treatment and to preserve lives, the population's attitude to healthcare may vary perceptibly.

The pandemic began to spread in Bulgaria in March 2020. The present study was conducted a year and a half later, so the registered empirical assessments reflect the moods and evaluations that had accumulated during this period of time. We should immediately emphasize that, although in a formal aspect the gathered estimates measure trust in healthcare, they are essentially a compound set of generalizations that comprise heterogeneous elements. So that, taken in context, the indicator "trust in healthcare" is a sum assessment which reflects: 1) an individual's personal impressions of provided healthcare services; 2) the experiences related by friends, relatives and acquaintances regarding provided medical services; 3) the respondent's general impressions of the healthcare system's ability to cope with the COVID-19 crisis.

For the year 2021, the data from the present survey indicated predominant disapproval of the healthcare system in Bulgaria – 69.3 % of adult Bulgarians felt that the healthcare system in Bulgaria "does not work well". This generally negative evaluation results in comparatively low trust in the healthcare system among the population – less than one third (28.4 %) of the population have complete or great trust in the system, while the attitude of the rest varies from skepticism to complete mistrust. Interestingly, however, the data indicate people have greater levels of trust in doctors (44.1 %), nurses (47.3 %) and dentists (5.0 %). Fig. 1:

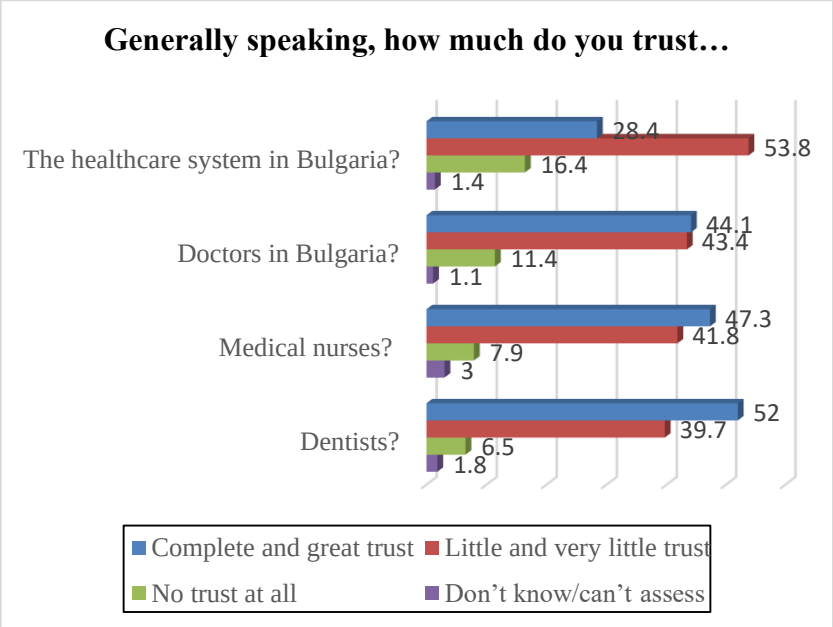

Fig. 1. Trust among the adult population of Bulgaria in healthcare as a system and in the main categories of medical staff

The data indicate that, although adult Bulgarians give a negative assessment of the healthcare system, they nevertheless have a relatively high level of trust in the people working in the system - for instance, doctors and nurses. This suggests that the object of mistrust is not the human factor, not the individuals who perform medical functions, but the system itself and the mechanisms through which medical services are provided. In this sense, the yielded assessments showing high mistrust in the system represent primarily a negative attestation of the reforms implemented in Bulgarian healthcare. These reforms, numerous and heterogeneous, have aimed to implement an efficient market model of medical services provision. Judging by the assessments respondents made in 2021, the reforms have been of doubtful social value, as indicated by the low level of trust in the healthcare system.

In this context, we should note that 58.0 % of the adult population of Bulgaria expects the state to provide a large package of medical services. At the same time, only 25.0 % are inclined to pay higher taxes and higher health insurance for those better-quality health services. Evidently, the expectation of the larger part of the adult population is that the state will expend the available healthcare funds more rationally and thus be able to provide a large package of quality health services.

The Self-assessment as to Happiness in the Context of the COVID-19 Pandemic

According to the survey data, in 2021, a total of 23.7 % of respondents stated they were "completely happy" or "very happy". The option "somewhat happy" was chosen by 43.5 % of the respondents. It is typical for people to choose the medium options and to avoid the extremes in this kind of questions. A notably low share of responses appeared in the category "completely unhappy" and "very unhappy": their total is only 1.7 %, while another 9.1 % assessed themselves as "somewhat unhappy". See Fig. 2:

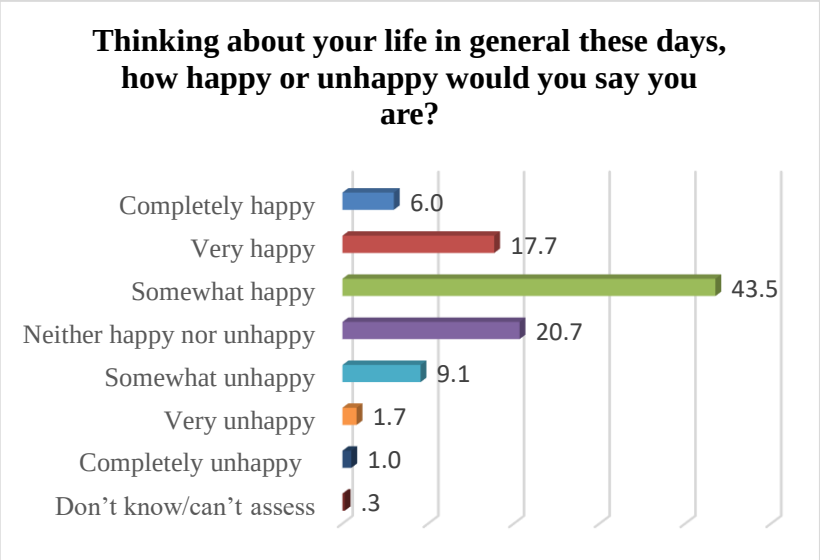

Fig. 2. Assessments as to the feeling of being happy

Further research, this time on correlations between socio-demographic characteristics and the feeling of being happy, shows that gender does not significantly influence the feeling of happiness (Chi-Square x2=0.079; Cramer V=0.105).

Age is a factor that has some (rather little) influence on the subjective feeling of happiness (Chi-Square x2=0.000; Cramer V=0.166). The data show that being happy is most prominent among persons aged 18 to 30 years. With increasing age, starting from 50 years, the share gradually decreases, and for persons above the age of 70, it is only 17.7 %. The explanation for this should be sought in the dependency between personal perspectives (possibilities for personal and professional realization, including creating a family and raising children) and the general feeling of happiness. With age, a person's optimism tends to decrease, and so does the feeling of being "completely happy" or "very unhappy". See Table 1:

Table 1. Assessments as to the feeling of being happy by age of respondents

	Completely happy	Very happy	Some what happy	Neither happy nor unhappy	Some-what unhappy	Very unhappy	Completely happy	Don't know/can't assess
18-30	11,6	23,3	47,3	13,2	2,3	1,6	0,8	0
31-40	9,1	22,0	45,5	17,4	3,8	0	0	2,3
41-50	6,5	26,5	47,9	11,1	6,0	1,9	0	0
51-60	3,9	12,2	47,2	26,6	7,0	1,7	1,3	0
61-70	5,8	12,0	44,2	25,6	8,7	2,1	1,7	0
71 +	2,5	15,2	30,4	25,0	23,0	2,0	2,0	0

When viewing the assessment of happiness in relation to the factor "employment" (whether the respondents are employed, studying, retired, housewives, unemployed), we find that those who feel most happy are respondents in temporary employment (41.7 %), followed by students (37.2 %), respondents working part-time (30.8 %), working full-time (29.6 %), and housewives (21.1 %). On the other hand, 19.4 % of pensioners have assessed themselves as "somewhat unhappy". Interestingly, 46.0 % of the unemployed feel "somewhat happy" and only 16.1 % of them assess they are "somewhat unhappy".

In the context of data presented, it is worth noting the relatively high share of persons who assess their health as excellent (8.3%) or very good (25.8%). This is quite surprising, considering that the assessments were collected during the second year of the COVID-19 pandemic (May-June 2021). Overall, the obtained survey data indicate that, although placed in a situation of unprecedented challenges to health and even physical existence, a considerable part of the adult Bulgarian population asserts they feel physically well rather than just tolerably well or in bad health. Given that, in recent history, Bulgarians have never been faced with such a health challenge, the assessments registered in the survey indicate the respondents' strong spirit and high social optimism.

Our analysis shows a moderately significant correlation between self-assessment of health and self-assessment of happiness (Chi-Square x2=0.000; Cramer V=0.313). Survey data indicate that individuals who feel, and assess themselves as, healthy are also more inclined to feel happy. See Fig. 3.:

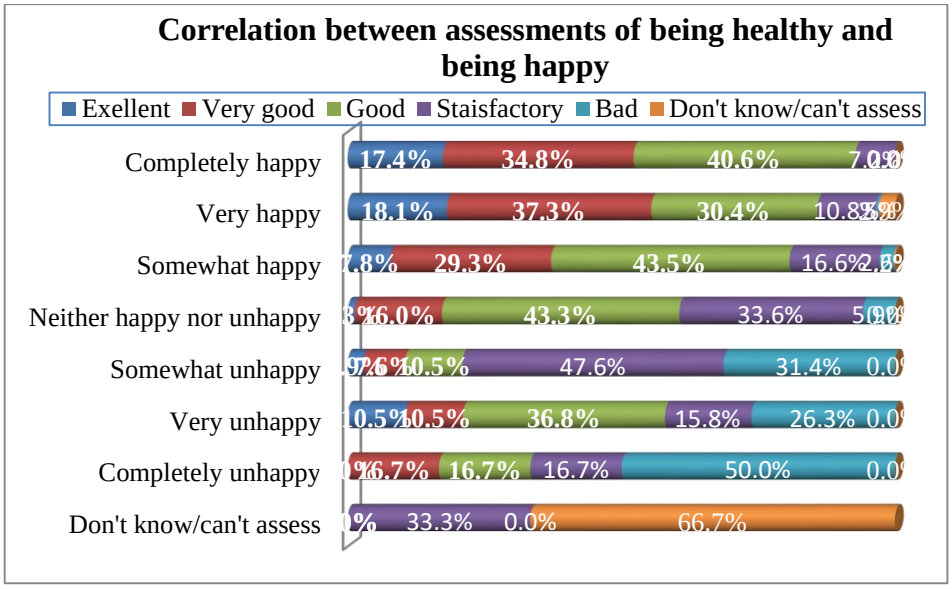

Fig. 3. Correlation between assessments of being healthy and being happy

The general inference to be drawn from values presented in Fig. 3 is that individuals in bad health are more likely to feel unhappy. By contrast, individuals who are in excellent or very good health are inclined to assess themselves as completely happy or very happy. Based on the data, we may assume that any deterioration in a person's health automatically decreases his/her feeling of happiness. This assumption was not specially tested in the present survey but could be in future research. In the strictly methodological aspect, an important observation is that the respondents who chose the neutral option "neither nor" were more likely to have bad health indicators than very good or good ones:

Attitudes Towards Vaccination

Amidst a world-wide pandemic of a lethal and highly contagious virus, an important aspect of people's attitudes to public and personal health is how they feel about vaccination. Vaccination is recommended as the most efficacious means of preventing COVID infection and saving human lives. At the same time, vaccination is an element of state policy for ensuring the safety of citizens in the pandemic situation. Such a formulation of the issue would imply that people share a predominantly positive attitude to vaccination.

But is a positive attitude indeed predominant? The data of the present survey show that vaccination against COVID-19 is viewed ambivalently. Judging by the survey data, in 2021, the adult population of Bulgaria was divided into three distinct groups in terms of attitudes to vaccination: 1) anti-vaxxers (35.9%), 2) neutrals (29.3%) and 3) pro-vaxxers (32.9%). Each group of adult respondents was convinced in the strength of its own arguments. See Fig. 4:

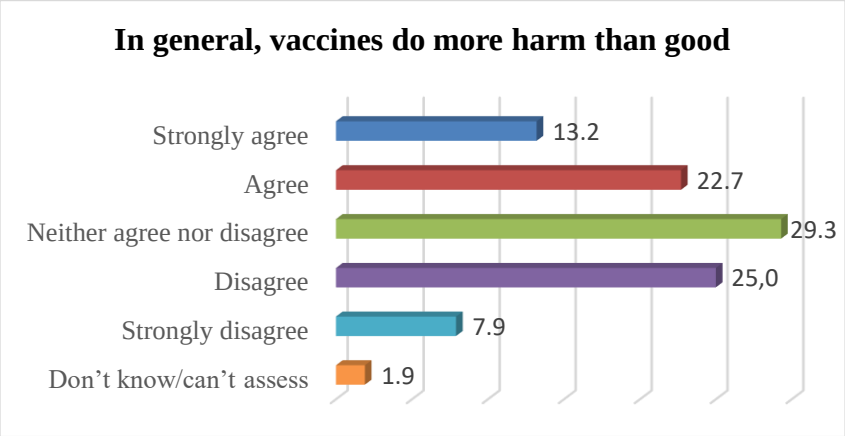

Fig. 4. Structure of the adult population by attitudes to vaccines (2021)

Even more interesting are people's assessments on how immunity to the COVID-19 virus can be acquired. Asked whether, in their opinion, it is better to acquire immunity through illness or through vaccination, twice as many Bulgarians (44.3 %) chose the option of immunity through illness than the vaccination option (22.4 %). See Fig. 5:

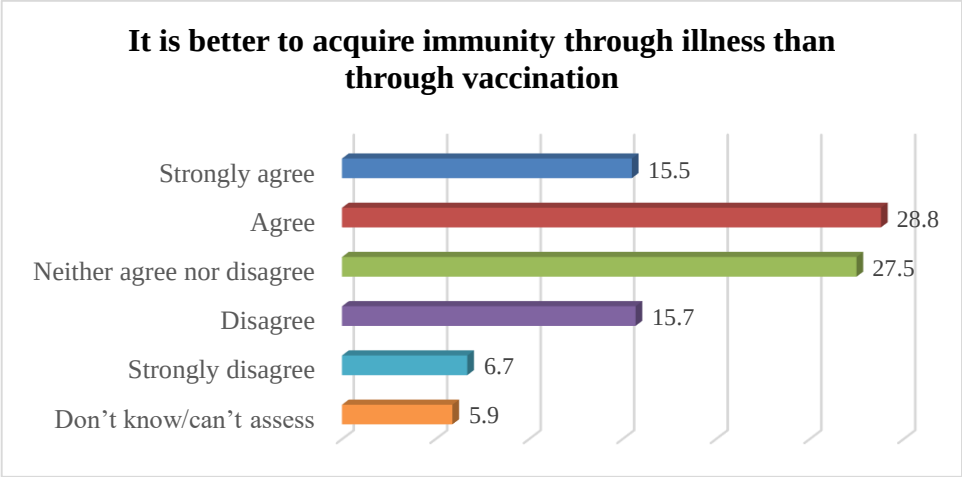

Fig. 5. Structure of the adult population's attitudes to the alternative "acquiring immunity through illness or through vaccination" (2021)

The analysis of the correlation between these two statements ("vaccines do more harm than good" and "it is better to acquire immunity through illness than through vaccination") show that the greater part (72.4 %) of respondents who believe vaccines are mostly harmful are also convinced it is better to acquire immunity through illness than through vaccination. The reverse is also true: 72.7 % of those who believe in the usefulness of vaccines also prefer to acquire immunity through vaccination. The relation between the two statements is statistically significant (Chi-Square x2=0.000; Cramer V=0.496), and directly proportional: the more

convinced a person is that vaccines are more harmful than beneficial, the more likely it is that person will prefer to acquire naturally immunity by undergoing the disease than vaccine-induced immunity.

People and Vaccination Against COVID-19: How are Attitudes Built?

The inclination to get vaccinated in order to acquire immunity and protection against COVID-19 is a complexly structured psycho-social attitude that is a function of a number of factors. We identify the factors that influence this attitude by means of regression analysis.

Method Applied

We used linear regression modelling to explore the links between vaccination skepticism and other factors like education, age, Internet usage and attitudes to different sources of information about Covid 19 and medical topics in general (such as the Internet), including general trust in medical doctors – a proxy indicator about how much people would trust them about Covid-19 too.

Several attitude indicators based on the ISSP questions were constructed through Principal component analysis (PCA) of 14 ISSP questions. Varimax rotation with Kaiser normalization was used to determine the potential factors and indicators were computed for the top three components. The three indicators are presented below with their corresponding questions (factor loadings are available in brackets).

Distrust in the health information on the Internet: low scores on this indicator represent trust in the medical information on the Internet, while high scores represent distrust (higher degree of disagreement with the statements below):

- Question Q13b (0.836). In the past 12 months, information on internet helped me understand doctor' explanations;
- Question Q14a (0.795). Internet is useful to help people decide whether to go to the doctor;
- Question Q13a (0.790). In the past 12 months, information on internet affected my health behavior in a positive way;
- Question Q14b (0.764). Internet is useful to check doctor's advice.

General trust in medical doctors: low scores on this indicator represent general distrust in medical doctors, while high scores represent trust (higher degree of disagreement with the first two statements below and lower level of disagreement with the third one):

- Question Q10c (0.800). Doctors care more about earnings than about their patients;
- Question Q10b (0.793). Doctors' medical skills are not as good as they should be;
- Question Q10a (-0.706). Doctors can be trusted.

Frequency of using the internet as a source of medical information: low scores on this indicator represent less frequent use of the Internet as a source for health-related or medical information (including vaccinations), while high scores represent more frequent use of the internet as a source of information;

- Question Q12b (0.877). Past 12 months, frequency of Internet usage to look for: information related to anxiety, stress, or similar problems;
- Question Q12a (0.849). Past 12 months, frequency of Internet usage to look for: information on healthy lifestyle;
- Question Q12c (0.605). Past 12 months, frequency of internet usage to look for: information on vaccinations.

Finally, three of the questions included in the PCA analysis did not yield strong components and therefore were not used for constructing further indicators, but were either used directly in the regression analysis or were not included as variables in the analysis:

- Q14c. Not easy to distinguish between reliable and unreliable health information on internet;
- Q1. How happy or unhappy would you say you are;
- Q9. Would you agree or disagree that alternative medicine provides better solutions to health problems than conventional medicine?

Dependent Variable

The dependent variable was a "Vaccine hesitancy" indicator construction from the level of respondent's agreement with two statements "Overall, vaccinations do more harm than good" and "It is better to achieve immunity by getting ill than by having a vaccination". Higher level of agreement with these statements is reflected into higher scores on the vaccine hesitancy

indicator, where 9 is the maximum score assigned to respondents who strongly agree with both statements and 1 is the minimum score assigned to respondents who strongly disagree with both statements.

Independent Variables

The independent variables used in the regression model presented below were: education, measured as years spent in formal education; age, measured as year of birth; religiosity, measured as the frequency of attendance of religious services; health, measured as self-assessed overall medical condition (from poor to excellent); internet usage (higher scores indicate using the internet more often, lower scores – less often); general trust in medicine, measured on a Likert scale where lower scores represent higher degree of agreement with the statement that "alternative medicine provides better solutions to health problems than conventional medicine" and higher scores represent disagreement with this statement; distrust in the health information on the Internet (an indicator variable described above); general trust in medical doctors (an indicator variable described above); frequency of using the internet as a source of medical information (an indicator variable described above); happiness as was self-assessed by the respondent on a scale from "completely happy" to "completely unhappy", higher scores representing higher happiness.

Control Variables

The following control variables were also added to the regression model: gender (dummy variable), last job being in the public or the private sector (dummy variable); income (as self-assessment of the household income); voted on the last parliament elections (dummy variable); settlement size.

Results

The overall model was statistically significant ($p < 0.001$) and its adjusted R2 was 0.176. The coefficients for the different variables are presented in the table below. Table 2:

	Unstandardized Coefficients		Standardized Coefficients	t	*p*
	B	Std. Error	Beta		
(Constant)	-.426	13.709		-.031	.975
Age	.003	.007	.019	.431	.666
Education	.041	.034	.054	1.198	.231

Religiosity	.023	.058	.017	.392	.695
Health	-.055	.112	-.022	-.485	.628
Internet usage	.204	.054	.160	3.748	.000
General trust in medicine	-.587	.100	-.247	-5.862	.000
Distrust in the health information on the Internet	.447	.095	.196	4.688	.000
General trust in medical doctors	-.496	.104	-.216	-4.761	.000
Frequency of using the internet as a source of medical information	-.280	.101	-.123	-2.776	.006
Happiness	.327	.112	.150	2.936	.003

Discussion

As we saw, the responses concerning trust in the Bulgarian healthcare system and people's expectations regarding it, indicated a low level of trust in the institutions (healthcare, the government, state power), but not in the people who represent healthcare: doctors, medical nurses, and medical specialists. People want a greater number of medical services to be covered by health insurance, even if this should mean increased taxes. People do not believe in medicine-men and quack healers, and the majority of respondents agree that the state should exert power to implement restrictive measures in case of "severe epidemics"; in response to what is a sensitive issue here, more than 60% of the respondent's consent to the closing of schools and kindergartens. Moreover, level of trust in the healthcare system has not undergone any change, meaning that the pandemic is not the cause of low trust in institutions.

With regard to people's attitudes to vaccination, we see that more than 50% of the respondents do not agree that vaccines are harmful, but at the same time, 44% consider it better to acquire immunity through illness than through vaccination[8]. With regard to the consequences of COVID-19, there were no extreme opinions regarding the aggravation of health problems as a result of the pandemic; the respondents indicated no significant changes had taken place in their physical or mental well-being as a result of the disease or the measures taken to limit its spread. In fact, assuming that a large number of the unvaccinated people and people waiting to gain natural immunity against COVID-19 consider the disease to be just another kind of flu and do not believe there is a pandemic at all, such people cannot expect changes to occur in their health status. They would not become worried or anxious or fearful about the illness and its deadliness. This is only an assumption, and the question of risk and fear are not topics of this

[8] On the matter of vaccination in Bulgaria, see also Todorka Kineva. 2021. Vaccines against Covid 19 through the eyes of Bulgarian citizens. Economic and Social Alternatives, DOI: https://doi.org.10.37075/ISA.2021.4.05.

study. However, it would not be correct to conclude from the survey results that the Bulgarian respondents respond with equanimity to the pandemic situation.

The data obtained from this survey are not reassuring. They reveal an element of self-deceit in people's expectations and a certain skepticism in their attitudes, despite conclusive data showing high morbidity and mortality caused by COVID-19 in Bulgaria.

That is why it is necessary to conduct new surveys, similar to those made in other countries (see, for instance the representative sample survey of 4,400 respondents conducted for the New York Times)[9], which seek to establish correlations between "risk assessment of morbidity" and the factors age, gender and income. For instance, we do not know whether, in view of the high COVID-19 morbidity in our country (33,400 persons)[10], the large share of people at age 65 or above assess the risk to their health as higher. Twice higher morbidity rates among people aged 65 or above are typical for most countries[11]; this raises the levels of fear of illness and, combined with restrictions on medical consultations for other illnesses, leads to higher levels of anxiety, fear and depression. Also, we can only surmise whether political affiliation or identification with a certain ideology determine a divide between the vaccinated and the unvaccinated, between wearers and non-wearers of facemasks, as American researchers have claimed regarding the situation in the US (Jingjing Gao et al. 2021). As Ivan Krastev wrote with reference to Europe, "nearly half the Austrians and Germans believe the COVID pandemic leads to loss of freedom, and the populists are quick to use this as a weapon"[12].

Obviously, in-depth studies with a greater number of indicators are required in order to clarify the factors involved in assigning explanations to certain forms of behavior, especially when these forms run counter to the expected. So let us try to reason as social researchers. Why does such a large percentage of Bulgarians consider the wearing of facemasks to be a form of subjection, and why are the statements and reasoning of professionals working for scientific institutions met with skepticism and often rejected?

Possible explanations could be the lack of active effort on the part of serious medical science and relevant institutions, and the failure to publicize information on the innovative achievements of Bulgarian medical science. There are no public forums at which medical

[9] NYT The two Covid Americas Jan.25, 2022 David Leonhardt analysis on the Times's poll.
[10] Covid-19 Data Explorer
[11] The data for Bulgaria in world databases are incomplete. See ourworldindata.org.
[12] According to Krastev, although populist views are not dominant in the EU, conspiracy theories are widespread; but coming to power, the extreme right also undertakes mass vaccination, as in the case of Poland and Hungary. I. Krastev. From the silent majority to the unvaxxed minority, NYT, Dec. 24, 2021 OPINION Guest essay).

workers can discuss various viewpoints on the issue. When we hear interviews with individual representative of medical circles, we usually become witnesses to their lack of skill in convincing the audience and presenting a clear stance.

Possibly the cause lies in the difference between how journalists and scientists communicate with people. Journalists proceed as if they were dealing with an insufficiently specialized audience: they propose the version that they themselves believe to be the true one (here, it does not matter whether it is or not) and support it with clear arguments, thereby acquiring a strong influence over their audience. In the case of scientific communication, the serious examination of a perspective is usually believed to be unnecessary, as the audience is assumed to be knowledgeable; hence, such speakers rarely offer one solution, one version, or one strong argument. The objectivity, which both journalists and researchers strive for, is pursued through different channels of thought. People of science find it embarrassing to make categorical judgments and hence express opinions that involve doubt; they never fix on a firm conclusion, are never quick to take a stance. For the public at large, this is a sign of uncertainty; the information thus received is judged to be vague, and the claims, inconsistent. Of course, the level of knowledge of doctors and patients is also relevant. But do we know of any general medical practitioner doing research based on the data he has acquired in his own practice, or publishing his observations, or disseminating interesting facts learned from personal experience? In general, do we expect GPs to be familiar with the latest achievements in world medicine (except when they must react to the pressure of companies advertising new products)? These are rhetorical questions, and the weak role GPs play for supporting vaccination among their patients may be viewed as one of the causes of the low vaccination rates in Bulgaria.

Another cause might be the lack of an aggressive information campaign advocating the benefits of vaccination. For instance, information could be constantly publicized that COVID-19 (before vaccination) leads to higher mortality than do oncological or cardio-vascular diseases. Or television reports might show anti-vaxxers lying in hospitals and regretting their views, or people whose relatives have died of the disease (only one such case has been widely publicized in our country). Or reports might show that the mortality rate among people injected with a booster dose of vaccine is one per million on a weekly basis, which is less than mortality from the flu or pneumonia (which is three per million)[13]. Information might be publicized that

[13] These data are for the US. Source: CDC. Morbidity and Mortality Weekly/ Covid-19 Incidence and Death Rates Among Unvaccinated and Fully Vaccinated Adults with and Without Booster Doses During Periods of Delta and Omicron Variant Emergence - 25 Jurisdictions, April4-December 25, 2021. Recent data is from January 28, 2022/71(4) 132-138. www.cdc.gov

there is no significant correlation between the reduced risk of contagion after vaccination and the level of fear of contagion, as we might find that the most vulnerable people – the unvaccinated, are also the least fearful[14].

CONCLUSION

The survey among the adult population in Bulgaria revealed an interesting and largely unexpected palette of assessments and attitudes regarding the Covid 19 pandemic and its impact on society as a whole and on individuals. On the one hand, the study found a relatively high percentage of people who identify themselves as healthy and happy. Although in a pandemic situation, nearly a quarter of adult Bulgarians are perceived as healthy and happy enough.

At the same time, it is quite striking that with the available objective data on high morbidity and mortality in Bulgaria as a result of coronavirus, one third of Bulgarians are firmly convinced that vaccines do more harm than good, and another third remain skeptical about the issue and refrain from expressing a clear opinion (yes or no). These data indirectly reflect the weak effect of the country's vaccination campaign. But they also suggest that a large number of adult Bulgarians underestimate the seriousness of the coronavirus and tend to ignore the consequences of becoming infected with the virus. These assessments are complemented by the prevailing distrust among the adult Bulgarian population towards Bulgarian healthcare - assessments of healthcare as a system are highly critical and only the representatives of certain categories of medical workers are more trusted.

The study answered a number of key questions related to the Covid 19 pandemic in Bulgaria. Along with this, the study raised a series of additional questions that need further in-depth research. For example, since the study does not address the issue of risk assessment and fear of the virus, no conclusions can be drawn about the levels of anxiety caused by the pandemic and how this has affected daily work, living and leisure patterns. Finally, we might look for the cause in the recently widespread avoidance of realistic thinking, and the search for comfort in imaginary thinking, the latter being a result of psychological changes due to cyber effects[15]. Perhaps this is a case of realistic or imaginative thinking, which results from the general and specific digital effect on human behavior? We might also focus attention on the

[14] Op.cit. Footnote 2.
[15] Aiken, M. (2016) The Cyber Effect. Spiegel &Grau. For instance, the Coping with Corona project (CoCo) 2022: "Understanding individual differences in well-being during the COVID-19 pandemic", which is a form of international cooperation (experience-sampling-study, October-December, 2021) aims to answer this question as well.

excessive use of the concept of "freedom" within the neo-liberal and rational-individualistic ideology, which was peremptorily imposed in our country and has become a standard element of a reformist and progressive outlook.

We intend to seek answers to these questions in our next survey on the attitudes and beliefs of Bulgarians regarding COVID-19; the study is planned for the year 2022.

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