Chapter 8

Changes in Behaviour Induced by COVID-19: Obedience to the Introduced Measures

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Abstract The pandemic of COVID-19 that has plagued our planet since the beginning of 2020, has disrupted the way of life of society in general. As in other pandemics suffered throughout history, isolation has been a crucial measure to avoid contagion, causing effects beyond health, in many areas of life. How society obtains economic resources, spends them, enjoys leisure, or simply interacts, is now different. The political and economic context has changed, freedom of movements and expectations are also different. All this generates changes in the behaviour of society that does not react uniformly in all countries. This chapter reviews some of the modifications in behaviour caused by the present circumstances, as what will happen in future pandemics is not predictable for sure. The emphasis is placed on obedience observed in different contexts to imposed restrictions. Homes have become workplaces, consumption patterns have changed, and the derived effects are not always beneficial or distributed equally across the social strata.

8.1 Introduction: Pandemics and Isolation

Since human beings created nuclei of coexistence, diseases have been present. The first pandemics began to be documented when the disease spread and affected various regions of the planet. Several key characteristics must be considered to define what is considered a pandemic according to Morens et al. (2009), such as geographic extension, disease movement, high attack rates, minimal population immunity, novelty, infectiousness, contagiousness, and severity. Pandemics have transformed the societies in which they appeared and have decisively influenced the course of history. During the development of pandemics such as the bubonic plague, the death toll exceeded the number of the living. With the fields unworked, the crops rotted, there was a shortage of agricultural products, monopolised by those who could afford them. Prices rose, and so did penalties for the less well off. Historians agree to point

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out also positive economic and social effects for survivors that do not mitigate or compensate for the initial economic and social devastation and loss of life. In the case of the bubonic plague, abundant land, higher wages due to the drop in the supply of work, more job opportunities for women in guilds that had previously vetoed them. Neither in the past nor our days the effects of epidemics are not evenly distributed in the economy. Some sectors benefit from the exceptional demand for certain goods and services, while others suffer disproportionately. Inequality is also reflected in disease and mortality: in countries with lack public universal health care systems, the level of income may be decisive.

Apart from the fact that once infected, the worst economically situated citizens (and therefore with less probability of access to health coverage) have a higher risk of dying, COVID-19 does not hit the poorest population with more virulence as has happened with other pandemics in history. The most vulnerable groups in the face of infection are the elderly, and therefore a fall in labour supply or productivity is not expected as a consequence of the costs in terms of human lives. But it is the very efforts to stop the spread of the virus that have contributed to a dramatic slowdown of the global economy, which may affect the worst economically situated to a greater extent, either in terms of the impossibility of confinement, loss of employment, or difficulty to re-join the labour market.

As stated by the ILO¹ the crisis has had a different impact on enterprises, on workers, and on their families, though in each case deepening already existing disparities. Special attention needs to be given to the following groups: women, informal economy workers, young workers, older workers, refugees, and migrant workers, micro-entrepreneurs, and the self-employed. The greater impact of the crisis on workers and micro-enterprises already in a vulnerable situation in the labour market could well exacerbate existing-working poverty and inequalities. OXFAM² concludes on the same line, stating that “The coronavirus pandemic has exposed, fed off and exacerbated existing inequalities of wealth, gender and race. This crisis has laid bare the problems with our flawed global economic system and other forms of structural oppression that see a wealthy few thrive, while people in poverty, many women, Black people, Afro-descendants, Indigenous Peoples, and historically marginalized and oppressed communities around the world, struggle to survive”. Laborde et al. (2020) estimate that globally, absent interventions, over 140 million people could fall into extreme poverty due to COVID, an increase of 20% from present levels.

Throughout history, humanity has faced numerous pandemics that have generated mortality figures even higher than those caused by COVID-19 that we suffer today. The Antonine plague between 165 and 180 A.D. caused the death of five million people. Four centuries later, the Justinian plague (first bubonic plague) claimed between 30 and 50 million lives in a single year. It is estimated that the Black Death (second bubonic plague) in the mid-fourteenth century killed 200 million people, being

¹ https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_745337.pdf.

² <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/621149/bp-theinequality-virus-250121-en.pdf>.

the deadliest pandemic known, and to have killed between 30 and 60% of Europe's population. Smallpox caused 56 million dead in 1520. Cocoliztli epidemic between 1545–1548 was a form of viral haemorrhagic fever that killed 15 million inhabitants of Mexico and Central America. Six cholera outbreaks have killed a million people between the 19th and 20th centuries. The Spanish flu was the deadliest virus of the 20th century, causing between 40 and 50 million deaths, while HIV has produced a death toll of 35 million since 1981.

In recent times, and before the emergence of COVID-19 pandemic, the SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) epidemics were experienced, although the impact on the population were of a much smaller nature. The SARS epidemic originated in 2002 in China, spread to 26 countries, but the number of cases reached a total of 8,098 and 774 people lost their lives. From 2012 to 2019, the total number of laboratory-confirmed MERS infection cases that were reported to WHO globally was 2,468, of which 851 were fatal. China was slow to warn of the emergence of the new SARS pathogen. Although the first case was declared in November 2002, WHO was only informed in February 2003. There was also no special transparency with the numbers of infections, deaths and spread of the new virus, which by March 2003 had already been present in Hong Kong, Vietnam, Canada and Singapore. Once the Chinese government changed its policy, it developed an impressive control strategy involving the public which culminated in containment as reported by Ahmad et al. (2009).

Having a significant number of lives lost and a high mortality rate in both cases, past situations could not predict an incidence of the magnitude reached with COVID-19, a pandemic that, until the first month of 2021, has infected more than 95 million people and caused the death of 2 million worldwide. Comparing the three coronaviruses, the one that causes COVID-19 is the least lethal, but the one that is transmitted more easily, and also the one in which patients do not present symptoms before they become contagious.

The quarantine, a measure that has been applied for centuries, also constitutes today a strategy to fight pandemics. The first sanitary cordon in history closed the ports of Genoa and Venice in the fourteenth century in which 10 days of observation were imposed. The origin of the quarantine dates from 1383 in Marseille. In the 18th century, all of Prussia was isolated for six consecutive weeks, and when the plague reached Greece, its neighbouring states were isolated for five weeks. In 1722, a military cordon separated Paris. And the threat of cholera isolated Russia between 1829 and 1832, establishing the death penalty if the border was crossed. In 1576 Milan was declared in quarantine because of the plague, and a single male member of each family could go out to buy food once a day. The so-called Spanish flu spread between 1918 and 1919 and despite its rapid expansion, isolation measures were not taken in all places. In the USA, the example of two opposing decisions led to very different results: St. Louis urged its population to remain confined, while in Philadelphia the activity was maintained, suffering a mortality eight times higher than that of St. Louis. Opting for isolation or quarantine has always been a decision of great importance given the social need to prevent contagion. The isolation is actually a strategy and a way of life adopted by diverse indigenous peoples who, when they were

related to external agents in the past, suffered massive deaths due to the contagion of unknown diseases against which his immune system had not developed adequate defences. This epidemiological behaviour is decisive in the prevention of contagion in pandemics, although the most vulnerable groups cannot always comply with it due to the need to continue the work activity that guarantees livelihood.

As Tognotti (2013) points out, quarantine has been an effective way of controlling communicable disease outbreaks for centuries, although it has always been debated, perceived as intrusive, and accompanied at all times and under all political regimes by a current of suspicion, mistrust and riots. The historical perspective helps with understanding the extent to which panic, connected with social stigma and prejudice, frustrated public health efforts to control the spread of disease. Measures involving isolation require vigilant attention to avoid causing prejudice and intolerance. Public trust must be earned through regular, transparent communications that weigh the risks and benefits of public health interventions. If public health measures in the fight against pandemics imply restriction of freedoms and are not applied from a public power in which the citizens' trust, they may be frustrated.

This chapter shows evidence of how the COVID-19 pandemic has changed everyday life behaviours. After this introduction, the second section reviews the factors that explain the acceptance and compliance with the rules imposed to stop contagion. The third section studies the changes related to consumption, bad habits, teleworking and family relationships. The fourth section concludes.

8.2 Obedience to the Introduced Rules After COVID-19 Across Countries

In this section, research and reports from different countries are reviewed analysing what has been the response and the degree of acceptance or compliance of citizens with the government measures to stop the COVID-19 pandemic. These acceptance and compliance depend on the particular characteristics of the citizens, the values of the society in which they are inserted, the toughness and confidence in their effectiveness, as well as the trust in the governments that impose them.

8.2.1 Citizens' Demographic Characteristics

Clark et al. (2020) discovered from a large international sample, the importance of believing that taking health precautions will be effective for avoiding COVID-19 and prioritizing one's health, as predictors of voluntary compliance behaviours. In contrast, age, perceived vulnerability to COVID-19, and perceived disruptiveness of catching COVID-19 were not found significant predictors of health behaviours. Better information might increase voluntary compliance with government rules and

recommendations but warning individuals about their vulnerability, providing details about the inconvenience of getting COVID-19, might not.

Roman et al. (2020) rely on the idea that the mass media often reproduce those meanings that obey the dominant interests. Using a questionnaire from different regions in Spain they conclude that gender and age are determining variables in the legitimization and implementation of social control between peers and that there is also a relationship between the way people perceive the role of media and their predisposition to abide by and exercise social norms and control. Women answered more affirmatively than men that the confinement was necessary and that the act of recriminating inappropriate behaviour of the population was beneficial in fighting the pandemic. Higher percentages were found in central age groups (26–55 years) with regard to the perception of social norms. Young people present predictive behaviours of risk because they perceive social norms in a more flexible way. Focused on the obedience during the first 10 days of confinement in Spain, Tabernero et al. (2020) analyse the relationship among personal social values, self-efficacy for self-protection, and the management of social isolation and beliefs in collective efficacy with the development of certain specific behaviours. They show that maintaining beliefs both in an individual capacity and in the ability of the community to carry out actions that protect us from the virus exerts a direct positive influence on the development of protective behaviours. Also, they conclude that Spanish citizens have greater confidence in their own abilities to develop behaviours that help curb the virus than the confidence they place in others. The variable of risk information seeking plays an important role in explaining behaviour, because as citizens become more informed, they develop a greater number of normative physical distancing behaviours.

Drawing on individual panel data from France, Briscese et al. (2020) find that some basic sociodemographic characteristics, as well as personality traits, are relevant predictors of compliance with health measures. In particular, age is positively associated with complying and women are more likely to have changed their behaviour compared to men. Education is not associated with public compliance, and conscientiousness is positively associated with having changed behaviour in line with the recommendations. Extraversion is negatively associated with having changed one's daily behaviours in the light of the pandemic. When considering ideology, the results indicate that ideological extremity is associated with reduced adherence to public health recommendations, and compliance increases when moving from the left to the right end of the ideology scale. They find also strong empirical confirmation over the association between fear and compliance, which is consistent with the study by Harper et al. (2020). Based on a large international community sample to complete measures of self-perceived risk of contracting COVID-19, fear of the virus, moral foundations, political orientation, and behaviour change in response to the pandemic, they found that the only predictor of positive behaviour change (e.g., social distancing, improved hand hygiene) was fear of COVID-19.

Focused on the effect of age, Daoust (2020) uses a survey regarding global insights on citizens' perceptions and responses to the COVID-19 pandemic across 27 countries and concludes that elderly people—even being the most vulnerable population—are not systematically more responsive in terms of prospective self-isolation and

willingness to isolate. Moreover, they are not more disciplined in terms of compliance with preventive measures, especially wearing a face mask when outside their home, which is surprising and quite troubling.

8.2.1.1 Trust in Government, Media and Health System

The conditions under which the COVID-19 pandemic will lead either to adherence to measures put in place by authorities to control the pandemic or to resistance and the emergence of open could be explained by three factors (Reicher and Stott 2020): the historical context of state-public relations, the nature of leadership during the pandemic, and procedural justice in the development and operation of these measures.

The unprecedented confinement situation offers an opportunity to analyse behaviour in such circumstances. Sibley et al. (2020) investigate the immediate effects of a nationwide lockdown by comparing matched samples of New Zealanders assessed before and during the first 18 days of lockdown. The study found that people in the pandemic/lockdown group reported higher trust in science, politicians, and police, higher levels of patriotism, and higher rates of mental distress compared to people in the pre-lockdown pre-pandemic group. Results were confirmed in within-subjects' analyses. The study highlights social connectedness, resilience, and vulnerability in the face of adversity.

The Spanish Government imposed a lockdown of more than three months, that was applied employing six fifteen-day extensions due to the high death rates achieved. As the confinements are prolonged, their enforcement becomes more difficult. The Spanish Sociological Research Centre conducted a survey asking 4,258 respondents about their rating of the response to the situation and their ability to cope with further extensions of the state of emergency. Fernandez-Prados et al. (2020) found that three out of every four Spaniards would cope with extensions of self-isolation at home. The variable of political inclination shows explanatory power in the responses: 40.6% of people with political leanings to the right would not face an extension of the blockade, while 87% of respondents with left leanings could face new extensions to the confinement. The communication strategy, both of leadership and of political measures, seems to be important in fostering social resilience. Other socio-economic characteristics allow tracing the average profile of the citizen most resilient or willing to cope with the prolongation of the state of emergency and lockdown: a woman over 60 years old, living in a town of fewer than 10,000 inhabitants, with a primary level of education, low social class, left-wing political leanings and no religious beliefs.

Van Rooij et al. (2020) attempt to identify the reasons why Americans come to comply with the stay-at-home and social distancing measures using data from an online survey, conducted on April 3, 2020, of 570 participants from 35 states. Their results show that while perceptual deterrence was not associated with compliance, people comply less when they fear the authorities. Instead, compliance operated through two broad processes. First, compliance is shaped by people's capacity to obey the measures, their self-control, and their lack of opportunity to violate. As

such, part of compliance is not shaped by people's choice, but rather by their personal abilities and the context in which they lived. And second, compliance is shaped by people's intrinsic motivations, which determined the choices they could make, including substantive moral support, and social norms.

Al-Hasan et al. (2020) compare the responses of 482 citizens from the United States, Kuwait, and South Korea, and they underline the fundamental role of the government when adhering to measures to control the pandemic. Governments need to enhance their efforts on publicizing information on the pandemic, as well as employ strategies for improved communication management to citizens through social media as well as mainstream information sources. Their work uses web-based survey data in May 2020, and the results suggest that overall, perception of government response efforts positively influenced self-adherence and others' adherence to social distancing and sheltering, with some differences across countries, broadly the United States and Kuwait had better effects than South Korea.

Compliance with regulations may be tormented by the influence of the media. Simonov et al. (2020) found for the USA that a tenth increase in Fox News cable viewership ends up in a 1.3 decimal point reduction within the propensity to stay-at-home, while they fail to seek out conclusive effects of CNN viewership on social distancing. Given that Fox News Channel has been widely described as providing biased reporting in favour of conservative political positions, arises the question of whether journalism broadcasts directly influence viewer beliefs or merely function a platform to push the beliefs of political candidates

Misinformation can become a double-edged sword, as shown by Hameleers et al. (2020). Using the responses from the US, UK, Netherlands, and Germany—which experienced relatively high levels of misinformation and disinformation—they conclude that those citizens who experienced misinformation and were willing to seek further information were also more compliant with official guidelines. On the other hand, those individuals perceiving more disinformation and less willing to seek additional information were less compliant.

Briscese et al. (2020) test whether and how intentions to comply with social-isolation restrictions respond to the duration of their possible extension in Italy at three critical points in the COVID-19 pandemic. Italians reported being more likely to reduce, and less likely to increase, their self-isolation effort if negatively surprised by a given hypothetical extension, whereas positive surprises had no impact.

Referring to 38 Eurasian countries, Chan et al. (2020) carry out a study that tries to determine to what extent trust in the health system influences behaviour in response to the crisis. They conclude that societies with low levels of health care confidence initially exhibit a faster response concerning staying home, a reaction that plateaus sooner, and declines with greater magnitude than does the response from societies with high health care confidence. What is more interesting is that they verify that trust in the government prevails over the health system in behavioural decisions, as regions with high trust in the government but low confidence in the health care system dramatically reduces their mobility.

Confinement and restrictions maintained for a long period can lead to non-compliance, not because of the irresponsibility of the population, but because of

the inability to work from home. Many Latin American and Caribbean governments implemented stringent lockdown measures, hoping to curb the spread. Despite this, the virus has hit these Latin American Countries. Following the OxCGRT,³ 14 countries have been under stringent stay-at-home orders for over 150 days. As stated by UNDP,⁴ “while initial compliance was high, the amount of time that people spend at home has been on a downward trend in all countries. In some cases, this corresponds with a less stringent stay-at-home orders (i.e. Aruba, Barbados, Trinidad and Tobago, Uruguay). However, in other cases, people have started to spend less time at home despite the fact that “stay-at-home” orders have remained equally strict (i.e. Bolivia, Brazil Colombia, Ecuador, Honduras, Jamaica, Mexico, Peru). Moreover, it’s not always clear in which direction the policy change and behaviour change influence one another. For example, in some countries, people started staying at home before strict measures were put in place (i.e. Belize, Costa Rica, Mexico); whereas in others this change in behaviour seems to have taken place after the measures were put in place (i.e. Honduras, Peru, Venezuela). The converse may also be true in terms of easing restrictions—for example, less stringent policies in some countries were instituted in the wake of already declining compliance (i.e. Aruba, Barbados, Belize)”.

8.2.2 *Cultural Tradition*

In addition to analysing compliance with the restrictions imposed by governments, cases can be offered in which the responsibility and good work of the population are trusted. Japan, with a population of more than 120 million inhabitants, and a density greater than 330 inhabitants per square kilometre, shows relatively low numbers of infected and deceased (258,000 and 3,800 respectively in the first days of January 2021). One possible explanation would be that Japanese culture is inherently suited for social distancing, and many Japanese wear face masks in the winter to avoid transmission of respiratory infections. Besides, the country has not imposed confinement and the obligation to close a business as in other countries. Japan avoided harsh measures, instead of issuing official requests for self-restraint and voluntary business closures. Japan has taken advantage of the concept of “seken” the power of peer pressure which reflects a particular power dynamic and order that appears whenever Japanese people gather in a group.

A case similar to that of Japan, and also atypical compared to its neighbouring countries is the Swedish. Sweden has taken a lighter-than-most approach to social distancing for COVID-19, relying on people to monitor themselves for symptoms, stay home when ill, practice good handwashing, and avoid crowds. This strategy

³ The Oxford Coronavirus Government Response Tracker (<https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>).

⁴ See <https://www.latinamerica.undp.org/content/rblac/en/home/presscenter/director-sgraph-for-thought/home-alone---sustaining-compliance-with-prolonged-covid-19-stay-.html>.

has been designed by Anders Tegnell, an epidemiologist at Sweden's Public Health Agency, who has not been exempt from criticism.

The anticipated response of the population to the most severe or lax guidelines, conditioned by cultural traditions, has not gone unnoticed as a determining element of the policies to combat the pandemic. Yan et al. (2020) combine two basic dimensions (centralisation of government and national cultural orientation) to analyse the different strategies adopted by governments in the fight against the spread of the virus in Japan, Sweden, China and France. These four countries are chosen as stereotypes representing fundamental differences in institutional arrangements and cultural values. Sweden is a country with a more decentralised regime and looser culture, whereas China has a more centralized regime and tighter culture. On the other opposing pair, France exhibits a more centralized regime but looser culture, and Japan with a more decentralized regime but tighter culture. They conclude that there is no one-size-fit-all strategy that can be used to combat COVID-19 on a global scale. This confirms that despite COVID-19 spreads worldwide, the strategies to defeat it cannot be designed outside of cultural values and political organisation.

In addition to checking the empirical evidence on behaviours, it is possible to delve into the determinants of compliance with the rules using experiments. Fischer et al. (2020) process the information provided by 3,102 individuals to show how to achieve enhanced adherence to health regulations without coercion. The participants were people residing in 77 different countries. They were asked to adhere to constraining behaviours, such as staying at home, keeping social distance, repeatedly washing hands and avoiding meeting seniors. These constraints restrict the personal freedom, but generate health benefits for both the individual and the entire population. This scenario can be modelled as a Chicken game (that motivates the players to cooperate, even when assuming the opponent does not). They find "that a cluster of short interventions, such as elaboration on possible consequences, induction of cognitive dissonance, addressing next of kin and similar others and receiving advice following severity judgements, improve individuals' health-preserving attitudes".

8.3 Behavioural Changes Due to COVID-19

The invisible threat of COVID-19 has generated fear and mistrust towards people and places that were traditionally considered safe. The isolation and distancing measures established to combat this threat have influenced elements such as work and consumption, with the consequent economic impact. The perception and form of consumption have also changed, as well as other more subjective issues, for example, the conception of the home, concern for health, trust in authority, prioritisation of the family. Citizens do not occupy their time in the same way, neither those who work nor those who study. Responsibilities for training and obtaining financial resources have shifted from schools and usual places of work to the home. Teleworking and distance training have spread throughout the world. This new situation that implies staying at home longer, maybe accompanied by adverse effects, as coexistence problems, and a

shift in some demands towards an increase in harmful habits. The following section describes how the COVID-19 pandemic has been able to influence these changes.

8.3.1 *Consumption Patterns*

Consumption habits have been modified in the world as a result of the pandemic and the subsequent mobility limitations imposed. Some essential products are still in demand, while those related to leisure have experienced notable changes, and prospects indicate declines in consumption. The products consumed have changed because needs are different, but also the way of consuming, much more biased towards buying online. Without being exhaustive, some examples can help raise awareness of the magnitude of the change. In October 2020, online traffic in the supermarket segment increased by 34.8% compared to the reference period in January 2020. Online visits in the tourism sector decreased by 43.7% during the same period, as fashion decreases 10.3%.⁵ The UN World Tourism Organization estimates a loss of US\$300–450 billion in international tourism receipts.

People are staying at home much more going forward, and telecommuting will presumably continue, which implies more home-linked consumption. Even when restrictions are relaxed, it is foreseeable that leisure, travel and restaurant consumption will not reach pre-pandemic levels immediately. On the other hand, consumers have less disposable income due to the effect of unemployment, which will reinforce the option of staying at home and will condition that many of the changes in consumption are lasting over time.

McKinsey & Company (2020a) conducts a study focused on 13 core countries, selected because of their economic significance and the impact that COVID-19 has had on their populations. Following the results, consumers in China, India, and Indonesia consistently report higher optimism than the rest of the world, while those in Europe and Japan remain less optimistic about their countries' economic conditions after COVID-19. Except for Italy, optimism has declined throughout European countries. China appears as the only exception to a global pattern of reducing holiday spending. McKinsey & Company (2020b) shows that some consumption trends that had been taking place in the past have been accelerated by the pandemic. For instance, online delivery has grown the same in eight weeks as in the previous ten years, or online entertainment, in five months the same as the previous seven years. Some changes are probably temporary as the reduction in international travel and increase in domestic tourism, but the reduction in discretionary spending, the trading down and price sensitivity seem more enduring behaviours. In terms of the shake-up of preferences, the reduction in on-the-go consumption and the trends of larger baskets and less frequency of purchase could be a temporary behaviour, while the preference for health and hygiene products seems a permanent trend.

⁵ <https://www.statista.com/statistics/1105486/coronavirus-traffic-impact-industry/>.

Parady et al. (2020) distinguish three periods (before the spread, after the spread and before the emergency declaration, and after spread and after emergency declaration) for analysing the decrease in frequency for most activities in Japan. They observe a rebound in shopping activities after the emergency declaration, which would corroborate that the changes in consumption patterns would not be permanent. For activities like such as eating-out and leisure, the reductions in frequency persisted after the emergency declaration. Changes in these patterns cannot be just explained from the consumer side. They are also a result of changes in the supply side which in turn are imposed or suggested by governments. No closure obligations were imposed in Japan, but many eating-out and leisure establishments closed down or shortened their business in contrast to most shopping facilities which provided more essentials services.

In a study focused on 16 American cities, Yilmazkuday (2020) concludes that consumption carried out within the home (grocery, pharmacy, home maintenance) has increased by 56%, while that carried out outside the home (fuel, transportation, personal care services, restaurants) has decreased up to 51%. Online shopping has relatively increased up to 21%, while its expenditure share has relatively increased by up to 16% compared to the pre-COVID-19 period.

Using data on household financial transactions, Baker et al. (2020) illustrate the short-term responses of Americans' spending to the increase in COVID cases. They also analyse the responses to the policies implemented by municipal governments, such as confinement. Household spending was radically altered by these events across a wide range of categories, and the strength of the response depended in part on the severity of the outbreak in the state. Demographic characteristics such as age and family structure led to higher levels of heterogeneity in spending responses to COVID-19, while income did not. Furthermore, regardless of the political orientation, an increase in spending before the epidemic was observed and, at the same time, there were some differences in the political orientation in some categories, indicative of differential beliefs or risk exposure.

8.3.2 *Unhealthy Consumption Habits*

The confinement situation may have generated changes in unhealthy consumption habits, such as alcohol, tobacco or drugs. Vanderbruggen et al. (2020) use a web-based for Belgium where respondents reported consuming slightly more alcohol and smoking marginally more cigarettes than before the COVID-19 pandemic, while no significant changes in the consumption of cannabis were noted. The reasons for consuming more of the various substance were boredom, lack of social contacts, loss of daily structure, reward after a hard-working day, loneliness, and conviviality. Koopmann et al. (2020) confirm that during the COVID-19 pandemic the total revenue in alcoholic beverages in the German population increased significantly by 6.1% compared to the mean of corresponding weeks in the past year. As it remained unclear, whether this was due to stockpiling, or reflected real changes in alcohol drinking

behaviour, they obtained responses via an anonymous online survey. A survey conducted for the Polish population (Szajnoga et al. 2020) found that the vast majority of respondents reduced the frequency of consumption of all types of alcohol. However, particular groups are more vulnerable to alcohol misuse: higher frequency of alcohol consumption lockdown was most often found in the group of men, people aged 18–24 years, inhabitants of big cities, and remote workers. Contrary to the previous references, Callinan et al. (2020) find a decrease in harmful alcohol consumption for Australia compared to the pre-pandemic period. This effect is observed in young adults in particular and explained by the closure of licensed premises, but there is no reason to assume that these decreases will not reverse when licensed premises re-open.

The modification of routines during confinement has also affected eating habits. Ruíz-Roso et al. (2020) describe how the COVID-19 pandemic has modified dietary trends of adolescents from Spain, Italy, Brazil, Colombia, and Chile. They conclude that “Due to confinement, it appears that families had more time to cook and improve eating habits by increasing legume, fruit, and vegetable intake, even though this did not increase the overall diet quality. Further, adolescents also exhibited a higher sweet food consumption, likely due to boredom and stress produced by COVID-19 confinement”.

Attempts to project the longer-term impacts of the current pandemic depend on the extent to which changes in patterns become permanent once normality is restored. Not much is known about the long-term mental and physical health effects of lockdown and limitation of mobility, but the situation has led to adopt or reinforce unhealthy behaviours (physical activity decrease, sedentary behaviour increase, unhealthy nutritional habits). There is also a surge of addictive behaviours (implying substance use disorders) both new and relapse in this period. Depending on the addictive component of the behaviours which can be modelled even in rational terms (Becker and Murphy 1988), changes in current habits can pose a health problem in the long term.

8.3.3 *Teleworking*

Before the COVID-19 outbreak, just 15% of the employed in the EU had ever teleworked, since then, working from home has been the way to continue the activity for many workers. According to Eurofound (2020), almost 40% of those currently working in the EU began to telework full-time as a result of the pandemic. Telework is structurally more widespread in countries with larger shares of employment in knowledge and ICT-intensive services. The presence of teleworking will be conditioned by the rate of self-employment, flexibility, supervisory styles, and the organisation of work, which vary across countries. Espinoza and Reznikova (2020) find that while 30% of workers could telework across the OECD, the likelihood decreases for workers without tertiary education and with lower levels of numeracy and literacy. They also find that while an average of 56% of OECD workers in the top 20% of the income

distribution can telework, the share stands at only 14% for those in the bottom 20%. López-Igual and Rodríguez-Modroño (2020) confirm that the most significant determinants of telework are still self-employment, a higher educational level, while other factors (age, living in urban areas, higher status, and better working conditions) are losing. The maintenance or extension of telework in the future will depend to a large extent on productivity under this work organisation. The evidence in the EU suggests that in normal times telework can sustain, or even enhance workers while enjoying a better work-life balance. Under the current exceptional circumstances, productivity and/or working conditions may be deteriorating due to, lack of childcare, unsuitable working spaces and ICT tools. The potential costs associated with teleworking such as loss of productivity, job quality, workers' work-life balance and mental health, may not affect family workers in the same way, depending on the distribution of household tasks that is established (Feng and Savani 2020). The reconciliation of teleworking with family life and dedication to children is one of the main difficulties encountered across countries, even in Portugal, where Tavares et al. (2020) check an easy and very quick adaptation to teleworking. Katsabian (2020) points out that telework has converted homes in hybrids spaces of work. Because of its hybrid nature, it reproduces in the labour market the gendered traditional roles within the family domain along with socioeconomic disparities among households concerning access to technology and technological skills.

8.3.4 Gender and Family Violence

At the same time that the value of the family is recognised in a circumstance of illness and risk of losing it, the “compulsory” coexistence for longer than usual can unleash situations of violence at home. The confinement during the pandemic can exacerbate the problem of domestic violence. Family members spend more time living together, economic instability makes tension and stress more acute, and isolation places victims in a more vulnerable position. The efforts to contain the virus are vital to protect global health, but expose women, children and adolescents to an increased risk of family violence. The rise in reports of domestic abuse and family violence have increased around the world since social isolation and quarantine measures came into force: 300% in China, 50% in Brazil, 30% in Cyprus, France, and New Zealand, 25% in the United Kingdom (UK), and 20% in Spain (Noman et al. 2021). Usher et al. (2020) also review the evidence in an intimate partner, women, and children violence due to isolation and quarantine in different countries, and highlights that France began commissioning hotels as shelters for those fleeing abuse. This strategy was followed also by the Italian government given the increasing number of people fleeing abusive situations. Boxall et al. (2020) provide evidence of onset of the frequency or severity of physical or sexual violence or coercive control for many women in Australia. Silverio-Murillo et al. (2020) show empirical evidence for Mexico City, during the lockdown: while official domestic violence crime reports decline, within-household violence continues during the pandemic. To reconcile this apparent

contradiction, several causes are investigated, as the fact that confinement of victims with their perpetrators prevents reporting, the changes in bargaining power within the household, the alcohol consumption, or fear to be infected during reporting.

8.4 Discussion and Conclusions

Throughout history, humanity has faced numerous pandemics that have caused mortality figures even higher than those generated by COVID-19 that we suffer today. Although quarantine has been an effective way of controlling communicable disease outbreaks for centuries, it has always been debated, perceived as intrusive, and accompanied at all times and under all political regimes by a current of suspicion, mistrust and riots. When public health measures in the fight against pandemics imply restriction of freedoms and are not applied from a public power in which the citizens' trust, they may be frustrated. The acceptance and compliance of measures to stop the pandemic depend on the particular characteristics of the citizens, the values of the society in which they are inserted, the toughness and confidence in their effectiveness, as well as the trust in the governments that impose them.

The literature review that covers a large number of countries and cultures, has shown different determinants for explaining compliance and adherence with the measures that governments have taken to appease the virus have been found. The explanatory factors are studied both from the point of view of those who dictate the measures (governments) and those who receive them (citizenship). Concerning citizens, several characteristics appear to be explicative, including the perception of own vulnerability, fear of the virus, age, gender, size of the city of residence, level of education, social class, political leaning or moral and religious beliefs. Focusing on the characteristics and feelings towards those who dictate or enforce the rules, some circumstances seem relevant, such as being a feared authority, efforts on publicising information or trust in government. Besides, there are other determinants of context, such as the influence of the media, duration of confinements, opportunity to violate the rules, trust in the health system, power of peer pressure, institutional arrangements or cultural values.

How action measures are dictated to protect individuals from the pandemic is relevant to the way citizens respond. Imposing is not always more effective than informing. Planning, anticipating the duration of the measures and being transparent with the public can be more effective than it seems. There is no one-size-fit-all strategy that can be used to combat COVID-19 on a global scale, and the strategies to defeat it cannot be designed outside of cultural values, political organisation, or citizenship's characteristics.

The pandemic COVID-19 has generated fear and mistrust towards people and places that were traditionally considered safe. The isolation and distancing measures established to combat this threat have influenced elements such as work and consumption, with the consequent economic impact. The products consumed have changed because needs are different, with increases in products consumed within

the home (grocery, pharmacy, home maintenance) and decrease in those carried out outside the home (fuel, transportation, personal care services, restaurants). The way of consuming is now much more biased towards buying online: online delivery has grown the same in eight weeks as in the previous ten years, or online entertainment, in five months the same as the previous seven years. Some changes are probably temporary as the reduction in international travel and increase in domestic tourism, but the reduction in discretionary spending, the trading down and price sensitivity seem more enduring behaviours. The new situation that forces people to stay longer at home, and the psychological effects created by confinement, may also lead to increases in the consumption of harmful goods, or damage eating habits, which has been proven to occur in some contexts.

Teleworking, spread throughout the world, has also been a way to reveal inequalities: it is the richest countries with the most advanced technologies that used more telework even before the pandemic, so they have been better able to adapt to the situation. The most significant determinants of telework are self-employment, a higher educational level, and non-manual occupations, which once again places the most disadvantaged workers in a worse situation by being forced to face-to-face work. The maintenance or extension of telework in the future will depend to a large extent on productivity under this work organisation. In normal times telework can sustain, or even enhance workers while enjoying a better work-life balance. Under the current exceptional circumstances, productivity and/or working conditions may be deteriorating due to, lack of childcare, unsuitable working spaces and ICT tools.

The circumstances that accompany periods of confinement during the pandemic can exacerbate the problem of domestic violence. Family members spend more time living together, economic instability makes tension and stress more acute, and isolation places victims in a more vulnerable position. There is evidence of a rise in reports of domestic abuse and family violence around the world since social isolation and quarantine measures came into force.

The fight against a pandemic represents a challenge for governments of uncommon magnitude. The new rules established by governments imply restriction of freedoms, and the acceptance of them depends a lot on the social, cultural, political and personal context. Distancing and staying at home have emerged as key elements in slowing the spread of the virus. Getting citizens to comply with these mandates can be difficult, and communication strategies, transparency of information and adaptation to the particular characteristics are essential for success. Although the problem is global, the countries are different, and for this reason it is not possible to find one-size-fit-all strategy that can be used to combat COVID-19 in any situation. This confirms that despite the virus spreads worldwide, the strategies to defeat it cannot be designed outside of cultural values and political organisation.

The scale, intensity, and speed of the interventions against the pandemic have diverged across territories. Many Asian countries promptly did extensive testing (not only on symptomatic), tracing and isolating (at institutions rather than at home), and surveillance systems were strengthened. These measures have been adopted much less quickly in Europe (Han et al. 2020). The use of masks was also much more widespread in Asia than in Europe and was adopted almost immediately in a massive

way. Previous SARS and MERS epidemics have also prepared Asian health systems much better to fight a pandemic, while in Europe austerity policies have weakened public health infrastructure. Asian citizens are more predisposed to confront and cooperate with measures that restrict freedom than Europeans. The experience of past epidemics has made them aware of the convenience of renouncing individual freedoms for the benefit of the community. Experiences can certainly serve as learning for the future, as they have been for Asia, but it is difficult to know if this process of compliance by the population, preparation of the health system, and anticipation of governments will be applicable to other countries. Having gone through the same experience previously is not the only explanatory factor: economic, cultural and social issues will be decisive in the learning process.

The costs in terms of human lives, health and the economy are immeasurable quantitatively and qualitatively, but the pandemic has generated a new way of life based on distance and isolation that generates derived effects in many other areas. For this reason, the current challenges of governments are focused on dictating adequate measures and trying to enforce them, but future challenges are completely unpredictable.

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