
The First Wave Covid-19, the European Union and Psychosocial Effects: A Literature Review¹

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The aim of this study is to review and synthesize the existing literature documenting the psychosocial effects on the general population in member states of the European Union (EU) after the first wave of the Covid-19 pandemic. The methodology followed included the review of research papers, which were collected through the online databases PubMed, Google Scholar, Medline, Academia and ResearchGate about the psychosocial effects of the Covid-19 pandemic on the general population after the first wave (July 2020). These effects appear to be: anxiety, fear, psychosomatic symptoms, sleep disturbances, depressive symptoms, suicidal tendencies, obsessive-compulsive symptoms, post-traumatic stress disorder, stigmatization, abandonment and isolation. The assessments of the Covid-19 pandemic have demonstrated the need for interventions focused on the individual and his/her specificities, as well as on his/her interaction with the wider social context in which he/she is embedded; this will contribute to a more effective response.

Keywords: Covid-19, psychosocial effects, infectious disease, pandemic.

Introduction

Sars-cov-2 (Severe Acute Respiratory Syndrome-Corona Virus-2) is the coronavirus responsible for COVID-19. The first case of Covid-19 was detected in the city of Wuhan, capital of Hubei Province in central China, on 1st December 2019 and rapidly spread globally in January 2020, causing upheaval worldwide and eventually becoming a pandemic. A key feature of this pandemic is the challenge of a new reality that humanity has been called upon to face. The emergence of infectious diseases, such as the Covid-19, often has a major psychological and social impact on the general population.

The Covid-19 virus threatens the health and safe living of people globally and its impact appears to be diverse and multidimensional (Pardo and Prato 2022). Governments in all countries have been required to take restrictive measures to prevent its spread. However, the long lockdown periods have caused an increase in physical and psychological problems in the population. The main features of this new reality caused by the pandemic in the current situation are fear and uncertainty about health, economic hardship and social disruption. Compared to others, this virus is not characterised by a particularly high mortality rate but its ability to spread rapidly intensifies fear and uncertainty (Last 2001).

It is noteworthy that throughout human history pandemics have defined the existence of entire societies, influenced the outcomes of wars and wiped out population groups. At the same time, they seem to have accelerated progress in the field of health, and more broadly, on the social and economic level (Huremović 2019). The spread of Covid-19 viral infections seems to have created conditions that worsen existing mental health problems, as well as creating new ones, causing adverse conditions in the general population, which play a decisive role in the development of anxiety, uncertainty, depression and fear. The restrictive

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measures taken by governments in terms of travel, social gatherings and commercial activities to prevent viral transmission have contributed to a climate of isolation. The disruption of social networks, resulting from the suffocating imposition of restrictions, has affected the psychological state of individuals. Specific population groups, such as the elderly, the disabled and marginalized people have suffered most severely the effects of the suspension of supportive social networks. In addition, restrictions on travel and the suspension of commercial activities have had a negative economic impact, resulting in increased unemployment, reduced income and job losses. The pressures on health systems, the focus on organic problems and the difficulty of accessing supportive social and health networks during the pandemic, have diverted the attention of health professionals away from mental health issues and have contributed to their emergence or exacerbation (Hayat et al. 2021).

The main purpose of the present study is to review and synthesize the existing literature documenting the psychological responses of the general population during the COVID-19 pandemic, focusing on research studies conducted in the general population in member states of the European Union (EU). The methods that we employed included a review of research papers published by the end of the first pandemic wave (July 2020), which were collected through the online databases PubMed, Google Scholar, Medline, Academia and ResearchGate. In researching these databases, we focused on published studies in academic journals, not on reflections or opinions in blogs or webpages. In order to find the literature that meets the scope of this article, we used the following key words: ‘psychosocial effects’, ‘psychological effects’, ‘social effects’, ‘Covid-19 first wave’, ‘general population’, ‘EU member states’; we combined these key words with the name of each EU member state.

This article also aims to review the international literature based on general population surveys in the EU member states in order to gather data that could contribute to design public health strategies and interventions and to prevent and manage situations resulting from the pandemic which are detrimental to the mental health of the general population.

An Assessment of the Social Impact of the Pandemic

The global spread of the pandemic changed significantly the health, social and economic life of 170 countries, caused more than 6 million deaths and infected hundreds of millions of people (WHO 2022). The pandemic revealed several shortcomings of globalization, such as inefficiency of public health investments in industrialized countries, inadequate financial aid to developing countries and inequality of income and wealth in the welfare states. It also highlighted the need for more efficient containment mechanisms based on re-designing rigorous strategies to achieve common and effective responses (Cutler and Summers 2020).

Welfare states were called upon to reduce socio-economic inequalities during the pandemic, yet it is not clear what kind of welfare system can achieve this. As Gøsta Esping-Andersen (1989) pointed out, welfare states do not always produce the greatest equality and the relationship between different welfare state systems and inequality is more complex than one might initially imagine. Thus, the same welfare system, if applied to different

populations, may produce different levels of inequality because it is determined — *inter alia* — by the prevailing demographic conditions (for instance, the proportion of elderly, single parents, immigrants, etc.). However, it has been deemed necessary to develop generous social security systems (Pickett and Wilkinson 2021), as well as plan ethical and equitable strategies and social policies that include care interventions based on high-quality scientific evidence in order to minimize the impact on the most disadvantaged population groups (Cutler and Summers 2020).

Worldwide, the restrictive measures against Covid-19 taken by states have imposed unprecedented stress on social protection systems. Working hours fell by 10.7% globally in the second quarter of 2020, potentially equivalent to 305 million job losses, with workers in precarious, ‘non-standard’ forms of employment severely affected (Spyridakis 2020, Schutter 2021, Pardo and Prato 2022); the female gender is over-represented in the most affected employment categories during the pandemic crisis. In order to cope with the unprecedented economic and social pandemic crisis, governments provided funding schemes to assist workers who had lost their jobs and poor families. Although these measures were extremely important, they had a short-term effect during the implementation of the lockdown or until the economy recovered (Schutter 2021).

Social distancing in medical care and among the elderly appeared to be an effective protective measure in controlling viral transmission (Ladhani et al. 2020, Smith et al. 2020). The information collected on the impact of social isolation on different groups of elderly people was limited; during the pandemic, the elderly were treated as a homogeneous group, while, in fact, they are considerably heterogeneous (Fancourt et al. 2020). Furthermore, the impact of a sedentary lifestyle and lack of regular physical activity among the general population, especially among the middle-aged, has not been sufficiently analysed (Enders et al. 2020). Inadequate data collection has limited the identification of failures and the development of actions aimed at designing and implementing effective social intervention programmes, particularly regarding minority/ethnic groups, socio-educational level and domestic violence (Menezes et al. 2020). In order to design appropriate interventions, it would be important to include aspects which influence the development of the pandemic, such as human behavioral factors, including resistance to compliance with public health recommendations, post-quarantine relaxation, lack of support for vulnerable population groups (Riley et al. 2020).

Some studies have suggested that statistically the increased risk of transmission and the greater likelihood of severe symptoms is significantly associated with ethnicity (Martin et al. 2020, Niedzwiedz et al. 2020). Even among healthcare professionals, black or Asian doctors and nurses seem to have an increased risk of becoming infected and becoming severely ill (Cromer et al. 2020). These views were reinforced by social media, through which false and dubious information was spread, as they replicated the hatred, humiliation and social rejection of minority racial groups. The information was sometimes based on real social conflicts and seemed aimed at promoting xenophobia and creating greater social inequalities. Addressing

racism through the Internet, which is the responsibility of the whole society against stigmatisation, may include highlighting inadequate political representation in public institutions, inadequately addressing their needs and encouraging direct support and follow-up by psychosocial services (Uyheng and Carley 2020).

Social isolation as a measure to cope with Covid-19 pandemic also constitutes a major public health problem that can lead to social crises and to an increase in interpersonal and domestic violence (Mittal and Singh 2020). Economic insecurity and lack of resources, job loss, family burdens and inherent stressors can contribute to increased stress in the family context, increased suicide rates, and increased risk of gender-based violence and child abuse (Lawson et al. 2020, Sidpra et al. 2021). Moreover, research studies have confirmed the increase in hospital admissions due to the physical abuse of minors (Guessoum et al. 2020) and the deterioration of adolescents' mental health during the pandemic (Bryant et al. 2020). Furthermore, several gaps have emerged in the data reported from some countries on care and social intervention, suggesting the need for greater institutional and policy transparency to minimize social and economic costs in future viral challenges.

Review of Studies in the General Population of EU Member States

The main feature of the Covid-19 viral infection is not mortality, but its rapid transmission, via airborne droplets that infect the upper respiratory tract and can persist for hours (Subbarao and Mahanty 2020). The Covid-19 virus also affects organs other than the lungs, such as: the heart, liver, kidneys, gastrointestinal tract, spleen, lymph nodes, skin and placenta in pregnant women, causing microvascular damage (Peiris et al. 2021, Tabary et al. 2020).

According to epidemiological data, the high rate of coronavirus infection was observed to be strongly associated with gender (women), race, weaker socio-economic class — the poor, the unemployed, the migrants, the residents of deprived areas, the mentally ill, and so on — and nationality, due to limited resources and infrastructure. Although the coronavirus has spread indiscriminately, regardless of race, culture and language, it was shown that the response to the pandemic has been ineffective among vulnerable or deprived social groups due to the structural and socio-economic discrimination that takes place on a daily basis (Prato 2020, Pawar 2020). Therefore, in 2020, the WHO recognized the problem stating that the virus is easier to detect if socioeconomic and cultural factors are considered risk factors (Komalsingh and Nässén 2020). However, it should be noted that the statistics provided by the WHO about infections and deaths do not accurately account for the broader picture about the effects of the pandemic in different countries where the authorities have used different methods and strategies for collecting and interpreting the data (see also Prato 2020: 6). This shortcoming in terms of monitoring the real effects of the pandemic has not been appropriately addressed by the WHO and by regional authorities such as the EU.

Several studies have demonstrated the strong impact of the pandemic on the mental well-being of the population, noting that individuals affected by emotional, behavioural and psychiatric disorders tend to outnumber those infected with Covid-19. Specific social groups,

such as health professionals, the elderly, children, students, the homeless, the unemployed, farmers, migrants and the mentally ill, were at increased risk of experiencing psychological problems (Holmes et al. 2020, Khan et al. 2020). The emotional stress caused by the pandemic also triggered pre-existing psychiatric disorders and exacerbated their symptomatology (Yao et al. 2020). It is noteworthy that the Covid-19 pandemic contributed to the stigmatization and discrimination of various population groups, such as health care workers caring for Covid-19 patients, low socioeconomic groups and those with religious and racial particularities, as well as reinforcing the existing stereotypes on certain socioeconomic groups (Sahoo et al. 2020).

Following the rapid spread of COVID-19 in Asia in the first months of 2020, Europe, the USA and gradually all countries worldwide experienced an increase in infectivity. Thus, several studies were conducted to identify the psychological impact of the pandemic in the European Union (EU) Member States.

Italy was the first European country to experience the exponential transmission of the viral infection. Gualano et al. (2020) conducted an online survey of 1515 individuals in the general population during the last 14 days of the first lockdown in 2020 to identify the potential impact on the mental health of the respondents. The data were collected using the Patient Health Questionnaire-2, the Generalized Anxiety Disorder-2 and the Insomnia Severity Index (to identify sleep disorders). The survey indicated that 24.7% of women and 23.2% of men experienced symptoms of anxiety, while 17.4% experienced sleep disorders. Women and people with chronic illnesses were more likely to have a mental health problem.

In the first wave of the COVID-19 pandemic, Spain experienced a huge epidemiological impact. In 2020, Rodríguez-Rey, Garrido-Hernansaiz and Collado (Rodríguez-Rey et al. 2020) studied the psychological effects of the pandemic's first phase on 3055 respondents from the general population of Spain. They conducted the study using the Impact of Event Scale-Revised (IES-R) and the Depression, Anxiety and Stress Scales (DASS-21). The online survey indicated that 36% of respondents experienced moderate or extensive psychological problems, 25% experienced anxiety, 41% experienced symptoms of depression and 41% experienced stress. Women, young people and those who became unemployed due to the health crisis experienced the greatest psychological problems. Most respondents worried about the economic impact of the pandemic, while proper information, leisure activities and positive perceptions of the health situation were inhibiting factors for the occurrence of the reported psychological problems.

In Germany, Bendau et al. (2020) carried out an interesting study among the general population in order to identify the impact of disease-informed social media use on the mental health of participants. The online survey involving 6233 respondents during the first phase of the pandemic (27 March-6 April 2020) was done using a structured questionnaire focusing on issues of anxiety and depression. It emerged that the use of social media for information regarding Covid-19 was significantly associated with an increase in psychological distress, particularly among respondents with pre-existing phobias. The frequency, duration and

variety of social media use, combined with pre-existing phobias, exacerbated psychological distress (anxiety and depressive symptoms).

Traunmüller and colleagues (Traunmüller et al. 2020) conducted an online survey among the general population in Austria. They interviewed 4126 people aged 16 years and older. The Impact of Event Scale-Revised (IES-R) and the Depression, Anxiety and Stress Scale (DASS-21) were used as data collection tools. The results highlighted the effects of the pandemic on mental and physical health and documented the prevention methods adopted by individuals. Notably, 37.7% of the respondents reported a severe impact on their mental health, while 1 in 10 experienced severe depression, anxiety and stress. Women, the elderly, citizens with a low educational level, those with family problems, those who only used the internet for information, students and people with pre-existing health problems were strongly associated with a higher likelihood of psychological problems.

In Cyprus, Solomou and Constantinidou (2020) conducted an online survey involving 1642 respondents among the general population. They used tools such as Quality of Life (QOL), Generalized Anxiety Disorder-7 (GAD-7) and the Patient Health Questionnaire-9 (PHQ-9). The results showed that 48% of the participants expressed anxiety about the economic impact of the pandemic, 66.7% reported changes in their quality of life, 41% reported mild levels of anxiety, while 23.1% reported fair to high levels. It is to be noted that 48% reported mild symptoms of depression and 9.2% reported fair to very severe symptoms. As in other similar surveys, the women, the unemployed and people with a history of mental health problems had a higher risk of anxiety and depression. People aged 18 to 29, students and those who reported negative changes in their quality of life also had a higher risk of anxiety and depression. The research also indicated that higher levels of compliance with preventive measures were associated with lower levels of depression, while higher levels of anxiety related to maintaining personal hygiene.

Parlapani and colleagues (Parlapani et al. 2020) investigated online the occurrence of mental disorders and behaviours among 3029 individuals from the general population in Greece during the pandemic. Four psychometric scales were used: the Fear of Covid-19 Scale (FCV-19S), Brief Patient Health Questionnaire (PHQ-9) depression scale, Generalized Anxiety Disorder scale (GAD-7) and Steele's Social Responsibility Motivation scale. The results show that 77.4% of participants reported anxiety, while 35.7% reported fear related to Covid-19 and 22.8% reported symptoms of depression. It was found that females had greater problems than males, while individuals under 30 had lower rates of fear and lower incidence of depression symptoms.

Bartoszek and colleagues (Bartoszek et al. 2020) studied the effect of the Covid-19 pandemic on mental well-being (depression, loneliness, sleep disturbances, and feeling of daily fatigue) in the general population of Poland. Their study involved 471 respondents. The survey was conducted online using the Insomnia Severity Index (ISI), the Beck Depression Inventory (BDI), the Revised University of California, Los Angeles (R-UCLA) Loneliness Scale and the Daily Life Fatigue scale (DLF). Confirming the findings of several similar

studies, the results indicated that women had higher rates of depression, loneliness and feelings of daily fatigue. It was also observed that an increase in alcohol consumption occurred among people who were active at work before the pandemic, as opposed to student drinkers. Participants who lived alone showed higher levels of loneliness and feelings of daily fatigue. More broadly, the research indicated that rates of depression, sleep disturbances, loneliness and feelings of daily fatigue increased during the first lockdown.

Lorant and colleagues (Lorant et al. 2020) conducted a survey among the general population in Belgium focusing on the psychological impact of the Covid-19 pandemic during the first wave. The survey, involving 20792 respondents, was carried out three days after the start of the first lockdown using the GHQ-12 scale (to investigate psychological distress), the Social Participation Measure, Short Loneliness Scale and Oslo Social Support Scale for social activities. The findings indicated an increase in psychological distress in the early days of the first lockdown, while the prolonged period of confinement seems to have led to an increase in psychological distress. It was found that women and younger people were at greater risk of psychological problems, in contrast to older people and those with Covid-19. Psychological distress appeared to be enhanced in the field of employment and in cases of reduced social activities. The psychological stress index that was at 2.16 in 2018 rose to 2.45 during the first days of the lockdown.

McCracken et al. (2020) studied the psychological effects (depression, anxiety, sleep disturbance and their association with risk and vulnerability factors) of the pandemic in the general population of Sweden. The survey was conducted electronically among 1212 respondents using a weighted questionnaire based on the aforementioned mental health factors during the first wave of the Covid-19 pandemic. The findings indicated that the prevalence of depression was 30%, anxiety 24.2% and sleep disorders 38%. The main correlation factors were the health status of the respondents and a history of mental health problems. These symptoms were significantly associated with anxiety about the financial situation due to the health crisis and maintaining good health status.

A large-scale study in *Western and Northern Europe*, regarding factors related to the mental health of citizens during the Covid-19 pandemic, was conducted by Varga and colleagues (Varga et al. 2021). Data from seven time-series studies conducted among a total of 205,084 respondents during the first wave of the pandemic (March-July 2020) were analysed for anxiety, feelings of loneliness and concerns about preventive measures in Denmark, the Netherlands, France and the UK.² While only 7% of respondents in the Netherlands reported high levels of feeling lonely, the percentages were almost three times higher in Denmark and France. In all the countries examined, younger people and those with a history of mental disorder had higher rates of feeling lonely.

² The UK has not been part of the EU since 31 January 2020. It is referred to here only because the cited study compared it with the other three EU member states. However, it is not included in our analysis as it is not in the scope of the study.

From the review of the aforementioned research studies, it is evident that the new conditions imposed by the Covid-19 pandemic, such as protective containment measures, social distancing, economic uncertainty and job loss, had a psychological impact on the general population and contributed to the occurrence of:

- Anxiety and fear of possible virus infection.
- Uncertainty about how the pandemic may develop.
- Post-traumatic stress disorder (PTSD), anxiety that occurred after the epidemic wave had passed, under the influence of stressors.
- Generalised stress events, with diffuse anxiety and generalised discomfort.
- Panic attacks, with an intense fear of losing control, a sense of being out of touch with the environment and somatisation of anxiety.
- Depressive symptoms, pessimism, lack of satisfaction with daily life, withdrawal and isolation. Sometimes accompanied by obsessive thoughts of suicide and death, leading to self-harming tendencies.
- Obsessive-compulsive symptoms, excessive preoccupation with cleaning, meticulous house cleaning, ritualistic hand washing, and so on.
- Stigmatisation and isolation, especially among people living in areas where the pandemic was concentrated, people whose family members were Covid hospital workers and people who suffered from Covid-19.
- Breaking of social ties, particularly among elderly, disabled and marginalised people; the limited use of support networks, as a consequence of the restrictive measures, led to a breaking of social ties.

The occurrence of the aforementioned psychological effects of Covid-19 was significantly associated with:

- Gender: women showed an increased rate of psychological symptoms compared to men.
- The level of education: there was a lower rate of COVID-19 mental health problems among individuals who held a higher degree (masters, doctoral degrees).
- Place of residence: people residing in cities that were the epicentre of the pandemic experienced a higher psychological impact than those who lived in rural areas.
- Income: individuals with a low economic income were more vulnerable to the onset of mental illnesses.
- Employment status: unemployment, suspension of work and business activities and economic uncertainty contributed to an increased incidence of the psychological effects of the pandemic.
- Family situation: divorce, widowhood and lack of children in the family intensified people's psychological responses.
- Knowledge about the virus, attitudes and behaviour: people who were less informed about the virus, how it spreads and how to implement protection measures were more vulnerable to psychological responses.

- Individuals' self-perceived health status: individuals who perceived their immune system to be underactive, fearing greater susceptibility to infection by the virus, showed an increased rate of psychological reaction.
- The quarantine: suspected or confirmed cases who were placed under mandatory quarantine were more psychologically vulnerable than those who were not placed under confinement.
- Age: there was a dichotomy in terms of the age groups that had the greatest psychological burden during the pandemic. Some studies found that older people had an increased psychological response to the virus compared to younger people, while other studies found older people to be less vulnerable than young people.
- Chronic physical and mental illnesses: chronically ill patients with physical and mental health problems showed an increased rate of psychological reaction against the virus.
- Domestic violence: members of dysfunctional families who experienced domestic violence showed increased psychological responses to the virus because of the prolonged cohabitation with abusive family members during the pandemic.
- Alcohol and substance abuse: alcohol and substance abuse by individuals, in an attempt to control the anxiety caused by the pandemic, led to an increase in psychological symptoms.

Conclusions

The Covid-19 pandemic has posed a huge global challenge to the physical and mental health of the general population. It has challenged the sustainability, resilience and preparedness mechanisms of health systems and, at the same time, has threatened social cohesion and individual and family boundaries. It has disrupted the everyday life of various population groups, with the risk of overturning the hitherto established concept of life.

A thorough review of the international literature and general population surveys in EU member states has yielded useful data that could contribute to designing public health strategies and interventions and to helping prevent and manage situations, like those resulting from the pandemic, that are detrimental to the mental health of the general population. Factors that have aggravated the mental health of the general population were highlighted, thus offering useful information for future health policy planning.

According to the literature review of the first pandemic wave, the negative psychosocial impact of the Covid-19 pandemic in the EU seem to include anxiety and fear of possible virus infection, uncertainty about how the pandemic may develop, depressive symptoms, pessimism, lack of satisfaction with daily life, withdrawal and isolation, obsessive-compulsive symptoms, excessive preoccupation with cleaning, meticulous house cleaning, ritualistic hand washing, stigmatisation and isolation and breaking of social ties with negative consequences for the most vulnerable. Additionally, the occurrence of the aforementioned psychological effects of Covid-19 was significantly associated with gender, education level, place of residence (with a higher psychosocial impact on urban residents), income,

employment status, family situation, knowledge about the virus, attitudes and behavior, individuals' self-perceived health status, the quarantine, age, chronic organic and mental illnesses, domestic violence, alcohol and substance abuse.

This particularly infectious virus has highlighted the importance of further development of Primary Care Facilities, online therapeutic interventions by mental health professionals and psychological support hotlines for the immediate treatment of psychological crisis situations and for the decongestion of hospitals. At the same time, the importance has emerged of vaccinating the population and preventing the infectious spread of the virus, which needs to be further investigated in the future in terms of how this may contribute to mitigating the psychological impact of a pandemic.

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