



Mental health and the COVID-19 pandemic

Zdrowie psychiczne a pandemia COVID-19¹

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Abstract: Introduction: The disease caused by the SARS-CoV-2 virus poses a significant threat to human life and health. It is highly contagious and therefore spreads rapidly and is fatal in severe cases. The main objective of this article is to present the impact of the COVID-19 pandemic on mental health. Method: Based on a review of the current literature using the paradigm of evidence-based medicine (EBM), the main mental health problems resulting from the pandemic were presented. A PubMed search engine supporting the MEDLINE database and Google Scholar were used in data collection. The criterion for searching articles were papers published since 2020 that were available in Polish or English. **Results:** The SARS-CoV-2 virus infection itself, as well as the outbreaks associated with the pandemic, causes a number of negative mental health consequences. These may manifest not only as individual symptoms or syndromes, but also disorders or groups of disorders and complex psychopathological problems. All of these phenomena can overlap and also occur in the course of COVID-19 and its complications. Data available from the literature review shows that about 30% of people suffer from mental health problems during a pandemic, with more than 50% reporting mental health problems. Neglect of mental health during a pandemic can lead to an accumulation of disorders that can manifest over years. **Conclusions:** There are many ways to combat the negative effects of the pandemic, which can be implemented at different levels. The impact of COVID-19 on the mental health of individuals needs to be studied and precisely defined, as this is essential for planning short- and long-term medical, informational and organisational interventions. The full potential of many scientific disciplines should be harnessed to mitigate the negative impact of the pandemic.

Keywords: COVID-19, mental health, pandemic

Abstrakt: Wstęp: Choroba wywołana przez wirus SARS-CoV-2 jest istotnym zagrożeniem dla życia i zdrowia ludzi. Jest silnie zakaźna, przez co szybko się rozprzestrzenia, a w ciężkich przypadkach jest śmiertelna. Głównym celem artykułu jest przedstawienie wpływu pandemii COVID-19 na zdrowie psychiczne. **Metoda:** Na podstawie przeglądu aktualnego piśmiennictwa opartego o paradygmat EBM (Evidence-Based Medicine) przedstawiono główne problemy zdrowia psychicznego, będące konsekwencją pandemii. Podczas zbierania danych wykorzystywano wyszukiwarkę PubMed obsługującą bazę MEDLINE, oraz Google Scholar. Kryterium, które zastosowano przy wyszukiwaniu artykułów, to prace opublikowane od 2020 roku dostępne w języku polskim lub angielskim. **Wyniki:** Samo zakażenie wirusem SARS-CoV-2, jak i związane z pandemią obostrzenia wywołują szereg negatywnych konsekwencji dla zdrowia psychicznego. Mogą się one objawiać jako pojedyncze objawy lub zespoły objawów, a także jako zaburzenia lub grupy zaburzeń oraz złożone problemy o charakterze psychopatologicznym. Wszystkie te zjawiska mogą się na siebie nakładać, a także pojawiać się w przebiegu COVID-19, jak i jako jego powikłania. Z danych dostępnych z przeglądu literatury wynika, że w trakcie pandemii ok. 30% osób cierpi na zaburzenia psychiczne, a ponad 50% badanych zgłasza psychologiczny dystres. Zaniedbanie zdrowia psychicznego w czasie pandemii może spowodować narastające zaburzenia, które mogą ujawniać się przez kolejne lata. **Wnioski:** Istnieje wiele możliwości zwalczania negatywnych skutków pandemii, które wprowadzać można na różnych poziomach. Wpływ COVID-19 na stan psychiczny poszczególnych populacji należy badać i precyzyjnie określić, gdyż jest to niezbędne do planowania krótkoterminowej i długoterminowej interwencji w obszarach: medycznym, informacyjnym i organizacyjnym. Do zahamowania rozprzestrzeniania się negatywnych skutków pandemii należy wykorzystywać cały potencjał płynący z wielu dyscyplin nauki. **Słowa kluczowe:** COVID-19, pandemia, zdrowie psychiczne

Introduction

The disease caused by the SARS-CoV-2 virus poses a significant threat to human life and health. It is highly contagious and therefore spreads rapidly and is

fatal in severe cases (Fardin, 2020). There is no doubt that it also has a negative impact on mental health of the population and causes numerous emotional

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problems (Ornell et al., 2020). It usually involves a forced change in daily activities, combined with a great sense of insecurity and anxiety. Due to the complexity and multidimensionality of the problem, as well as the potential long-term impact, this is an important area. Globally, the pandemic has increased all mental health assessment indicators. Data available from the literature review (different study groups and study methods) shows that during a pandemic about 30% of people suffer from mental health problems, with more than 50% reporting mental health problems (Gibson et al., 2021; Xiong et al., 2020).

These data points to the need for preventive as well as therapeutic and curative measures to be implemented. All forms of primary intervention for psychiatric disorders associated with post-traumatic syndromes described in the literature emphasised that the most important form in an emergency is to remove the patient from the danger zone and place him or her in a safe place. In the case of a pandemic, there is no suitable place of refuge. If mental health is neglected during this time, it can lead to a growing disorder that can manifest itself for years. Today's COVID -19 situation is costing societies so much that the long-distance effects of the trauma could affect 20% or even a larger percentage of the population that was alive at the time of COVID -19 (Heitzman, 2020). Already at the beginning of the pandemic, an increase in the prevalence of depressive disorders, anxiety disorders and increased stress levels was noted (Liu et al., 2020).

On 12 March 2020, the Polish Psychiatric Society and the National Consultant Psychiatrist issued an appeal in which they unequivocally called for the mental health consequences of the pandemic to be recognised for people from different social groups (Appeal of the Polish Psychiatric Society and the National Consultant Psychiatrist, 2020). It draws particular attention to the situation of young people, the vast majority of whom are experiencing a crisis situation of this magnitude for the first time, and the need to take measures that could reduce the negative consequences of the pandemic. Mental health problems associated with COVID-19 may occur in patients infected with SARS-CoV-2 as well as in patients with mental disorders diagnosed

before the pandemic (Rogers et al., 2020). The global situation related to COVID -19 has also shown that mental health is an indispensable component of public health.

The main objective of this article is to present the impact of the COVID -19 pandemic on mental health.

1. Method

Based on a review of the current literature using the paradigm of evidence-based medicine (EBM), the main mental health problems resulting from the pandemic are presented. Data collection used a PubMed search engine supporting the MEDLINE database and Google Scholar. All articles used were archived in electronic form—as PDF files. The criterion for searching articles were articles published since 2020 and available in Polish or English.

2. Results

2.1. Consequences of a pandemic

The COVID -19 pandemic has two types of mental health consequences. The first is related to the direct effects of the SARS-CoV-2 virus on the functioning of the patient's nervous system, while the second is related to long-term stressors (de Sousa Moreira et al., 2021). The negative impact of a pandemic on mental health can manifest as individual symptoms or syndromes, as well as disorders or groups of disorders and complex psychopathological problems. All of these phenomena may overlap and also occur during the course of COVID -19 and its complications. The effects of the virus on the nervous system include: disorientation, impairment of intellectual capacity and cognitive functions (including the so-called 'covid fog'), chronic fatigue, psychomotor retardation (de Sousa Moreira et al., 2021). Reactions to prolonged stress are reported in the literature to be increasingly common in the population. These reactions are most common: anxiety, depressed mood, nervous tension, anger, impulsivity, irritability, frustration, depressive disorders, sleep disorders, psychotic disorders, PTSD

and ASD, occupational burnout (de Sousa Moreira et al, 2021; Szczesniak et al., 2020; Vuren et al, 2021). The COVID-19 pandemic is also responsible for increased consumption of stimulants, including alcohol (Calina et al., 2021) and drugs (Dubey et al., 2020). In addition, an increased risk of suicide in the population was noted during this period and an increase in suicide rates was reported as a negative impact of the quarantine (Rothman, Sher, 2021).

2.2. Limitation of contacts

The introduction of all kinds of restrictions limited social contact to a maximum and often prevented people from leaving their homes. This situation led to the phenomenon of social isolation, which was accompanied by feelings of loneliness, fear or even boredom. Social isolation, which is a typical experience during a pandemic, can have far-reaching effects, manifesting in depressive symptoms, PTSD and other mental disorders (Brooks et al., 2020). The mere fact that they were left alone with household members in a confined and often small space was an extremely stressful factor. Victims of domestic violence were in a particularly vulnerable situation (Fiorillo et al., 2020; Ganz et al., 2020).

2.3. Pandemic acute stress disorder

Acute stress disorder in response to a pandemic, while not a postponed flight-defence response, may be linked to the occurrence of a sudden stressor that has enormous consequences or to a stressor that sets in motion a sequence of events that lead to destruction that the patient cannot in any way stop or avoid. The diagnostic criteria for acute pandemic stress disorder can be mapped against the diagnosis of acute stress disorder (Heitzman, 2020). Immediate exposure to traumatic experiences extends to all communities affected by the pandemic, and the extent varies. It is possible to become a victim of COVID-19 by means of direct exposure to a life-threatening situation, to be an eyewitness to such an event, or to fall into a risk group through direct contact with an infected person, which is associated with the occurrence of negative consequences. Being informed about the death or

impending death of relatives is also considered to be a traumatic experience. The most common and characteristic feature of the clinical picture of pandemic acute stress disorder is the persistent anxiety response over a prolonged period of time and the inability to detach from the ongoing experience of the trauma. One observes a chronic persistence of fear and a sense of helplessness, and given the impossibility of escape, in extreme cases, states of panic, despair and a sense of hopelessness. The symptoms of pandemic acute stress disorder fall into the diagnostic categories of individual obsessions, dissociative symptoms, depressed mood, and avoidance symptoms and hyperarousal (Heitzman, 2020).

2.4. Risk groups

Groups at risk for mental disorders include the elderly and chronically ill, for whom the course of COVID-19 can be most dramatic, causing them to experience prolonged isolation and a painful reduction in contact with their loved ones during the pandemic (Aliberti, Raiola, 2021). This group undoubtedly includes children and adolescents who have been unable to pursue their education and pursue their interests among their peers due to the restrictions imposed by the epidemic, the lockdown and the introduction of distance learning (Jones et al., 2021). A United Nations Children's Fund report on the condition of young people during the pandemic points to a number of negative and very worrying phenomena: 27% of young people felt anxious during the pandemic, 15% were depressed, 46% felt less motivated to engage in previously attractive activities and 35% felt less motivated to carry out their daily duties (UNICEF, 2020). Medical professionals are the occupational group most affected by stress and its negative mental health consequences, as well as occupational burnout, during a pandemic (along with other groups directly involved in the fight against the pandemic). Working in the health sector during this period involves: working longer hours, often in uncomfortable personal protective equipment, e.g. overalls; dealing with death, fear and danger on a daily basis; worrying about loved ones (Chatzittofis et al., 2021). Each of the above risk groups has different

psychological needs, symptoms of psychological discomfort, stress and fatigue. A different organisational and informational message, as well as a specific medical-sanitary regime, must be adapted for each group. In justified cases, also therapeutic and therapeutic treatment (Heitzman, 2020).

2.5. Other stressors

Also contributing to the mental crisis during the pandemic was the constant access to information and media coverage, which constantly emphasised worrying statistics and mortality rates and fuelled the information with images. Ministers' messages, which were not always coherent, may have worried some, as did the complete unpredictability of the extent and duration of the restrictions imposed (Pedrosa et al., 2020). The psychological distress associated with COVID-19 may also result from psychosocial factors, such as: lack of or limited access to testing and medical care; increased workload; fear of infecting family members; restriction of personal freedom; economic hardship (Pfefferbaum, North, 2020).

2.6. Protective factors

The full potential of many scientific disciplines should be harnessed to mitigate the negative impact of a pandemic. To protect mental health, the principles of a healthy lifestyle are recommended. Sleep hygiene and regulation of daily rhythms with adequate time for rest are of great importance (Robillard et al., 2021). Minimising exposure to negative content of media messages is recommended (Neill et al., 2020). If you have limitations, continue your previous professional, educational or social activities as much as

possible, including online activities (Balanzá-Martínez et al., 2020). Ensure an age-appropriate level of physical activity (Amatriain-Fernández et al., 2020) and a balanced diet and, if necessary magnesium supplements, omega-3 fatty acids or B vitamins, which have a positive effect on nervous system function (Villadsen et al., 2021). Do not hesitate to seek professional help if needed, including a psychiatrist and neurologist, and take the pharmacotherapy they recommend. Neurological rehabilitation programmes are increasingly being used as part of the treatment of after covid complications, with elements of psychological techniques such as relaxation training. It is also noted that it is useful to use psychological and psychotherapeutic services and support groups offered by various agencies. Many of these forms of support are free and available online (Arden, 2020).

Conclusions

The SARS-CoV-2 virus infection itself, as well as the COVID-19 pandemic-related restrictions, cause a number of negative mental health consequences. There are a number of ways to address these effects, which can be introduced at different levels, as they are likely to be exacerbated in the long term. When researching the topic, one should also not forget the social prejudices and the dangers of spreading the dangerous views of the so-called vaccination opponents and pandemic deniers—corona sceptics. The impact of the pandemic on the mental state of population must be studied and precisely determined, as this is essential for planning short- and long-term measures in the medical, informational and organisational fields.

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