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Perspective

Impact of COVID-19 on depressive symptoms in older adults: Future perspectives and implications

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Abstract: During the pre-pandemic era, around 280 million people worldwide were diagnosed with depression. Depression is one of the leading causes of disability, affecting 5.7 per cent of people aged 60 and over during the pre-pandemic period. The COVID-19 pandemic has resulted in a significant increase in the incidence of depression, with an estimated increase of 28.1 per cent worldwide, with a significant impact on older adults. The consequences of the increase in depressive symptoms can have a long-term impact and, in this sense, this problem is a global challenge for mental health professionals. Knowing the impact of COVID-19 on depressive symptoms in older adults will allow mental health professionals to be better prepared for a future pandemic crisis and to develop interventions aimed at reducing depressive symptoms in this population. The development of interventions that promote mental health is crucial now and, in the future, so knowing the impact of the pandemic crisis on depressive symptoms is useful in pursuing this goal. The aim of this article is to describe some recent results on the impact of COVID-19 on depressive symptoms in older adults, and to discuss possible future perspectives.

Keywords: depressive symptoms; older adults; COVID-19

1. Introduction

According to the World Health Organization, in the pre-pandemic period there were around 280 million people with depression. This number has increased significantly as a result of the COVID-19 pandemic, with an estimated increase in the prevalence of depression of around 28 per cent (James et al., 2018; World Health Organization, 2021). Governments have had to take measures to minimize the spread of the COVID-19 virus, including social distancing (Islam et al., 2020), and these measures have had a considerable impact on older adults, as they are more likely to have functional disabilities and depend on other people in their daily lives (Ganesan et al., 2019; Schmauck-Medina et al., 2022).

Older adults have been disproportionately more affected by the COVID-19 pandemic, as they have less resistance to the SARS-CoV-2 virus, may require hospitalization, and may in fact die from the disease (Shahid et al., 2020). Older adults aged 70 have a mortality rate due to COVID-19 of 27 per cent, and this percentage rises to 60 per cent in older adults aged 80 (Bonanad et al., 2020).

Depressive symptoms significantly impacted older adults during the pandemic, particularly due to the isolation measures put in place (Ettman et al., 2020; Pierce et al., 2020). On the one hand, these measures were crucial in containing the SARS-CoV-2 virus, but on the other hand, forced isolation was fertile ground for the development of depressive symptoms in older adults (Ettman et al., 2020; Yan et al., 2020).

We need to revisit the depressive symptoms associated with the COVID-19 pandemic with a view to how we can intervene in a similar situation in the future.

2. The ageing process

The ageing process is an intrinsic and gradual occurrence that individuals experience continuously from the beginning of life until death, inducing changes in multiple dimensions. This occurrence is universal in all species and constitutes a fundamental element of the biological progression of all organisms, naturally including human beings (Chang et al., 2017; OMS, 2005; Strulik, 2023; WHO, 2015).

In human terms, the ageing process is marked by various individual modifications, with physical changes such as changes in skin, hair, nails, vision, hearing, muscle strength and bone density. Deterioration in cognitive ability can also occur, resulting in difficulties with memory, concentration and speed of thought processing. With advancing age, the immune system can become less efficient, which can increase susceptibility to disease, leaving the body more vulnerable to infections. Changes in the emotional sphere can also manifest themselves, as older adults may have to deal with emotional challenges, such as coping with personal loss and mortality issues. The ageing process can include changes in social relationships, such as retirement and the adoption of new family roles, such as becoming a grandparent or a widower (Amarya et al., 2018; Chang et al., 2017; Schmauck-Medina et al., 2022; Strulik, 2023).

However, age as a socially constructed category is influenced by human societies (Fry, 2017) and is not the only criterion for categorizing a person as an older adult. The older adult in chronological terms is not inseparable from environmental conditions, among others (Fry, 2017; OMS, 2005), including cultural and economic factors (Valer et al., 2015).

Chronological age may not matter in isolation because being “older” is multidimensional and ageing is influenced by various factors including genetics, lifestyle, environment and health care throughout life (Foster and Walker, 2015; Schmauck-Medina et al., 2022; Strulik, 2023).

Although ageing is inevitable, there are measures that people can take to promote healthy ageing and improve their quality of life as they get older. These can include a balanced diet, regular exercise, activities that stimulate the mind and participation in a social support network. It is important to recognize that ageing can also be a phase of opportunity and personal growth. Society can benefit from the contribution of older adults, as they possess experience, wisdom and knowledge accumulated throughout their lives (Schmauck-Medina et al., 2022; Strulik, 2023).

It is therefore essential to respect and value people as they age and to ensure that they have access to adequate resources and health care to enjoy a full and meaningful life throughout their existence.

3. Concept of depression and associated symptoms

Identifying the presence of depression in older adults is not an easy task because depressive symptoms are not always evident and easily observable or measurable, and many older adults may present an atypical clinical picture (Lima et al., 2021; Nogueira, 2016).

This atypical clinic may include the older adult's difficulty in verbalizing feelings of sadness; some tendency towards somatic complaints; the manifestation of neurovegetative alterations (present but nonetheless discreet, for example, alterations in sleep patterns, changes in appetite, psychomotor slowdown, decreased concentration); discreet or barely observable psychomotor agitation; overvalued ideas (possibly delusional) of hypochondriacal genesis; and the presence of cognitive deficits (Nogueira, 2016).

Nogueira (2016) adds more specific features that can make it more complex to identify depression in older adults, such as the lack of verbalization of feelings and emotions, denial or minimization of depressed mood, decreased autonomy, decreased functionality, the presence of multimorbidity and lack of hope for the future.

In the same vein, Arenas et al. (2018) reports that the presence of cognitive deficits makes it difficult to identify depression in older adults, and that these people show depressed mood less often, and that irritability, anxiety, somatic complaints and delusional activity prevail.

A period of sadness is a normal response to disappointments, frustrations or losses in life. They are usually short-lived episodes and are part of the process of adapting to the losses or changes that have been experienced. Depression, as a pathological condition, occurs when this adaptation process is not effective (Almeida, 2015).

Depression can manifest itself in a wide range of symptoms. These include persistent sadness, hopelessness, pessimism and loss of pleasure or interest in activities. This symptomatology is present for most of the day, almost every day, for at least two weeks (OMS, 2021), and according to the DSM-V: Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association. (APA, 2014), most episodes can last considerably longer.

Psychomotor agitation is much less common (for example, inability to sit still, pacing without stopping, waving hands, pulling or rubbing skin, clothes or other objects), but when present it is indicative of greater general severity, as is the presence of delusions of guilt. Psychomotor slowdown can be observed in speech (requiring more time before responding, speech reduced in terms of volume, inflection, quantity or variety of content, or mutism), thinking or slower body movements. (APA, 2014).

The symptoms must cause clinically significant malaise or impairment in social, occupational or other important areas of the person's functioning (some people with "milder" episodes, functioning may appear adequate and unchanged, but require markedly increased effort on the part of the person), and, the episode is not attributable to the physiological effects of a substance or other medical condition (APA, 2014).

The mood in a major depressive episode is often described by the person as being depressed, sad, hopeless, discouraged, or feeling "empty" or "down". Some people emphasize somatic complaints rather than reporting feelings of sadness, and others report or show increased irritability (APA, 2014).

Mood is *"a generalized and sustained feeling that is experienced internally and influences a person's behavior and perception of the world"* (Saraiva and Cerejeira, 2014). The same authors add that there may be mood swings in a person without mental pathology, but it is the persistence of these changes that determines whether

there is a psychopathological state, and if it is associated with functional impairment and suffering.

4. Depressive symptoms associated with the COVID-19 pandemic in older adults

Several studies have reported a set of depressive symptoms that we can associate with the COVID-19 pandemic.

These depressive symptoms develop due to the presence of determinants of depression. Determinants of depression can be understood as possible causes of depression, and although the causes are sometimes not very clear, it is believed that psychological, social and biological processes determine the development of depression (Zenebe et al., 2021).

More and more studies are reporting that the COVID-19 pandemic has caused a deterioration in mental health, possibly mediated by health concerns and changes in daily life associated with long-term quarantine measures (Cenedesi Júnior et al., 2023; Lin et al., 2024; Müller et al., 2021), including a recent systematic review of the literature (Silva et al., 2023). And these concerns and changes have negatively affected the mental health of older adults because these people are physically more vulnerable to serious and fatal developments of COVID-19, which can lead to a greater perception of the threat of infection (Zhou et al., 2020), and this greater perception has been associated with depression and also anxiety (Porter et al., 2021).

Older adults are at greater risk of becoming socially isolated compared to younger adults in normal circumstances (Courtin and Knapp, 2017). This isolation, which happened during the pandemic, may also have been a determining factor in the development of depression, as increased loneliness during crises such as the COVID-19 pandemic increases the risk of depression (Ray, 2023).

Some more general concerns have been associated with the development of depressive symptoms, such as anguish, worry about infecting other people, fear of contracting the disease and the high mortality caused by COVID-19 (Chao et al., 2022; John et al., 2020; Robbins et al., 2022; Silva et al., 2022; Voss et al., 2021).

Some determinants of depression were also reported to be associated with the news broadcast by the media, which was usually bad news in relation to the evolution of the pandemic, as well as insufficient knowledge on the part of older adults about the pandemic (Aihara and Kiyoshi, 2021; Irmak et al., 2021; Mistry et al., 2021).

Another dimension reported as determining the onset of depressive symptoms was a set of concerns associated with family and friends, i.e., having family and friends infected, and in many cases the death of family and friends due to the pandemic (Briggs et al., 2021; Pérez et al., 2021; Shields et al., 2021).

Another issue reported by the studies is the measures that have been taken by governments with the aim of minimizing the spread of the SARS-CoV-2 virus and containing the COVID-19 pandemic. The compulsory confinement measures, the social unrest that confinement has caused, the difficulty in obtaining medication and receiving healthcare for conditions other than COVID-19, and the social fragility associated with the whole pandemic context, have been conducive to the development of depressive symptoms in older adults (Chao and Yu, 2021; Kim et al., 2022; Noguchi

et al., 2021).

Figure 1 describes the determinants associated with depression in older adults during the COVID-19 pandemic (**Figure 1**—Determinants associated with depression in older adults during the COVID-19 pandemic).

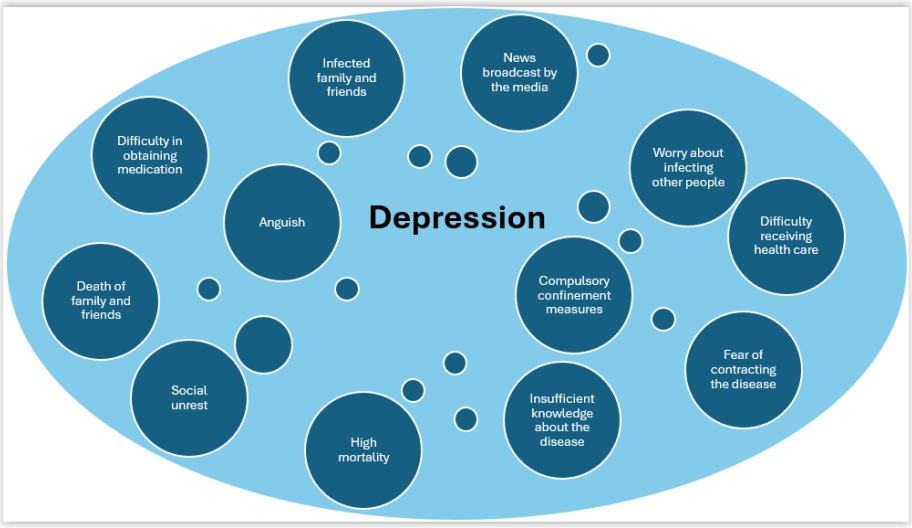

Figure 1. Determinants associated with depression in older adults during the COVID-19 pandemic.

Some data are somewhat divergent. Several longitudinal studies have reported virtually no or mild deterioration in mental health during the COVID-19 pandemic among older adults in the UK (Zaninotto et al., 2022), the Netherlands (van Tilburg et al., 2021) and Sweden (Kivi et al., 2021). On the other hand, a longitudinal study reported a significant worsening of mental health among older adults in 26 European countries (Mendez-Lopez et al., 2022).

Some differences can be explained by the instruments used to assess depressive symptoms and the way in which the data are collected. Various studies use different ways of assessing depressive symptoms. **Table 1** describes the instruments used in the various studies mentioned and how the data was collected. (**Table 1**—Instruments used in the aforementioned studies and how data on depressive symptoms was collected).

Table 1. Instruments used in the aforementioned studies and how data on depressive symptoms was collected.

Study	Instruments used	Self-report	Clinician-administered
Zenebe et al. (2021) John et al. (2020)	Not applicable*		
Müller et al. (2021)	Brief Symptom Inventory (BSI-18)	X	
Zhou et al. (2020)	Not applicable**		
Porter et al. (2021) Chao et al. (2022)	Patient Health Questionnaire-8 (PHQ-8)	X	
Courtin and Knapp (2017)	Not applicable***		
Robbins et al. (2022)	Patient Health Questionnaire-2 (PHQ-2)	X	
Silva et al. (2022)	Not applicable****		

Table 1. (*Continued*).

Study	Instruments used	Self-report	Clinician-administered
Voss et al. (2021) Noguchi et al. (2021) Mendez-Lopez et al. (2022)	Interview		X
Aihara and Kiyoshi (2021) Irmak et al. (2021) Mistry et al. (2021) Pérez et al. (2021)	Geriatric Depression Scale-15 (GDS-15)		X
Aihara and Kiyoshi (2021)	Geriatric Depression Scale-5 (GDS-5)		X
Briggs et al. (2021) Zaninotto et al. (2022)	Center for Epidemiologic Studies Depression Scale-8 (CES-D-8)	X	
Shields et al. (2021)	Patient Health Questionnaire-9 (PHQ-9)	X	
Chao and Yu (2021)	Center for Epidemiologic Studies Depression Scale-10 (CES-D-10)	X	
Kim et al. (2022)	Patient-Reported Outcomes Measurement Information System (PROMIS) Depression version 1.0	X	
van Tilburg et al. (2021)	Mental Health Inventory-5 (MHI-5)	X	
Kivi et al. (2021)	Longitudinal HEalth, Aging and Retirement Transitions in Sweden (HEARTS)	X	

*Systematic review and meta-analysis
**Data are extracted from electronic medical records.
***Scoping review
****Systematic review.

5. Future perspectives and implications for clinical practice

Understanding the determinants of depressive symptoms associated with COVID-19 outbreaks among older adults is highly pertinent to the skill set of mental health professionals. These professionals are trained with the necessary experience to provide safe, high-quality care that is centered on the person and their family.

Such care includes activities such as risk assessment and management, understanding the principles of recovery, effective communication skills, knowledge of mental disorders and their treatment, evaluation of research into the advancement of physical and mental well-being.

Consequently, mental health professionals can design a series of personalized interventions for older adults with the aim of reducing depressive symptoms.

From this perspective, one of the determining factors for the emergence of depressive symptoms during the pandemic was the news in the media, which usually only broadcast serious news about the evolution of the pandemic. Perhaps in a future situation the news could be broadcast calmly, to avoid social panic, and it might also be positive to broadcast news of successes and not just catastrophic scenarios and complications from the virus.

Regarding containment measures, which are indeed necessary, perhaps we could rethink restrictions on social contact, particularly in older adults as they may already have limited social contact due to various circumstances. We know that the mental health consequences of strict confinement and social isolation can be serious, and in that sense, perhaps we could rethink some of these measures, without of course ignoring the scientific evidence.

Another determinant of the emergence of depressive symptoms in older adults was the difficulty in receiving health care and obtaining medication. In fact, in a similar situation in the future, it may be appropriate to rethink contact restrictions, finding strategies to avoid overloading health services with non-urgent patients, to allow for the treatment of other pathologies, which may even have more serious consequences than COVID-19. Health resources cannot be channeled almost exclusively into fighting the pandemic, as this has the effect of neglecting care for other pathologies.

The likelihood of having to face a new pandemic crisis is very high, because the movement of people around the planet is increasingly global, and in this sense, any infectious agent moves in its human host to any part of the world and very quickly.

The planning and development of public health policies (including mental health) are crucial to reducing the impact of a new pandemic crisis on depressive symptoms in older adults. The development of strategies that allow older adults greater access to mental health care, such as mental health first aid, mental telehealth, promoting the maintenance of daily routines (as far as possible) and the provision of mental health interventions and psychosocial support, could be effective in reducing the mental health impact of a new pandemic.

These strategies must aim to promote resilience, decrease anxiety, reduce depressive symptoms, and consequently improve well-being. In a future pandemic context, expanding quick and easy access to mental health care seems to us the best way forward. That is, we need to find a way for older adults to have quick and easy access to mental health care in person (despite possible confinement) and virtually (many older adults are now familiar with the internet and electronic devices), using virtual care platforms and thus increasing the capacity for virtual mental health care.

These strategies can be quite diverse, such as physical exercise programs, as we know that practicing activities such as walking, yoga, and tai chi improves mood and can reduce symptoms of depression. Reminiscence therapies can also play an important role, as involving older adults in discussions about their life experiences can help increase self-esteem and promote emotional well-being. Encouraging participation in community activities, volunteering or therapeutic groups, improves a sense of belonging and helps combat loneliness. Increasing psychotherapeutic interventions such as cognitive-behavioral therapy (CBT) can be useful for dealing with depression in older adults.

6. Conclusion

A better understanding of the factors associated with the pandemic that may determine the emergence of depressive symptoms in older adults may be useful in re-evaluating and rethinking mental health responses in a future pandemic situation, as well as in the more global definition of health policy. A better understanding of the factors associated with the pandemic that may determine the development of depressive symptoms in older adults could be useful for reassessing and rethinking mental health responses in a future pandemic situation.

More broadly, promoting mental health in older adults, now and in the future, regardless of whether or not there is a pandemic situation, requires a multifaceted

approach that addresses social isolation, uses technology and incorporates community support.

It is important to establish robust social networks to combat feelings of loneliness through the development of community activities and peer support. This can be achieved by encouraging participation in clubs, volunteering and shared hobbies to promote meaningful and enjoyable connections.

Many older adults are familiar with technology and can use telehealth services and digital platforms to maintain communication and receive mental health resources that can prevent the development of depressive symptoms. In this context, training older adults in digital literacy to improve their engagement with technology also seems important to us.

Health services can increase the provision of integrated health services that combine physical and mental health care to meet the complex needs of older adults, as they have their own specificities due to increasing age.

The promotion of autonomy should be increased to help older adults feel empowered to make decisions about their own lives, such as food, daily activities and health care, as it can increase self-esteem and promote a sense of control over their own lives. In this context, it is also important to ensure that the home environment is safe and adapted to their needs.

While these strategies can be effective, it is essential to recognize that some older adults may still face barriers to accessing these resources, so we emphasize the need for ongoing support and adaptation of interventions to meet the diverse needs of older adults.

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