College of medicine / Thi-Qar University
Internal medicine department

PSYCHOLOGICAL PROBLEM IN PATIENTS WITH COVID 19

الطالبة : مرسلين جعفر سبتي

الطالب : محمد ناصر حليم

المرحلة السادسة 2021-2020

تحت اشراف : ا.د. حسين هليل

Psychological problems in patients with covid 2019

Introduction (1)

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is highly transmissible and the disease it causes, coronavirus disease 2019 (COVID-19), is often lethal and has reached pandemic scale worldwide in 2020 .

COVID-19 is associated with multiple psychiatric problems in several groups, including patients with COVID-19 and in clinicians who care for patients with suspected or confirmed COVID-19 [2,3]. In addition, COVID-19 may adversely affect patients who have psychiatric disorders predating the pandemic and may be at increased risk of infection, due to difficulties adhering to frequent handwashing and physical distancing as well as poor insight and problems understanding the risk of infection .

The acute psychiatric manifestations of COVID-19 reported in surveys are increased stress, anxiety, and depression . In the long-term, psychiatric presentations could also be affected by the outcome of their illness, stigma or memories, and amnesia associated with the critical care they receive

EPIDEMIOLOGY (2)

Patients with COVID-19 — Few data are available regarding psychiatric illness in patients with COVID-19. However, studies of previous coronavirus epidemics suggest that many patients with COVID-19 will manifest psychiatric symptoms and disorders . As an example, a systematic review examined psychiatric problems in patients hospitalized for SARS or Middle East respiratory syndrome (60 studies, n >2500 cases) . The study found that during acute infection, approximately 20 to 40 percent of patients manifested neuropsychiatric symptoms consistent with delirium:

- **Insomnia – 42 percent**
- **Impaired attention or concentration – 38 percent**
- **Anxiety – 36 percent**
- **Memory impairment – 34 percent**
- **Depressed mood – 33 percent**
- **Confusion – 28 percent**
- **Altered consciousness – 21 percent**

General population — The COVID-19 pandemic may be associated with psychiatric symptoms in the general population of adults and children .

●**Adults** – **Cross-sectional, self-report surveys from January to April 2020 found that clinically significant psychiatric symptoms of anxiety, depression, distress, and PTSD were present in up to 36 percent of adults. In addition, the prevalence of psychiatric symptoms during the pandemic may exceed the baseline prevalence (3)**

•Anxiety – One online survey, conducted in China in January and February 2020, included more than 1200 individuals (primarily adults) and found that moderate to severe anxiety was present in 29 percent .

•Depression – Two internet surveys of individuals from China (n >1200 and n >2400), in January and February 2020, found that moderate to severe depression was present in 9 to 17 percent .

•Distress – Psychological distress (eg, depression, hopelessness, and nervousness) was found in 8 to 36 percent of adults:

-Two online studies of individuals from China (n >1000 and n >1200), in January and February 2020, found that psychological distress was present in 8 and 12 percent .

-In a March 2020 online survey of a nationally representative sample in the United States (n >1000), 36 percent of Americans felt that the new coronavirus pandemic was having a serious impact on their mental health .

•PTSD symptoms – Online surveys in China have found that the prevalence of PTSD symptoms varies widely, ranging from 3 to 7 percent of adults:

-An internet survey of nearly 300 adults from China in February 2020 found that symptoms of PTSD (intrusion symptoms, avoidance, negative alterations in mood and cognition, and hyperarousal) were present in 7 percent .

-An internet survey of home-quarantined college students (n >2400) in February 2020 suggested that PTSD was probably present in 3 percent .

●**Children** – **Chinese students in grades 2 through 6, who were quarantined at home for an average of 34 days, completed a cross-sectional, online, self-report survey in February and March 2020 . Anxiety symptoms and depressive symptoms were each reported by roughly 20 percent and almost two-thirds were worried about becoming infected.**

Older individuals (eg, ≥70 years), immunocompromised patients, and patients with chronic disease may also experience increased anxiety, depression, and worry . In addition, individuals living in settings with armed conflicts and humanitarian crises (eg, refugees and internally displaced people) are at risk for psychiatric symptoms and disorders related to COVID-19 .

PATHOGENESIS (3)

The pathogenesis of psychiatric symptoms and disorders that arise during the coronavirus disease 2019 (COVID-19) pandemic may include biologic and psychosocial factors.

COVID-19 can affect central nervous system function. One cross-sectional study identified patients (n = 125) who were hospitalized with COVID-19 and had new-onset neuropsychiatric symptoms, including cerebrovascular events (62 percent); acute alterations in behavior, cognition, consciousness, or personality (31 percent); and neurologic problems (9 percent) [26].

Retrospective studies also suggest that COVID-19 may affect the brain:

● A study of patients hospitalized with acute respiratory distress syndrome due to COVID-19 (n = 58) found multiple neurologic and psychiatric features, such as agitation (69 percent), confusion (65 percent), corticospinal tract signs (67 percent), and neuropsychological impairment (33 percent) [28]. However, analysis of cerebrospinal fluid in seven patients was negative for the virus, which suggests that the neuropsychiatric features may have resulted from encephalopathy secondary to the massive inflammatory response and associated physiologic derangements of critical illness, cytokines, or medications, rather than the direct effect of viral infection.

● A study of hospitalized patients with COVID-19 (n = 841) found that nearly 60 percent manifested neuropsychiatric symptoms, including anxiety, delirium, depression, dizziness, dysgeusia, headache, insomnia, and myalgias [29]. Tests for the virus in the cerebrospinal fluid of two patients were negative, suggesting that the virus may not directly infect the central nervous system and that the symptoms might be due to inflammation (eg, via cytokines) or the adverse effects of treatment.

Critical illness and resultant intensive care unit stays commonly expose patients to extreme physiological and psychological stressors that are life-threatening and traumatic, and frequently precipitate persistent psychiatric illness [14,31].

In addition, psychiatric illnesses that occur during the pandemic may stem from psychosocial factors such as [3,12,22,32,33]:

- **Frequency and extent of exposure to individuals infected with the virus**
- **Fear of infecting family members**
- **Lack of access to testing and medical care for COVID-19**
- **Physical distancing, home confinement, quarantining, and loneliness**
- **Inconsistent messages and directives regarding public health measures such as wearing face masks**
- **Increased workloads**
- **Economic hardships and insecurity**
- **Shortages of available resources (eg, foods, paper products, and personal protective equipment)**
- **Diminished personal freedoms**
- **Continuous media reporting about the pandemic and the uncertainty surrounding its eventual outcome**

CLINICAL FEATURES (4)

The coronavirus disease 2019 (COVID-19) pandemic may give rise to psychiatric symptoms and disorders. — Based upon studies the COVID-19 pandemic may be associated with psychiatric symptoms that do not necessarily rise to the level of a psychiatric disorder, as well as full-blown anxiety disorders, depressive disorders, insomnia disorder, and posttraumatic stress disorder (PTSD). The clinical features of these disorders are discussed separately:

- **"Generalized anxiety disorder in adults: characterized by excessive and persistent worrying that is hard to control, causes significant distress or impairment, and occurs on more days than not for at least six months. Other features nxiety, such as apprehensiveness and irritability, and physical (or somatic) symptoms of anxiety, such as increased fatigue and muscular tension.**

- **"Panic disorder in adults: classically present with spontaneous, discrete episodes of intense fear that begin abruptly and last for several minutes to an hour. or a significant maladaptive change in behavior related to the attacks, such as avoidance of the precipitating circumstances. four or more of the following symptoms occur: palpitations, pounding heart or accelerated heart rate ,sweating ,trembling or shaking ,sensations of shortness of breath or smothering ,feelings of choking ,chest pain or discomfort ,nausea or abdominal distressو feeling dizzy, unsteady, light-headed or faint, chills or heat sensations, paresthesias ,derealization (feelings of unreality) or depersonalization (being detached from oneself),fear of losing control or "going crazy",fear of dying.**

- **"Unipolar depression in adults: Symptoms may differ dramatically from person to person**

Five main areas of functioning may be affected:

- ✓ **Emotional symptoms ,Feeling "miserable," "empty," "humiliated" ,Experiencing little pleasure**
- ✓ **Motivational symptoms ,Lacking drive, initiative, spontaneity ,Between 6% and 15% of those with severe depression commit suicide**
- ✓ **Behavioral symptoms ,Less active, less productive**
- ✓ **Cognitive symptoms ,Hold negative views of themselves ,Blame themselves for unfortunate events ,Pessimism**
- ✓ **Physical symptoms ,Headaches, dizzy spells, general pain**

- **insomnia in adults"**

1.Predominant complaint is difficulty initiating or maintaining sleep

2. Affects the patient's level of functioning

3. Frequent yawning and tiredness during the day

● **"Posttraumatic stress disorder in adults:** has been described as intrusive thoughts, nightmares and flashbacks of past traumatic events, avoidance of reminders of trauma, hypervigilance, and sleep disturbance, all of which lead to considerable social, occupational, and interpersonal dysfunction.

The COVID-19 pandemic may also increase the risk of suicidal ideation and behavior, based upon studies that found previous viral epidemics were associated with increased rates of suicide deaths , Suicidality related to COVID-19 may be due to the hardships imposed by the pandemic, including economic privation, social isolation, reduced access to general medical and mental health care, and the stigma of having COVID-19 .

One of the studies, which included 144 patients with COVID-19, found that anxiety occurred in 35 percent and depressive symptoms in 28 percent. A subsequent cross-sectional study included patients (n = 39) with a median age of 71 years, who were hospitalized with COVID-19 and had acute alterations in behavior, cognition, consciousness, or personality [26]:

- Psychosis (n = 10, 26 percent)
- Dementia-like syndrome (n = 6, 15 percent)
- Other (eg, mood disorder, n = 7, 18 percent)

Among the 23 cases of psychosis, dementia-like syndrome, or other disorders, only 2 (9 percent) represented an exacerbation of a pre-existing disorder.

Patients with pre-existing psychiatric illness — In patients with schizophrenia, for example, COVID-19 and medications used to treat the infection may be associated with psychotic relapses, and patients may incorporate the virus and COVID-19 into their delusions (eg, "The staff are trying to infect me") . In addition, psychotic symptoms, cognitive deficits, disorganized thinking and behavior, poor insight, and marginalized social status (congregate living or homelessness) may impair their ability to follow public infection control measures such as physical distancing, hand washing, and wearing masks.

Individuals in quarantine — Individuals in quarantine during the COVID-19 pandemic may develop a wide range of psychiatric symptoms, Adverse psychological outcomes included anger, anxiety, boredom, confusion, fear, depression, emotional exhaustion, frustration, irritability, and stress. Other adverse outcomes included avoidance behaviors (eg, avoiding crowded or public places), detachment from others, subthreshold symptoms of alcohol use disorder and PTSD, excessive preoccupation with distressing somatic symptoms, and stigma, as well as domestic violence and suicidal ideation and behavior.

COURSE OF ILLNESS

Few data are available regarding the course of psychiatric illness that occurs in patients with COVID-19. However, The prevalence of long-term psychiatric illness secondary to COVID-19 may be higher than that observed after the SARS and MERS epidemics due to differences in treating the viral diseases and the social context of the epidemics . As an example, the economic crisis caused by the COVID-19 pandemic surpasses the economic adversity imposed by the prior coronavirus epidemics and the social disruption appears greater due to the much wider geographical reach.

Patients critically ill with COVID-19 — Patients who are critically ill with COVID-19 appear to be at risk for persistent psychiatric illness . In a series of meta-analyses as well as a subsequent study

that assessed patients (total n >5000) one year after they were treated in an intensive care unit for various illnesses, roughly 20 to 40 percent of patients manifested clinically significant symptoms, including :

● Anxiety symptoms – 34 to 38 percent of patients

● Depressive symptoms – 29 to 32 percent

● PTSD – 18 to 34 percent

ASSESSMENT AND DIAGNOSIS

Assessment and diagnosis of anxiety disorders, depressive disorders, insomnia disorder, and posttraumatic stress disorder are discussed separately:

● assessment of "Generalized anxiety disorder in adults: Take a full history and conduct an examination, including a mental status examination. Consider organic causes of anxiety, such as stimulant use, endocrine disorders, asthma or congestive heart failure.

review related functional, interpersonal and social difficulties the person is experiencing. Obtain a third-party history from family members if the client provides consent and family involvement is appropriate. Also consider cultural factors.Take a psychiatric history, noting past episodes of anxiety, response to treatments and comorbid mental health conditions.

Assess the person's safety and risk regularly because suicidal intent may be present, particularly if the person also has depression.

● assessment of "Panic disorder in adults: At least one of the attacks has been followed by one month or more of one or both of the following:

persistent concern or worry about additional panic attacks or their consequences.

a significant maladaptive change in behaviour related to the attacks (such as avoidance).

The disturbance is not attributable to the physiological effects of a substance or another medical condition.

The disturbance is not better explained by another mental disorder.

● assessment of "Unipolar depression in adults: diagnosis depends upon the clinical history and examination. Most symptom severity scales used in depression screening do not provide a diagnosis, and regardless, a clinical interview is necessary to clarify which depressive disorder is present and to address the differential diagnosis The mental status examination supplements the history by observing the presence of depressive signs, including alterations in mood and affect, cognition (eg, attention, concentration, and memory), psychomotor activity, ruminative thought processes, speech, and suicidal thoughts.

● assessment of insomnia in adults" Determine the pattern of sleep problem(frequency, associated events, how long it takes to goto sleep, and how long the patient can stay asleep) , Include a full history of alcohol and caffeine intake and other factors that might affect sleep , Review current medications that patient is taking to eliminate these as possible causes , Take a history to rule out physical cause and/orpsychosocial cause

● assessment of "Posttraumatic stress disorder in adults: should receive a comprehensive psychiatric assessment. Examples of questions a clinician can ask to elicit symptoms of PTSD are provided below.

●How do you feel when you recall the event?

●Do you experience dreams or flashbacks about it?

●Do you find yourself avoiding people or activities you associate with the event?

●Do you find yourself forgetting occurrences from that period?

●Do you find yourself looking carefully around when you are in a public place?

Patients need to be asked specific questions about their traumatic experience(s) to differentiate PTSD from other psychiatric disorders. These questions should be asked with sensitivity. Patients are often reluctant to discuss past traumatic events because of guilt, embarrassment, or discomfort inherent in revisiting painful memories.

MANAGEMENT (5)

- ✓ **General approach — For individuals who experience symptoms of anxiety, depression, insomnia, or posttraumatic stress disorder (PTSD) during the COVID-19 pandemic, stepped care may be an efficacious and cost-effective approach to treatment . According to this approach, monitoring mental health problems is paramount.**
- ✓ **Surveillance for domestic violence and child abuse, both of which are predicted to increase during mandated stay-at-home orders, is also critical .**
- ✓ **Individuals with low levels of symptoms are provided with self-help materials pertinent to their symptoms and concerns and are eligible to speak with a mental health professional if they have additional or persistent concerns . Online, clinician-guided self-help or pure self-help cognitive-behavioral therapy may also be beneficial .**
- ✓ **limiting one's intake of print and broadcast news about the pandemic, as well as maintaining routines for sleep, work, and getting dressed; maintaining structured activities such as exercise, engaging in pleasurable and relaxing activities; and staying connected to family and friends via phone and computer [6].**
- ✓ **Individuals with moderate to severe symptoms can be treated by their primary care provider or referred to a mental health specialist.**
- ✓ **If feasible, psychiatric care should be administered by computer or telephone rather than face-to-face [7]. Patient contact through voice or voice plus video may be superior to text messages and emails .**
- ✓ **The US Food and Drug Administration offered guidance on April 14, 2020 regarding the COVID-19 public health emergency and use of digital health devices to help treat psychiatric disorders such as generalized anxiety disorder, insomnia disorder, PTSD, and unipolar major depression . The guidelines recommend that the devices be used only as adjunctive treatment.**

Functions that these devices may perform include reminders about physical activities, mindfulness activities, and behavioral techniques that patients can use when experiencing increased anxiety.When face-to-face visits are necessary, personal protective equipment (eg, masks) should be used.

- ✓ **Psychiatrists may be asked to consult on patients receiving pharmacotherapy for COVID-19 and should therefore be familiar with the medications that are currently being used. As an example, dexamethasone, which is a steroid undergoing clinical trials for COVID-19, is associated with psychiatric side effects such depression, emotional lability, euphoria, insomnia, malaise, personality changes, and psychosis. Patients should be asked about any other prescribed medications or supplements they may be taking in the belief they might reduce vulnerability to COVID-19 infection. Specific medications that are being evaluated for COVID-19 are described separately.**
- ✓ **psychotropic drugs can be safely prescribed to patients receiving pharmacotherapy for COVID-19. As an example, antidepressants (eg, escitalopram), antipsychotics (eg, olanzapine), benzodiazepines (lorazepam), and valproate do not seem to interact with antiviral agents such as interferon, lopinavir-ritonavir, and ribavirin .**

Conclusion

The short-term neuropsychiatric and cognitive complications following COVID-19 are varied and affect a large proportion of COVID-19 survivors. In the medium- and long-term period, there is going to be an influx of patients with psychiatric and cognitive problems who were otherwise healthy prior to COVID-19 infection. Increased neuropsychiatric manifestations could be observed in the form of an increase in cases of depression, anxiety, PTSD, and in certain cases severe mental illnesses. Cognitive sequelae are also likely to be varied and a detailed cognitive evaluation should be considered for such individuals to monitor the emergence of new neurological cases. Robust neuropsychiatric and cognitive monitoring will enable health care providers to plan adequate health care delivery and allocate resources adequately. Early intervention for emerging cognitive problems will be critical for independent functioning and improved quality of life for many COVID-19 survivors

Reference

1) Benson NM,Öngür D, Hsu J. Lancet Psychiatry. 2020;7(6):476. Epub 2020 May 11 .COVID-19 testing and patients in mental health facilities,32407671.

2) Galea S, Merchant RM, Lurie N . JAMA Intern Med. 2020;180(6):817. The Mental Health Consequences of COVID-19 and Physical Distancing: The Need for Prevention and Early Intervention .32275292.

3) Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, Ho RC. Int J Environ Res Public Health. 2020;17(5) Epub 2020 Mar 6.mmediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China.

4) .Gunnell D, Appleby L, Arensman E, Hawton K, John A, Kapur N, Khan M, O'Connor RC, Pirkis J, COVID-19 Suicide Prevention Research Collaboration .Lancet Psychiatry. 2020;7(6):468. Epub 2020 Apr 21. Suicide risk and prevention during the COVID-19 pandemic .32330430.

5) Razai MS, Oakeshott P, Kankam H, Galea S, Stokes-Lampard H ,BMJ. 2020;369:m1904. Epub 2020 May 21. Mitigating the psychological effects of social isolation during the covid-19 pandemic.32439691.

6) World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak. March 18, 2020. https://www.who.int/publications/i/item/mental-health-and-psychosocial-considerations-during-the-covid-19-outbreak (Accessed on July 01, 2020).

7) Garriga M, Agasi I, Fedida E, Pinzón-Espinosa J, Vazquez M, Pacchiarotti I, Vieta E ,Acta Psychiatr Scand. 2020;141(5):479.The role of mental health home hospitalization care during the COVID-19 pandemic. 32279309.