



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Special Issue Article

COVID-19: Clinical Challenges in Dutch Geriatric Psychiatry

P. Naarding, M.D., Ph.D., R.C. Oude Voshaar, M.D., Ph.D., R.M. Marijnissen, M.D., Ph.D.

ARTICLE INFO

Article history:

Received April, 9 2020

Revised May, 18 2020

Accepted May, 19 2020

Key Words:

Old-age psychiatry

Covid-19

mental health

pandemic

Netherlands

telehealth

ABSTRACT

The COVID-19 pandemic has changed everyday life tremendously in a short period of time. After a brief timeline of the Dutch situation and our management strategy to adapt geriatric mental health care, we present a case-series to illustrate the specific challenges for geriatric psychiatrists. (Am J Geriatr Psychiatry 2020; 28:839–843)

INTRODUCTION

The COVID-19 pandemic has changed everyday life tremendously in a short period of time. The threat of contamination is especially frightening for older persons, as chronological age is a major risk factor for a severe course and mortality.¹ Social distancing and self-isolation have been imposed by the authorities to contain or delay the spread of the SARS-CoV-2 virus (COVID-19) and to prevent a shortage of hospital intensive care beds. These

measures may have a disproportionately large impact on the older age group since personal assistance on (I)ADL has to be minimized and the prohibition of family and other social contacts may worsen feelings of loneliness.² This impact on (older) persons, which is already high, may increase even more in the presence of a psychiatric disorder² and in the case of lower socio-economic status and smaller social networks.^{3,4}

A brief timeline of the Dutch situation and our management strategy to adapt geriatric mental health care is presented below, followed by a case-series to illustrate the specific challenges facing geriatric

From the Department of Old-age Psychiatry, GGNet Mental Health, Apeldoorn, The Netherlands; and the Department of Psychiatry, University Medical Center Groningen, University of Groningen, The Netherlands. Send correspondence and reprint requests to P. Naarding, M.D., Ph.D., Department of Old Age Psychiatry, GGNet Mental Health, PO Box 2003 7230 GC, Apeldoorn, The Netherlands. e-mail: p.naarding@ggnet.nl

© 2020 Published by Elsevier Inc. on behalf of American Association for Geriatric Psychiatry.

<https://doi.org/10.1016/j.jagp.2020.05.019>

psychiatrists. This case-series included patients treated at GGNet, a large mental health care center covering a population of around 800,000 in the eastern part of The Netherlands, and the Psychiatry Department at University Medical Center Groningen in the northern Netherlands.

DUTCH SITUATION REGARDING THE COVID-19 PANDEMIC

On February 27th, 2020, the first person tested positive for SARS-CoV-2 in the southern part of the Netherlands, followed by the spread of the virus throughout the country. Measures were applied in rapid succession, since mental health centers are not prepared for the management of communicable diseases. Initially, handshakes were prohibited and social distancing was applied in the conversation room. One week later, only urgent visits were allowed to our outpatient clinics; group sessions were restricted to a maximum of three persons and one week later prohibited entirely. Finally, by mid-March, older outpatients were confined to their homes due to the lockdown in the Netherlands.

Many aspects of mental health care facilities make older patients with psychiatric disorders susceptible to the rapid spread of COVID-19.⁵ In long-term care facilities and acute inpatient wards, communal meals and different group activities, combined with an inability to follow hygienic and sanitary rules, hinders the prevention of transmission. As a result, older inpatients in acute and long-term care mental health care have been locked-up. Beginning on March 20, contact with their closest family members was prohibited. This latter restriction may cause iatrogenic damage, as social isolation of older adults is associated with a higher risk of the onset of chronic diseases such as cardiovascular, autoimmune, neurocognitive, and affective disorders.^{6–8}

To comply with national policies on the spread of COVID-19 and protect geriatric psychiatric patients, specific COVID-19 isolation units with 5–9 beds were set up in most mental health centers. In addition to the fear of infection of our patients, we also feared running out of staff, especially for inpatient wards. Quick action was taken in close collaboration between management and staff to adjust to this new situation. In addition to safety measures to prevent the spread

of the virus, a rapid transformation to mobile and e-health services was implemented in order to continue the normal and necessary outpatient mental health care. In the Netherlands, health insurance is mandatory and covers both primary and specialized medical treatment, including mental health care. For specialized medical care, however, all persons have a mandatory deductible of 385 euros per year. Specialized home-care is also available for everyone, when indicated, for house-keeping, to assist with ADL and to supervise medication.

CASE-SERIES

Case A – A 78-year-old man suffering from Alzheimer's disease (Clinical Dementia Rating scale = 2 [moderate dementia]) was admitted to an acute inpatient ward of our mental health center, due to confusion and worsening of cognitive functioning after his partner fell ill and could no longer take care of him. His daycare in a nursing home had concluded 2 months before. He was screened by the geriatrician in the ER. The physical examination, including laboratory tests, showed no abnormalities beside a lowered nutritional status; specifically, no indications of infection with COVID-19 were found. However, the day after admission, he developed a dry cough followed by high fever (39.4 C) and shortness of breath. He was referred to a general hospital and diagnosed with COVID-19. Three days later he died alone. Retrospectively, we found that his partner had also been diagnosed with COVID-19 on the same day the patient was admitted to the general hospital. Experiencing only mild symptoms, she recovered completely. In parallel with this case, several other inpatients in our acute ward, as well as staff, fell ill and were put in isolation. None of the patients tested positive on COVID-19. Due to possibility of false-negative results of the tests, the sick patients were kept in the quarantine ward until they were free of symptoms for 24 hours before isolation was concluded. One patient, suffering from a chronic psychotic disorder, destabilized in isolation and became severely psychotic over the next three days. She refused to cooperate with our program and medication, which resulted in coerced admission and compulsory treatment.

Members of the clinical staff were allowed to return to work when they were completely free of symptoms for more than 24 hours.

Case B – In the long-stay ward for older patients, Mrs. B, an 83-year-old woman, was admitted 7 months ago after the death of her husband. She had a long history of recurrent affective psychosis in the context of a schizo-affective disorder. During the admission, her psychiatric status stabilized and the following month she was transferred to a geronto-psychiatric ward of a nursing home.

She complained of pain in her left cheek, which showed some redness and a palpable swelling, suspected to be a local pustule. Initially, there were no other symptoms. However, over the following days, she developed a high fever, her entire face became red, and she felt very ill and stayed in bed, which was quite unusual for the patient in question. Her oxygen saturation was 91%, low for a patient with no history of COPD. She showed no signs of cough or respiratory illness, and her pulse and blood pressure were normal. Although a beta-hemolytic group A streptococcus infection (erysipelas) was considered the most likely cause, for which antibiotics were started, we also decided to isolate her in the “COVID” unit. Her dosage of clozapine was reduced by half, her leucocyte count was checked, and she was supported with extra oxygen (2 L/min). Her oxygen saturation improved. The COVID-19-test was negative and her blood level of clozapine and leucocyte counts were fine. The isolation was stopped and she recovered.

Case C – Mrs. C, 77 years old, an outpatient diagnosed with a bipolar disorder who had been stable on lithium the previous 5 years. Her clinical history mentioned diabetes mellitus and arthrosis. On March 24th, she visited her GP for severe pain in her ankle; because the patient responded well to tramadol in the past, her GP again prescribed tramadol in a dosage of 50 mg OD. The following night she became anxious and confused. The next day she was seen on the ER where delirium caused by tramadol was diagnosed, or possibly derangement of her diabetes (which was not the case). In the emergency ward, she developed a fever, shortness of breath and a cough. After physical examination, laboratory tests and X-ray she was diagnosed with pneumonia. She tested positive for COVID-19 and was admitted to the COVID unit of the general hospital. Fortunately, Mrs. C had done

advance care planning (ACP) in earlier stages with her daughter, GP and one of our old-age psychiatrists. In the ACP, it was decided that she would not be admitted to intensive care if necessary. This was very helpful for the patient, the family and doctors. Luckily, she recovered after one week with supportive care, some additional oxygen and careful evaluation of her lithium. Despite the stress of hospital admission and fear for dying of COVID-19, her mood remained remarkably stable and she was discharged from the hospital in good condition.

Case D - Mrs. D, a 67-year-old female with no psychiatric or somatic history was seen on urgent referral by her GP to our old-age department, because of extreme anxiety, depressive mood and nihilistic thoughts. She worried obsessively about her 35-year-old daughter, who was living in the southern Netherlands, the epicenter of the COVID-19 outbreak. Mrs. D manifested so-called “COVID delusions”: she thought she was the cause of the COVID-19 pandemic in the Netherlands. She had developed suicidal thoughts and persisted in the idea that the world would be saved if she died. As this was the first episode of psychiatric deterioration, an extensive physical examination was done, including laboratory tests, X-ray and brain CT; no abnormalities were found. Despite the fact that her daughter was not infected by COVID-19, Mrs. D remained depressed and treatment was started with a Tricyclic antidepressant.

Case E – Mrs. E1 and E2 both participated in our day-treatment clinic for older patients 2 days a week. They followed a CBT-based program including group sessions for cognitive therapy, behavioral activation, psychomotor therapy, creative therapy as well as nurse-directed life-review and goal-oriented sessions. This program is generally delivered in groups of no more than eight patients. Since outpatient group sessions were no longer permitted, we converted our program into online group therapy using Webex. All patients were instructed individually on how to use the online system, and five out of eight patients agreed to continue their therapy using online group sessions. Two patients consented to the use of their information for this case series, ie, one patient who refused online group therapy and one who is currently participating. Mrs. E1, a 65-year-old woman diagnosed with a bipolar disorder, refused to participate. She had recently recovered from a manic-psychotic episode and had just started day-treatment as

follow-up for her inpatient treatment. She refused online group sessions, which she felt infringed in her privacy and feared would result in online persecution. She did however agree to individual online sessions twice a week. Mrs. E2, 77 years old, was able and willing to join the online group day treatment. She had a history of a high-level borderline personality disorder and generalized anxiety disorder. She experienced a relapse after neurosurgery for frontal meningioma complicated by epileptic seizures. While her condition, especially her anxiety, deteriorated rapidly at home, she gradually improved over the course of the first 2 weeks of the online group therapy. Her husband no longer pressured us to admit her to an inpatient ward and was happy to have her at home isolated from family and friends.

DISCUSSION

The case-vignettes described above illustrate the immediate clinical challenges we faced in our mental health services for older people during the initial weeks of the COVID-19 outbreak in the Netherlands.

1. The awareness of vulnerability as well as the involuntary and inescapable self-isolation both generate anxiety and possibly other psychiatric signs and symptoms. This will be the case not only in known psychiatric patients, but also in the general older population (see case D).
2. Psychiatric deterioration in our existing case-load could be an initial manifestation of COVID-19 infection (see case A and C). In case C, possible factors such as delirium from deranged blood-sugar levels, or the use of painkillers, may have precluded and delayed proper COVID-19 diagnoses (see case C).
3. Expanding on this second point, triage of suspected COVID-19 infections is complex in geriatric psychiatric patients, as is illustrated by case B. Case B does not take place in a vacuum, since every week, a number older patients in the long-stay unit normally contract infectious diseases of all kinds. Since a small-scale epidemic in a specialized old-age center is a horrifying scenario, we isolate patients as quickly as possible upon suspicion of COVID-19, which may include fever, shortness of breath, and cough, but sometimes even atypical presentation of gastrointestinal symptoms, fatigue, headache or muscle pain alone.⁹ Since fever or coughing alone is highly prevalent, most tests results are negative. In addition, the costs of isolation are high, as shown by the consequent effects of case A (Mr. A2). Moreover, placement of non-COVID-19 subjects on a quarantine ward poses an ethical challenge, because in worst case scenarios, patients are infected with the COVID-19 virus instead of being protected from it.
4. In emergency situations such as a quickly developing viral infection like COVID-19, ACP is very useful in supporting clinical decision-making (as was the case in case C). We have distributed clear information for patients in all of our geriatric wards and opened this discussion previously as much as possible. The information indicates that ICU support in COVID-19 will be required for a long time (3–4 weeks) and that frail (older) people have low survival rates and generally end up with major loss of functioning. Another disadvantage of being in an ICU is that no family is allowed during this pandemic and if the COVID-19 is ultimately fatal, the patient dies alone (see case A). Visitors are not allowed in normal COVID units either, but in the case of those who are dying, it is possible to arrange for family to visit the patient to allow a proper farewell period and to prevent pathological grief.
5. Since national policies have restricted outpatient care programs, we rapidly transformed individual and group therapy sessions into E-health programs using telephone or video platforms. For older people, this is not always possible, because they lack the knowledge and experience in the use of these new technologies, and sometimes lack the appropriate resources required for this kind of connection to begin with. It is important to avoid ageism, since most of our patients seem to adapt easily to these opportunities. Some patients need additional support to get online, e.g. by setting up online connections with their healthcare providers, and by ensuring that the family will support online access by providing computers or tablets to stay connected. Assisting these older people to digitize

will also probably lead to easier access to other health care service providers and help them to stay in touch with friends and relatives. A digital day-treatment program can combine these interventions and could be an alternative for the in-person day-treatment (see case E2). Nonetheless, some psychiatric conditions may prevent the successful application of online therapy (see case E1).

In conclusion, this crisis has had an enormous impact on older persons in our society, and we have to be prepared to face these upcoming challenges and respond to them with sustainable and effective strategies and solutions. Our primary concern is our vulnerable older psychiatric group, which is at major risk of contracting COVID-19 themselves. Isolation and rapid recognition of the infected group is our primary goal. After this, we have to take special care of this group, because they will suffer more from the social isolation and lock-down and are at risk of deterioration from these measures themselves. But this crisis may also offer

opportunities. For example, speeding up individual and group E-health therapies and E-health visits is a major task for us now.

AUTHOR CONTRIBUTION

P. Naarding, composing total article, case A-C. R. C. Oude Voshaar, Case E, writing and editing. R.M. Marijnissen, Case D, writing and editing. The authors report no conflicts with any product mentioned or concept discussed in this article.

DISCLOSURE

The authors wish to thank B. Aan de Stegge, T.L. Burm, H. van Eyk and R. Mellink, all Old-age psychiatrists at GGNet Mental Health Center for their contributions to the clinical case-reports in this article.

References

1. Wang L, He W, Yu X, et al: Coronavirus disease 2019 in elderly patients: characteristics and prognostic factors based on 4-week follow-up. *J Infect* 2020;doi:10.1016/j.jinf.2020.03.019
2. Armitage R, Nellums LB: COVID-19 and the consequences of isolating the elderly. *Lancet Public Health* 2020;doi:10.1016/S2468-2667(20)30061-X
3. Yang Y, Li W, Zhang Q, et al: Mental health services for older adults in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020;doi:10.1016/S2215-0366(20)30079-1
4. Druss BG: Addressing the COVID-19 pandemic in populations with serious mental illness. *JAMA Psychiatry* 2020;doi:10.1001/jamapsychiatry.2020.0894
5. Gardner W, States D, Bagley N: The coronavirus and the risks of the elderly in long term care. *Aging Soc Polic* 2020;doi:10.1080/08959420.2020.1750543
6. Gerst-Emerson K, Jayawardhana J: Loneliness as a public health issue: the impact of loneliness on health care utilization among older adults. *Am J Public Health* 2015; 105: 1013–1019
7. Santini Z, Jose P, Cornwell E, et al: Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): a longitudinal mediation analysis. *Lancet Public Health* 2020; 5:e62–e70
8. Altena E, Baglioni C, Espie CA, et al: Dealing with sleep problems during home confinement due to the COVID-19 outbreak: practical recommendations from a task force of the European CBT-I Academy. *J Sleep Res* 2020;doi:10.1111/jsr.13052
9. Borges do Nascimento IJ, Cacic N, Abdulazeem HM, et al: Novel coronavirus infection (COVID-19) in humans: a scoping review and meta-analysis. *J Clin Med* 2020;doi:10.3390/jcm9040941