Mental Health Effects of COVID-19 Lockdowns in Long-Term Care Facilities

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Abstract

Residents of long-term care (LTC) facilities are vulnerable to severe presentations of SARS-CoV-2 and thus have been subjected to strict lockdowns and visitor restrictions during the COVID-19 pandemic. However, this comes at a cost of their social needs. Case reports of care conferences with personal care home (PCH) residents or potential residents have exposed an increase in mental health consequences of the COVID-19 lockdowns, particularly an increase in anxiety and responsive behaviours exhibited by individuals with dementia. These reports are supported by the existing literature regarding social isolation and dementia and emerging literature regarding mental health during the COVID-19 pandemic. Strategies to mitigate the mental health effects of COVID-19 lockdowns are needed due to the risk of a second wave of SARS-CoV-2 infections in Manitoba and re-imposing of lockdowns.

Introduction

Long-term care (LTC) facilities are especially vulnerable to infectious diseases. During the COVID-19 pandemic, 81% of deaths from COVID-19 in Canada have occurred in LTC facilities[1]. The populations within LTC facilities are prone to severe presentations of illness and the social nature of the facilities (residents living and eating together, staff and visitors coming in and out) greatly increase risk of transmission. Because outbreaks of SARS-CoV-2 in LTC facilities have been so catastrophic, extreme measures were and continue to be taken to ensure that the virus never enters the facility. In the Prairie Mountain Health (PMH) region, March guidelines[2] recommended limiting LTC visitation to essential visitors (individuals who are important components of the resident care plan) and compassionate visitors (for residents who are dying or very ill). However, protecting the health of LTC residents via quarantines comes at the expense of their social needs. This is particularly significant in Manitoba as the low infection rate of SARS-CoV-2 in the province[3] resulted in one of the primary challenges being the effects of the lockdowns themselves on LTC residents. The mental health impacts of the disruption in routine and decrease in social support of LTC residents during the COVID-19 pandemic are changing the care needs of residents within LTCs, and this dynamic is emerging in the clinical consultations of my preceptor, Dr. Rhynold; a geriatrician with PMH. As will be illustrated in the clinical cases below, some of the major mental health impacts of the COVID-19 lockdowns seen by Dr. Rhynold include an increase in anxiety with associated mental and physical manifestations and responsive behaviours exhibited by individuals with dementia. Additionally, the change in community supports may be contributing to an increased need for PCH admissions and emergency department (ED) visits for older adults.

Case Report

Note that due to COVID-19 restrictions, consultations were done virtually with staff and patient participation was not possible.

Case 1 – June 10th, 2020

Geriatric consultation was sought for a female personal care home (PCH) resident from Swan River, whose presenting concerns included increasing distress, paranoia, agitation, as well as lower back pain that radiates to the hip and bilateral knee pain that limits mobility. Staff reports that the paranoia is likely a result of the patient being very sensitive to the feelings of other residents as well as mistrustful of them. Staff knows that the COVID lockdowns have been difficult on her as her children can no longer visit and she cannot get her hair or grooming done (leading her to describe herself as “ugly”). They suspect that the visitor restrictions are resulting in increased anxiety, and virtual visits with family are not possible as the facility does not have the technology or know-how to facilitate this. Finally, staff reports that the patient is aware of her mental decline and that is an added source of stress.

PMHx: moderate stage dementia (diagnosed 2018), evidence of Alzheimer’s

Medications: Sertraline, Duloxetine. Sertraline was increased and has had a positive effect on paranoia. Recent introduction of Duloxetine on June 6th had major reported side effect of insomnia and unhappiness.

Anxiety assessment could not be performed.

Suicide assessment inconclusive as patient had trouble with word-finding to answer questions. Reassures during assessment that she wouldn’t think of suicide but says other phrases that may indicate suicidal thoughts.

Recommendations made by Dr. Rhynold were the following:

- Introduce low-dose quetiapine for anxiety and paranoia
- Introduce hydromorphone for pain relief (NSAID use not recommended in older adults)
    - Watch for constipation as a side effect (and agitation resulting from constipation)
- Consider non-pharmacological interventions to improve her mood and decrease agitation including pre-recorded family member calls or videos, family photos, procedures so that hair and makeup can be done safely
- Review the PCH care plan for the resident; if resident is experiencing increased stress because of functional decline consider that care plans should be changed to allow additional assistance and/or time

Expected outcome of the recommendations is a general improvement in distress, paranoia, agitation, anxiety, and pain. Use of the non-pharmacological interventions will hopefully assist in distinguishing the cause of increased distress from medication changes and other causes.

Case 2 – June 22nd, 2020
Geriatric consultation was sought for an 83-year-old female admitted to hospital due to failure to cope as a result of anxiety. Consult was to discuss placement in assisted living or PCH versus remaining in community. Episodes of anxiety typically occur at 4 AM and result in extreme failure to cope. Patient has frequently presented to Emergency Department with complaints of abdominal pain (unclear if a manifestation of anxiety or a result of diverticulitis) which also affects her functioning. Patient lives by herself in an apartment, has declined home care, and relies on her daughters for support and Instrumental Activities of Daily Living (IADLs)[4] including banking and shopping. Patient is independent with basic Activities of Daily Living (ADLs)[4] except in episodes of anxiety. Patient is also anxious about potential falls.

PMHx: dementia, central tremor, diverticulitis, anxiety, depression
Medications: Sertraline, Lorazepam, Propranolol, hydrochlorothiazide, clopidogrel, omeprazole

Cognition: MoCA score = 20/30. Stepwise decline in cognition for the past 10 years. Decreased ability to remember names, no word-finding difficulty, no history of delirium, slight cognitive impairment found on Cognistat.
Fully ambulatory.

Recommendations made by Dr. Rhynold were the following:

- Slowly wean patient off Lorazepam → help address risk of falls (and alleviate fear) and potential negative cognitive side effects
- Investigate potential physiological causes of 4 AM anxiety episodes
    - Contribution of medications (Lorazepam, hydrochlorothiazide)
    - Get sitting and standing blood pressures to assess for orthostatic hypotension
    - Get ECG reading during anxiety episode
- Start panelling process for PCH admission as the patient now has decreased community support from her daughters (COVID restrictions) and other supports such as Home Care are not available during the time of the episodes (4 AM)

Expected outcome is that patient will be admitted to PCH as soon as possible to support care needs, and potential physiologic causes of the anxiety episodes will be investigated to ensure a diagnosis is not missed.

Case 3 – July 16th, 2020
Geriatric family care conference was requested by the PCH team for a female PCH resident who is presenting with increasing weepiness and anxiety, and nonspecific “pain in her bottom”. Weepiness and anxiety were first reported in 2019 and have been stable until the last couple of months (which have been complicated by COVID-19 restrictions). Staff report that patient has been missing the human contact with her family. She has been pacing more, possibly hoping to alleviate some of her pain. Staff have

approached her enquiring how they can help her, but she cannot express what is bothering her or what can be done to help. Goals of care for this resident are exclusively focused on her comfort.

PMHx: “executive dysfunction” (2019), otherwise not given
Medications: mirtazapine, quetiapine, hydromorphone, levothyroxine, treatment for hypertension (not specified)

Recommendations made by Dr. Rhynold were the following:

- Non-pharmacological strategies to decrease anxiety including reading letters from family (it is known that she likes re-reading letters), watching streamed worship services
- Produce a “menu” of options that staff could offer to the resident (limited choices in food, recreation) rather than the open-ended question of how they can help
- Provide a copy of an information brochure about COVID-19 written for people with cognitive impairment if resident is unable to understand why her family does not visit
- Medication changes: introduce sertraline instead of mirtazapine (reported to be not effective), increase quetiapine, consider trial of CBD oil (requested and bottle provided by family) starting at low dose and only increasing every 3 days.
- Pain management → consider titrating up hydromorphone dose to manage pain. However, due to location of pain and fluctuations in agitation
- Consider appointing an essential family caregiver → one member of the family who is trained in PPE, hand hygiene, and will maintain physical distance but can help anticipate needs for toileting/nutrition, facilitate technology for communication, assist in walking, etc. for the resident

Expected outcome is that non-pharmacologic strategies such as the integration of an essential family caregiver, more effective communication with the resident, and explanations about the COVID-19 pandemic will result in a decrease in anxiety and increase in general mood. Proper pain management will also hopefully decrease agitation.

Literature Search

Pubmed was the main database searched for relevant literature. Age filter of “65+ years” and “80+ years” were applied to all searches, otherwise non-LTC related results were yielded. No timespan filters were applied as all COVID-19 literature was published in 2020. Search “covid 19 AND long-term care” yielded 21 results, all of which focused on description of the epidemiology of COVID-19 in LTC facilities or geriatric presentations of illness and were not focused on the mental health effects. Search “covid 19 AND long-term care AND mental health” yielded 2 results, one of which by Palmer et al. (2020)[6] was relevant. Search “covid 19 AND long-term care AND anxiety” yielded no results, while “covid 19 AND anxiety” with age filters applied yielded 38 results, 1 of which was relevant[6]. Search “covid 19 AND dementia” yielded 10 results, 1 of which provided 6 useful references[5,10,12,13,14,15].

Discussion

As illustrated in all three of the clinical cases described above, the lockdown resulting from the COVID-19 pandemic seems to most often manifest in an increase in anxiety. In Case 1, the PCH resident’s primary sources of anxiety seem to be regarding the lack of visitation from her family and the lack of grooming services available to PCH residents during the lockdown. In Case 2, the increase in anxiety was suspected to be due to a decrease in family support for daily activities and a fear of falls. In Case 3, the increase in anxiety was again due to missing her family as well as the communication barrier between her and staff. We can speculate the cause of this increase in anxiety based on the anecdotal evidence provided by the clinical cases and information found in the literature. In the literature that is starting to come out regarding the COVID-19 pandemic, we’ve seen that imposing quarantines in the general population is associated with increases in anxiety and symptoms of acute stress disorder, likely as facing a novel and unknown situation is a potential stressor[5]. Not only is the situation novel and unknown, SARS-CoV-2 carries a high risk of mortality for older adults[6] which compounds the degree of anxiety for them. In older adults, there is the added effect of social isolation on anxiety. Social disconnection and loneliness put older adults at a greater risk of depression and anxiety[6,7] and affects the outcomes of patients with existing mental health conditions[8]. Older adults are more at risk for severe

presentations if they contract SARS-Cov-2[9] thus they are more likely to be isolated for their own safety. Older adults are also less likely to be able to use online communication technologies to prevent social disconnectedness[6]. Therefore, older adults are at high risk of the negative mental health outcomes (i.e. anxiety, depression) that come with isolation during the COVID-19 pandemic. The physical manifestations of anxiety (example in Case 2) can also result in increased health care utilization[8] as the physical symptoms of anxiety (GI pain, shortness of breath, chest pain) can be difficult to distinguish from physiological causes. The anxiety regarding risk of falls, outlined in Case 2, could be a result of the reduced physical activity levels of lockdown. Physical activity in older adults is crucial as it is associated with a reduction in falls along with maintenance of cognitive function and positive effect on risk factors for chronic disease (obesity, hypertension, etc.)[8]. Finally, it is possible that the increase in anxiety could be a result of the general increase in anxiety of the LTC facility, especially the health care workers. Health care workers of LTC facilities during the COVID-19 pandemic are experiencing a greatly increased work burden due to reduced community/family supports[10] that could normally assist with the care of LTC residents. Additionally, staffing shortages could result in health care workers, as being in an active quarantine is significantly associated with minimizing direct contact with patients and not reporting to work[5]. The stress of being in a new and unfamiliar situation, increase in social isolation, and increase in the general anxiety of their surroundings seems to be increasing the anxiety of residents of LTC and resulting in more difficulty in providing care. However, a potential conflicting observation to this hypothesis is the presence of medication changes (example in Case 1) that may be preceding the increase in anxiety or agitation, and further cases should be explored to distinguish these changes from the effects of the COVID-19 lockdowns on anxiety.

Another common theme throughout the 3 clinical cases above is the presence of cognitive impairment (most often dementia) with the reported behaviors of agitation, anxiety, distress, and paranoia which led to request of a geriatric consultation. These behaviours are likely attributed to an increase in responsive behaviours, defined as actions of persons with dementia that express something important about their personal, social, or physical environment that are a result of changes in the brain affecting memory, judgement, orientation, mood, and behavior. The more challenging responsive behaviours include those associated with anxiety, anger, and aggression. Responsive behaviours are likely to occur with a disruption in established routine, unfamiliar environments and situations, or feeling like they have little to no control over their life[11]. During the COVID-19 lockdown in LTC facilities, there has been a huge change in routine as residents are confined to their rooms, are not allowed family visitors, cannot attend activities or outings, and cannot eat in a common dining space. The changes of increased confinement of older adults and the reduction of face-to-face activities (e.g. recreation activities) can also lead to further worsening of cognition and function and an increase in the risk of dementia[12,13,14,15], exacerbating the issue. People with dementia/cognitive impairment are also likely to have a poorer comprehension of the public health situation and the measures required to follow[10]; not understanding the situation and why there has been a disruption in their lives. They may not understand why they have had to move rooms as part of PCH cohorting (which is relocating residents based on their SARS-CoV-2 infection or exposure status), which can be traumatic[17]. A novel aspect of this situation during COVID-19 is the added challenge and unfamiliarity of residents being cared for by professionals dressed in PPE[16]. In summary, the extreme changes to LTC brought on by COVID-19 lockdowns seems to be increasing the frequency and changing the type of responsive behaviours exhibited by individuals with dementia.

An interesting point brought up in Case 2 is the potential for increase in the need for PCH admissions for individuals who are currently living in the community, but may be lacking in support (children, neighbours, etc.) during the COVID-19 pandemic. Anecdotally this is supported however literature regarding this cannot yet be found and studies will likely be only be published many months following the peak of the pandemic.

<u>Addressing the Mental Health Effects of COVID-19 Lockdowns</u>

At the time of writing, Manitoba has entered its 3rd phase of reopening following COVID-19 lockdowns and social distancing[18]. Updated PMH LTC visitor guidelines as of May[19] have eased visitor restrictions for facilities with “very low” to “moderate” levels of COVID-19 activity; generally allowing 1-2 non-essential visitors per 24 hours with requirements to maintain physical distancing. However, without a vaccine or effective treatment for COVID-19, there remains the risk of a second wave of infections in Manitoba and thus re-imposing of lockdowns in LTC facilities. Therefore, strategies to address the negative mental health effects of the COVID-19 lockdown are important to discuss. The main strategies

that will be discussed here are the increased use of family essential caregivers, increased use of online communication, and strategies to explain the COVID-19 pandemic situation specifically to individuals with dementia. As introduced in Case 3 by Dr. Rhynold as a potential solution for a PCH resident who struggles to communicate her needs to staff, family essential caregivers should be re-integrated into LTC facilities during COVID-19 and supported as resident care partners by health care staff. A document by the Canadian Foundation for Healthcare Improvement called Better Together: Re-Integration of Family Caregivers as Essential Partners in Care in a Time of COVID-19[20] emphasizes that family essential caregivers are crucial in communication between the resident and health care staff, improve medication adherence, maintain cognitive function, reduce fall risk, and decrease resident anxiety. These 1-2 essential family caregivers must be distinguished clearly from non-essential "visitors" and can be trained in proper PPE use, and are particularly important for residents with cognitive impairment. The next strategy is to increase the use of online technologies to provide social support to PCH residents. To address issues like the one presented in Case 1, where there was a lack of facility capacity to facilitate online communication, this could be one of the roles of the essential family caregiver or there could be a designated volunteer position. Armitage and Nellums (2020) also suggest the use of cognitive behavioural therapies that are delivered online to decrease loneliness and improve mental wellbeing[6]. Lastly, described above in the Discussion section concerned how individuals with dementia had poorer understanding of the public health situation of COVID-19 and that lack of understanding could lead to responsive behaviours due to the sudden changes in routine. Despite the potential for a lack of understanding, efforts should still be made to explain the situation to individuals with dementia. Resources like the COVID-19 Book for Dementia in LTC[21] seek to explain the COVID-19 pandemic using simple terms and large fonts and are meant to be left in individual's rooms or read to them by staff. There is the potential for a decrease in responsive behaviours to the COVID-19 lockdown with increased understanding of the public health situation and measures that are meant to keep residents safe.

Conclusion

The main mental health effects of COVID-19 lockdowns in LTC facilities described through geriatric consultations are an increase in anxiety and an increase in responsive behaviours exhibited by individuals with dementia. Strategies that could be implemented to mitigate the negative mental health consequences of COVID-19 lockdowns in LTC facilities include re-integration or increased use of family essential caregivers, increase in the use of online communication, and resources to explain the public health situation of COVID-19 and the health measures required to keep residents safe to PCH residents with dementia. While it is useful to have strategies to prevent or diminish the negative mental health consequences of the COVID-19 lockdowns, it would obviously be most helpful to not have to re-impose lockdowns in the first place. For that reason, it is crucial that we as Manitobans continue to social distance and practice good infection control so that we can keep the number of SARS-CoV-2 cases low and we can protect both the physical health and the mental health of our population in LTC.

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