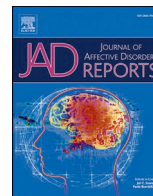




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Research Paper

Understanding the impact of COVID-19 isolation measures on individuals with mood disorders in mental health clinics



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1. Introduction

In March of 2020 the World Health Organization declared the COVID-19 virus a pandemic (World Health Organization, 2020). In response provincial and federal health authorities in Canada implemented public health measures to prevent further spread of the virus. Measures implemented during March of 2020 varied by province, but in Alberta (where this study was conducted, Fig. 1) recommendations were: to physically distance at least 2 meters from others in public spaces, to limit public outings and social gatherings, and to wear a mask when out in public (Alberta Health Services, 2020a). In reacting to newly implemented isolation measures, many businesses, including the healthcare system, had to adapt their service model to increase physical distancing for public safety. Some health care clinics moved services to virtual care, which included appointments over the phone or over video-conferencing, while other clinics were forced to temporarily suspend non-essential services that could not be provided safely. The Mood Disorders Program in Calgary Alberta prioritized virtual care in response to physical distancing measures to maintain continuity of care for patients. The Mood Disorders Program serves individuals with diagnosed or probable major mood disorders (Major Depressive Disorder and Bipolar Disorder); individuals with major mood disorders have a higher risk of relapse when under stress, so the stress of the pandemic may be expected to cause a deterioration in their health status.

The COVID-19 pandemic has caused psychological stress for Canadians with 1 in 5 Canadians in the general population experiencing moderate to severe anxiety due to COVID (Statistics Canada, 2020) and it has been speculated that those with mental health conditions experience greater anxiety (Chatterjee et al., 2020; Druss, 2020; Gobbi et al., 2020; Sher, 2020; Yao et al., 2020). A study from Gobbi et al. (2020)

reported that over 50% of their sample of 2,734 psychiatric patients experienced worsening psychiatric conditions during the pandemic. A national survey from the Centre for Addictions and Mental Health reported that Canadians were experiencing higher rates of anxiety related to the pandemic, with the possibility of those with mental health diagnoses, having a more difficult time coping (2020), however knowledge on the coping of individuals with mood disorders is understudied.

Knowledge on mood disorders suggest that triggers are specific to the individual, but isolation in particular is a powerful trigger for many that suffer from depression and bipolar disorders (Malhi et al., 2015; National Alliance on Mental Illness, 2017). As well, many people with mood disorders struggle to maintain social interaction during depressive episodes. In this way isolation is both a known trigger and a negative coping response that can precipitate recurrence of major mood episodes, and in severe cases suicide ideation. Therefore, isolation measures from public health authorities to reduce the spread of COVID-19, may trigger symptoms from those who suffer with one or more mood disorders.

In recognition of the heightened distress people are experiencing, as of July 2020, resources have been circulated from Alberta Health Services (Alberta Health Services, 2020b) the Canadian Mental Health Association, (Canadian Mental Health Association, 2020) and the Centre for Addictions and Mental Health (Centre for Addictions and Mental Health, 2020) giving people access to crisis hotlines, mental health professionals and personal mental health management tools, however there is limited evidence at this time that focus on the coping of individuals diagnosed with mood disorders. This research aimed to investigate how individuals in psychiatry clinics with one or more mood disorder diagnosis were coping during the COVID-19 pandemic and how the pandemic affected their access to health care and social support.

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2. Methods

2.1. Recruitment

Patients from the Mood Disorders clinic in the Foothills Medical Center, Calgary Alberta, were recruited to participate in the study from April 20th until June 5th of 2020. The Mood Disorders Program provides comprehensive psychiatric assessment and treatment to referred patients suffering from, or at risk for, major mood disorders including Major Depressive Disorder and Bipolar Disorder. When patients join the clinic, they are invited to become involved in the clinic registry, which is a REDCap database that allows communication of patient reported outcomes to their physician and includes consent to contact for relevant research opportunities for patients. The patient registry has been operational since 2016 and includes 71 current and past patients who consented to be contacted for research purposes. 53 individuals were contacted to request participation, 20 individuals agreed to an interview and 18 individuals completed an interview. All individuals contacted for research participation had been enrolled in the Mood Disorders Program prior to April 2020, had a mood disorder diagnosis, been treated by a psychiatrist within the Mood Disorders Program, and had previously consented to be contacted for research.

In accordance with provincial and clinic guidelines, all patient interactions, including recruitment and interviews, were conducted remotely. Patients were contacted via phone or email during recruitment to request a telephone or zoom videoconference interview. If the patient verbally expressed interest in participating, an interview was scheduled at the participant's earliest convenience and an online link to the consent form was emailed to the participant. Written consent was collected and stored on "Qualtrics" a survey software (Qualtrics, 2020). When written consent could not be obtained, for example in cases where participants who had disabilities that preventing them from using devices or computer screens, explicit oral consent was recorded and stored on a secure University of Calgary drive. Due to the nature of mood disorders that can include fluctuating ability to engage electronically, explicit oral consent was necessary so that a range of participants could still be included and the recruitment strategy could be as inclusive as possible. Process consent (Dewing, 2007) was used to ensure participants were comfortable with their continued participation on that day and with the information they were providing. This study was approved by the Conjoint Human Research Ethics Board (REB20-0559) at the University of Calgary.

2.2. Data collection

In-depth, semi-structured interviews were conducted with participants over telephone or Zoom video-conferencing. An interview guide was prepared prior to interviews that were purposefully constructed to allow open ended discussion and reflection from participants. The guide included questions about the testing process of COVID-19, virtual healthcare interactions, and overall coping and quality of life in response to isolation measures. The interviews were audio recorded using an external digital voice recorder and field notes were taken by the interviewer during and after participant interviews.

The target number of participants was 15–20 interviews was determined as an anticipated number of interviews needed in order to reach theoretical saturation of interview data. Interviews were purposefully conducted in the midst of the pandemic to allow participants to reflect and report a detailed understanding on their current experiences with physical distancing and public health measures. The data collection period, April 24th until June 5th, aligned with the first wave of the COVID-19 pandemic in which Calgary experienced a peak number of COVID cases. The Government of Alberta had implemented physical isolation measures starting in March and therefore participants had ample time to react to government mandated isolation measures. A chronological infographic of the provincial health response and relevant

policy outcome are illustrated below.

2.3. Analysis

Interviews were recorded and transcribed verbatim using a secure professional transcribing service. After the audio was verified by the research team, the transcripts were anonymized and uploaded to NVivo 12 (QSR International Pty Ltd., 2018) for qualitative analysis and data management. The qualitative analysis coding was completed by CR and DP and directed by PR (Principal Investigator and qualitative methods expert). Immersion in the qualitative data was the first step of data analysis. Transcripts were read and re-read while the interview recordings were replayed. Analysis of the interview data was conducted alongside data collection so that generated themes could be discussed at subsequent interviews to achieve theoretical saturation.

3. Results

3.1. Participant demographics

In total, 18/53 (34%) of potential participants consented and completed the interview. Interviews ranged in length from 10 m and 7 s to 50 m and 34 s (mean length = 29 m: 44 s). Telephone interviews were completed for 17 of the 18 participants, and one interview was completed with Zoom video conferencing. Participants comprised of 9 females and 9 males aged 22–69 (mean age = 39). None of the participants (patients or care partners) reported a diagnosis of COVID-19 for any members of their household. One participant had been tested for COVID-19 following their partner's work place outbreak, and four participants had been advised to self-isolate due to risk of contracting COVID-19. One participant reported they were "not sure" when asked if they had symptoms that might have been COVID-19-related.

3.2. Thematic analysis: impact of COVID-19 pandemic on patient experiences

Three overarching themes emerged from participant discussions (see Fig. 2) that clearly demonstrated the impact of the COVID-19 pandemic on experiences of patients of the Mood Disorders clinic. The themes built on a coding tree that started with small, descriptive codes about daily realities which built to larger descriptions of experience. Theme one, *system protocol changes*, focuses on the ways in which isolation measures from provincial health authorities had affected public system interactions, specifically interactions with the healthcare system. Theme two, *interpersonal community effects*, identifies the social response in people's close community due to COVID-19. Theme three highlights patient's *individual mental health and coping* during isolation. These themes are described in more detail below.

3.2.1. Theme 1: system protocol changes

Subtheme 1.1: virtual healthcare

Patients found the transition to virtual care minimally impacted their psychiatric care.

Interviewer: "Do you have any worries or fears going into [a virtual] appointment?"

Participant: "Oh no, not at all. If anything, I look forward to it." - Participant 6

Patients that had previously established a relationship with their care provider, had minimal issues with having appointments over the phone or through video conferencing. Concerns over virtual care stemmed from meeting a new care practitioner through virtual care, fearing the quality of the appointment would suffer due to limited trust. Participants emphasized that the emotional vulnerability of a psychiatry or counseling appointment was best suited for in person visits.

"I think the importance of face-to-face for counseling is paramount [...] because the thing about something like Zoom is you do not develop a relationship with somebody over a video call. If you've met someone before, established a relationship with them and you know where you stand, then a video call is fine." – Participant 10

"It's a psychology appointment and we were going to do it over the phone, but I feel like with psychology you need to see each other's faces to kind of like interpret how things are going. So I think it will be a little bit different obviously, but I opted to do the video call so that it was as normalish as it can be, I think. Yeah." – Participant 8

In person care was still the preferred method of care delivery by most participants, however they were happy to transition to virtual appointments in order to not risk possible exposure to the COVID-19 virus.

"I think I would feel fine about it. I think I would prefer that to exposing myself to potential germs. So, I think if it was something I needed, it would be an option I would certainly use." – Participant 11

Subtheme 1.2: access concerns

While many patients were satisfied with virtual care through the mood disorders clinic, some patients had difficulty managing other conditions because of real or perceived barriers to healthcare during the COVID-19 pandemic.

Due to isolation measures, some clinics and support groups had to temporarily suspend services because they could not translate their services to virtual care, leaving patients without aspects of their health support for their conditions.

"I have some other health issues. And like all of my doctors, like some of the clinics... Because I have OBGYN stuff, my OBGYN just closed, because they could not do what they needed to do. Like doing exams and stuff. So I do not have support there."

– Participant 4

Perceived barriers to care emerged from unclear messaging from health authorities. Early warnings from provincial health authorities suggesting individuals refrain from unnecessarily utilizing the emergency room made patients internalize the idea that in person care was reserved for people with COVID-19 symptoms. Therefore some patients were concerned about how to manage non-COVID related conditions with limited access to emergency health services.

"Okay, asthma attack. Now do you go to the emergency, or do you not go? Because maybe there are people who are sick, who have COVID. So we did not know what to do." – Participant 7

Many individuals were pleased with daily public messaging from provincial or federal health authorities, which gave important updates on the spread of COVID and best practices to protect one's self. However when requiring access to direct health advice, many found high wait times a barrier to service. Health link, a telephone service, which provides free 24/7 nurse advice and general health information for Albertans ([Alberta Health Services, 2020](#)), was recommended as the primary point of contact for health concerns and questions, however some people had difficulty accessing the service, for the high influx of calls resulted in extreme wait times to speak with a nurse. Patients were then unable to find answers for health concerns unrelated to COVID-19.

"The instruction was to call the 811 number. I was trying to call this, and it did not work. It failed. And then we found out that this number could not cope with the flood of incoming calls. All over Alberta because people were worried about COVID and the suspected symptoms, so they started calling. And it, it just could not handle the number of calls. And everybody was left in the situation that well, we do not know what to do."

Overall there was a lack of clarity for patients on which health

services were accessible in person, accessible virtually, or were not accessible at all during this time and high demand of the patient help lines left individuals confused and concerned about their ability to access specific health services.

3.2.2. Theme 2: interpersonal community effects

Sub Theme 2.1: concern for the health of others

All participants reported following physical distancing and isolation recommendations from health authorities, being very diligent to not expose themselves to excess risk. At the time of the interviews, no patient had reported having COVID-19. While many expressed concern about catching the virus, anxiety about COVID-19 stemmed from the fear of infecting others in their social circle with the virus. In response to a question about what a participant is struggling with most at the time, they responded:

"Certainly fear of health. You know, my daughters, she's always my first concern. Worrying about her getting sick, worrying about us getting sick, worrying about family. Then as time went on and we learned that we could be carriers, we worried about infecting others without knowing it." – Participant 3

"One of the problems I was actually having was concern that I'd come into contact with people if I socialized, and then bring it back to my parents." – Participant 17

Sub Theme 2.2: managing external relationships and stressors

Many participants expressed concern for their friends and family who were not following isolation measures and exposing themselves to unnecessary risk of catching the COVID-19 virus. Being unable to control the behavior of others in their life seemed to cause substantial anxiety for some participants.

"My mother was still having regular weekly card games with her four other elderly friends, one of whom had lung cancer. And I was like, that really showed me that they were going to get sick... so yeah, I definitely worry about people getting sick, um, which would then, as my thoughts would spin out, you know, I'd just be trapped in my head with my own thoughts, then turn into worry about people dying." – Participant 5

During April and May of 2020 information about the virus was rapidly developing, and many participants found themselves in conflict with friends and family over what was the correct protocol to protect oneself and others from COVID-19.

"There's a pressure... Like fake news about COVID and what's safe and what's not safe. Constantly, we have to go back to the Alberta Health Services website, and say, "No, this is what it says." Because whatever thing you saw on Facebook was wrong."

– Participant 13

"We have a lot of threads of conversations coming through our email and Facebook from people who question whether the reaction to the pandemic has been appropriate or not. I mean... That does not sound like it's a big deal, but there's been a lot of interaction within family members and friends over that particular part." – Participant 10

3.2.3. Theme 3: individual mental health and coping

Subtheme 3.1: managing anxiety through positive coping mechanisms

Many participants mentioned that a lack of routine, sleeping too much, being stuck indoors, forced isolation from others, especially family, were negative triggers for their mental health leading to stress. However through naming their triggers, many participants identified that they were doing well overall and named positive coping mechanisms they were utilizing to cope with their conditions. Some positive coping mechanisms participants introduced into their lives were

physical distanced socialization with friends or family, online game nights, creating cohort families for socialization and many participants indicated increased focus on maintaining medication, sleep cycles, work routines and exercise.

"I'm on medication and I know that I just need to keep doing healthy habits, so I'm not too worried. Another thing is I know sleep is so crucial for bipolar, so it's really important for me to try my best to keep a consistent sleep schedule because, again, with having no real commitment right now I could sleep in as much as I like or I could stay up as late as I like, and I know that's not good for me. – Participant 5

"Just to try to balance the more concrete things that are going on, and not get too worked up about things that I likely do not need to be getting worked up about. So I am employing a lot of the tools that I learned recently." – Participant 14

"[Because of isolation measures] you sort of feel trapped in the inability to do different. But I have been able to live well. We've set up my house. We did some renovations, really simple stuff, to create a workspace for me that I can have my own space to create my own schedule and say that I'm gonna, have a routine. Even if this feels like all of my routines are dead. So okay, what does that look like to not be a victim?" – Participant 12

Participants normalized the experience of isolation during COVID-19 by mentioning previous manic or depressive episodes as being comparably more difficult to cope with than the current situation.

"So it's not bad at all. If you talk to anyone that's been in the hospital it's kind of like that, kind of stuck, so gotta make the most of it." – Participant 15

"I think I'm at the other end of the spectrum. In the past year I went through a really hard time. If you met my past, I've gone through a lot of hard times. So now I talk to [participant's psychiatrist], and myself and I'm in remission, or not remission, but being managed." – Participant 2

Some even expressed direct gratitude for the opportunity to reflect during this time and engage in positive coping mechanisms.

"Let's just say it offers you an opportunity. If you do not know how to take advantage of that, it could drive somebody crazy. You know? Because they're dealing with things that they've never wanted to face in their life [...] but for someone who maybe has some tools to do some positive reflection, that can be very, very positive." – Participant 12

4. Discussion

While other studies have emphasized the increased vulnerability of individuals with mental health disorders (Chatterjee et al., 2020; Druss, 2020; Sher, 2020; Yao et al., 2020), in speaking to individuals with mood disorders we have found that they are coping better than previous literature has suggested. In regard to virtual care preferences, these results are in line with a study conducted by Canada Health Infoway (2020), focused on the "Experiences of Health care during COVID-19 reported by Canadians" (2020). Many people preferred in person appointments, but were satisfied with virtual appointments as a substitute in order to protect patients from COVID-19. The participants in our study felt similarly, finding virtual appointments in the psychiatry clinic somewhat impersonal, but a preferable method of treatment given the risk of COVID-19. Most concerns over healthcare involved health conditions that could not be managed virtually. Fear of accessing emergency room services for acute and urgent health needs put patients at risk and health service directories, such as Alberta's Health Link access line, must

be better equipped to handle a high influx of requests in order to manage public fear and health demands.

Studies that have focused on the effect of the current pandemic along with previous pandemics have emphasized the greater vulnerability patients with mental health issues face during isolation, with risk of higher anxiety, depression and, in extreme cases, death from suicide (Choi et al., 2020; Perrin et al., 2009; Tandon, 2020). However, most participants expressed life felt normal and manageable, and they faced minimal repercussions from the pandemic. None of the participants had contracted COVID or had any other person in their homes contract COVID, but participants expressed elevated levels of anxiety when speaking about fear of infection and focused primarily on concerns for family. When asked about how they were coping with these fears, most indicated various positive techniques they were utilizing that made them feel stable during this time such as routine building, exercise, maintaining medications and safe socializing either virtually or with cohort families. Other studies have found that those who up held positive coping mechanisms, like maintaining a work, sleep and exercise routine had lower levels of depression during the COVID pandemic (Fullana et al., 2020).

Multiple patients indicated isolation was an opportunity to be more mindful and self-reflective. While rumination is shown to make individuals more at risk for depression and suicide, this cohort of patients appeared to be using mindfulness techniques to ease their anxiety. Some patients even went so far as to say they were grateful for the opportunity to practice coping techniques they had learned from treatment and thought isolation was an opportunity for personal growth. This acceptance attitude for stressful or uncontrollable conditions has been shown to lower anxiety levels (Campbell-Sills et al., 2006). While there is no cure for bipolar disorder and depression, when combined with medication, mindfulness techniques are viewed as an effective intervention technique for combating depressive symptoms in bipolar disorder (Marchand, 2012; Oud et al., 2016).

We do not think our findings contradict studies emphasizing increased anxiety and depression among populations due to COVID-19. Patients did report feeling heightened anxiety, however it is important to recognize the positive management of that anxiety, rather than maladaptive coping as a distinct finding. Previous studies have emphasized the increased risk of depression and anxiety mental health patients face, but few studies have used qualitative interview methods to measure individual's anxiety levels and therefore neglected to understand the complexities of coping with the stress of COVID-19. Participants were very reflective about their current mental health status. They displayed in-depth knowledge of their triggers, which is shown to be a powerful intervention (National Alliance on Mental Illness, 2017) and were then able to filter their thoughts to control their symptoms. This population appeared to recognize the role a pandemic could play in increasing their risk of anxiety and depression, and therefore place intentionality on managing their thoughts and feelings, showing greater adaptability.

It appears that because many individuals had their conditions well managed prior to quarantine, coping during the pandemic with proper mental health supports was manageable and allowed individuals to retain a sense of normalcy. Overcoming the mental and or financial struggles associated with seeking mental health support, may be the key to positive coping. While patients who have received psychiatric treatment appear to currently be positively coping, the pandemic has had negative effects on the population. Neurotypical and neurodivergent individuals are experiencing psychological distress from COVID (Qiu et al., 2020; Salari et al., 2020; Wang et al., 2020), and the long term effects are still unknown. Mental health supports are shown to improve individuals ability to cope, however when experiencing high distress levels through the pandemic, individuals were least likely to cope by seeking out mental health supports and would instead utilize strategies that would provide short term relief (alcohol consumption, over-eating) (Taylor et al., 2020). While a primary focus of the health care system has

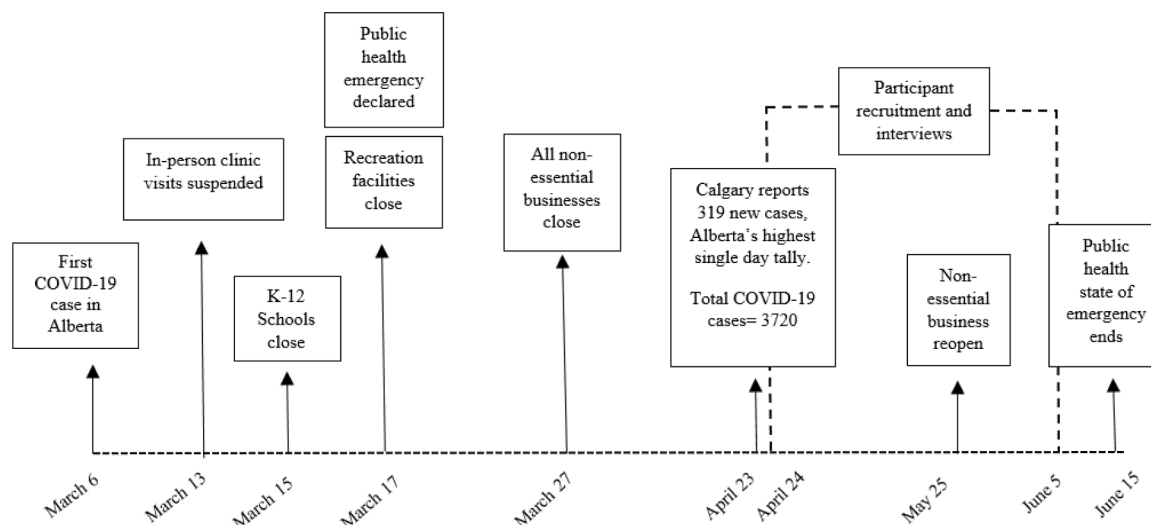


Fig. 1. Timeline of the COVID-19 policy response from the Alberta government.

been to treat and control the spread of the COVID-19 virus, there is extreme pressure on mental health service providers to respond to the psychological effects of COVID when clinics are already experiencing high demand and lengthy wait times for patients. Mental health professionals have an important role to play in managing anxiety and educating patients during the pandemic (Banerjee, 2020), but only if patients are able to access said services. With the uncertainty around the physical, socioeconomic and psychological effects of COVID-19, health systems must be equipped to respond to the needs of the population and this includes breaking down real and perceived barriers to mental health services.

4.1. Limitations

A limitation of the study is that the participant population is made up of people already willing to be engaged in research. It is possible that individuals who were more likely to participate in the study correlate with individuals who were experiencing a more positive mental health state at the time, therefore giving us a sample of participants with lower anxiety levels and positive coping. We did not ask people to rate their anxiety levels quantitatively, therefore comparison of coping is difficult to quantify, but in person accounts from patients emphasizing the ways in which they are positively coping and feel their life is normal does suggest people in this demographic are coping better than suggested by other research. This study represents a limited view into the effects of the primary COVID-19 provincial response, however the ability to quickly form a team and recruit people living with a diagnosed mood disorder concurrently with the public health measures was also an important strength to the study. This rapid response facilitated in-depth data collection that was completed while people were living through the first wave of the pandemic and could reflect meaningfully on what they were experiencing while they were experiencing it.

5. Conclusion

Through interviewing 18 patients of a psychiatry clinic in Calgary our study team investigated the initial healthcare and social experience to the first wave of COVID-19 for individuals with one or more mood disorders. Most patients adapted well to virtual healthcare with loss of healthcare servicing being most negatively impactful in cases where care could not be replaced virtually. Overall individuals with mood disorders were able to manage their conditions at home given access to psychiatric care, suggesting mental health support is a protective factor in coping during a viral pandemic. Our findings should warrant further investigation to understand the mechanisms in which people receiving psychiatric treatment for a mood disorder may facilitate positive coping during stressful periods. Further research must be conducted on the long term effects of social isolation and protective mechanisms of care.

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CRedit authorship contribution statement

C. Rodrigues: Data curation, Formal analysis, Writing – original draft. S.B. Patten: Writing – review & editing. E.E. Smith: Conceptualization. P. Roach: Supervision, Funding acquisition, Conceptualization, Validation.

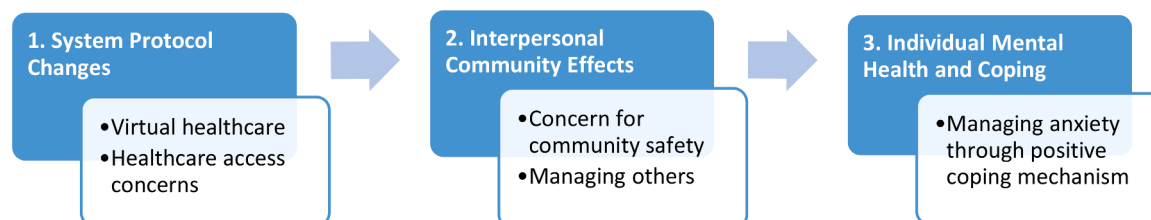


Fig. 2. Themes and subthemes of patient experiences during the COVID-19 pandemic.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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