

# Lifestyle of Individuals with SMI during COVID-19: Healthcare Providers' perspective

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## **Abstract**

### **Background**

COVID-19 and its restrictions impacted people's lifestyles and mental health worldwide. Individuals with mental illness show a different response to psychosocial stress, which may indicate they are more susceptible to stress events, such as COVID-19 (1). In a qualitative study (2), individuals with severe mental illness were interviewed on the impact of the pandemic on their daily lives and lifestyles. This study investigates the vision of mental healthcare providers on these individuals' lifestyles and the alignment with the reports of patients.

### **Methods**

This qualitative descriptive study utilized a focus group to explore mental healthcare providers' view on the lifestyle of individuals with severe mental illness during the pandemic. It involved thematic analysis of discussions and ensured ethical considerations, including informed consent and anonymity.

### **Results**

Mental healthcare providers observed heightened anxiety, increased social isolation, and worsened symptoms, whereas certain patients found relief in reduced stimuli. Lifestyles of patients changed mostly negatively with less physical activity, poor nutrition, substance use and shift in sleeping pattern. Positive lifestyle changes included more walking. They stressed the impact of circulating stories on the pandemic on the well-being of patients. Mental healthcare providers were challenged by working more remotely, resulting in more difficulties in contacting patients. To add, the healthcare network changed, complicating communication with colleagues.

### **Conclusion**

The view of mental healthcare providers mostly aligns with what patients reported on lifestyle. This study underscores the importance of developing strategies to maintain a good healthcare network to support patients and to promote a healthy lifestyle.

## 1 Introduction

In December 2019, a series of patients in China presented with respiratory illness with symptoms such as fever, coughing and chest discomfort (3). As the virus was highly contagious, it rapidly spread around the world. In March 2020, the outbreak of COVID-19 was declared as a pandemic by the World Health Organization (4). On February 27th 2020, the first case of COVID-19 was confirmed in the Netherlands (5). On the 6th of March 2020, the first patient died of the virus in the Netherlands (5). In July 2024, worldwide more than 775 million cases were reported and more than 7 million people died (6). In the absence of an effective treatment or a vaccine for the virus, lockdowns and restrictions were implemented to reduce the spreading of the virus. Public spaces such as restaurants, gyms, schools and shops were closed, wearing a mouth mask was mandatory and people had to keep enough distance from one another. Two years later, in March 2022, the last restriction was released (5). The restrictions affected the daily lives of people in unpredicted ways.

The restrictions had unforeseen impacts on people's daily lives, consequently altering their lifestyles. Closed gyms and quarantine resulted in reduced physical activity in all age groups of the general population during the pandemic compared to pre-pandemic (7). Additionally, sedentary behavior increased (7)(8)(9), which was accompanied by an increase in screen time (9). Furthermore, many individuals reported experiencing sleep issues, including falling asleep, sleep disruptions and irregular sleep patterns (9). Moreover, multiple studies reported an increase in smoking cigarettes and the consumption of alcohol (10)(11)(12). As well, eating behavior changed during the pandemic. There was an increase in the consumption of snacks and ultra processed foods (13). To add, one study reported weight gain in 30% of the respondents (9). However, there were also positive lifestyle changes, as a systematic review reported an increase in the consumption of fruits and vegetables (14).

As the pandemic did not only affect lifestyles, it also had a big impact on mental health. The prevalence of depressive symptoms in the general population during the pandemic varied from 14% to 48%, as the pre pandemic one-year depression prevalence is 3-7%. During the pandemic, anxiety symptoms ranged from 6% to 51% (15). Anxiety symptoms during the pandemic were more prevalent in women and in people infected with COVID-19 (16).

The relation between a healthy lifestyle and mental health is getting more attention. In a meta-analysis, it was found that an increase in physical activity reduced the risk of depression and anxiety (17). As lifestyle can be used to prevent mental disorders, it can also be used in addition to the treatment of mental disorders with psychotherapy and medication.

Worldwide 970 million people suffer from mental illness (18). Most prevalent are anxiety disorders, followed by depressive disorders (18). People with a severe mental illness (SMI) suffer from mental health disorders that are chronic, significantly impairing daily functioning, and often require long-term treatment and management (19). These disorders typically include conditions such as schizophrenia, bipolar disorder, and severe forms of depression or anxiety. Individuals with mental illness show a different response to psychosocial stress compared to the general population, which may indicate they are more vulnerable to stressful events, such as COVID-19 (1). This may result in a bigger impact of the pandemic of this group and subsequently on their lifestyles. Moreover, the lifestyles of patients suffering from SMI pre-pandemic are worse compared to the general

population, with less physical activity (20), a higher energy intake (21) and more likely addicted to smoking (22).

As a healthy lifestyle has a positive effect on mental health (23), worsened lifestyles during the pandemic may have a big effect on these vulnerable groups. Previous research showed the impact of the pandemic on the lifestyle of patients with SMI (2). Patients reported no changes as well as negative and positive changes in lifestyle. The positive lifestyle changes included more walking and feeling resilient. Some of the negative changes in lifestyle reported are sleep issues, reduced physical activity, binge eating and an increase in the use of alcohol and cigarettes (2). To the best of our knowledge, research regarding mental healthcare providers' (MHCP) perspective on the lifestyle of individuals with SMI during the COVID-19 pandemic hasn't been conducted yet. It would be helpful to test the outcomes of this study with MHCP to develop effective strategies for a healthier lifestyle in possible future pandemics.

The aim of this paper is to identify the perspective of MHCP on the lifestyle of individuals with SMI during the pandemic and to put the findings of previous research to the test, in order to develop strategies for possible future pandemics.

## **2 Methods**

### Study design

This is a qualitative descriptive study with focus groups to explore the vision of MHCP on the lifestyle of individuals with SMI during the pandemic. The research team includes one physician researcher (L.R.) and one medical student (M.H.C.W.) and they are supervised by one psychiatrist (W.C.).

### Study participants

The study participants are MHCP from one regional mental healthcare institution, GGZ Altrecht, in the Netherlands. They were recruited through flyers sent per e-mail with information about the focus group. MHCP who did not respond to this email, were phoned to ask if they wanted to participate.

### Data collection

Researchers L.R. and M.H.C.W. conducted a focus group in August 2024. For the focus group we conducted a topic guide including questions for the participants to discuss with each other. In appendix 1 the topic guide is presented. The topic guide was composed by M.H.C.W. by reading interviews of individuals with severe mental illness (2) and using this information to create questions. The topic guide was checked by L.R. and adjusted by M.H.C.W. Researcher L.R. started the focus group with an introduction. Researcher M.H.C.W. asked questions to the participants to discuss with each other. Researcher L.R. suggested additional questions to gather more information. During the focus group we presented a mind map (Figure 1) with the findings of interviews with individuals on their lifestyle, to see if professionals matched with their patients. The focus group was audio recorded and transcribed verbatim by M.H.C.W.

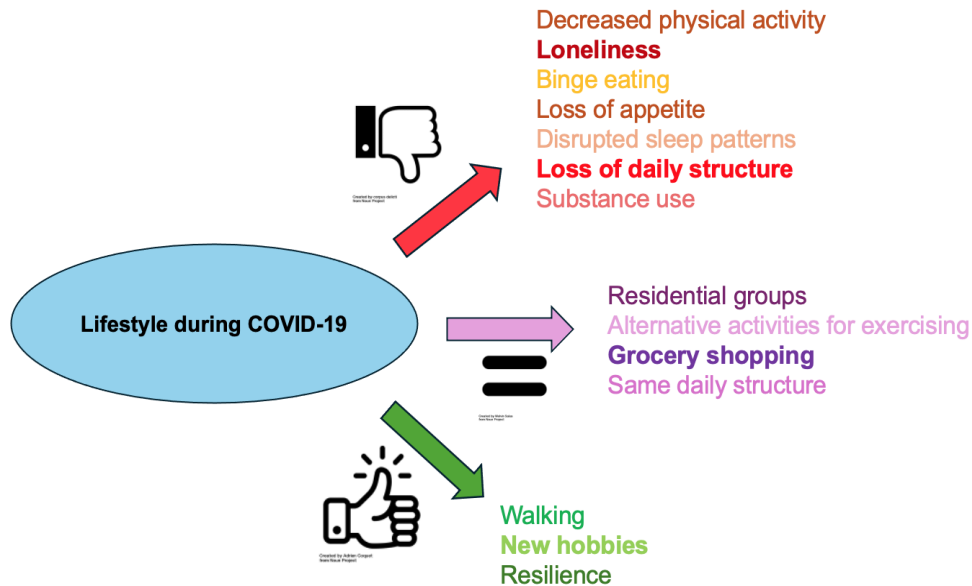


Figure 1. An overview of interviews with patients on their lifestyle during the pandemic. The negative lifestyle changes in red, no changes in lifestyle in purple and positive lifestyle changes in green.

### Data analysis

The data was analyzed using thematic analysis of Braun and Clarke (24). Braun and Clarke described a six-step plan for analyzing the data which was used. First, the researchers made themselves familiar with the verbatim of the focus group. The verbatim of the focus group was then coded independently by two researchers, L. van Rijn and M.H.C. Wilink. After coding, the researchers searched for themes. The themes found were reviewed. The reviewed themes were identified and named. The analysis was performed in Nvivo14. The themes were put into a report.

### Trustworthiness

Information about the focus group and an informed consent letter was sent per email to the participants. At the beginning of the focus group, every participant signed an informed consent letter for attending the focus group and audio recording. Everything the participants discussed in the focus group was transcribed anonymously, so the content could not be traced to the individuals.

### Ethical considerations

The regional Medical Ethics Committee of the East Netherlands declared that the Medical Research Involving Human Subjects Act (WMO) did not apply to this study.

## **3 Results**

In total, five MHCP attended one focus group. Of the participating MHCP, four of them work in an outpatient clinic, and one of them works in a psychiatric unit. The duration of the focus group was one hour. In appendix 2, an overview of the thematic analysis is presented.

Participants	N (%)
Gender	
M	2 (40%)
F	3 (60%)
ND	0
Work area	
Ward	1 (20%)
Outpatient clinic	4 (80%)
Work experience	
< 5 years	1 (20%)
>5 years	4 (80%)

Table 1. Participating mental healthcare providers. M = male, F = female, ND = not defined.

### 3.1 General findings

When MHCP discussed the impact of COVID-19 on the lifestyle of individuals with SMI, we found that lifestyle changes are closely connected to the broader effects of the pandemic. Therefore, the general findings are discussed, including the negative and positive impact of the pandemic, and working during the pandemic.

#### 3.1.1 Negative impact

##### *Worsening of symptoms*

MHCP expressed significant concern about the well-being of individuals with SMI during COVID-19. The pandemic and circulating stories contributed to the development of paranoia and delusions related to the virus and political events, which in turn had a negative impact on the well-being of their patients, they said. MHCP observed that social isolation became a widespread issue, with patients losing contact with family members, and facing a reduction in their usual support systems. This led to increased anxiety and, in many cases, exacerbated existing mental health conditions. They noticed some individuals, already struggling with going outside, became even more isolated. Residential support not visiting, due to restrictions, resulted in further isolation and deterioration of mental health. MHCP noticed patients, who had previously recovered, relapsed during the pandemic.

*“Patients who had previously fully recovered and been in treatment, doing really well, but from that point onward, their condition started to decline, and they eventually returned to us, completely psychotically decompensated.” (Participant 3)*

Overall, MHCP observed a rise in depression, loneliness, and social withdrawal, with some patients becoming completely isolated and losing contact with MHCP.

##### *Fear of infection*

Both MHCP and individuals with SMI experienced anxiety due to the fear of getting ill or spreading the virus, especially in the beginning when there was no vaccination available.

*“And especially the fear of, if I were to get sick, infecting patients who were more vulnerable at that time.” (Participant 4)*

#### *Lack of help*

MHCP explained that a large portion of patients struggled with technology, such as logging in for remote appointments or operating phones, further isolating them due to the lack of in-person support. The absence of home visits from support teams exacerbated this isolation, particularly for those who are illiterate. This made it harder for them to stay in touch socially.

*“There’s a lack of essential items to log in, and a lack of help, including physical assistance. Someone often needs to be there to start it up.” (Participant 3)*

#### *Dealing with restrictions*

Dealing with COVID-19 restrictions varied widely among patients, MHCP noticed. Many were understanding and didn’t mind if you refrained from shaking hands. However, some ignored the rules entirely, showing little regard for the restrictions. Some patients requested special permits to be out during the curfew, viewing it as a significant advantage since most people were not allowed to go outside.

#### *Vaccinations*

MHCP noticed vaccinations became a significant topic of discussion among patients, with many stories circulating about their effects. The dilemmas surrounding vaccination had a noticeable impact on people's well-being, creating uncertainty and anxiety. Additionally, a large group of patients refused to get vaccinated, further complicating the situation and influencing the overall atmosphere during that time.

*“The vaccinations themselves and all the stories that emerged around them at some point. Or, well, people who believed they became ill from them and therefore refused them, and that also had a significant impact on the general well-being of the people.” (Participant 5)*

### 3.1.2 Positive impact of the pandemic

#### *Improvement of symptoms*

MHCP observed that some individuals with SMI experienced improvement of their symptoms. MHCP noticed some individuals with autism or post-traumatic stress disorder (PTSD), found the reduced social stimuli and quieter environment to be pleasant.

*“Nice and quiet, they told me. Whether it's good, I don't know, but it's nice and quiet.” (Participant 2)*

MHCP explained that some individuals with autism appreciated the decreased sensory overload, and some PTSD patients, who were usually anxious about people getting too close, felt more comfortable going out because of social distancing.

### *Equality*

During the COVID-19 pandemic, MHCP observed that patients gained a new perspective on their life. MHCP explained individuals noted that the broader population was now experiencing what it's like to have limited mental or physical abilities, something many patients were already familiar with. This fostered a sense of equality, as both patients and the wider population had to reassess what was truly important in life.

*"But now others can also see what it's like to have little fitness or to be limited in what you can do, and you could really notice that." (Participant 3)*

### *Adaptability*

MHCP observed individuals with SMI became more familiar to using smartphones, and many adapted to this new reality over time, demonstrating resilience. The pandemic led to increased digital innovation, with individuals learning new skills and recognizing the necessity of adapting to the situation.

*[talking about smartphones] "But they also saw the necessity." (Participant 2)*

### 3.1.3 Working during the pandemic

MHCP found working during COVID-19 to be a challenging experience. There was constant fear of infecting patients, which influenced many of the policy decisions made at the time.

#### *Change in work methods*

The shift to online interactions required extra effort to maintain contact with both colleagues and patients. Many MHCP struggled with the isolation, especially when working from home.

Treatment became more distanced, either online or through phone calls, with longer gaps between interactions. The pandemic also encouraged creativity in treatment approaches, such as incorporating outdoor meetings or walking sessions.

#### *Change in work content*

Group therapy sessions such as therapeutic or lifestyle groups, were often canceled due to the restrictions, leading to a change in working content and time management for MHCP.

#### *Personal experiences of professionals*

MHCP shared mixed experiences working during the pandemic. Many found the situation restrictive, challenging, and filled with uncertainty. The lack of face-to-face interaction left many feeling disconnected and unhappy, as patient contact is an essential part of the job.

*"I also found it very difficult, especially when we had to work from home for a while. I thought, "I'm really going to be miserable if I don't see anyone anymore." (Participant 4)*

Despite these difficulties, one of the MHCP said it was a relief to be allowed to work on-site and to be away from home, as it provided a break from the constraints of the situation.

### 3.2 Lifestyle during the pandemic

MHCP found that lifestyle in many individuals changed during the pandemic, but not in all individuals. Lifestyle is discussed in terms of negative changes, positive changes and no changes.

#### 3.2.1 Negative changes in lifestyle

MHCP found that the pandemic led to significant negative lifestyle changes in individuals with SMI. Physical activity decreased, with longer periods of sitting and closed gyms and sports clubs disrupting their exercise routines. Eating more frequently, often alone, unhealthy food choices and increased snacking led in some patients to weight gain.

*“Other activities aren’t possible or very limited, so what was still possible: going to McDonalds.”  
(Participant 1)*

They observed shifted sleep patterns, leading to more sleep and a disrupted daily rhythm. Some patients started smoking again or began using substances like marihuana more frequently. The loss of structure in daily life, including a lack of movement routines, led to an overall sense of disorganization and imbalance.

#### 3.2.2 Positive changes in lifestyle

Even though MHCP stressed the negative lifestyle changes, they also discussed positive changes. They explained individuals went walking more frequently and spent more time outdoors. Patients who were normally anxious about others coming too close, found out that people kept their distance due to the restrictions. Because of this, they finally felt comfortable to go outside for a walk or to the store.

*“I started going on walks with patients, that automatically helps maintain distance. And that was really great. Some patients literally became more active because of it and have continued to stay active.” (Participant 4)*

#### 3.2.3 No changes in lifestyle

MHCP noticed some aspects of lifestyle remained the same, mostly in patients staying in a ward. At some wards they continued to eat together. It was still possible to go outdoors while in the ward, and their time spent outdoors did not change that much, according to MHCP. Additionally, many patients were already eating unhealthy before the pandemic, and that did not change.

*“The only thing they could do was go outside, so yes, that is still the case now. It was the same back then. Some do it on their own, some do it with a bit of motivation, and others not at all. I think there was no difference in that back then.” (Participant 1)*



### 3.3 Causes of lifestyle changes during the pandemic

Several factors contributed to lifestyle changes during COVID-19, according to MHCP. With restricted access to sports clubs and increased television watching, finding alternatives for physical activity became a struggle. Some individuals lacked digital skills, making it difficult to access information and support. Many turned to food or drugs to cope with anxiety, while feelings of loneliness grew as activities became limited due to restrictions.

*"Due to losing contact. This happens when you eat or meet up with others to eat, or when you're alone and use alcohol, smoking, or pills to calm your anxiety." (Participant 2)*

MHCP noticed there was often no motivation to get out of bed, and group activities like lifestyle support sessions came to a halt. Conversations with therapists shifted to walking sessions. When staying in a ward, choices made by staff regarding shared meals varied. Overall, they noticed the pandemic exacerbated feelings of isolation and made many activities impossible or severely limited.

### 3.4 Lifestyle after the pandemic

Even though the pandemic and its restrictions have ended, MHCP still see lingering effects on the lifestyle of individuals, including negative, positive and unchanged aspects.

#### 3.4.1 Negative changes

MHCP noticed patients who were previously engaged in regular physical activity found it challenging to re-establish their routines after the lockdown. Patients who were in a sports club never resumed after COVID-19. To add, therapeutic lifestyle groups which were canceled during COVID, were not resumed directly after the lockdown.

*"Unable to attend the sports club due to the restrictions and never started again afterward." (Participant 3)*

#### 3.4.2 Positive changes

MHCP noticed that lifestyle became a more prominent topic among colleagues, especially movement. Furthermore, some patients went more often for a walk after the pandemic.

*"I'm not sure if it's because of the pandemic, but lifestyle has definitely become a much bigger topic these days." (Participant 3)*

#### 3.4.2 No changes

Discussions about nutrition and lifestyle remained a standard part of treatment meetings with patients, indicating that metabolic screening and lifestyle factors are still being addressed as part of patient care, but not more stressed than during or before the pandemic. MHCP observed no change in dietary habits among patients in the psychiatric ward, as they reported many patients already had an unhealthy nutrition pattern.

### 3.5 Suggestions for a possible future pandemic

While we hope to never encounter a pandemic again, MHCP explored potential scenarios for enhancing healthcare for individuals with SMI and their lifestyles to ensure they remain as healthy as possible.

#### 3.5.1 Healthcare network

MHCP emphasized the importance for maintaining the healthcare network around patients during a potential future pandemic. They noted that many MHCP have mutual informal connections which were collapsing during the pandemic. It is essential to develop a plan with key contacts which are most important for patients in a future pandemic, such as homecare providers and neighborhood teams who have a close connection to patients.

*"I do think it's useful to have some kind of plan, outlining what our network looks like, which contacts must be maintained, and which groups should transition to digital communication."  
(Participant 2)*

#### 3.5.2 Psychiatric ward

MHCP highlighted that maintaining social connections and structured activities is crucial to prevent loneliness among patients, such as eating together in the ward.

*"I think it's really important to do that together. It's also one of the things we offer in the department to address loneliness and maintain structure. Beyond that, it's a crucial anchor point in the day." (Participant 1)*

If these elements are disrupted, the overall care quality suffers significantly. They recalled past experiences where meals were delivered in a manner that felt isolating, which affected patients. While they aimed to hold meetings at a safe distance, some nurses were hesitant due to uncertainty about COVID-19, underscoring the need for clear communication and supportive practices during crises.

#### 3.5.3 Barriers for creating a script

MHCP agreed on developing a scenario for a potential future pandemic, however they face challenges. They stressed that decisions on making policy involve weighing the risk of infection against other factors, such as social isolation or fear of the staff getting infected. Additionally, the unpredictability of future viruses complicates making a specific scenario.

## **4 Discussion**

In conclusion, this qualitative study highlights the view of MHCP on the impact of the pandemic on individuals with SMI and their lifestyles. The impact on the lifestyle of individuals with SMI is closely connected to the broader effects of the pandemic, including overall well-being, restrictions, vaccination dilemma, digital skills and policies in wards. MHCP observed a worsening of symptoms among many patients, including increased anxiety, decompensation and social isolation. In some patients they reported an improvement of symptoms. The pandemic disrupted patients' lifestyles,

with many negative changes such as reduced physical activity, unhealthy eating habits, and substance use. Some positive lifestyle changes included more walking and going outdoors. Lifestyles of patients staying in wards did not change. MHCP faced difficulties adapting to a new working method with the shift to digital care, cancellation of group sessions and challenges in maintaining the healthcare network around patients. MHCP emphasized the need to maintain the healthcare network, particularly homecare and neighborhood teams, and to preserve joint activities in wards to prevent loneliness, while acknowledging the challenge of preparing for an unpredictable future pandemic.

The findings align with what individuals with SMI reported in interviews (2). Regarding lifestyle, unhealthy diets, substance use and a change in sleep and in daily routine align with the vision of MHCP on lifestyle. Patients mentioned increased anxiety due to fear of infection or transmitting it to others. Delusional visions were also mentioned by patients. Social isolation led to more feelings of sadness. Also, the calm some patients mentioned align. Some things that do not align with our study is that patients reported they felt they could do something for others. Also, new hobbies were not mentioned by MHCP. In contrast to this study, in which MHCP stressed mostly the negative impact, the interviews with individuals with SMI revealed they reported both positive and negative impacts. This difference might be due to MHCP interacting more often with individuals who were struggling during the pandemic.

Since there is no existing literature on the vision of MHCP on the lifestyle of individuals with SMI during COVID-19, we decided to compare our findings to other studies during the pandemic on individuals with SMI, individuals with mental illness, and to the lifestyle of the general population during the pandemic.

Individuals with SMI reported more stress during COVID-19 compared to non-psychiatric controls during the pandemic, often leading to worsening of symptoms (25)(26)(27). Anxiety increased, and social isolation and financial problems aggravated depression (27). To add, the overuse of social media could amplify anxiety and the fear of infection, compared to patients that did not increase their social media use (27). Several studies highlighted instances of suicidal ideation among patients (25) (26), which contrasts with this study where none of the MHCP mentioned suicidal ideation. One explanation could be that the MHCP did not report it, or that they did not observe suicidal ideation in individuals with SMI due to variations in the circumstances and characteristics of the individuals in the studies.

The lifestyle of individuals with mental illness was less healthy during the pandemic compared to controls, including sedentary behavior, poor diet, smoking and poor sleep habits (28). However, lifestyle in bipolar disorder was not significantly different from controls (29). Individuals with SMI reported more trouble sleeping (26). While MHCP reported an increase in food intake, individuals with schizophrenia had a reduced food consumption during the pandemic (30).

One study (28) suggests that the lifestyle of individuals with mental illness was worse compared to the general population during the pandemic, however many of the findings in this study align with findings in the general population with less physical activity (7)(8), changed sleep patterns (9), eating more snacks (13) and more smoking (10)(11)(12). This suggests that the lifestyle of individuals with

mental illness changed the same way the lifestyle of the general population did. Nevertheless, the lifestyle of individuals with mental illness was already poorer than that of the general population before the pandemic, characterized by higher smoking rates, reduced physical activity, and poor nutrition (31)(20)(21)(22).

Future research should include more MHCP and from different regions or countries, to gain a broader insight on the impact of the pandemic on individuals with SMI and their lifestyles. While we hope there won't be another pandemic, further research could aid in developing strategies to help individuals with SMI maintain optimal health during such events.

### *Strengths*

To start with, this study is the first to have a view of MHCP on the lifestyle of individuals with SMI during the pandemic, which gives an insight in potential ways to improve lifestyle and psychiatric care in a potential future pandemic. Another strength is that the MHCP are from different departments, as well from an outpatient clinic as a psychiatric unit.

### *Limitations*

Unfortunately, we were unable to recruit big numbers of MHCP for this study, due to limited time available during this research internship and the small number of respondents. The small number of MHCP could bias the view on the lifestyle of patients. Ideally, there would be more focus groups and larger numbers to create a more reliable vision. Another limitation is that there were more MHCP from the outpatient clinic than wards, this could also have biased the results. As individuals in wards and in outpatient clinics have different challenges and needs, the findings in this study might not capture all the challenges individuals and MHCP faced during the pandemic. Moreover, the MHCP were all from the same institution and the same area in the Netherlands, which could cause a bias. This lack of diversity could lead to a narrow range of perspectives and experiences, which might not represent the broader situation in other institutions or regions.

## **5 Conclusion**

In conclusion, this study provides valuable insights in the experiences of MHCP and their view on the lifestyle of individuals with SMI during the pandemic. The lifestyle of individuals with SMI is deeply connected to the wider effects of the pandemic. It highlights the worsening of symptoms among many individuals with SMI caused by social isolation and anxiety, but also improvement of symptoms in some cases. The pandemic led to both negative lifestyle changes, such as reduced physical activity and unhealthy nutrition, and some positive changes, for example more walking outdoors. This study stresses the need for maintaining healthcare networks during a pandemic, while also acknowledging the difficulty in anticipating a new virus and its features. However, the study is limited due to the small number of participants and the regional scope, which may affect the generalizability of the study.

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## Appendix 1: Topic guide focus group mental healthcare providers' vision on lifestyle of individuals with SMI during COVID-19

### Glossary

**Pandemic restrictions:** actions taken by the government to prevent the spreading of the coronavirus, for example: wearing masks, keeping 1.5-meter distance from each other, quarantine and lockdown (closing public spaces such as gyms, restaurants and shops).

**Lifestyle:** way of living including physical activities, healthy diet, good sleep and no or little substance use.

### Topic Guide

#### 1. Introduction

Introduction researchers	Lotte van Rijn, physician-researcher and PhD candidate at the COFIT-PSY project. I studied medicine and worked as a doctor in psychiatry for a year. Now I am doing research. Manon Wilmink, research intern at the COFIT-PSY project. This is my last internship before becoming a doctor.
Duration	The focus group will take one hour.
Aim of the research	To identify the impact of COVID-19 and its restrictions on the lifestyle of individuals with SMI and the consequences.
Anonymity	Everything discussed in this session will be kept confidential. Every answer will be incorporated in the report anonymously.
Recording	Verbal informed consent for participation and audio recording of the focus group.
Final product	Your answers will be included in an article, which hopefully will be published. The answers will not be traceable to the participants.

#### 2. Acquaintance

General	Can you tell us a bit about yourself? Where do you work? (outpatient clinic, living groups, ward, etc.) What is your function at work? (psychiatrist, nurse, psychologist, etc.) How long have you been working in healthcare?
Working during the pandemic	What are your experiences working during the pandemic? How is it different from before the pandemic?

#### 3. Lifestyle

General	<u>Introduction</u> What is your definition of lifestyle? What activities would you include in lifestyle?  <u>Evaluating earlier research findings</u> In earlier research, we found that patients reported negative lifestyle
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	<p>changes during the pandemic, such as eating more due to stress or eating less due to anxiety, experiencing sleep problems, losing daily structure, exercising less because of restrictions or decreased motivation. However, positive changes were also noted, such as new hobbies, more walking, and increased resilience. What is your perspective on this?</p> <p><u>Observations</u> Did you observe changes in the lifestyle of patients during the pandemic compared to before the pandemic?</p>
Daily structure	<p>Did you observe changes in the daily structure of patients?</p> <p>What were the consequences of those changes?</p>
After the pandemic	<p>How is the lifestyle of patients after the pandemic, compared to prior and during the pandemic?</p> <p>What do you think patients need in order to live healthily during a potential future pandemic?</p>

#### 4. Closing

General	<p>We talked about your vision on the lifestyle of individuals with SMI patients during the COVID-19 pandemic. Do you have additions or questions? How did you experience discussing this topic together?</p>
Thanking	<p>Thank you all for coming and participating in the focus group.</p>



## Appendix 2: Codetree thematic analysis

<b>Thema 1: General findings</b>
<i>Negative impact</i> <ul style="list-style-type: none"><li>- Worsening of symptoms</li><li>- Fear of infection</li><li>- Dealing with restrictions</li><li>- Vaccination</li><li>- Lack of help</li></ul>
<i>Positive impact</i> <ul style="list-style-type: none"><li>- Improvement of symptoms</li><li>- Equality</li><li>- Adaptability</li></ul>
<i>Working during COVID</i> <ul style="list-style-type: none"><li>- Fear of infecting patients</li><li>- Personal experiences</li><li>- Change in work methods</li><li>- Change in work content</li></ul>

<b>Thema 2: Lifestyle during COVID-19</b>
<i>Negative changes</i> <ul style="list-style-type: none"><li>- Physical activity</li><li>- Eating</li><li>- Sleeping</li><li>- Rhythm</li><li>- Substance use</li></ul>
<i>Positive changes</i> <ul style="list-style-type: none"><li>- More going outdoors</li><li>- More walking</li></ul>
<i>No changes</i> <ul style="list-style-type: none"><li>- Eating together in the ward</li><li>- Going outside from the ward</li><li>- Many already ate unhealthily</li></ul>

<b>Thema 3: Causes lifestyle changes</b>
<ul style="list-style-type: none"><li>- Restrictions</li><li>- Change in treatment</li><li>- Anxiety</li><li>- Lack of digital skills</li><li>- Choice of staff on the ward</li><li>- Motivation</li></ul>

**Thema 4: Lifestyle after COVID-19***Positive*

- Lifestyle higher on agenda professionals
- More engaged with physical activity
- Walking during treatment consultations

*Negative*

- Difficulty in restarting lifestyle groups
- Struggling to get back in sports

*No changes*

- Lifestyle routinely discussed in treatment consultations

**Thema 5: Suggestions potential future pandemic***Maintaining healthcare network*

- Knowing how the network is structured
- Knowing which contact are essential

*Ward*

- Eating together

*Barriers for creating a script*

- Fear of infection
- Uncertainty about a new virus
- Different preferences among staff