
1-22-2023

Experiences of COVID-19 Recovered Patients: A Qualitative Case Study from a Hotspot in Saudi Arabia

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Recommended APA Citation

Alhajjaji, A., Kurdi, A., Faqeh, S., Alansari, S., Abdulaziz, A., Allihyani, M., Almaghamisi, O., Cheema, E., & Ali, M. (2023). Experiences of COVID-19 Recovered Patients: A Qualitative Case Study from a Hotspot in Saudi Arabia. *The Qualitative Report*, 28(1), 269-284. <https://doi.org/10.46743/2160-3715/2023.5582>

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Abstract

It is difficult to maintain social distancing in highly populated areas where people live in proximity. This study aimed to qualitatively explore experiences of COVID-19 recovered patients residing in one such area. We employed semi-structured face-to-face interviews. An interview guide was developed, validated, piloted, and minor changes were made. People living in this area, above 18 years of age, and recovered from COVID-19 were approached for the interviews, 11 of them were recruited to be interviewed, and their verbal informed consent was audio recorded. The interviews were conducted in the Arabic language in a semi-private area of the community center, audio-recorded, transcribed verbatim, and thematically analyzed later. Thematic analysis generated 30 subthemes, which were categorized into seven overarching themes: information about COVID-19; life during COVID-19 illness; spreading of COVID-19; precautionary measures; interventions that helped in recovery; impact of COVID-19 on life; support received during COVID-19 illness. Experiences of people from the hotspot who had recovered from COVID-19 highlighted what life had been like in the hotspot under lockdown, especially with having been afflicted with the infection, factors that facilitated their recovery, and the way their lives were and have been affected due to COVID-19.

Keywords

COVID-19 pandemic, lockdown, hotspot, patient experiences, qualitative case study

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Acknowledgements

The authors acknowledge all the academic staff who helped in the translation and validation of the interview guide. The authors would also like to thank the community leader, the official translator of Nakkasah and all the participants for their cooperation throughout this study.

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Experiences of COVID-19 Recovered Patients: A Qualitative Case Study from a Hotspot in Saudi Arabia

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It is difficult to maintain social distancing in highly populated areas where people live in proximity. This study aimed to qualitatively explore experiences of COVID-19 recovered patients residing in one such area. We employed semi-structured face-to-face interviews. An interview guide was developed, validated, piloted, and minor changes were made. People living in this area, above 18 years of age, and recovered from COVID-19 were approached for the interviews, 11 of them were recruited to be interviewed, and their verbal informed consent was audio recorded. The interviews were conducted in the Arabic language in a semi-private area of the community center, audio-recorded, transcribed verbatim, and thematically analyzed later. Thematic analysis generated 30 subthemes, which were categorized into seven overarching themes: information about COVID-19; life during COVID-19 illness; spreading of COVID-19; precautionary measures; interventions that helped in recovery; impact of COVID-19 on life; support received during COVID-19 illness. Experiences of people from the hotspot who had recovered from COVID-19 highlighted what life had been like in the hotspot under lockdown, especially with having been afflicted with the infection, factors that facilitated their recovery, and the way their lives were and have been affected due to COVID-19.

Keywords: COVID-19 pandemic, lockdown, hotspot, patient experiences, qualitative case study

Introduction

The coronavirus disease 2019 (COVID-19) pandemic is a global health crisis. It has caused significant health-related morbidity and mortality around the world (Rashed & Eissa, 2020). The disease is highly contagious and leads to fatal outcomes in specific populations, especially those with comorbidities and the elderly (Kluge, 2020). According to the World Health Organization (WHO), current evidence suggests that the disease spreads between people by two main methods, directly (through close contact with an infected person via the mouth or nasal secretions) or indirectly (through contaminated objects or surfaces; WHO, 2020a). The WHO also states that people who are in close contact, described as being within one meter, with an infected person can catch COVID-19 when the infectious droplets enter their mouth, nose, or eyes.

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The WHO has put forward several recommendations to prevent the spread directly or indirectly. One of these recommendations is to maintain social distancing which is currently defined as keeping a distance of at least one meter from others in open public places such as parks and walking areas and in confined places such as shops or restaurants (WHO, 2020a). The implementation of social distancing is undoubtedly challenging in densely populated or crowded areas where people live in proximity. People living in such areas are at increased risk of contracting the infection due to the rapid transmission of the disease.

Nakkasah is one of such densely populated areas of Makkah city in the Kingdom of Saudi Arabia (KSA). The houses and residential buildings are very congested with narrow streets and poor sanitation. Most of the population comprises migrants from Burma with some Africans, Bangladeshis, and Indonesians, and mainly represent the lower socio-economic class. The predominant language is Burmese (Abbas, 2006). We could not find any updated information regarding the total population and population demographics of Nakksah from official resources of government statistics. The living conditions in the area pose a high health risk to the residents. The area was declared a hotspot by the Ministry of Health (MoH) during the current COVID-19 pandemic due to the rapid and uncontrolled transmission of the infection, both within the local community as well as the spread of the disease to other areas of the city. Consequently, the area was put under complete lockdown for a period of three months (April-June 2020) and was served by volunteer healthcare organizations and KSA's MoH teams. A local community committee was responsible for overseeing the local social affairs and employed a Saudi translator to facilitate the communication between the local community and the MoH teams and other volunteer teams.

It is paramount to explore the experiences of COVID-infected patients from the time of their diagnosis or the emergence of their symptoms through to their recovery, especially the patients from hotspots. This can not only help healthcare organizations to adopt new care models and streamline workflows but also help improve the quality of life of infected patients in high-risk communities (Millstein & Kindt, 2020), during the current and future outbreak of pandemic diseases. To the authors' knowledge, there is currently no published study that has qualitatively explored the experiences of COVID-19 recovered patients living in a hotspot area. This study, therefore, aimed to qualitatively explore the experiences of COVID-19 recovered patients in such an area to provide a useful insight into how the quality of care and life can be improved for patients in high-risk communities, such as Nakkasah, during this pandemic and in future disease outbreaks.

The authors have prior experience conducting qualitative research and analyzing the ensuing qualitative data. MaA and EC have supervised several qualitative research projects in healthcare and public health settings. All the authors, living in the same city where the hotspot was situated and having experienced lockdowns, had a particular interest in exploring the experiences of the recovered COVID-19 patients who were confined in the hotspot. At the time of writing of this manuscript, three authors were also recovered COVID-19 patients.

Methods

This study was approved by the Biomedical Ethical Committee of Umm Al-Qura University, Makkah, KSA (Approval Number: HAPO-02-K-012-2020-07-426).

Research Methodology

In this study, we adopted qualitative methodology and employed constructivist grounded theory as we did not have any pre-existing frameworks. The issues of interest were raised and discussed during semi-structured face-to-face interviews with the participants and

mutually the knowledge was constructed (Mills et al., 2006). A case study approach was adopted as the participants' experiences were believed to be influenced by the factors such as living under lockdown conditions as well as being affected by the disease itself (Baxter & Jack, 2015). These factors might have interacted to shape the complex phenomenon of their overall experiences (Debout, 2016).

Participants

Individuals living in Nakkasah, above 18 years of age, and having experienced and recovered from COVID-19 during the lockdown period (either hospitalized or not during their illness), were deemed eligible for recruitment. Eligible participants were recruited on a convenience sampling basis (i.e., those who were available and accessible at the time of the study and were willing to participate in the study) as opposed to purposive sampling (Etikan et al., 2016). The community leader who happened to know the families living in the hotspot and was also responsible for documenting the COVID-19 cases diagnosed was contacted to identify the eligible participants. He contacted those eligible participants and arranged for interviews with those who were willing to be interviewed.

Data Collection

To facilitate the interviews, the interview guide was developed in the English language and then translated into the Arabic language by the authors. A bilingual academic staff member double-checked the accuracy of the translation. The interview guide comprised open-ended questions related to six topics; the interview guide items are shown in the appendix. The interview guide was checked for face validity with two experienced academic staff members and piloted with two recovered patients. Minor changes were made in the interview guide following the validation and piloting.

Two authors (AbA and OA; 5th year Pharm.D. students) were trained to conduct the semi-structured interviews. The interviews were conducted in the Arabic language with the recommended health precautionary measures in place, including the use of face masks and social distancing, and field notes were taken. Informed consent was obtained from each participant prior to the interview after explaining to them the research project. The interviews were conducted in a semi-private area of the central mosque of Nakkasah, outside the prayer hours; this location is considered a community center by the residents. No financial incentive was offered to the participants. The mean interview time was 24 minutes; interview durations ranged from 18 to 30 minutes. The interviews were audio-recorded and transcribed verbatim later. The accuracy of the transcriptions was checked against the recordings alternatively by the authors.

We interviewed 12 eligible participants in July 2020. Interview 8 was excluded as the participant did not attend the interview in person and instead sent their representative. Therefore, 11 interviews, including two female and nine male participants were included in the analysis. Participants' ages ranged from 18 to 75 years, with mean age of 40 years. Five eligible and potential participants, who were approached, refused to participate for which they did not provide the reason.

Data saturation (defined by the authors as the point where no new codes were developed from analysis of ensuing interviews) was achieved with ten interviews; however, the 11th interview was included in the analysis to confirm the data saturation and make use of the participant's contributed information. Six participants could not speak Arabic, which is the local language of the city, and could only speak the Burmese language. The interviews with these participants were conducted with the help of the official translator of the Nakkasah

community. The official translator was appointed by the community leader to help the MoH teams and other volunteer teams perform their tasks more efficiently in the community as most of the people in the community only speak the Burmese language. The rest of the five participants were Arabic speakers and, therefore, the translator was not required while interviewing them.

Data Analysis and Trustworthiness

We collected and analyzed the data simultaneously in three phases using the inductive method of thematic analysis and as guided by constructivist grounded theory (Braun & Clarke, 2006; Mills et al., 2006).

1. The initial phase of the analysis involved familiarizing with the data by reading the transcripts.
2. The next phase involved reading the transcripts and highlighting the quotes manually with code by the two teams of authors independently. The codes were generated with a focus on the aim of the study which is exploring the experiences of the participants. The coding was then reviewed and verified by the supervisors (MaA and EC) to ascertain trustworthiness. Some codes were describing similar experiences in different words. The supervisors unified them after a discussion. Additionally, the duplicate codes were removed at this stage.
3. This was followed by the categorization of codes into potential subthemes and themes by the two teams of authors independently, which was further reviewed and verified by supervisors to maintain trustworthiness. At this stage, the supervisors also ensured that the emerged subthemes and themes were related to the experiences of the participants in the context of the study.

The iterative process of data collection and analysis continued until data saturation was achieved, as described above (Hartley & Symon, 2004; Lester et al., 2020). The supervisors, while reviewing the coding at each stage, ensured that the emerging codes, subthemes, and themes were grounded in the interviewees' perspectives based on constant comparative method (Glaser & Strauss, 2017). Thematic analysis generated 378 codes which were categorized into 30 subthemes based on qualitative similarity. These subthemes were further condensed into seven overarching themes that are presented in the results section as findings of this study and further discussed in the discussion considering existing literature and context.

Results

The interviews, as mentioned earlier, were conducted in the Arabic language and therefore, the subsequently generated transcripts were also in Arabic. To maintain the essence of the participants' perspective in the local language, we did not translate the transcripts into the English language. However, the coding, subthemes and themes were generated in the English language from the Arabic transcripts. The themes are presented in this section and each theme is supported by relevant participants' quotations. The quotations presented below have been translated for the sake of supporting the themes. Names and identities of the interviewees are protected as required by the ethical committee which granted the ethical approval for this project.

Information about COVID-19

Information regarding the disease and awareness about its spreading, especially in relation to the pandemic, can shape the experiences of the patients. Most of the participants mentioned that television or social media applications such as WhatsApp, Twitter, YouTube, Snapchat, and Instagram were the sources of their information regarding COVID-19, its spreading and health consequences.

Interviewee: Photos were sent to me by WhatsApp, (and) the audios sent by people to spread the awareness.

These participants reported that the disease is spread by touching contaminated surfaces, shaking hands, transferring paper money and coins from hand to hand, not wearing gloves, and by social gatherings. They also mentioned that children, adolescents, older people, and those with chronic diseases (such as respiratory problems) are considered to be high-risk patients.

Others were unaware of how the virus spreads or what precautionary measures to observe as they did not seem to be using social media. This might have led to them taking no precautionary measures and thus acquiring the disease and having their health affected during the illness.

Life During COVID-19 Illness

This is one of the core themes representing the participants' experiences during the illness. The participants explained how their life was with the illness during the lockdown period in Nakkasah. Most of the participants reported being hospitalized during the illness. One participant described how the transition of care affected mental status:

Interviewee: I suffered (with COVID-19) for a long time, so when I came back home (from the hospital), they took me back to the hospital the next day and I stayed (there) for an even longer period. They said that my psychological condition was very bad and after that, they took me to the hotel (designated for quarantine).

The participants reported being quarantined for an average duration of 13-18 days. Most of them were quarantined in designated hotels. Most of the participants suffered from cough and fever and some of them reported these symptoms as the first sign of the infection. Shortness of breath and chest tightness were also reported as the initial symptoms by a few participants. Some of the participants mentioned that they also suffered from a headache that prevented them from walking.

The participants also described their concerns and worries during the quarantine:

Translator: He said, I felt I was close to my death.

Translator: He said, when someone is in the hospital or hotel (due to COVID-19), no one visits him.

Most of the participants determined that they had recovered from COVID-19 owing to the relieving of the symptoms or the negative COVID-19 test. Diabetes and hypertension were reported to be the most common comorbidities by most of the participants. Some participants reported that their comorbid conditions were not affected by COVID-19 illness whereas others

mentioned the worsening of their comorbid conditions during COVID-19 illness along with “very bad” COVID-19 symptoms. One participant linked the worsening of comorbid conditions to the reduced availability of regular medications.

The participants described how their mental health and existing medical conditions were affected while living in the hotspot and partly due to the reduced availability of essential medicines due to the complete lockdown.

Spreading of COVID-19

Being aware of how the disease was acquired by the patient during the pandemic in the hotspot and how it could have been resourced to others adds to the holistic experiences of the patients. Some of the participants mentioned that they might have caught the infection through close contact with the infected family members or friends or touching the contaminated objects around them such as doors, whereas others thought that they might have contracted the virus from asymptomatic infected people around them:

Interviewee: I got the infection from my brother who goes out to get grocery, but he did not have any symptoms and did not look sick.

Most of the participants believed that they did not spread the infection to others as they isolated themselves or were “forced to quarantine” after being diagnosed, whereas a few of them thought that they might have spread it to their relatives due to close contact:

Interviewee: My son who was responsible for taking me to the hospital was fine and had no symptoms, and then he got infected because he was accompanying me.

The participants speculated how they might have acquired the infection or spread to others, the avoidance of which could have helped in preventing themselves from the illness and having their health affected. However, the involved mechanism of transmission could not be established due to insufficient information. The participants might have acquired these speculations from the information regarding COVID-19 transmission received through social media.

Precautionary Measures

Observing the recommended precautionary measures during the pandemic is integral for preventing the spread of the infection. The WHO has recommended precautionary measures to prevent the spread of COVID-19. Several of these measures were mentioned and observed by the participants during the lockdown such as “washing hands” and others:

Interviewee: We were trying to avoid touching anything, wearing gloves and masks, and applying social distancing by keeping a distance of one to two meters from people.

Some participants reported that they were still observing the precautionary measures even after the lockdown was lifted such as avoiding gatherings, maintaining social distancing, and wearing face masks as mandated by MoH. However, those who were not infected with COVID-19, were reported to be adhering to the required precautionary measures to a lesser extent after the lifting of the lockdown.

Not only the participants were found to be aware of the required precautionary measures but also were aware that they are still required to observe them even after the lifting of the lockdown.

Interventions that Helped in Recovery

Management or the treatment, including self-management and self-treatment, of the disease during the pandemic in the hotspot, especially where the remedies may not be readily available, influences the patients' experience and vice versa. Most of the participants reported that they used the medicines to control the symptoms only and not for the cure:

Interviewee: Effervescent form of (paracetamol brand mentioned) helped me to reduce my symptoms but did not treat me.

Some participants mentioned that they were also prescribed antibiotics and anti-allergy medications for COVID-19. The participants also reported that they were provided with information regarding the reason for prescribing these medicines and how to use them. Other participants, on the appearance of initial symptoms, took home remedies such as honey, lemon, and ginger to relieve the symptoms. One participant reported using these remedies because of the fear of seeing the doctor. This fear of seeing the doctor could be because the clinic or the doctor would force the patient to be quarantined if diagnosed with COVID-19. Some participants stated that they took medicines as well as home remedies.

The participants resorted to self-treatment and home remedies because they might want to avoid being seen by a doctor who could enforce quarantine if COVID-19 was diagnosed. It appeared that the participants had realized that the available remedies were to help manage and control the symptoms only and not treat the disease. They seemed to be using home remedies also to control their symptoms and let the disease take its course.

Impact of COVID-19 on life

This is another core theme identified from the participants' perspectives. Living in the hotspot under lockdown conditions forced by the COVID-19 pandemic has a direct impact on people's social life and mental health. This was evident in the narratives of the participants. Since Nakkasah was the only area under complete and strict lockdown in KSA, people living herein had a unique experience. Most of the participants showed concerns after hearing the news of Nakkasah being under lockdown:

Interviewee: I (was afraid to) go outside from that day.

Some participants indicated the effect of lockdown on social life due to "reduced social gatherings." One participant described his situation of being referred to the psychiatrist due to mental stress related to the concern regarding the community.

The financial status of the people in Nakkasah was reported to be adversely affected during the lockdown:

Translator: She felt sad because the people in Nakkasah go out for their daily sustenance and their financial status was hard (to maintain during the lockdown).

Moreover, following the recovery from the illness, whilst still during the pandemic, has some repercussions. There is a risk of acquiring the infection and going through the whole experience again and suffering from lingering or long-term effects of COVID-19 after being tested negative. Some participants reported lingering side effects after the recovery from COVID-19, such as irritable bowel syndrome, hair loss, and shortness of breath.

The participants' lives seemed to be greatly affected from the time of hearing about the imposing of the lockdown till even after the recovery from their illness. The participants living under lockdown in the hotspot (from where they were not allowed to commute even for essential work) experienced more drastic consequences, especially in terms of their financial situations.

Support Received During COVID-19 Illness

Experiences are believed to be highly influenced by the support received during illness and after recovering from the illness. Most of the participants indicated and acknowledged the emotional support and care in the form of phone calls and daily messages they received from family and friends while they were quarantined during the lockdown period. The participants also highlighted the support received from the government (MoH) and the community committee in Nakkasah. One participant was overwhelmed with emotions while describing the support received from the government:

Translator: She said that she cannot describe (the feelings) [participant crying] and doesn't know how to thank and pray for the (KSA's) king and Ministry of Health.

According to some participants, the community committee also supported by supplying food and ensured that the people were observing precautionary measures even after the lifting of the lockdown.

Any external support during a difficult time can make the experience pleasant. The participants had a pleasant experience having support from family, friends, government, and community committee during and after their illness period.

Discussion

COVID-19 lockdowns can paralyze the functioning society. However, individuals and especially those who suffer from COVID-19 continue with their life with its basic needs. Exploring their experiences provides an insight into how their lives are affected and measures that can be taken on individual and social levels, to ease their lives and make them valuable members of society again.

Most of our participants were found to be social media users. Approximately 82% of the population in KSA actively uses social media (GMI, 2022). Due to the widespread use of social media in KSA, we expect reasonably good awareness regarding COVID-19 in society. Our study indicates that the participants who were social media users were well-aware of COVID-19 and related issues. This coincides with the findings of the survey conducted in KSA to determine COVID-19 awareness, which reported moderate to high (60-80%) awareness in the society with the MoH as the most reliable source of information (Alanezi et al., 2020). These participants in our study were also found to have the correct information regarding the disease spread as per the MoH information (MoH, 2020). However, they were partially correct regarding the high-risk category of the patients who are older people and those with chronic diseases as opposed to children and adolescents, according to the WHO (UNICEF, 2021;

WHO, 2020b). Social media can be made widely available to the general population to raise and sustain awareness before, during and after lockdowns, regarding COVID-19; the mechanisms by which it is transmitted and the precautionary measures which should be observed to minimize the disease transmission. However, the accuracy of the information cascaded via social media cannot be guaranteed in KSA. Firstly, people should be educated to take the information from reliable resources such as MoH social media accounts or the MoH website. MoH should also be more proactive in spreading accurate information through these channels as well as organizing awareness campaigns at various places, especially the areas which are likely to be hotspots or have been declared hotspots. The awareness campaigns can also include information regarding usual and unusual COVID-19 symptoms and how to manage them, along with the long-term side effects of the disease and medications used to manage COVID-19. Further research can highlight whether good awareness can help prevent or curb the disease spread in society.

Our study participants appeared to be following the precautionary measures appropriately as per WHO recommendations (WHO, 2022). This can be linked to the good awareness and knowledge of COVID-19 which was reflected in the participants' views and also due to the fact they had acquired and suffered from the infection. However, the participants highlighted that after the lifting of the lockdown, the precautionary measures were not being observed by other people in the same way as they were being observed during the lockdown period. This could be attributed to the false notion that the coronavirus is no longer dangerous since the lockdown has been lifted and, therefore, necessitates continuous awareness regarding the infection.

The initial symptoms reported by our study participants were in line with the initial symptoms reported by the patients in other studies (Ge et al., 2020; Jiang et al., 2020; Li et al., 2020). Moreover, mental health has also been reported to be affected in other studies (Penninx et al., 2022). Evidently, our findings suggest that the mental health of our participants was also affected due to being quarantined leading to having no social contact, and also due to the community being declared a hotspot and under lockdown. Participants did not describe how their mental health was affected. However, the interviewers suggested in their field notes that this could be despair and anxiety about how the lockdown and declaration of their area being a hotspot would affect their financial resources and community.

The severity of COVID-19 and disease progression have been shown to be directly linked to increased age and comorbidities (Yang et al., 2020). Poor COVID-19 outcomes have particularly been associated with cardiovascular-related comorbid conditions such as hypertension and diabetes (Sanyaolu et al., 2020). Some of our study participants with hypertension and diabetes also reiterated the worsening of their comorbid conditions as well as the COVID-19 illness, which could also be attributed to their increased age compared to the relatively younger participants. Comorbid conditions should be managed equally well especially in the elderly to prevent deterioration. The COVID-19 pandemic has had a direct impact on the medication supply worldwide (Gopalakrishnan et al., 2020). Since Nakkasah was under complete lockdown, there was a reduced supply of medications for other conditions, and this could have also contributed to the worsening of comorbid conditions, as highlighted by one of our study participants.

As COVID-19 is known to be highly contagious, the majority of the participants believed that when isolated or quarantined, they did not transmit the disease to others while they were infected. This again ensues from the fact that the majority of the participants also indicated good knowledge about how the disease spreads. One of the participants indicated that he/she caught the infection from his/her brother who was asymptomatic. Evidence suggests that the disease is believed to be mostly transmitted by people who are asymptomatic or in the pre-symptoms period (Moghadas et al., 2020). However, some participants, especially those

who were not using social media, seemed to be unaware of the modes of transmission and precautionary measures. This unawareness might have led to them spreading the infection unknowingly and contributed to the increased number of COVID-19 cases in the area. This highlights the impact awareness, either by social media channels or authorities posting the signs across the area, can have in preventing the area from strict lockdown conditions and being transformed into a hotspot.

The majority of the participants reported using the medicines to control their symptoms. Some of them mentioned the use of antibiotics, which seems inappropriate to use in the COVID-19 infection as it is a viral infection. This can even be disadvantageous by increasing the bacterial resistance in the long run. However, in some cases, the use of antibiotics may be beneficial since COVID-19 sometimes co-exist with a bacterial infection according to the WHO (WHO, 2020c). Others reported that the home remedies helped in their recovery from COVID-19. Since these complementary medicines have an anti-inflammatory effect, these might have played a role by increasing their immunity against COVID-19 (Panyod et al., 2020).

Most of the participants in Nakkasah live on daily wages, and thus the lockdown resulting in shut down of all work had a disastrous effect on their financial situation. This was reflected in some of our study participants' narratives and has been a characteristic of lockdowns in this pandemic (Carroll et al., 2020). Several long-term effects have been reported in COVID-19 patients after the recovery (Lopez-Leon et al., 2021). Our participants also reported some of these lingering side effects, which could be attributed to COVID-19. However, these could also be the side effects of the medicines taken by them during their illness. One of the participants experienced hair loss due to COVID-19. According to the American Academy of Dermatology Association, hair loss symptoms may be expected during and after COVID-19 illness as temporary hair loss is normal following a fever or acute illness (AAD, 2022).

Support from family and friends can be key to the survival of individuals in any circumstances and it has been particularly a backbone in this pandemic (Hart et al., 2020). One of the highlights of our findings was the support and care the participants received during their illness. The majority of the participants in our study emphasized how the emotional support from family and friends had helped them during the illness. Similarly, the support from the authorities and volunteer organizations can be a key to the survival of the societies in any circumstances and it has been particularly highlighted in this pandemic (Miao et al., 2021). The role of the Saudi MoH and volunteer organizations during the lockdown was particularly acknowledged by our participants for taking care of their daily necessities.

This study had some limitations. One of the limitations was the translation from one language to the other at various stages of the study which could have affected the core meaning and expression. Firstly, the interview guide was prepared in the English language as the study supervisors were English-speaking. The research students, who were native Arabic speakers, then translated the interview guide into the Arabic language in which the interviews were conducted. Some participants could not speak the Arabic language and, therefore, the official translator had to be utilized for communicating with those participants. The interview transcripts were in the Arabic language, which we decided not to translate into the English language to maintain the true essence and expression of the language to some extent. However, the codes, subthemes and themes were developed in the English language to be reviewed with the supervisors. Only the relevant quotes from the interview transcripts, presented in the results section, were translated into the English language. Another limitation of this study is that since it was retrospective exploration of the participants' experiences and the information regarding COVID-19 is continuously evolving during the pandemic, the findings could have been influenced by the emerging information that the participants might have come across since their recovery.

Moreover, since this was a qualitative study depicting the experiences of a sample of COVID-19 recovered people from one area, the findings may not be generalizable on a wider scale especially to the countries with very different cultures and lifestyles. However, our findings have implications for healthcare and volunteer organizations to tailor their care models and streamline the workflows for improving patients' quality of life during and after their illness in high-risk communities, during this pandemic, and in future disease outbreaks.

Recommendations

This study presents the experiences of COVID-19 recovered patients from a hotspot during the lockdown in KSA. Social media can be made widely available to the general population to raise and sustain awareness before, during and after lockdowns, regarding COVID-19, mechanisms by which it is transmitted and the precautionary measures which should be observed to minimize the disease transmission. Comorbid conditions should be managed equally well especially in the elderly to prevent deterioration. Appropriate precautionary measures, including isolation, must always be observed during the COVID-19 illness to prevent transmission to others. Mental health support should be considered for vulnerable patients. Families and friends should also consider financial support to the needy ones during lockdowns in addition to emotional support. The authorities must ensure adequate food and medicines supply during the lockdowns in hotspots. MoH must also consider the effect lockdowns can have on mental health of the people in hotspots and intervene via social media or messaging services.

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Appendix A

Appendix: Topics and questions in the interview guide
1. Knowledge and information about the pandemic
Q1. From where/from which resource(s) you get the information about the coronavirus pandemic?
Q2. Can you tell me what you know about the coronavirus and the disease spread by it?
Q3. Do you know how coronavirus spreads from one person to the other? If the interviewee does not elaborate, ask how?
Q4. Do you know what precautionary measures can prevent the spread of the coronavirus? If the interviewee does not elaborate, ask what precautionary measures?
Q5. Do you know what types of people are at more risk from coronavirus? If the interviewee struggles to answer, mention 'e.g., old or young people, healthy person or person with other diseases, etc.'
Q6. Do you think that your knowledge about the coronavirus and the disease has increased after you have recovered from the disease?
2. Personal journey of virus contraction and recovery
Q7. In your opinion, how could you have contracted the disease? If the interviewee struggles to answer, mention 'e.g., from touching something, what? from eating something, what? from somebody, who? etc.'
Q8. Can you tell me how you started feeling in the beginning and later after they told you that you had the disease?
Q9. How were you diagnosed, e.g., from symptoms, test, etc.?
Q10. Were you hospitalized for the treatment?
Q11. Where were you quarantined, e.g., at home, in a hotel or somewhere else? And for how long? How was that experience?
Q12. How was your general health affected during the illness?
Q13. Do you know what treatment or medicine you were given, were you explained everything about it? If the interviewee does not elaborate, ask what?
Q14. Who provided you with this treatment or medicines?
Q15. In your opinion, what helped most to cure you?
Q16. How did you know that you had recovered from the coronavirus disease (e.g. no symptoms or another test)?
Q17. Do you think that you might have spread the coronavirus to somebody else when you had the coronavirus disease? If yes, ask how and to who?
Q18. How has your life changed after being cured of the coronavirus disease?
3. Mental status
Q19. What was going through your mind/what were you thinking about when you heard about the pandemic initially (and you did not have the disease at that time)
Q20. What was going through your mind/what were you thinking about when you found out that you had the coronavirus disease?
Q21. During your illness (while you were sick with the disease), what thoughts were going through your mind/what were you worried about?
Q22. How did you feel or what was going through your mind/what were you thinking about when you found out that you have recovered from the disease?
4. Support
Q23. Throughout your illness, what support you got from your family, friends, neighbours, committee, or MOH? /How did they help you?
5. Environment and social interaction
Q24. What precautionary measures, do you think, people here in Nakkasah were applying to prevent the spread of coronavirus disease during the lockdown?
Q25. And are they still applying now?
Q26. In your opinion, how has your social life (e.g., going out, etc.) and/or social interaction with the people changed now as compared to before the lockdown?
6. Suggestions
Q27. In your opinion, what can the committee or the MOH or the government do to improve the service or the care of the people who are diagnosed with this disease? /How can they provide better service or care?
Q28. In your opinion, what can the committee or the MOH or the government do to prevent the spread of disease like this now and in the future?

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Funding: This research received no funding.

Author Contributions: MaA conceived and designed the study. MaA and EC supervised the study at every stage. AbA and OA conducted the interviews and double-checked the interview transcripts. AK, SF, SA, Aka and MoA transcribed the interviews. All authors contributed equally to the data analysis and writing, reviewing and editing of this manuscript. All authors have full access to all the data and take full responsibility for the accuracy of the information presented in this manuscript.

Conflict of Interest: The authors declare no conflict of interest.

Acknowledgements: The authors acknowledge all the academic staff who helped in the translation and validation of the interview guide. The authors would also like to thank the community leader, the official translator of Nakkasah and all the participants for their cooperation throughout this study.

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Article Citation

Alhajjaji, A., Kurdi, A., Faqeh, S., Alansari, S., Abdulaziz, A., Allihyani, M., Almaghamsi, O., Cheema, E., & Ali, M. (2023). Experiences of COVID-19 recovered patients: A qualitative case study from a hotspot in Saudi Arabia. *The Qualitative Report*, 28(1), 269-284. <https://doi.org/10.46743/2160-3715/2023.5582>
