Experiences, life changes, and support systems of recovered COVID-19 patients from practitioners’ perspectives: A qualitative study

Fei Pei
David B. Falk College of Sport and Human Dynamics, School of Social Work, Syracuse University, Syracuse, NY, USA

Yixuan Wang
Department of Social Work, China Youth University of Political Studies, Beijing, China

Rebecca J McCloskey
Director of Evaluation, Mighty Crow Media, LLC., Columbus, OH, USA

Qi Liu
Department of Social Work, China Youth University of Political Studies, Beijing, China

Abstract
The spread of COVID-19 brought a worldwide pandemic that interrupted daily life and activities. By the end of 2020, there were more than 83 million diagnosed cases and 1.8 million deaths worldwide (World Health Organization, 2020). In Wuhan, China, more than 7 million individuals were quarantined at the beginning of the pandemic. Despite the widespread impact of the pandemic, limited studies have focused on recovered COVID-19 patients’ experiences. Therefore, this qualitative study was conducted to better understand the shared experiences of recovered COVID-19 patients in Wuhan, through the lens of social work practitioners working with them. A thematic analysis of 14 individual interviews resulted in three main themes: trauma, long-term perspective change, and support systems. Recovered patients commonly reported rejection, discrimination, stigma, and self-blame as a result of having had COVID-19. Although some

Corresponding author:
Fei Pei, David B. Falk College of Sport and Human Dynamics, School of Social Work, Syracuse University, Syracuse, NY 13244-1100, USA.
Email: fpei01@syr.edu
reported receiving social support from family members, neighbors, or employers, others reported severe rejection and maltreatment. Experiences also influenced whether patients had a more positive or negative outlook toward the future. Findings call for health care practitioners and service providers to better support COVID-19 patients using a culturally sensitive, trauma-informed approach. Neighborhood-level factors and interventions are also discussed.

**Keywords**
COVID-19, support systems, recovered patients, neighborhood support, trauma, resilience, qualitative study

**Introduction**
COVID-19 represents a potentially life-threatening respiratory illness caused by a type of coronavirus called SARS-CoV-2, which first came to the public’s attention through the outbreak of cases in Wuhan, China, in December 2019 (World Health Organization, 2020). The Chinese government immediately established strict quarantine policies and Wuhan was locked down from January 23, 2020, to April 8, 2020 in an attempt to limit the spread of the virus. During the lockdown, more than 7 million individuals diagnosed with COVID-19 were quarantined (State Council, China, 2020). By the end of 2020, new cases in China were lower than 20 daily (Center for Systems Science and Engineering at Johns Hopkins University, 2020), but cases increased since March 2022 again. There were more than 83 million confirmed cases and 1.8 million confirmed deaths worldwide (World Health Organization, 2021). At the time of this report, COVID-19 remains a worldwide concern.

In addition to focusing on the physical implications of COVID-19, how to best support recovered COVID-19 patients and promote their resilience is another important social welfare topic. Many recovered patients have not only faced the potential physical sequelae of COVID-19 but also experienced emotional difficulties. Meanwhile, the stay-at-home orders applied in various countries significantly interrupted clinical therapy, counseling interventions, and support groups that could provide support for such patients. Many social welfare services were stopped on short notice or forced to move online (Amadasun, 2020; Golightley & Holloway, 2020), which further increased social isolation and potential barriers to services for recovered COVID-19 patients. Therefore, to provide insights regarding post-pandemic healing and recovery, this study examined the experiences, support systems, long-term life changes, and resilience of recovered COVID-19 patients.

**Trauma and resilience of recovered COVID-19 patients**
As a result of the COVID-19 pandemic, individuals’ lives have been significantly affected by subsequent trauma, challenges, grief, and life changes. Worldwide, people not only
faced physical separations from their families and friends but also experienced challenges in providing loved ones with emotional support (Kang et al., 2020; Walsh, 2020; Zhai and Du, 2020). In addition to these tolls, the loss of employment, physical health, and a sense of security and freedom caused traumatic experiences for many (Zhai & Du, 2020).

According to research by the U.S. Substance Abuse and Mental Health Services Administration ([SAMHSA], 2014), trauma results from emotionally or physically harmful events that individuals or groups experience, which can affect functioning, mental, behavioral, and/or social well-being. Because individual COVID-19 patients differ in terms of their overall health, experiences, losses, and support systems, they may experience the same pandemic in different ways (Griffin, 2020). Many may experience short-term suffering, and their experiences do not rise to the level of trauma (Griffin, 2020). Meanwhile, other patients face more losses or other difficult experiences, which can be perceived and classified as traumatic. Therefore, it is critical to capture a variety of unique experiences and better understanding of the spectrum of long-term effects among recovered COVID-19 patients.

Support system

The COVID-19 pandemic has provoked high levels of stress and anxiety for most people due to long-term isolation and uncertainty, which can negatively affect individuals’ health and well-being. According to the evolutionary theory of loneliness (Cacioppo et al., 2006), humans are inclined to bond with others to protect themselves from environmental challenges and danger. Rich personal and social relationships can promote resilience and coping capability during a crisis (Cacioppo et al., 2006). Thus, individuals’ support systems played a critical role during the COVID-19 pandemic.

Social support has been defined as a resource provided by other persons who are in an individual’s social network (Cohen, 2004; Cohen & McKay, 1985). Social support can benefit individuals’ capacity to cope with stress and protect them from adverse effects of stress (Lakey & Cohen, 2000). Furthermore, according to socioecological theory, individuals’ social support can be categorized into family-level support, neighborhood-level support, and support from society and culture (Bronfenbrenner, 1979). Family-level support refers to support from family members, relatives, and close friends. Neighborhood-level support can come from neighbors, residents’ committees, and local agencies. Support from society and culture generally refers to support from schools, companies, and public sentiment. During quarantine, COVID-19 patients were isolated in their homes, which led to a broad lack of social support for many.

Research has shown that social support is related to health outcomes, such as mental health, behavioral problems, and physical problems (Grills-Taquechel et al., 2011; Kaniasty, 2012; Prati & Pietrantoni, 2010). In particular, social support is a significant factor that can promote resilience after traumatic experiences, including both emotional trauma and natural disasters (Kaniasty and Norris, 2004; Pei et al., 2020; Yoon et al., 2018). Recently, an increasing number of cross-sectional studies on COVID-19 suggested that perceived social support is related to a relatively low level of stress and mental health issues in the general population and among frontline nurses (Labrague & De los Santos,
However, few studies have focused on how the support system affects the recovery and care of COVID-19 patients.

At the family level, factors such as family-centered care, sharing feelings among family members, living with family members, and fewer family conflicts are protective factors that have been associated with less anxiety and better mental health status during the COVID-19 pandemic (Balbo et al., 2020; Hart et al., 2020; Venkatesh, 2020). There are few studies on neighborhood-level support during the COVID-19 pandemic. Some researchers have shown that social isolation alienated neighbors and highlighted the need for neighborhood-level interventions to promote social cohesion (Aluh & Onu, 2020; Kuwahara et al., 2020). However, no published research has intentionally examined neighborhood-level support for COVID-19 patients and how such support systems work.

In China, there is a special neighborhood-level entity, the residents’ committee (or residential committee), which actively participated in the response to COVID-19. The residents’ committee is a self-governing organization. Residents’ committees are not an official government department, but they assist the government in tasks including maintaining public security, handling public welfare services, and providing special care for those with disabilities and low-income families (Ministry of Commerce People’s Republic of China, 1989). Approximately 100 to 700 households in China share a structured residents’ committee, and each committee is composed of five to nine members, including the chairman, vice-chairman (or vice-chairmen), and regular members (Ministry of Commerce People’s Republic of China, 1989). All members of a residents’ committee are elected by residents in the neighborhood, each of whom has the right to vote (Bing, 2012; Ministry of Commerce People’s Republic of China, 1989). Recently, more residents’ committees have constructed a neighborhood social support team to cope with the increased need for social services. Since the outbreak of COVID-19, social media and news articles have reported on the contributions of residents’ committees on the frontlines of the COVID-19 pandemic (e.g., Reuters, 2020; Tan et al., 2020). This study investigated the role of residents’ committees during the recovery of COVID-19 patients in China. At the societal level, the re-entry of recovered COVID-19 patients remains underexplored. More information is needed about public attitudes toward recovered patients, and whether patients are supported or stigmatized in their social networks.

Applied thematic analysis guided the current research about the experiences and support systems of recovered COVID-19 patients in China. Thematic analysis is an inductive qualitative methodological framework that aims to identify, analyze, and describe exploratory experiences within a data set (Guest et al., 2012; Nowell et al., 2017). It is a descriptive research method that shares many features with grounded theory and phenomenology (Guest et al., 2012). In particular, thematic analysis allows high flexibility regarding the use of theoretical frameworks, which allows themes to emerge from the data. This approach was taken to best understand the experiences and challenges among COVID-19 patients and the support systems for such patients from the perspective of clinical practitioners.
Present study

Although COVID-19 is a worldwide pandemic and many studies have focused on the physical care and healing of COVID-19 patients, this study is among the first to explore the post-pandemic life changes of recovered COVID-19 patients in Wuhan, China. Participants were recruited from two local social work agencies in Wuhan. Three main research questions that guided our research were as follows: (a) What are the experiences of recovered COVID-19 patients during and after the COVID-19 outbreak in China? (b) What are the long-term changes caused by COVID-19 among recovered COVID-19 patients? (c) What support(s) did recovered COVID-19 patients have during their recovery?

Methods

Study design

This study used a cross-sectional, qualitative research design, using thematic analysis to capture the changes and lived experiences of recovered COVID-19 patients. Our original intent was to interview COVID-19 patients in Wuhan, China. However, social workers explained that the target population was among the first to test positive with COVID-19 in China and were experiencing a lot of stigmatization in Wuhan. Therefore, due to challenges in accessing recovered COVID-19 patients and concerns about potentially retraumatizing them, we choose to interview social work practitioners who worked with these patients instead. Researchers followed the 6 phases of conducting thematic analysis proposed by Nowell et al. (2017). These 6 phases are familiarizing data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.

Setting

The present study is part of a research project aimed at assessing the needs and challenges confronted by practitioners serving recovered COVID-19 patients in China. The research project has been approved by members of the academic committee (serving as an institutional review board) of a university in Beijing, China. Following a team-based qualitative research strategy (Guest & MacQueen, 2007), the research team consisted of the lead author, the project leader, and four research assistants. One research team member is a Western researcher, who brings a global perspective to this project. A cross-cultural perspective would ensure the cultural integrity and rigor of the current research. In particular, during the coding and merging themes phases, having researchers from different cultural backgrounds helped the research team remain aware of culturally diverse perspectives and how they influenced the researchers’ views and interpretations of the data.
Sampling strategy

Participants were recruited from two local social work organizations in Wuhan. Snowball sampling was used for recruitment. A research assistant in this project interned at China Association of Social Workers and through her work connections reached out to the administrators and managers of the two social work agencies. Both agencies worked with clients who recovered from COVID-19. The administrators disseminated recruitment letters to all eligible practitioners in the two agencies. The letter also elaborated on the role, rights, risks, and benefits of study participation. The agency practitioners provided long-term care for all COVID-19 patients in the nearby communities. Some patients were self-referred, and others were referred by their residents’ committee. The following criteria were applied to identify eligible participants: (a) licensed and contracted practitioner working in a certified social work agency and (b) provided one-on-one social service sessions to recovered COVID-19 patients regularly. All 14 practitioners had provided long time social service sessions with recovered COVID-19 patients who lived in these communities in Wuhan.

Data collection procedures

Data were collected through semi-structured individual interviews during November and December 2020. Due to the pandemic, interviews were conducted online in Chinese, and were audio recorded with participants’ consent. On average, interviews lasted for 30 to 40 minutes. Interviewers were three research assistants who received professional and ethical training prior to contact with the interviewees.

Each interview followed an interview outline. Questions inquired about different aspects of the needs and challenges of practitioners serving recovered COVID-19 patients in China. The principal researcher first drafted interview items to examine the experiences, support systems, long-term life changes, and resilience of recovered COVID-19 patients from the perspective of frontline practitioners. Then, with consultation from external experts from the Beijing Center for Disease Control and Prevention and the China Association of Social Workers, the project leader refined the interview items to better fit real-world situations. Next, the research team held multiple internal discussions to further modify and trim the items to be included in the interview outline.

All interviewees (practitioners) upheld their professional ethics to protect the privacy and confidentiality of their clients, and interviewers reminded them not to disclose clients’ identifying or private information before recording audio. After the interview, each participant was asked to complete a brief demographic questionnaire and received a cash incentive of approximately $10 USD.

Data analysis

Data were transcribed and analyzed in Microsoft Excel. Demographic analysis was conducted first to describe the characteristics of participants. Then, three researchers whose native language is Chinese independently read and open-coded three transcribed
interviews. Each researcher segmented scripts and labeled them with descriptive codes (Corbin & Strauss, 2015). Then, the codes were compiled and the three researchers convened to discuss, confirm, and refine the codes (MacQueen, McLellan-Lemal, Bartholow, & Milstein, 2008). In this stage, the initial themes were generated. Finally, three researchers whose native language is Chinese (the lead author, the project leader, and one researcher) and one researcher whose native language is English worked together on reviewing the initial themes and defining the themes together. The themes were finalized in this stage and the merged codes were combined as a codebook. Three researchers independently coded eight of the 14 scripts using this codebook, which ensured that each script was coded by two researchers. Disagreements in codes were fully discussed by all three researchers in a weekly group discussion.

Rigor

Several strategies were adopted throughout the study to maintain the rigor and ethical standards of qualitative research. For example, to avoid unjustifiable pressure, which often occurs when authorities or people in commanding position urge actions from subordinates, we shared neither the names nor the total number of participants from each agency with its administrators. To promote triangulation, each interviewer followed a step-by-step guide (a training was provided to every interviewer) to develop a comprehensive understanding of the data collection process. Interview data, including transcribed verbatim transcripts, interviewers’ notes, demographic questionnaires, proof of qualification (i.e., social work license), and other materials generated by interviewers, were combined and properly stored at the project leader’s office. To further protect the interviewees’ confidentiality, the project leader concealed identifying information from interview data before sharing them with the research team for data analyses.

Findings

Participants. Fourteen clinical social work practitioners in Wuhan participated in this study. Most of them were female (n = 11) and all of them served recovered COVID-19 patients for 2 to 10 months. The mean age of participants was 28 years, and their average length of employment as practitioners was 3.5 years (ranging from 1 to 7 years). All participants were college educated, and their annual income ranged from ¥38,000 to ¥80,000 ($6030 to $12,700 USD). Participants’ demographic information is shown in Table 1.

Qualitative data

Using a trauma and resilience lens, this Chinese-based study captured recovered COVID-19 patients’ experiences and the perceptions of their support systems from the viewpoint of social work practitioners. Patients described emotional avoidance behaviors in response to pandemic-related traumatic experiences and many tended to blame themselves for contracting COVID-19. To better understand the patients’ living situations and
experiences, participants also described patients’ support systems using a socioecological perspective. Practitioners’ observations and stories identified various factors in their clients’ support systems that had strong positive or negative effects on their recovery process. Data were organized by three main themes: trauma, long-term perspective change, and support systems. Six subthemes were generated: two from the current data regarding trauma (i.e., emotional avoidance of trauma and stigmatization of trauma), one under long-term perspective change (i.e., shift in mindset), and three under support systems (i.e., family, neighborhood, and employer).

### Theme 1: trauma

Practitioners described the commonality of traumatic experiences among recovered COVID-19 patients during their diagnosis and recovery. Many COVID-19 patients shared difficult emotions and concerns with practitioners that they felt unable to share with others in their social network. Some recovered patients reported experiencing long-term mental stress due to grief and loss, financial concerns, self-blame, social disapproval, and exclusion for having had COVID-19. Many patients responded by attempting to avoid their emotions. Patients’ traumatic experiences are further discussed and explained using quotes from the practitioners (using pseudonyms) below.

### Subtheme 1.1: emotional avoidance of trauma

Practitioners reported that for most of their clients, the experience of COVID-19 and its sequelae was traumatic. Their clients did not want to talk about their experience with COVID-19 in an effort to avoid emotional pain. Some common reasons for emotional avoidance were the loss of family members or friends, damaged health due to COVID-19, economic burden, and stigmatization from their neighbors and friends.

### Table 1. Participant characteristics (N = 14).

|                          | Number (%) | M (SD)       |
|--------------------------|------------|--------------|
| Gender (female)          | 11 (78.6%) | 28.35 (5.00) |
| Age                      | 28.35 (5.00) | 28.35 (5.00) |
| Race/Ethnicity           | 14 (100%)  | 3.18 (1.76)  |
| Han                      | 14 (100%)  | 3.18 (1.76)  |
| Role                     | 14 (100%)  | 3.18 (1.76)  |
| Clinical social worker in Wuhan | 14 (100%)  | 3.18 (1.76)  |
| Length of employment (in years) | 3.18 (1.76) | 3.18 (1.76)  |
| Education level          | 14 (100%)  | 3.18 (1.76)  |
| College                  | 12 (85.71%)| 6.29 months (2.61) |
| Master                   | 2 (14.29%) | 6.29 months (2.61) |
| Length of work experience with recovered COVID-19 patients | 6.29 months (2.61) | 6.29 months (2.61) |
| Annual income            | ¥50,538.46 (15,851.47) | ¥50,538.46 (15,851.47) |
For those patients with severe symptoms, they don’t want to think back or talk about it. On one hand, their health was severely affected by COVID-19. Before they got COVID-19, their health was relatively good, and they could dance and sing. Even though they are recovered now, their immune system is not as good as before and sequelae exists. On the other hand, the treatments of sequelae are expensive, which brings economic burden to their family. It’s a large expense. (Zoe)

Practitioners also explained that their clients were only open to sharing such feelings with community social workers, and that they did not want to talk about their experiences with anyone in their private lives. Many community social workers had known their clients for a while, and they built mutually trusting relationships. Therefore, practitioners commonly reported that creating a safe space and building a long-term trusting relationship with recovered COVID-19 patients was important so their patients would be willing to express their feelings and share their stories.

In fact, they are more willing to share their experiences with us, like their medical treatment, quarantine experiences, and loss of their family members or friends. ... But they don’t want to mention anything to their friends, even family members. (William)

**Subtheme 1.2: stigmatization of trauma**

Practitioners noted that their clients felt stigmatized by their COVID-19 diagnosis and experienced secondary trauma. COVID-19 patients felt guilty and blamed themselves for having contracted the virus. Additionally, due to the lack of knowledge surrounding COVID-19 and how it is transmitted, many of their friends, social media contacts, and neighbors discriminated against recovered COVID-19 patients, which significantly traumatized them. Practitioners advocated for scientific knowledge to be effectively disseminated to the public to eliminate stigmatization. Many recovered COVID-19 patients mentioned that their friends and neighbors ostracized them because they thought that the patients may test positive again and spread the virus to others.

One of my clients, he declined my first home visit. When we communicated about this via phone, after a brief greeting, he suddenly cried and said that other people avoided him and discriminated against him. ... A large part of it comes from the misunderstanding of this virus in our society, and there is too much pressure from social media. They [recovered COVID-19 patients] are worried about discrimination against them, including from their relatives and friends, as well as the impact on their jobs. Then, the economic burden of their medical treatments and the loss of employment bring major physical and mental pains. (Xianna)

Additionally, some recovered COVID-19 patients felt they were perceived as selfish and careless about others’ health because they had contracted the virus. They experienced many condemnations such as “You’re selfish” and “You are careless about others.” These clients felt guilty and ashamed for getting COVID, which increased the trauma and maladaptive behaviors of some recovered COVID-19 patients.
I noticed that two of my clients had compulsive behaviors. Take hand washing as an example. It was around August. The pandemic had eased a lot during that time. He [a patient] still had to wear two-layer masks and goggles, even gloves when he went out. He used a lot of antibiotic spray and repetitively washed his hands. He washed his hands too often, and it made his skin allergic to alcohol and hand wash. (William)

**Theme 2: long-term perspective change**

**Subtheme 2.1: shift in mindset**

Besides short-term traumatic experiences, practitioners also identified that many of their clients showed a shift in life perspective. Two primary life changes were described among recovered COVID-19 patients. First, according to practitioners, patients with minor or mild symptoms valued life more and had increased gratitude for their personal experiences, social networks, and familial relationships.

It’s obvious, they enjoy their lives more than ever. These recovered COVID-19 patients often got together and went on some very popular short trips, like one-day or two-day trips in Wuhan. They are still worried about discrimination and getting COVID-19 again, so they would like to take these short trips with other recovered COVID-19 patients. (Yvonne)

After recovery, they are very happy and optimistic about their future life. As our Chinese idiom says: if one survives, there will be future fortunes. They feel blessed to survive. It’s better to live happily and freely for the rest of their lifetime. (Zoe)

However, practitioners reported that for patients who had more severe symptoms of COVID-19 and sequelae, their shift in life perspective meant increased negativity, a sense of isolation, and loss of hopefulness about life. Patients were trapped in negative moods because of their changed circumstances and/or discrimination by social media and society. Because some patients lost their jobs, their financial situations were also not stable.

My client isn’t very well. He has severe insomnia. He cannot sleep at all. He heavily relies on sleeping pills. When I first met him, he was psychologically closed. He didn’t want to talk about anything. Didn’t want me to help. Moreover, after COVID-19, he feels the world is not safe at all. If there is a minor disturbance, he is alert and awakened. It doesn’t change. (Zac)

On one hand, sequelae are a big issue. I know an older women. She was healthy before COVID-19, but now she always feels pain in her stomach and needs to go to hospital frequently to check her physical health. On the other hand, for those young people, many of them lost their jobs and they don’t have income. (Zoe)

**Theme 3: Support Systems**

**Subtheme 3.1: family support.** Although many clients told practitioners that they felt rejected by friends, coworkers, employers, and other relatives, many highlighted the
support they received from family members with whom they lived. Family, as a main supportive resource, played a significant role in COVID-19 patients’ experiences and promoted their ability to cope. Most clients appreciated the endless support from their family members and cherished their family more than ever during the pandemic.

My [recovered COVID-19] client is an older woman. When she was diagnosed with COVID-19, she felt that she could not make it. Because at that time, the city was locked down and lacked all kinds of resources, like no beds in hospitals, lack of food and vegetables, lack of medicine. Then, her grandson posted a lot of posts on his Weibo and WeChat [social media apps] to seek help. Her son and daughter-in-law went to the residents’ committee and street office every day to ask for help. She finally got admitted to a hospital. During her stay, her family visited her every day and provided all kinds of support that they could. (Byron)

**Subtheme 3.2: neighborhood support and stress.** Neighborhoods were identified as both a source of support and stress for many clients. Practitioners stated that clients reported being discriminated against, rejected, and feared by neighbors. However, many also noted that they received support from their local neighborhood residents’ committee. Additionally, clients said they had developed positive relationships with and trusted their neighborhood social workers. Clients appreciated the support received from them and understood that the experiences they shared would be kept confidential. For these reasons, clients felt more comfortable discussing their COVID-19-related experiences with neighborhood social workers than with family members, friends, or others.

Practitioners reported that neighbors commonly showed discriminatory and negative attitudes toward recovered COVID-19 patients. Meanwhile, practitioners noticed that as time passed, discrimination from neighbors decreased. Thus, they emphasized the development and dissemination of policy guidelines and educational materials regarding COVID-19 to reduce stigma and discrimination.

Discrimination is a common problem in our neighborhood. Even if the patients are recovered, their social network is destroyed. Some discriminations even affected the employment of their family members. … Their neighbors used to say hello when they met but now, they don’t even come close to our clients. … You know that the public area near the exit of the elevator [in an apartment building]? It was shared by two households. After the pandemic, the neighbor who lived on the other side of the elevator installed a fence in this area. You know, they shared the elevator for around 10 years and now, there is a fence in the middle of the public area. (Yvonne)

Meanwhile, residents’ committees and neighborhood social workers brought professional support to recovered COVID-19 patients. Practitioners reported that residents’ committees had well-structured, supportive strategies, which provided help to many COVID-19 patients during and after the pandemic. Various types of support were spontaneously constructed by the residents’ committees.
Definitely the neighborhood supports residents’ committees. The neighborhood provided support in all aspects. You know that we lacked resources during lockdown. Residents’ committees helped our clients book beds in hospitals and provide transportation to them, you know, because all public transportation had stopped. Also, they called their families every day to relieve their distress. All this was done by our neighborhoods [residents’ committees]. Also, many patients with minor symptoms were quarantined in their home with their families. Our residents’ committees organized group shopping for all these households and then sent necessities to their doors every day. They also took care of the delivery of meals to these households. (Cindy)

Like our neighborhood social workers … local residents’ committees organized this project to support and help recovered patients. We home visit these recovered patients and provide resources for those recovered patients who need help, like mental health clinics and job hunting. Also, we do science and technology popularization. We want our residents know more about COVID-19 and eliminate stigma and discrimination from our residents. (Daniel)

**Subtheme 3.3: employers.** Practitioners stated that many clients lost their jobs because of COVID-19. Some jobs were lost due to shutdowns in an attempt to curb the spread of the virus. However, many clients said they lost their jobs because of discrimination for having had COVID-19. Microaggressions and discriminations were reported by clients. They lost not only their jobs but also their support systems from their places of employment.

If they are not retired, they are fired by their companies. Then, it is extremely hard for them to find new jobs. If they know you have had COVID, they will not give you an offer. Your colleagues also alienate you. I work in a community, and I know that one staff member of a local company was diagnosed as COVID. He recovered around March or April, but the company did not let him get back to his position until July, and he was given a separate office. (Zac)

I haven’t heard any subsidy [for recovered patients]. I have even heard that one client’s pay was cut by his company. It was not the normal cut due to his absence. It was like his pay was high and then they just paid him like 10% of his wage. It’s discrimination, right? (Daniel)

**Discussion**

Although many patients have recovered from COVID-19, limited research has focused on the post-pandemic care and healing of recovered patients. To promote resilience among COVID-19 patients, this qualitative study captured short-term and long-term changes and challenges, as well as information about patients’ support systems, from practitioners’ perspectives. This study is the first to examine social circumstances of recovered COVID-19 patients in China, extending the current literature by providing an exploratory understanding of recovered COVID-19 patients and promoting interventions for this special, but growing group. Three main themes emerged: trauma, long-term perspective change, and support systems.
Trauma reflected practitioners’ observations of short-term changes among recovered COVID-19 patients. Practitioners recognized a shared pattern of emotional avoidance of trauma among recovered COVID-19 patients. Specifically, due to cultural reasons, recovered COVID-19 patients cared principally about maintaining the confidentiality and privacy of their traumatic experiences during the pandemic. One reason is that the experience of shame and guilt differs between Chinese and English speakers (Li, et al., 2004), and Chinese shame is not the same as Western shame (Bedford, 2004). According to Gilbert et al. (2007), compared with non-Asians, Asians experienced higher reflected shame and external shame, leading to more concerns with the matter of confidentiality when they share personal feelings and anxieties. As shame poses a significant role in Chinese culture, it may partially explain many of our findings. For example, recovered COVID-19 patients tended not to share their psychological concerns and traumatic experiences with others, and their external avoidance of potential secondary trauma in themselves may reflect their internal shame of once being infected. Such observations emphasize the importance of building long-term, safe, and trusting relationships between practitioners and recovered COVID-19 patients. Because recovered COVID-19 patients are extremely reluctant to share their past and sensitive to other people’s judgement, a long-term trusting client–therapist relationship can create an inclusive space for clients to heal their trauma and reclaim their self-confidence.

In addition, public stigmatization and discrimination severely traumatized recovered COVID-19 patients, which strongly emphasizes the need to disseminate scientific knowledge about COVID-19, including on social media. By providing comprehensive information about COVID-19 and challenging rumors and myths, experts can reduce fear and maladaptive behaviors (i.e., prejudicial treatment) in the general population and create a more welcoming and inclusive social environment to promote recovered COVID-19 patients’ positive reentry into their communities and society. The experience of having COVID-19 represents a novel experience across the globe. For some, this experience may be traumatic. Focused primarily on patients aged 60 or older, Zhang and colleagues (2020) found that individuals who recovered from COVID-19 had higher rates of psychological distress than individuals who had not experienced the illness, suggesting an increased risk of trauma symptomatology. Research conducted relative to various epidemics and pandemics has shown a preponderance of post-traumatic mental health problems among individuals affected by the illness, family members, and caregivers (Xiao et al., 2020). Further, practitioners mentioned that undergoing stigma and discrimination after diagnosis may exacerbate the traumatic experience. Thus, taking a trauma-informed approach to primary and mental health care for individuals who have experienced COVID-19 is advised (Griffin, 2020). This may include screening for symptoms of trauma and inquiring about any ongoing mental and social implications of the illness, in addition to physical ones.

One of the principles of trauma-informed care is peer support. Based on the isolation and discrimination reported to practitioners by their clients in this study, it appears prudent to make intentional efforts to connect survivors to one another. COVID-19 support groups for those who have recovered from the virus may provide a space for individuals to share their personal experiences that are not easily discussed in other environments; it also
affords the opportunity to receive and offer mutual support in the context of a shared experience. Moreover, peer support can facilitate meaning making and a sense of belonging—important aspects of trauma recovery (Collin-Vézina et al., 2020; Van de Ven, 2020).

As for long-term perspective change, practitioners noticed shifts in mindset for most recovered COVID-19 patients. Although patients with minor symptoms became more positive toward their lives, patients with severe symptoms or sequelae showed negative attitudes toward their future and tended to isolate themselves. Thus, targeted interventions for recovered COVID-19 patients with severe sequelae should be developed. Also, such interventions should include help with financial difficulties caused by their health crisis and/or employer-related discrimination.

Support systems were another critical theme mentioned by practitioners. Multilevel support systems (e.g., family and friends, neighborhoods, and workplaces) are identified by practitioners as key sources of social support for recovered COVID-19 patients. Because family members are often the primary source of support for individuals dealing with health crises, it stands to reason that taking a family-centered approach to caring for COVID-19 patients may help patients recover physically and emotionally from the virus. Family-centered care refers to the planning and delivery of health care that is built on a collaborative and empowerment approach between care providers and patients and their self-defined families. The current study shows that family-centered care may improve patient health and mental health outcomes and result in increased family understanding and satisfaction with medical care (Kuo et al., 2012). Furthermore, opportunities for education and dialogue may decrease stigma related to various health and mental health problems (MacKean et al., 2012; Papadimos et al., 2018) and reduce the likelihood of mental health problems among providers and patients and their families (Hart et al., 2020).

Practitioners’ observations showed that support from residents’ committees played a significant role for recovered COVID-19 patients in China. Consistent with previous studies (Reuters, 2020; Tan et al., 2020), this special neighborhood-level institution in Wuhan, China, takes responsibility for arranging quarantines, sending necessities to residents, arranging transportation for patients, recruiting neighborhood social workers, and disseminating scientific knowledge about COVID-19. For COVID-19 patients in other countries, constructing similar neighborhood organizations might effectively provide support for residents and neighbors experiencing COVID-19 and eliminate discrimination related to it.

Besides family and neighborhood, employer and workplace behaviors were also mentioned by practitioners as factors that affected recovered COVID-19 patients in China. Microaggressions and discrimination were reported by recovered COVID-19 patients in their workplaces, and many of them lost their jobs after being diagnosed with COVID-19, especially in the service industry. Future research should consider capturing the financial impact and employment status of recovered COVID-19 patients.
Strengths and limitations

This study has several strengths and limitations. First, the research team is diverse as researchers from both Chinese and Western backgrounds contributed their perspectives to the research. This qualitative study also captured the life experiences of recovered COVID-19 patients, which is valuable because information on this topic is highly limited. However, some limitations exist in this study. Because the interview and scripts were both in Chinese, some information and messages may have been lost in translation between Chinese and English. Additionally, participants in this study were Chinese practitioners and patients. Thus, information in this study cannot be directly applied to other countries and cultures, given that stigma related to COVID-19 in China may differ compared to other countries. Finally, compared to the practitioners’ perspectives captured in this study, gathering client perspectives directly using a phenomenological approach would have been preferred. However, after discussions with external experts from the Beijing Center for Disease Control, we understood that since Wuhan was the first city that discovered the COVID-19 in Dec 2019, patients there faced a more severe stigma and mental toll compared to later patients. Interviewing these patients could have potentially re-traumatized them. Since many scholars, researchers, and reporters wanted to learn about patients’ experiences and stories, many patients in Wuhan experienced frequent harassment which severely interrupted their lives. Therefore, we decided to collect information from practitioners only. If future studies can collect data from COVID-19 patients in Wuhan ethically and without causing harm, it would enrich further understanding of their experiences.

Conclusion

COVID-19 and accompanying response plans have negatively affected communities worldwide. In addition to the physical effects of the virus, many individuals experience long-term social, financial, and emotional implications which are just beginning to be investigated. Using a trauma and socioecological lens and thematic analysis approach, this study uncovered the traumatic experiences, changes in life perspective, and perceptions of social support of recovered COVID-19 patients in Wuhan, China, through the perspective of social work practitioners serving them. Although some former patients reported being supported by their social networks, most experienced rejection, stigma, and discrimination in their neighborhoods and places of employment. Findings call for increased attention to the full spectrum of the consequences of having had COVID-19 using a culturally sensitive, trauma-informed approach as well as neighborhood- and employer-level interventions to reduce stigma and better support those affected by the virus.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.
Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

Data availability
This document includes data collected by Yixuan Wang, an assistant professor in School of Social Work, China Youth University for Political Studies, Beijing, China. The IRB related to this data is approved by the committee in the School of Social Work, China Youth University for Political Studies. The collector of the original data and the agency bear no responsibility for the analyses or interpretations presented here.

ORCID iDs
Fei Pei https://orcid.org/0000-0002-2342-2498
Yixuan Wang https://orcid.org/0000-0001-8616-0408

References
Aluh DO and Onu JU (2020) The need for psychosocial support amid COVID-19 crises in Nigeria. Psychological Trauma: Theory, Research, Practice, and Policy 12(5): 557–558. DOI: 10.1037/tra0000704.
Amadasun S (2020) Social work and COVID-19 pandemic: An action call. International Social Work 63(6): 753–756.
Balbo N, Billari FC and Melegaro A (2020) The Strength of Family Ties and COVID-19.
Bedford OA (2004) The individual experience of guilt and shame in Chinese culture. Culture & Psychology 10(1): 29–52.
Bing NC (2012) The Residents’ Committee in China’s Political System: Democracy, Stability, Mobilization. Issues & Studies 48(2): 71–126.
Bronfenbrenner U (1979) Contexts of child rearing: Problems and prospects. American Psychologist 34(10): 844–850. DOI: 10.1037/0003-066X.34.10.844.
Cacioppo JT, Hughes ME, Waite LJ, et al. (2006) Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. Psychology and Aging 21(1): 140–151. DOI: 10.1037/0882-7974.21.1.140.
Center for Systems Science and Engineering. (CSSE) at Johns Hopkins University (JHU), https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6
Cohen S (2004) Social relationships and health. American Psychologist 59: 676–684. DOI: 10.1037/0003-066X.59.8.676.
Cohen S and McKay TA (1985) Stress, social support, and the buffering hypothesis. Psychological Bulletin 98: 310–357. DOI: 10.1037/0033-2909.98.2.310.
Collin-Vézina D, Brend D and Beeman I (2020) When it counts the most: Trauma-informed care and the COVID-19 global pandemic. Developmental Child Welfare 2(3): 172–179. DOI: 10.1177/2516103220942530.
Corbin J and Strauss A (2015) Basics of Qualitative Research. Thousand Oaks, CA: Sage.
Gilbert P, Bhundia R, Mitra R, et al. (2007) Cultural differences in shame-focused attitudes towards mental health problems in Asian and non-Asian student women. *Mental Health, Religion & Culture* 10(2): 127–141.

Golightley M and Holloway M (2020) *Social Work in the Time of the COVID-19 Pandemic: All in This Together?* British Journal of Social Work. 50(3), 637–641. DOI: 10.1093/bjsw/bcaa036.

Griffin G (2020) Defining trauma and a trauma-informed COVID-19 response. *Psychological Trauma: Theory, Research, Practice, and Policy* 12(S1): S279–S280. DOI: 10.1037/tra0000828.

Grills-Taquechel AE, Littleton HL and Axsom D (2011) Social support, world assumptions, and exposure as predictors of anxiety and quality of life following a mass trauma. *Journal of Anxiety Disorders* 25(4): 498–506. DOI: 10.1016/j.janxdis.2010.12.003.

Guest G and MacQueen KM (2007) *Handbook for Team-Based Qualitative Research*. Lanham, MD: AltaMira.

Guest G, MacQueen KM and Namey EE (2012) Validity and reliability (credibility and dependability) in qualitative research and data analysis. *Applied thematic analysis* 79: 106.

Hart JL, Turnbull AE, Oppenheim IM, et al. (2020) Family-Centered Care During the COVID-19 Era. *Journal of Pain and Symptom Management* 60: e93–e97. DOI: 10.1016/j.jpainsymman.2020.04.017.

Kang L, Ma S, Chen M, et al. (2020) Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: a cross-sectional study. *Brain, Behavior, and Immunity* 87: 11–17. (in press) DOI: 10.1016/j.bbi.2020.03.028.

Kaniasty K (2012) Predicting social psychological well-being following trauma: The role of postdisaster social support. *Psychological Trauma: Theory, Research, Practice, and Policy* 4(1): 22–33. DOI: 10.1037/a0021412.

Kaniasty K and Norris FH (2004) Social support in the aftermath of disasters, catastrophes, and acts of terrorism: altruistic, overwhelmed, uncertain, antagonistic, and patriotic communities. In Ursano RJ. *Bioterrorism: Psychological and public health interventions*. Cambridge University Press, 200–229.

Kuo DZ, Houtrow AJ, Arango P, et al. (2012) Family-centered care: current applications and future directions in pediatric health care. *Maternal and Child Health Journal* 16(2): 297–305. DOI: 10.1007/s10995-011-0751-7.

Kuwahara K, Kuroda A and Fukuda Y (2020) COVID-19: Active measures to support community-dwelling older adults. *Travel Medicine and Infectious Disease*. 36: 101638. DOI: 10.1016/j.tmaid.2020.101638.

Labrague LJ and De los Santos JAA (2020) COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience and social support. *Journal of Nursing Management* 28(7): 1653–1661. DOI: 10.1111/jonm.13121.

Lakey B and Cohen S (2000) Social support and theory. *Social support measurement and intervention: A guide for health and social scientists*, 29. DOI: 10.1093/med:psych/9780195126709.003.0002.

Li J, Wang L and Fischer K (2004) The organisation of Chinese shame concepts? *Cognition and Emotion* 18(6): 767–797.
Li J, Liang W, Yuan B, et al. (2020) Internalized stigmatization, social support, and individual mental health problems in the public health crisis. *International Journal of Environmental Research and Public Health* 17(12): 4507. DOI: 10.3390/ijerph17124507.

MacKean G, Spragins W, L’Heureux L, et al. (2012) Advancing family-centred care in child and adolescent mental health. *A Critical Review of the Literature. Healthc Q* 15: 64–75. DOI: 10.12927/hcq.2013.22939.

MacQueen KM, McLellan-Lemal E, Bartholow K, et al. (2008) Team-based codebook development: Structure, process and agreement. In: Guest G. and MacQueen KM (eds), *Handbook for team-based qualitative research*. Lanham, MD: Altamira Press, pp. 119–136.

Ministry of Commerce People’s Republic of China (1989) *Organic Law of The Urban Residents Committees of The People’s Republic of China*. Retrieve from: http://english.mofcom.gov.cn/article/lawsdata/chineselaw/200211/20021100050376.shtml

Nowell LS, Norris JM, White DE, et al. (2017) Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods* 16(1): 1609406917733847.

Özmete E and Pak M (2020) The relationship between anxiety levels and perceived social support during the pandemic of COVID-19 in Turkey. *Social Work in Public Health* 35(7): 603–616. DOI: 10.1080/19371918.2020.1808144.

Papadimos TJ, Marcolini EG, Hadian M, et al. (2018) Ethics of outbreaks position statement. Part 2: Family-centered care. *Critical Care Medicine* 46(11): 1856–1860. DOI: 10.1097/CCM.0000000000003363.

Pei F, McCarthy KS, Wang X, et al. (2020) Critical components of interventions to promote resilience among children with maltreatment experiences: A qualitative study of practitioners’ perspectives. *Children and Youth Services Review* 110: 104810.

Prati G and Pietrantoni L (2010) The relation of perceived and received social support to mental health among first responders: a meta-analytic review. *Journal of Community Psychology* 38(3): 403–417. DOI: 10.1002/jcop.20371.

Reuters (2020) *Lockdown Lifted, Wuhan’s Residence Committees Keep Watch*. London, UK: Reuters. Retrieved from: https://www.reuters.com/article/us-health-coronavirus-china-wuhan/lockdown.lifted.wuhans.residence.committees.keep.watch-idUSKCN21Y0ET

State Council (2020) *The People’s Republic of China*, Retrieved from: http://www.gov.cn/xinwen/gwylfkjz78/index.htm

Substance Abuse and Mental Health Services Administration (2014) *SAMHSA’s Concept of Trauma and Guidance for a Trauma-Informed Approach*. Rockville, MD: Substance Abuse and Mental Health Services Administration

Tan H, Jia Y, Li Y, et al. (2020) *China Neighborhood and Village Committee Confront the COVID-19 Pandemic; Cultural History and Tracking Back Review of Relevant Public Health Events in Last Century*. DOI: 10.20944/preprints202004.0447.v1.

van de Ven P (2020) The journey of sensemaking and identity construction in the aftermath of trauma: peer support as a vehicle for coconstruction. *Journal of Community Psychology* 48(6): 1825–1839. DOI: 10.1002/jcop.22373.

Venkatesh V (2020) Impacts of COVID-19: A research agenda to support people in their fight. *International Journal of Information Management* 55: 102197.

Walsh F (2020) Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. *Family process* 59(3): 898–911.
World Health Organization (WHO) (2021) *Coronavirus (COVID-19) Dashboard*. Geneva: WHO. Retrieved from https://covid19.who.int/.

World Health Organization (WHO) (2020) *Coronavirus disease (COVID-19)*. Geneva: WHO. Retrieved from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19.

Yoon S, Cage J, Pei F, et al. (2018) Risk and resilience factors for psychobehavioral symptom trajectories among child welfare–involved youth. *Journal of Interpersonal Violence* 36: 0886260518799485.

Xiao S, Luo D and Xiao Y (2020) Survivors of COVID-19 are at high risk of posttraumatic stress disorder. *Global Health Research and Policy* 5: 1–3. DOI: 10.1186/s41256-020-00155-2.

Zhai Y and Du X (2020) Loss and grief amidst COVID-19: A path to adaptation and resilience. *Brain, Behavior, and Immunity*. DOI: 10.1016/j.bbi.2020.04.053.

Zhang J, Lu H, Zeng H, et al. (2020) the differential psychological distress of populations affected by the COVID-19 Pandemic. *Brain, Behavior, and Immunity*. 87: 49–50. DOI: 10.1016/j.bbi.2020.04.031.