International Journal of Applied Research

Dr. Caroline Satur
Principal-M.L.B.G.M.G.H.S.
School-Bilaspur, Chhattisgarh,
India

Dr. Sunil Gouraha
Sports Officer-Rajiv Gandhi
P.G. Govt. College-Ambikapur,
Sarguja, Chhattisgarh, India

Experiences of individuals in quarantine during the peak of Covid-19 outbreak in Bilaspur

Dr. Caroline Satur and Dr. Sunil Gouraha

Abstract
The first known infections from SARS-CoV-2 were discovered in Wuhan, China. The coronavirus disease 2019 (COVID-19) outbreak originally occurred from Wuhan, China, in December 2019 and gradually spread to other countries in different parts of the world. The COVID-19 outbreak has led many countries ask people who have potentially come into contact with the infection to isolate themselves at home or in administrative quarantine facilities. Thus, quarantine at different levels, from individual to community, was seen as an effective measure of preventing the spread of this disease. The aim of the present study was to explore the experiences of quarantine for people returning from different places during the COVID-19 outbreak in Bilaspur district of Chhattisgarh. This study follows qualitative narrative design. This study used an in-depth, semi-structured interview guide. Purposive sampling technique was used to select the participants who varied in terms of gender and age. Despite individual differences, the experiences narrated by participants followed stages beginning before, during, and after ending the quarantine. The government authorities adopted a policy of mandatory quarantine to all the incoming passengers with the aim of preventing the spread of this pandemic. However, participants reported facing several issues such as shock and fear, feeling of isolation and loneliness, frustration and boredom, and loss of routine activities during this period. Quarantine as a method of preventing transmission of severe disease outbreak should be carefully used after effectively weighing its potential benefits and risks. The results of the study can be used to devise a proper policy framework and practice for effectively managing future quarantine and isolation-related health emergencies.

Keywords: coronavirus, public health policy, quarantine experience, isolation

Introduction
Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease to ascertain if they become unwell, so reducing the risk of them infecting others. It is different from isolation, which refers to the separation of people who have been diagnosed with a contagious disease from people who are not sick. Thus, quarantine is for those with no signs or symptoms who have possibly been exposed to a contagious disease and have the potential to transmit the disease to others. If an individual is potentially exposed but asymptomatic, this person may be subject to quarantine. Once the individual becomes symptomatic, quarantine would no longer apply and the person should be isolated. However, the two terms are often used interchangeably. Experts trace the origin of quarantine as far back as the Old Testament purity laws.

The term *quarantine* comes from the Italian *quarantina*, a period of 40 days, derived from *quaranta*, the Italian for "forty." It refers to the 40-day segregation of ships during the plague. It was first used in Venice, Italy, in 1127 with regard to leprosy and was widely used in response to the Black Death, although it was not until 300 years later that the UK properly began to impose quarantine in response to plague. Recently, quarantine has been used in the coronavirus disease 2019 (COVID–19) outbreak. As a result of this outbreak, all the cities in China had been effectively placed under mass quarantine, while as thousands of foreign nationals returning back home from China have been asked to self-isolate at home or in state-run facilities. Quarantine is often an unpleasant experience for those who undergo it. Issues such as separation from loved ones, the loss of freedom, uncertainty over disease status, and boredom can, on occasion, create dramatic effects. Suicide has been reported, substantial anger has been generated, and lawsuits were brought following the imposition of quarantine

Corresponding Author:
Dr. Caroline Satur
Principal-M.L.B.G.M.G.H.S.
School-Bilaspur, Chhattisgarh,
India

in previous outbreaks. The potential benefits of mandatory mass quarantine need to be weighed carefully against the possible psychological costs.

The individual experiences of individuals in quarantine may be quite unique and as yet remain unexplored. Understanding these experiences is crucial in order for public health officials to design health emergency plans that are responsive to the unique life situations of the individuals who will be most affected by them. Knowledge of the problems and issues experienced by individuals in quarantine may indicate areas requiring further study to determine the roadmap for public health services. Thus, the purpose of this qualitative study was to explore the experience of quarantine during the COVID-19 outbreak in Bilaspur. This would help us to understand the issues of the people under quarantine, thereby assisting authorities in framing appropriate policies and actions in places that are enforcing quarantine for returning citizens.

Method
As few studies exist about the experience of quarantine, a narrative qualitative design was selected in order to understand the people's experiences through their stories. Purposive sampling technique was utilised for data collection. Before initiating the study, proper consent of the participants was obtained and they were introduced about the purpose, potential risks, confidentiality, and goals of the study. Ethical approval was also sought from the ethical committee of the department of social work. Besides, approval from the government authorities was also sought prior to the conduct of study.

The total number of individuals in the quarantine facility was 63: 30 (62%) were females and 25 (38%) were male. All the individuals were given the equal opportunity to participate in the study, however only 14 individuals showed interest. Only the interested individuals (14) who were representatives of the wider group held in quarantine were interviewed. The Interviews took place after spending the 14 days (April 24, to May 6, 2020) quarantine period at the designated government-run facility in Bilaspur district. Each interview lasted approximately 1–2 hrs. All the interviews were audio-taped and followed a semi-structured interview guide. All the participants were requested to describe their experiences of quarantine in detail.

Sample
The sample size of the individuals who participated in the study was 14, which included 9 females and 5 males. They were in the age group of 25–37years. The interviews continued till there was saturation of data and no new additional information was coming up. All of them were placed in quarantine on April 24, 2020, for a period of 14 days. It was a hotel-turned quarantine facility for individuals returning from outside India, in the outskirts of Bilaspur city.

All the participants were labourers from Bangladesh but returned back to India after the outbreak of COVID-19. Upon their arrival, they were examined by the doctors and after being found asymptomatic were sent to quarantine facility as a precautionary measure.

Data Analysis
Interviews were transcribed verbatim and used as the primary source of data. The interviews were analysed using categorical-content perspective. The material was read several times to obtain an understanding of the whole and patterns. The next step consisted of grouping the quotes of each participant based on similarity of content. Then, the grouped quotes were compared and similar subthemes were identified. Then, the subthemes were grouped into larger categories, identified as themes. Based on the themes, general categories were constructed.

Results
During the interviews, the participants were asked to describe their experience while in administrative quarantine. The experiences of quarantine were profound and had an adverse impact on their psychosocial and mental health besides affecting their routine activities. However, it was found that not only the actual period of undergoing quarantine, the period before and after quarantine also was a unique experience. "Before-" quarantine experience evoked uncertainty, fear, and shock among the participants due to various reasons, whereas "after-" quarantine experience generated feeling of happiness, relief, and sense of control. Thus, when the interviews were analysed, three categories with several themes and subthemes emerged from the study: life before, during, and after quarantine, with major focus on "during-" quarantine experience. The boundaries between categories were fluid and flexible because of the complexity of the experiences of quarantine. Uncertainty, for example, was intrinsically intertwined with other subthemes, as it would often result in a feeling of loneliness and stress. Similarly, the experiences "before" the quarantine shaped the experiences during the "quarantine." Thus, the three stages were interlinked to each other.

Life Before Quarantine
This phase captures the experiences of participants before they were ordered to undergo administrative quarantine. The expectations and fears of being quarantined shaped the actual experiences of quarantine. Three sub-themes were identified within this category:

Shock
Most of the participants indicated that they were shocked to hear about being quarantined that too in an administrative quarantine facility.
"I heard the news at the airport and felt shocked about being quarantined that too at a government designated facility. I was also shocked to hear that I will be quarantined since I was asymptomatic and had cleared the medical tests. I literally cried and was very fearful of the idea of being quarantined."

Fear
The participants were fearful of the things that might unfold during the period of quarantine.
"I had no prior experience of quarantine so I was very afraid of the forthcoming experiences like facilities, resource persons, health check-ups, food etc. that made me anxious."

Uncertainty
Several participants narrated that they had a feeling of uncertainty about what is going to happen to them in quarantine, which created a feeling of anxiety.
"I was unsure about what was going to happen to me. I was sceptical about the facilities at the quarantine facility.

Besides the duration, nature and treatment were other things I was uncertain about and this made me anxious and worried. The authorities also did not provide information and reassurances to allay fears and uncertainty."

Experiences During Quarantine
The participants narrated emotional responses after being quarantined. During this phase, the following five sub-themes emerged: feeling of isolation and loneliness, feeling stigmatised, frustration and boredom, inadequate information and difficulties in sleep.

Feeling of isolation and loneliness
The participants experienced feeling of isolation and loneliness as they had limited contact with their social circle such as family, friends, and relatives. Besides, the inmates were not allowed to physically meet each other.
"We were segregated and allotted separate rooms for our stay. We could not physically talk to each other nor come out of our rooms. This created a sense of loneliness."

Feeling stigmatised
Many participants reported the feeling of stigmatisation as they travelled from Bangladesh that was also one of the COVID-19-affected countries. Besides, few participants also reported being blamed for bringing the virus here and being the potential source of infection.
One participant reported the feeling of stigma and blame as, "I felt awkward as people were avoiding and staying away from me. I could sense myself being considered as a potential cause of infection but at the same time I was afraid of contracting the disease myself. I was scared and felt anxious."

Frustration and boredom
The participants reported frustration and boredom as the consequences of quarantine. This was due to loss of usual routine, reduced physical and social contact with others, lack of productive/meaningful activities, and non-provision of entertainment avenues during their stay.
One participant reported boredom due to absence of any meaningful activity to pursue:
"I sat in my room all the time thinking, worrying and being bored without anything meaningful to do."
Another participant reported lack of high-speed internet connection as the cause of boredom:
"I sat in my room all the time and was not allowed to come out and interact with other inmates. Besides I could not even keep myself updated about the latest happenings of the Covid-19 due to low speed (2G) Internet connectivity. Entertainment through surfing Internet was a rare thing for me as it took years to load or download a video. This resulted in frustration, stress and a sense of agitation that resulted in problems of falling asleep."

Inadequate information
Most participants reported lack of information and awareness of the recent happenings, particularly with regard to COVID-19. Insufficient clear guidelines about the actions to take and confusion about the purpose of quarantine were reported. This was due to two main reasons: first, due to low-speed internet (2G) connection which made it very difficult for participants to access newspapers, journals, and websites, providing quality and reliable information about

this deadly disease. This was more important as the research on COVID-19 was going on with new results, precautions, possible source of infections and do's and don'ts, and the global burden of disease emerging on a daily basis. Second, due to non-availability of timely information from the authorities about the latest happenings around the world, which created stress. This created a sense of lack of transparency from the health and government authorities about the magnitude and nature of this disease.
"I considered myself living in a cave isolated from the rest of the world with no knowledge about the world events. I guess high-speed Internet connection could have made the difference and kept me up to-date about the recent developments."

Difficulty in sleep
Some participants also cited difficulty in feeling asleep as the consequence of quarantine. The reason narrated was anxiety and persistent state of worry and thinking.
"I prepare the bed, switch off the lights but still find it very difficult to sleep perhaps my mind isn't relaxed and keeps on thinking about the entire happenings. At last when I fell asleep its duration and quality has deteriorated."

Experiences After Quarantine
This stage depicts the end of quarantine period and resumption of normal activities. Two sub-themes emerged during this stage: happiness and relief and sense of control.

Happiness and relief
This was the collective reaction of the participants after being released from the quarantine. One participant indicated:
"I was on cloud nine after being released from here. My happiness was beyond words as I could now meet my parents and siblings after a long time. I felt like being released from a prison. Finally there was a feeling of normalcy in my life and I was free."

Sense of control
The participants reported a sense of control over their lives after being allowed to go home. One participant reported:
"Now I can live my life as per my wishes without being told what to do and what not to do. I feel so empowered being able to take my own decisions."

Another participant expressed
"I am not being controlled and subjected to follow instructions and rules, so there is a feeling of normalcy and a sense of being myself."
Some participants described behavioural changes such as the habit of washing hands, wearing masks, and avoiding gatherings, as a result of quarantine.
It is worthwhile to note that most of the participants reported satisfaction with the facilities provided in terms of food, washrooms, bedding, and overall hygiene. However, during the initial days of quarantine, they faced some problems that were rectified during the course of time. The participants appreciated the efforts of doctors for their relentless and untiring efforts in terms of medical check-up, counselling and emotional support, and timely information and educating about the do's and don'ts of COVID-19.
Besides, they underwent another medical check-up at the time of leaving the quarantine facility and were

subsequently directed by the doctors to undergo home quarantine and avoid meeting people and follow standard hygiene practices.

Discussion

Quarantine can be a necessary preventive measure during the outbreak of a major infectious disease outbreak. The purpose of this study was to explore the experiences of participants who were quarantined in an administrative facility. Each participant had a unique experience of quarantine due to their individual differences such as the personal qualities and the experience of COVID-19 before quarantine. The information of being quarantined aroused feelings of shock, fear, and uncertainty that were further aggravated by the experience of isolation. The experiences "during" the quarantine period were problematic, were more intense, and were challenging for the participants than the before- and after-quarantine experience.

The results of this article in terms of isolation and loneliness were consistent with the existing literature that reported a high burden of mental health conditions among individuals who experienced isolation or quarantine. Gammon *et al.* found that 33% of the participants who had undergone source isolation had poor mental health status. Among specific mental health outcomes, all reviews reported a high prevalence of anxiety among the study participants.

Fear and stigma, as experienced by the quarantined participants, were reported in some studies, which impacted their mental health and well-being. Lack of adequate information about the guidelines and actions to be taken as highlighted in this article was consistent with the results of various studies. This non-availability of information created confusion and led to anxiety and stress among the participants.

Anxiety induced-insomnia as reported by the participants also highlights the adverse consequences of quarantine. The participants reported lack of energy and concentration levels during the day as the possible outcome of insomnia. Frustration and boredom were also reported as the consequences of quarantine, consistent with the findings of several research studies.

Quarantine period also meant disruption in the daily routine activities, which led to irritability and low mood among the participants. It had been observed that the disruption of normal daily activities was potentially stressful and anxiety provoking. Similarly, feeling of happiness and relief as found in this article is consistent with the results of the study.

This study was an attempt to improve our understanding of the subjective experiences of quarantine, thereby assisting authorities in framing appropriate policies and actions in places that are enforcing quarantine for returning citizens. The themes identified during this study can be further studied to check their relevance to a larger and more diverse sample, which will help in shaping better policies for handling such outbreak in future. Additional research will further highlight and prioritise the issues that require attention by stakeholders concerned with the effective management of infectious disease outbreaks in future. Successful use of quarantine as a public health measure requires to reduce, as far as possible, the negative effects associated with it while at the same time to derive maximum benefits so as to prevent the transmission of infectious diseases.

It was found during the study that the role of doctors and administration becomes very crucial during quarantine. Regular health check-ups, counselling, emotional support, and dissemination of timely information can go a long way in reducing the adverse impact of quarantine.

While the sample was broad enough to explore the range of experiences, these findings may not apply to all individuals in quarantine. Besides, the participants in this study were travellers/migrants, hence the findings may not be generalisable to the general population. Limitations of the study include predominance of females, a specific age group, and a small sample size.

Recommendations

- Public health officials should provide adequate information so that those under quarantine have a good understanding of the disease in question and the reasons for quarantine. Besides, they should maintain clear lines of communication with people quarantined about what to do if they experience any symptoms
- Interpersonal relationships, networks, and social capital appear to have critical significance during major health events, including quarantine and isolation. Such ties must be identified and leveraged to improve mental health outcomes
- The quarantine period should be kept minimal and decided in advance as it has been seen that longer quarantine is associated with poorer psychological outcomes
- People with pre-existing poor mental health would need extra support during quarantine, hence special care should be provided to such individuals. The focus should be on integrating psycho-social care and mental health support alongside physical health services during quarantine or isolation for infection control
- There should be adequate availability of supplies for their basic needs and well-laid plans for its replenishment as and when they run out.
- Adequate workforce of trained staff (doctors, psychiatrists, counsellors, psychiatric nurses, housekeeping etc.) will go a long way in addressing the psycho-social issues of such people in an effective and time-bound manner
- A telephone support line, staffed by psychiatric nurses, set up for those in quarantine could be effective in terms of providing them with a social network
- Authorities should focus on reducing the boredom and improving the communication network. People in quarantine should be provided with mobile phones, chargers and secured electricity connection, and a robust Wi-Fi network with internet access to allow them to communicate directly with their loved ones. This could go a long way in reducing feelings of isolation, stress, and panic.

References

1. Armstrong D. Public health spaces and the fabrication of identity. Sociology. 1993;27:393-410.
2. Newman KL. Shut up: Bubonic plague and quarantine in early modern England. J Soc Hist. 2012;45:809-34.
3. Barbisch D, Koenig KL, Shih FY. Is there a case for quarantine? Perspectives from SARS to Ebola. Disaster Med Public Health Prep. 2015;9:547-53.

4. Rubin GJ, Wessely S. The psychological effects of quarantining a city. BMJ. 2020;368:313.
5. Gammon J, Hunt J, Musselwhite C. The stigmatization of source isolation: A literature review. J Res Nurs 2019;24:677-93.
6. Purssell E, Gould D, Chudleigh J. Impact of isolation on hospitalised patients who are infectious: Systematic review with meta-analysis. BMJ Open. 2020;10:e030371.
7. Abad C, Fearday A, Safdar N. Adverse effects of isolation in hospitalised patients: A systematic review. J Hosp Infect. 2010;76:97-102.
8. Barratt RL, Shaban R, Moyle W. Patient experience of source isolation: Lessons for clinical practice. Contemp Nurse. 2011;39:180-93.
9. Gammon J, Hunt J. Source isolation and patient wellbeing in healthcare settings. Br J Nurse. 2018;27:88.
10. Pan PJ, Chang SH, Yu YY. A support group for home–quarantined college students exposed to SARS: Learning from practice. J Spec Group Work. 2005;30:363-74.
11. Bai Y, Lin CC, Lin CY, Chen JY, Chue CM, Chou P. Survey of stress reactions among health care workers involved with the SARS outbreak. Psychiatr Serv. 2004;55:1055-7.
12. Reynolds DL, Garay JR, Deamond SL, Moran MK, Gold W, Styra R. Understanding, compliance and psychological impact of the SARS quarantine experience. Epidemiol Infect. 2008;136:997-1007.
13. Lee S, Chan LY, Chau AM, Kwok KP, Kleinman A. The experience of SARS-related stigma at Amoy Gardens. Soc Sci Med. 2005;61:2038-46.