LIVED EXPERIENCE OF PEOPLE ISOLATED DURING NIPAH DISEASE OUTBREAK, 2018: AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS

M.Phil Dissertation

SUBMITTED TO

KERALA UNIVERSITY OF HEALTH SCIENCES

THRISSUR – 680 596, KERALA

IN PARTIAL FULFILLMENT FOR M.Phil DEGREE IN CLINICAL PSYCHOLOGY

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DECLARATION

I hereby declare that the present study entitled **"**Lived experience of people isolated during Nippah disease outbreak, 2018: An interpretative phenomenological analysis" has been conducted by me at the Institute of Mental Health and Neurosciences (IMHANS), Govt. Medical College Campus, Kozhikode, under the guidance of Dr. Abdul Salam K.P., Asst. Professor and Head , Department of Clinical Psychology.

This dissertation is being submitted to the Kerala University of Health Sciences (KUHS) in partial fulfilment of the requirements of Master of Philosophy in Clinical Psychology.

I further declare that this is an original study and no part of it has been published or submitted to any university previously.

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CERTIFICATE

This is to certify that Deena K Varghese is a bona fide student of Institute of Mental Health and Neurosciences (IMHANS), Govt. Medical College campus, Kozhikode, pursuing the course of M. Phil Degree in Clinical Psychology of Kerala University of Health Science (KUHS) for the academic session 2018-2020. She has carried out this study titled **"Lived Experience of People Isolated during Nipah Disease Outbreak, 2018; An Interpretative Phenomenological Analysis"** at the institute under our supervision. This dissertation is hereby approved for submission to Kerala University of Health Sciences (KUHS) as partial fulfilment of the requirements of M. Phil Degree in Clinical Psychology.

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ACKNOWLEDGEMENT

It gives me immense pleasure in acknowledging all the esteemed effort towards the completion of this research. The completion of this research is indeed an answer of the toil and sacrifices of not just me but of many others who stood by me throughout. Firstly I express my gratitude to God almighty who has been my constant support and guide. I thank the lord for strengthening me this time and enabling me to do the best of my abilities. I want to express my heartfelt gratitude to Dr. Abdul Salam KP who had been a constant pillar of support. He was in every sense an exceptional guide who not just helped me in my research but lifted my spirits. His valuable and constant feedback where indeed an encouragement for the betterment of research. I thank Dr. G Ragesh and Dr. Chadni for their support. I would like to thank my parents who trusted me and stood by me always. I express my gratitude to my classmates who were a constant boost of motivation.

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Abstract

Isolation or quarantine due to an outbreak of any pandemic causes significant psychosocial difficulties. This study aimed to analyse the lived experience of people isolated during the Nipah disease outbreak in 2018 in Kerala. The sample consisted of 6 adults (4 Males and 2 Females) who were isolated in hospital Govt. Medical College, Calicut and remained in isolation ward during Nipah disease outbreak 2018 and later had a negative diagnosis of Nipah. The duration of the stay in the observation ward was at least one day and followed by home isolation. In-depth semi-structured interviews were conducted. Transcripts were analysed using the interpretative phenomenological analysis (IPA) method as outlined by Smith, Flowers & Larkin (2009). Seven master themes were emerged out of the study including 'Anger', 'Oh my God', 'Being other-centered', 'Accessibility issues', 'Trust', 'The economics' & 'Going by the gut feelings'. Various subordinate themes were clustered under superordinate themes. In line with previous literature, this study emphasizes the importance of continuous psychosocial care need to be provided for people affected by disease outbreaks, especially those who were placed in quarantine and isolation.

***Keywords**:* Nipah, Isolation, Lived experiences, Interpretative phenomenological analysis, pandemic

Lived Experience of People Isolated during Nipah Disease Outbreak, 2018; an Interpretative Phenomenological Analysis

History has witnessed the occurring of catastrophic pandemic at various intervals in time. It has taken an enormous toll on humankind (Huremovic, 2019). Pandemics have been known since time immemorial, especially Plague outbreaks. Cholera pandemic and Flu pandemic within the nineteenth century and Spanish flu within the twentieth century were followed by an array of outbreaks; Severe Respiratory Acute Syndrome (SARS), Middle East Respiratory Syndrome (MERS), Ebola, Nipah, and at last the novel Coronavirus in 2019 (Murthy, 2020). The outbreak of Spanish Influenza took the lives of almost 40 million people, which was more than the number of soldiers who died throughout World War 1(Oxford et al, 2002). Coronavirus was first identified in the city of Wuhan in China in 2020 and now it has spread worldwide and resulted in a public health emergency of international concern (Dong & Bouey, 2020). COVID-19 is a highly infectious disease, but it has a low mortality rate and it affects the upper respiratory tract. Rapid and appropriate measures taken by the various government and public has helped to control the outbreaks and eradicate it (WHO, 2020). The efforts to contain COVID 19 has strained the public health system.

Background of the Study

Nipah virus (NiV) encephalitis is considered to be a biological disaster and a threat to human lives. The Nipah virus belongs to the family of Paramyxoviridae and cases of animal to animal and human to human transmission had been documented. Fruit bats of the Pteropodidae family are the natural host of the Nipah virus (Aditi & Sharif, 2019). The first case of Nipah was reported in Malaysia in 1998. There had been two reported

outbreaks of Nipah Virus in India before 2018. The primary case of Nipah was reported in 2001 at Siliguri, a district of West Bengal followed by a second outbreak in Nadia district in 2007 (Lithin et al., 2019; Swathy et al., 2018). Kerala state, which is popularly known as 'God own country' faced the third outbreak of Nipah. In 2018, 18 people had died in the outbreak. Kerala witnessed second outbreak in 2019 (Pallivalappil et al., 2018). Compared to past disease outbreaks, the health system of Kerala controlled the spread of the virus. Mortality rates were controlled. The disease outbreak had an impact on physical health as well as mental health. The negative impact was reflected in the economy as well. There had been a dip in the tourists visited. And many places banned exported food from Kerala. People preferred to stay home, especially the residents of Kozhikode where more cases were reported. (Swathy et al., 2018; Lithin et al., 2019).

Disease Outbreak Prevention Strategies

Quarantine has been implemented as a public health measure during the outbreak of various communicable diseases (Reynolds et al, 2008). This was applied during the spread of severe acute respiratory syndrome including tuberculosis, diarrhoeal illness, and varicella (Oxford et al, 2002). In Cuba, HIV-positive patients were put under mandatory isolation as a means to arrest the transmission of it during the 1980s and 1990s (Hoffman, 2004). Reynolds et al (2008) emphasize the importance of assessing the utility of quarantine, since the data to support its effectiveness are unavailable especially for a disease that could be transmitted before symptom onset, and stresses the minimum duration of the quarantine. They assert the significance of providing a clear rationale of quarantine to the ones who are being suspected to have an illness and special consideration to a vulnerable population. For centuries, quarantine has been used as a public health measure

in an attempt to curtail the introduction, transmission, and spread of communicable diseases. Although the practice of quarantine can be dated back to years, multiple interpretations and definitions are given to the term and this creates confusion among the general public. And we lack scientific evidence to support the effectiveness of it and implementation of it requires further evaluation (Barbisch et al., 2015; Reynolds et al, 2008). It is necessary to determine the utility of such measures in light of the consequences it generates. Forceful enforcement of health measures can turn to be counterproductive at times because they create panic and uncertainty and distress among population. The coercion triggers the dynamics of mistrust, social insecurity, and resistance towards such interventions. The involvement of local communities in the implementation process has been found to predict better compliance with the strategies. Isolation measures organized by local leaders were reported to be more acknowledged among communities than state-enforced quarantine where the restriction was minimal in nature. Even though this was perceived as spontaneous and self-form of protection, authorities paid more attention to enforcement of the law in Liberia (Pellecchia et al, 2015).

Adherence to quarantine has been asserted as a social obligation and acts of public health for the advantage of all. However, there had been reports that questioned the integrity of its implementation. Sometimes it had been implemented not to protect public health, but to give punishments to control individuals found breaking other laws. And people challenged the pugnacious nature of its implementation (Newman, 2012).

The impact of quarantine was different among various socioeconomic statuses. Although financial assistance was given to the people who were under quarantine,

participants reported that money was insufficient to meet the basic needs them and assistance was not delivered on time (Desclaux et al., 2017).

The terms quarantine and isolation are often used interchangeably to emphasize the restriction of movement or physical distancing who had been exposed to a contagious virus. This reduces the chance of spreading illness from one to another. Although both of the terms are used interchangeably, researchers have been assumed specific meaning to each of them (Brooks et al., 2020). The effective practice of isolation helps in breaking the chain of infectious disease by separating infected individuals from a healthy community (Caleo et al, 2018; Jeong et al; 2016). Based on the risk of transmitting disease, isolation has been done in different ways. This ranges from respiratory or contact isolation to high isolation which mandatorily stipulates the use of protective equipment. The protective equipment is gloves, protective eyewear such as goggles or face shield, a waterproof gown, and a respirator. On the other hand, not all quarantined individuals would be the actual carriers of the disease. Still, they are asked to be quarantined since they possibly had contact with an infected agent. Home, hospital, and community-based facilities were used for quarantine. The practice of using quarantine as a public health measure has a long history. It was introduced during the Black Death in 1377 by the city-state of Dubrovnik (Tognotti, 2013). It was used effectively during different epidemic outbreaks. During the SARS outbreak in Singapore, the government enforced quarantine to 8000 people (Ooi et al., 2005). As a means of controlling the Ebola epidemic in 2014, the United States introduced a 21-day quarantine for persons suspected to be in contact with Ebola (Lo et al, 2017). Similar to the process of quarantine, the other means of breaking the chain of infectious disease include ‘shelter-in-place’, Cordon sanitaire (sanitary cordon), and protective

sequestration. In ‘shelter in place’, the suspected individual is sheltered in isolation where they are located at the time instead of putting them under designated locations (Dailey & Kaplan, 2014). In the process of cordon sanitaire, they recognize the hotspots or highly infected areas and then restrict the movements of people. The individuals who are located at the time, are no longer allowed to leave the place till the epidemic subsides. Outsiders are not allowed to enter the highly infected area also (Hoffmann & Hoffmann, 2015). Protective sequestration is a measure taken by less affected communities where they restrict the movements and then avoid the outbreak of the infectious disease in that area (Markel et al, 2006).

Researchers have found that the methods used for the containment of viruses have an impact on both physical and mental health. The language of social distancing makes us believing social connections as dangerous, but an effective way of containing the virus. While social containment enables us to see our network of relationships as instruments that we can exploit collaboratively to protect and preserve the essence of our connections with others (Long, 2020).

Psychosocial Aspects of Quarantine and Isolation

Cremation of bodies and mandatory quarantine had taken as measures to control the arrest the transmission of Ebola virus disease in Liberia but had brought negative reaction among communities. The disease control measures were enforced by state authorities and evoked stigma, fear, and social insecurity in people and resulted in low compliance to health measures (Pellecchia et al, 2015).

The most frequently cited difficulty during quarantine is the emotional difficulties experienced during that period. According to Blenden et al (2004), those who were put

under quarantine faced greater psychological impact than the general population. And many lost their job. To understand the unprecedented impact of the current global health emergency due to COVID-19 on mental health, Ahmed et al (2020) conducted an online survey among Chinese people using self-reported measures. Levels of anxiety, depression, and alcohol use were higher than the usual ratio. In another survey carried out by Institute for Social Research at York University within the non-quarantined general population during the SARS outbreak found that 22% of the participants reported worry and nervousness about it (Shaw, 2006). Individuals in quarantine or isolation were caught up in the grip of stigma and led to the further isolation of minority communities. The process of isolation and quarantine brought public labeling and many were called 'Ebola people' without being infected (Pellecchia et al, 2015).

The disease outbreak as well as the measures following to prevent it, has affected the different domains of life of an individual. Along with its profound impact on health, finances, it has affected the psychosocial well-being of the individual too. In addition to the health hazards, outbreaks have a tremendous impact on the mental health of individuals. The disease outbreak is followed by fear and panic among people (Yoon et al, 2016; Wilken et al, 2017). The increasing barrage of misinformation regarding disease outbreak adds to the anxiety of people. The outbreak fed rumors and misinformation (Lithin et al, 2019). Anxiety during a disease outbreak is elevated if the people had similar kinds of experiences in the past and it leads to reliving of experiences. People are doomed in the constant fear of insecurity for themselves and their loved ones (Mihashi et al, 2009; Desclaux et al, 2017). The psycho-social impact of Nipah can be reflected in three domains; individual, familial, and community and state. On an individual level, the affected or quarantines

experience anxiety about illness and recovery and some might experience discrimination from others even after recovery. Once a member of the family is found to have a disease, the family goes through severe stress. They have fear of infection, feelings of loss and grief, and experienced caregiver stigma. Besides, they also had uncertainties about the issues concerning the bodies of the deceased. On Community or state level, there had been widespread misinformation and the disease outbreak had affected the economic status affecting travel and tourism, business and many countries banned the export of vegetables from Kerala (Lithin et al, 2019).

Olff et al (2005) found that the agricultural crisis following the foot and mouth disease resulted in post-traumatic symptoms in Dutch farmers, especially those whose animals were slaughtered. They had suffered from intrusive thoughts about the traumatic event and tried to avoid stimuli or triggers which could bring back those memories. Bailey et al (2006) explored the impact of the animal disease epidemic, foot and mouth disease in a rural population of the U.K. The disease outbreak was followed by fear and panic among people and they had difficulty in adjusting to the places where they had lived and it reminded them about the traumas of the disease. There was a sense of powerlessness and helplessness resulted from the inability to escape from the situation. The people in the affected area were doomed in the fear of a new disaster. It is also observed that a compulsive need for hoarding food, essentials, or medical supplies are observed during pandemics.

Studies have been conducted to understand the psychological outcomes of people who had been isolated from the general population during a disease outbreak. Different factors have been associated with psychological distress experienced during isolation or

quarantine period. A longer duration of quarantine was found to be positively associated with psychological distress (Hawryluck et al., 2004; Marjanovic et al, 2007; Reynolds et al, 2008). Multiple studies have found that the majority of the participants who were quarantined expressed concern about their illness and were anxious about whether they had transmitted the disease to others, especially to their family members. Their anxiety had peaked if any of their physical symptoms matched with the criteria of spreading disease (Cava et al, 2005; Desclaux et al, 2017). Inadequate information from public health agencies also contributed to the psychological distress among people. Uncertainties about the potential medical conditions and misconceptions about it increased psychological distress (Lau et al, 2010). People who had been quarantined go through an array of emotions including fear, panic, and people who were doomed in the fear of contracting another disease. Quarantine and isolation may also lead to an acute stress disorder, post-traumatic stress disorder, and grief in people. Psychological distress was found to be higher among the population who lived in the infected regions than the general population of the place. Younger age and lower educational qualifications were associated with elevated levels of psychological distress (Taylor et al, 2008). History of psychiatric illness was also found to be associated with increased levels of anxiety. Torres (1997) found that the impact of the outbreak of dengue fever was greater among poor communities as well as among women. The societal expectation of women being the caretaker of family members had an impact on when the females in the family have contracted a disease. The females in the family tended to suspend their sick role and were less likely to receive and utilize the health care services for themselves. They were also expected to recover immediately than the other family members who were contradicted with diseases. Women being unable to

engage in the household activities and maintain a family life have reflected in the monthly income of the families too, although they were seen as 'non-money providers'. Social discrimination fuels during the time of epidemics too. The fear of transmission brings stigma, ostracism, and dislike of or prejudice against people from other countries. There were reports of North East students in Delhi bullied for their similarity with people from China during the pandemic COVID-19 (Taskin, 2020).

Researchers were also interested in the life of people after the disease had been remitted and its impact on them. Bailey et al (2005) found that how people had recognized the importance of regular spots during the disease phase. The disease outbreak had affected the economic status of the affected places and there had been a dip in the tourists visiting the places, banning or boycotting the materials from there (Lithin et al, 2019). Hatchette et al (2003) investigated the impact of acute Q fever, which is transmitted from domestic animals to human beings on the outbreak cohort. The study found that many people were found to have persisted the symptoms, which suggest the possibility of 'post Q fever fatigue syndrome' and had a lower quality of life compared to the control group.

Psychosocial Interventions during Disease Outbreak

Lithin et al (2019) emphasized the necessity of psychosocial intervention during a disease epidemic outbreak apart from the attempts to control and eradicate the disease. The psychological intervention had been provided during the outbreak of Nipah in Calicut, Kerala to the hospital staff who had initially treated the patients without knowing the disease and those who had not taken any precaution. The majority of them had anxiety symptoms and educational classes were given regarding the disease, its mode of transmission, and treatment strategies. Later a telephonic Nipah mental helpline was

launched by the government to reach common people who were panicked about the situation. Apart from that, there was an outpatient-based support and counselling clinic had set up for the medical team who treated the Nipah affected and suspected patients (Swathy et al, 2018).

Promoting reliable sources of information and explaining the rationale behind quarantining helps people in adhering to the rules and regulations given by health authorities. The use of telephone helplines and telepsychiatry is encouraged during disease outbreaks to reduce the distress among people. During the time of COVID-19, many mental health institutes like IMHANS (Institute of mental health and neurosciences, Kozhikode) and NIMHANS (National Institute of mental health and neurosciences, Bangalore) provided services to distressed people. During the time of COVID-19, NIMHANS (National Institute of mental health and neurosciences, Bangalore) introduced online yoga sessions for general populations. The module consisted of warm-up practices, then sectional breathing which is followed by fast breathing and slow breathing and it ends with the practice of 'Nadanusadhana', which means chanting sounds of A, U & M and experiencing its resonance in the body as well.

World widely measures were taken to ensure the quality of life f those in isolation. A mental health institute at the Second Xiangya hospital in Hunan, China provided weekly supportive psychotherapy to the patients in isolation. Also, they encouraged daily digital communication with their close ones, comfort, and leisure, and periodic hygiene measures.

Social support was found to be a significant predictor of resilience and recovery during the spread of infectious disease. Bonanno et al (2008) conducted a study on survivors of the severe acute respiratory syndrome (SARS) epidemic in Hong Kong in

2003. Survivor's psychological as well as physical health was assessed at different points of time and based on the data, they were grouped into chronic dysfunction, delayed dysfunction, recovery, and resilience groups. Compared to the chronic group, others had better physical health as well as social support played a significant role in the improvement of resilient and recovered individuals. The community was cooperative with the pro-active measures taken by the government for the containment of the virus (Lau et al, 2010).

Interpretative Phenomenological Analysis

The interpretative phenomenological analysis is a recently developed qualitative research method. Initially, it was developed for studies in health psychology (Smith & Osborn, 2015), but now its application has spread to different domains of social sciences (Alase, 2017). It focuses mainly on the lived experiences of people and how they seek to make sense out of them. The assumptions of interpretative phenomenological analysis are grounded in three areas of knowledge that include phenomenology, hermeneutics, and idiography. Phenomenology is concerned with experience and understanding of the experience in its term. It is intended to recognize the essential components of a phenomenon that make the event distinctive from experiences. The interpretative phenomenological analysis highlights the fact that each one's experience and interpretation of the world is different. Various factors like the Personality of the individual, past experiences, and motivation has an impact on it. The interpretative phenomenological analysis is known as double hermeneutics because it involves two steps; first is the participant tries to make sense out of his experience and second is an interpretative endeavor where the researcher is trying to makes sense of the participant trying to make sense of what is happening to them (Smith et al, 2009). Usually, IPA is conducted on a

relatively small sample size, because it tries to analyze each case in detail. In IPA, the thorough analysis of each case is preceded by a search for patterns across the case. IPA studies are usually a combination of convergence and divergence among participants, where they look for shared themes, but at the same time how it is played out for each individual (Pietkiewicz & Smith, 2012). In a review conducted by Smith (2011), there had been a substantial increase in the number of studies employing interpretative phenomenology as a method. Studies using IPA covers various topics like illness experience, pain, caregivers experience, psychological distress, health professionals experience and therapist experience, etc. (Smith, 2011).

Need and Significance of the Present Study

This study aims to analyze the lived experience of people isolated during the Nipah disease outbreak in 2018 in Kerala. Even though quarantine and isolation are often used interchangeably to emphasize the restriction of movement or the physical distancing of people who had been exposed to a contagious virus, the present study emphasizes the term 'isolation'. In this study, the participants had contact with people who were infected with Nipah. Since they had physical symptoms like fever, they were hospitalized in Govt. Medical College, Calicut and remained in isolation ward during Nipah outbreak 2018. But when tested, they had a negative diagnosis of Nipah infection. Since the participants had fever-like symptoms and were hospitalized, the researcher used the term 'isolation' in this study. An interpretative phenomenological analysis is used as a method because it focuses on the in-depth analysis of the experience of participants and how they made sense of their experience. Such studies are important because rapid globalization and our growing population increase the risk of emerging zoonotic pathogens and psycho-social

intervention and public policies of health can be formed based on the results of the study. This study would be useful in understanding the mental health impact of disease outbreak prevention strategies like quarantine and isolation on people.

Our health system is being faced with the re-emergence of novel transmissible infectious diseases (Reynolds et al, 2008). Despite the utility of public health measures, people tend to violate the rules. So, it's necessary to conduct studies that focus on people's experiences concerning the coercive public health measures, their perception, and responses to them. This understanding is essential if interventions are to be effective.

Review of Literature

The review of literature relevant to the present study is organized under two headings

- Studies on experiences related to quarantine and isolation.
- Studies using interpretative phenomenological analysis in patients placed in isolation and quarantine.
- Researches related to general psychosocial aspects of disease outbreak than isolation and quarantine.

Studies related to quarantine and isolation

Based on the review of 24 research papers related to the psychological impact of quarantine, most studies reported negative psychological effects like post-traumatic stress symptoms, confusion, and anger. These included people who had been infected with various infectious diseases such as SARS, Ebola, 2009, and 2010 H1N1 influenza pandemic, etc. Longer quarantine duration, fear of infection, frustration, boredom, the inadequacy of supplies, lack of enough information, financial loss, and stigma were reported as the stressors. If quarantine is unavoidable, then it is suggested to keep it as shorter as possible and to ensure that the experience is tolerable by updating people on what is happening and why, explaining how long it will continue, involving them in meaningful activities, providing clear communication and adequate supplies, and reinforcing the sense of altruism in people. Some researchers have also suggested the long-lasting effects of quarantine are seen if the experience is negative (Brooks et al., 2020).

Chen et al. (2020) conducted a qualitative study on 15 participants to analyze the quarantine experience of the participants. Thematic analysis of the data showed the emergence of themes like experience in the early stage of quarantine, in the middle stage

of quarantine, in the late stage, self-copying was seen throughout the quarantine period and external support was also obvious throughout. Thus, this study highlights the need to assess the psychological state of close contacts in the early stage and to provide psychological aid for them, especially if they belong to the older and the less educated category. Closer contacts reported to be vulnerable, but also strong. Support from the Chinese government also helped them a lot to deal with the quarantine.

Commodari (2020) explored the perceived risk related to COVID-19 and the psychological experience of quarantine in Italian adolescents. 978 adolescents (males = 339; females = 639) responded to an internet-based questionnaire and the results showed that these adolescents had a low perception of risk of COVID-19, low perceived comparative susceptibility, and low perceived seriousness. But they also reported being aware of the necessary restriction measures to contain the spread of COVID-19 and agreed with the limitations forced by the government. Females and adolescents living in red zones (places where the government has imposed stricter measures of containment) had more negative feelings about the quarantine experience.

In a rapid review including 10 studies, seven studies before the onset of COVID-19 regarding the psychological impact of quarantine in children have reported the presence of isolation, social exclusion, stigma, and fear among the children. Acute stress disorder, adjustment disorder, grief, and post-traumatic stress disorder were the most common diagnoses. Three studies during the quarantine among the COVID-19 pandemic in children showed irritability, anxiety, restlessness, clinginess, and inattention due to increased screen time (Imran, 2020).

Lu et al. (2020) explored further using a cross-sectional online survey and investigated the experiences and attitudes towards COVID-19 and their relations to mental health using quantile regression analysis. Results revealed that home self-quarantine is closely associated with a decrease in depression and a subsequent increase in happiness, while community-level quarantine is related to decreased happiness. The favourable attitudes towards the pandemic regarding the credibility of real-time updates and the confidence in epidemic control are related to lower levels of depression and higher levels of happiness, which is stronger in the upper quantile of depression and the median quantile of happiness.

Sharan and Rajhans (2020) reviewed existing literature and identified psychological problems of quarantine like anxiety, depression, acute, and posttraumatic stress disorder. Other emotional problems reported were loneliness, anger, frustration, and psychosomatic problems. Quarantined people also experience stigma and isolation. The literature on the purpose of quarantine, on the referral pathways, to obtain help, and literature from low- and middle-income countries like India was scarce.

Saurabh and Ranjan (2020) analysed data collected from 121 children and adolescents along with their parents who were quarantined, and comparable data collected from 131 children and adolescents who were not quarantined. The majority of the children were reluctant to follow the instructions provided by the authority. Community protective measures were more followed by children. Children's understanding of the purpose of quarantine was to protect the community. Less number of participants followed household protective measures. Psychological distress was found to be reported among quarantined

participants than non-quarantined ones. Among a broad range of negative emotions, worry, helplessness, and fear were the most common feelings experienced by them.

Tang et al. (2020) conducted a study by administering the Centre for Epidemiological Studies Depression Scale (CES-D-20) and the Goldberg Depression and Anxiety Scale (GAD-7) to people quarantined in an affected area, people quarantined in unaffected areas and the people not in quarantine. Quarantined respondents reported a higher chance to exhibit symptoms of depression and anxiety than those not quarantined. Participants living in communities where screening for COVID-19 was required showed small chances to report symptoms of depression and anxiety.

A cross-sectional study conducted by Xiao et al (2020) aimed to evaluate the relationship between social capital, sleep quality, and anxiety and stress experienced during COVID 19 outbreak. A total of 170 people, who were self-isolated at home for 14 days either due to contracting the illness, or suspected to have the disease, or had a contact history with a patient infected with COVID 19, completed the questionnaires. Personal Social Capital Scale 16 (PSCI-16) questionnaire, Self-Rating Anxiety Scale (SAS) questionnaire, Stanford Acute Stress Reaction (SASR) questionnaire, and Pittsburgh Sleep Quality Index (PSQI) questionnaire were filled by the participants during their third day of self-isolation. Participants reported low levels of social capital rated high on anxiety and stress. And increased levels of social capital were positively associated with increased quality of sleep. Decreased quality of sleep was associated with anxiety and stress. They also found that beneficial effects of social capital on the quality of sleep were influenced by anxiety and stress experienced by the participants.

In a study conducted by Wilken et al. (2017), for the better understanding of the knowledge, attitudes, and practices regarding Ebola Virus Disease (EVD) transmission among the families who were actively monitored or quarantined as they were in contact with an infected person - in seven villages in Margibi County, Liberia, the results of 115 interviews revealed that 99% of the participants correctly identified physical contact or contact with infected person's body fluids as a route for transmission of EVD. However, their knowledge regarding transmission routes and incubation period of the disease was suboptimal, as they had incorrect beliefs like mosquito bites (58% interviewees reported this) and airborne spread (32%) were routes of EVD transmission, and the longest EVD incubation period was ≤ seven days (72%). 50% of households reported that there was not enough food or water during quarantine and 56% reported that a household member had illnesses or any injuries during quarantine and they obtained treatment from a clinic, hospital, or Ebola treatment unit (ETU).

Pellecchia et al (2015) conducted a study to examine Liberian community perspectives on state-imposed preventive measures of Ebola implemented in 2014 and 2015. The data was obtained using ethnography of local practices, 45 Focus Group Discussions, and 30 semi-structured interviews. Three major themes were derived. One theme obtained was 'general social perception of the epidemic and community's reactions' to it. Participants reported that the containment measures themselves created panic among people and those under forced isolation experienced stigma. The theme of 'funerary and burial practices before and during the epidemic' reflected the participant's attitude towards cremation before and during the epidemic. Although participants agreed upon the cremation of dead bodies as a way to contain the virus, the government was criticized for flaws in the implementation

process. Another theme obtained was ‘health-seeking behaviors and perception of quarantine’. People under quarantine did not report symptoms related to Non-Ebola illness and health-seeking behaviors were challenged during that time.

Sprang and Silman (2013) explored the psychosocial responses of children and their parents to pandemic disasters using a mixed-method approach in 398 parents, by completing the Posttraumatic Stress Disorder Reaction Index - Parent Version (PTSD-RI), and the PTSD Check List - Civilian Version (PCL-C). The results indicated that disease-containment measures like quarantine and isolation can be traumatizing to a major portion of children and parents. The study enhances the need for specific response strategies to ensure the behavioral health needs of children and families.

Wang et al. (2011) investigated the presence of immediate negative psychological consequences of being quarantined due to H1N1 flu using a 20 item Self-Report Questionnaire and the Impact of Event Scale-Revised (IES-R) in 419 undergraduate students, among which 176 were quarantined and 243 were not. Results showed no significant difference between the two groups for the IES-R screening-positive rate or SRQ-20 screening-positive rate. Dissatisfaction with control measures was concluded as a significant predictor of both. The study revealed that there are no negative psychological effects under such circumstances.

Cava et al. (2005) explored the experiences of 21 individuals’ in-home quarantine during the SARS outbreak in Toronto in 2003, using semi-structured interviews, and despite the individual differences, they observed common themes of uncertainty, isolation, and coping. This study highlights some implications for the public health policy and practice in planning for future emergencies like this.

DiGiovanni et al. (2004) investigated the factors that influenced compliance with quarantine in Toronto, during the 2003 SARS outbreak and identified factors like issues of quarantine legitimacy, criteria for quarantine, and the need to allow some of the quarantined healthcare workers to leave their homes. The need to answer the questions of people who enter quarantine about the continuation of their different forms of income while they were not working, and about how they will get essential supplies and services, we're also considered important. Dealing with boredom and other psychological stresses of quarantine, eliminating the stigma against those in quarantine, and creating and delivering effective and trustworthy communications to a population with mixed cultures and languages also were identified as critical factors.

Robertson et al. (2004) conducted a study on quarantined healthcare workers, as a result of their exposure to SARS (Severe Acute Respiratory Syndrome), to examine the psychosocial effects of quarantine on them, using semi-structured interviews. They identified three major themes – loss, duty, and conflict concluded that these workers experienced stigma, fear, and frustration, and further highlights the significance of access to information on dealing with infectious diseases and methods to avoid potential risks.

To conclude, the majority of the studies found that quarantine was associated with negative psychological experiences. Along with the fear of being infected, inadequate information, stigma, financial loss exacerbated their psychological distress.

Studies on interpretative phenomenological analysis

A qualitative study was conducted with an interpretive phenomenological approach among 17 Iranian mothers of 7- to 9-year-old children with the experience of living in quarantine. The results were analyzed using van Manen’s phenomenological approach.

Four major themes were identified from the data which are the mother's health and physical concerns, confusion in playing their role, concerns regarding educational quality and wasting learning opportunities, and concerns of the impact of financial troubles on their children. Mothers expressed concerns over the child's neglect in better hygiene practices. They found it difficult to manage children during quarantine due to the boredom experienced by children. Disagreements with the child had increased during the home quarantine period. They were worried about the quality of virtual learning also (Khodabakhshi-koolaee & Aghaei Malekabadi, 2020)

Shaban et al (2020) in their study examined the lived experiences of patients in isolation and care during COVID 19 outbreak in an Australian health care setting. 11 participants infected with COVID 19 were interviewed for the study. Using a phenomenological approach from a Heideggerian hermeneutical perspective, five master themes were revealed. The themes represented how the participants' lives moved from knowing about the disease to getting recovered from the illness. These phases were filled with positive and negative experiences. The theme 'Knowing about COVID 19' is represented with participant's efforts to obtain day-to-day information regarding the illness from different sources such as mass media, social media, and online resources. To make sure the authenticity of the data, participants preferred to depend on official sites. Participants collected information mainly due to the clinical characteristics, epidemiology, and preventive strategies. Another theme 'Planning for a response to COVID 19' reflected at four different levels. Participants were proactive in taking precautionary measures from being infected with the illness to transmitting the illness to others. Some participants reported how cognitively prepared they were to deal with the disease and family support

helped them to follow the precautionary measures. Disease prevention strategies were adopted at the community level also. Participants emphasized the importance of media in creating public awareness about the illness and helping to adhere to preventive strategies. Initial reaction to being diagnosed with COVID 19 included anxiety, shock and they termed the experiences as surreal. They were in a denial state due to a variety of reasons. Mild symptoms, incongruity with their experience of symptoms with symptoms projected by media, searching for reasons how they had contracted the illness despite taking preventive measures made them difficult to believe the diagnosis received. Being in isolation brought negative and positive emotions. The quality of service received contributed to the positive emotions experienced. Participants focused on improving their immunity and overall health after discharge.

Suhail et al (2020) investigated the lived experiences of Indian youth during COVID 19 outbreak using interpretative phenomenological analysis. The sample consisted of 10 college-going students (eight females and two males) and a semi-structured interview was conducted over the phone. The themes obtained in this study include ‘impact on mental health’, ‘positive experiences’ & ‘ways of coping amid crises. Mental health concerns were higher during the COVID 19 outbreak. Most participants expressed anxiety over the situation as well as their close ones getting infected with the disease. Being asymptomatic and transmitting the illness to people unknowingly were the other concerns expressed by participants. Along with anxiety symptoms, many participants showed depressive symptomatology. A significant number of participants reported difficulty to manage overwhelming emotions. They suffered from crying spells, hopelessness, loss of interest in usual activities, and irregular sleep cycle. The stress had a negative impact on health.

Participants frequently displayed unexplained bodily symptoms. They revealed uncertainty regarding their academic and professional lives. Conflicts in interpersonal relationships were noted among participants. Being confined to the home and staying away from close friends brought troubles in the relationship. Some of the participants noted social support as a protective factor from being affected with mental health issues. Along with negative experiences, participants reported the positive impact the situation has brought on them. Few participants used this period as an opportunity to strengthen family relationships, explore their hobbies, and a time to relax. Coping amid crisis involved using preventive measures and engaging with recreational activities and the use of social media.

The researcher could find only a few studies using interpretative phenomenological analysis in case of disease outbreak and quarantine. These studies had conducted during COVID 19 pandemic and explored the lived experiences of being in isolation and quarantine.

Researches related to other psychosocial aspects of disease outbreak

Brooks et al. (2018) conducted a systematic literature review of four literature databases to identify the social and occupational factors regarding the psychological outcomes in healthcare employees during the outbreak of SARS (Severe Acute Respiratory Syndrome). The results revealed that the occupational role, training/preparedness, increased risk in work environments, quarantine, stressors related to their roles, the perceived risk, social support, social rejection/isolation, and the effect of SARS on one's personal or professional life had a psychological impact on the employees.

Chew et al (2020) conducted a study to understand the association between psychological outcomes and physical symptoms among healthcare workers during COVID

19 outbreak. The sample consisted of healthcare workers including doctors, nurses, allied healthcare workers, administrators, clerical staff, and maintenance workers. The 906 participants completed the Depression Anxiety Stress Scale (DASS-21) and the impact of events scale-revised (IES-R) instruments. Linear regression analysis revealed that the presence of physical symptoms was associated with the high mean scores in the IES-R, DASS Anxiety Stress, and depression subscales. The study concluded that a significant association between the prevalence of physical symptoms and psychological outcomes among healthcare workers during the COVID 19 outbreak. Healthcare workers should be provided with proper health care and psychological intervention for better wellbeing.

A cross-sectional study conducted by Guisti et al (2020) found that increased prevalence of psychopathology symptoms and a severe level of burnout among healthcare professionals during the COVID 19 outbreak. Among three hundred and thirty health professionals who participated in the online survey, the majority reported a broad range of negative emotions including state anxiety, depression, and stress. They experienced moderate to severe levels of emotional exhaustion, depersonalization, and reduced personal accomplishment. Regarding burnout, the predictors were found to be increased workload, frequent contact with patients, and psychological comorbidities.

Huang & Zhao (2020) carried out a web-based cross-sectional survey to identify vulnerable groups who are prone to suffer mental health issues during COVID 19 pandemic. 7236 participants completed measures of anxiety, depression, and sleep quality. Prevalence of anxiety and depressive symptoms was found to be higher among people below the age of 35. This was linked with spending a high level of time on the outbreak,

thinking about it. Health care workers experienced more sleep-related issues compared to other occupations like enterprise workers, teachers, etc.

Li et al (2020) conducted an online survey to address the issue of vicarious traumatization that occurred in the context of the COVID 19 outbreak. They incorporated an app-based vicarious traumatization questionnaire, compounded of physiological and psychological response. This was employed among 214 general public, 234 front-line nurses, and 292 non-front-line nurses. They found that the impact of vicarious traumatization was higher among the general public and non-front line workers than the frontline workers.

Marjanovic et al (2007) conducted a study to address the association between working conditions and coping methods and distress of nurses following severe acute respiratory syndrome (SARS) crisis in Canada. 333 nurses completed internet-mediated questionnaires. They incorporated the emotional exhaustion subscale of the Maslach Burnout Inventory-General Survey and the state anger subscale of the State-Trait Anger Expression Inventory to assess emotional exhaustion and state anger respectively and measured avoidance behavior using the questionnaire developed for the present investigation. Other measures included were vigor, organizational support, and trust in equipment/ infection control. Researchers also collected information related to contact history with SARS patients and days spent during the quarantine. The results showed that less time spent in quarantine, vigor, and organizational behavior predicted less avoidance behavior in nurses. Low levels of emotional exhaustion were predicted by less contact with SARS infected patients, higher levels of vigor, and trust in infection control measures.

According to the findings of Mihashi et al. (2009), in a study conducted among 300 printing company workers in Beijing, China, to examine the predictive factors of psychological disorder development after the SARS outbreak, the factors with high correlation to psychological disorders are income reduction (highest), gender, range of activities, eating restrictions, disinfection of clothing, and infection control. They concluded that securing income is considered to be the most important future strategy.

Reynold et al (2008) administered the Impact of Events Scale-Revised (IES-R) among 1912 participants, who were placed under quarantine during the 2003 SARS disease outbreak in Canada to assess symptoms of post-traumatic stress disorder. Psychological distress was found to be higher among health care workers. Compliance with quarantine requirements was linked with participants' understanding of the rationale for it.

A cross-sectional study conducted by Surrati et al (2020) investigated the magnitude of anxiety, depression, and stress among healthcare workers during Coronavirus disease (COVID 19). Using the Anxiety and Depression questionnaire (HAD) and perceived stress scale (PSS), data were obtained from 122 healthcare workers. Healthcare workers with inadequate training and women reported significantly higher scores on the domain of anxiety. Inadequate training for infectious control was found to be contributing to increased levels of anxiety and depression. The study found that stress arisen due to the COVID 19 pandemic had a massive impact on the wellbeing of healthcare professionals.

Temash et al (2020) compared the psychological impact of the COVID 19 pandemic with stress brought on by the Middle East respiratory syndrome Coronavirus (MERS-CoV) epidemic in Saudi Arabia. The sample size consisted of 811 health care workers. Questionnaires regarding the concerns and worries about the coronavirus

pandemic and Generalized Anxiety Disorder (GAD) anxiety screening questionnaire were administered. Anxiety evoked by COVID 19 pandemic was found to be significantly higher than the Middle East respiratory syndrome Coronavirus (MERS-CoV) epidemic. Healthcare workers reported a significant level of stress.

Wang et al (2020) carried out an online survey among the general public to understand the immediate psychological response during the initial stage of the 2019 coronavirus disease (COVID 19) epidemic. To obtain the information related to the psychological impact and mental health status of the general population, the Impact of Event Scale-Revised (IES-R) and Depression, Anxiety, and Stress Scale (DASS-21) were used respectively. Besides, they collected information on physical symptoms in the last 14 days, knowledge and concerns related to COVID 19, and precautionary measures taken by the participants. Among 1210 respondents, 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe. Also, female participants experienced greater psychological impact compared to the male gender. Student status, specific physical health symptoms, and poor self-rated health exacerbated the psychological difficulties among participants. Accurate health information related to outbreaks and following precautionary measures linked with lower psychological impact and better mental health status.

Wester and Giesecke (2018) interviewed a sample of Swedish healthcare workers who had worked during the outbreak of Ebola in West Africa in 2014, and one person close to them, to investigate the stigmatization of healthcare workers. A large proportion of the contact persons reported no or little concern when the healthcare worker left or came back. The prevailing reason was trust in the judgment of the particular healthcare worker and relying only on the information provided by them. It was also indicated that instructions

regarding quarantine and self-isolation were less strictly followed by the healthcare workers than by other aid workers during the outbreak, giving off confusing signals to the public.

To conclude, many studies explored the psychosocial aspects of a disease outbreak. The disease outbreak had an impact on an individual level, familial level & socio-economic level. Social support, availing resources, and financial aid, religious coping helped the participants to better cope with the situation.

Methodology

Title of the Study

Lived experience of people isolated during Nipah disease outbreak, 2018: an interpretative phenomenological analysis.

Aim of the Study

The study aimed to analyze the lived experiences of people isolated during the Nipah disease outbreak, 2018.

Design

A qualitative research design was used for this study. In-depth semi-structured interviews were conducted to obtain the lived experiences of people isolated during the Nipah disease outbreak and transcriptions were analyzed using the interpretative phenomenological analysis (IPA) method as outlined by Smith, Flowers & Larkin (2009).

Sample

The sample consisted of 6 adults (4 Males and 2 Females) who were hospitalized in Govt. Medical College, Calicut and remained in observation ward during Nipah disease outbreak 2018 and later had a negative diagnosis of Nipah. The participants had contact with people who were infected with Nipah. Since they had physical symptoms like fever, they were hospitalized in Govt. Medical College, Calicut and remained in isolation ward during Nipah outbreak 2018. But when tested, they had a negative diagnosis of Nipah infection. A purposive sampling method was used for data collection. The duration of the stay in the observation ward was at least one day and followed by home isolation. Participants in the study were isolated due to instructions received from medical officials.

Inclusion criteria:

- Those individuals who had stayed in the isolation ward of Govt. medical college, Calicut during the Nipah outbreak of 2018 and later tested as negative for Nipah.
- They had the ability to give valid informed consent.
- Those individuals who have an age above 18 years were selected for the study.

Details of the Samples Collected

- ***Participant 1:*** A 63-year-old female, a housewife from Kozhikode. She was placed in isolation during the Nipah disease outbreak in 2018 and lost her son since he was contracted the virus. Initially, she was in Govt. Medical College, Calicut and followed home isolation.
- ***Participant 2***: A 38-year-old male, an auto driver from Kozhikode. He had contact with his friend who was infected with the Nipah virus and later died. The participant was placed in Govt. Medical College, Calicut for two days and then placed under home isolation.
- ***Participant 3***: A 28-year-old male, a shopkeeper from Kozhikode. His cousin was infected with the Nipah virus. Since he had close contact with his cousin's brother, he was placed in an isolation ward of Govt. Medical College, Calicut and followed home isolation.
- ***Participant 4***: A 34-year-old male, a religious authority from Kozhikode. He was involved in washing the dead body of the first Nipah infected case unknowingly. No protective measures were taken while doing the procedure. He was placed in an isolation ward of Govt. Medical College, Calicut for one day and then followed home isolation.

- ***Participant 5***: A 44-year-old male, a businessman from Kozhikode. His aunt and distant relatives were infected with Nipah. He had visited the aunt when she was hospitalized with Nipah and also attended the funeral of the patient who had died due to Nipah infection. He was placed in an isolation ward for two days in Govt. Medical College, Kozhikode, and then followed home isolation.
- ***Participant 6***: A 60-year-old female, a housewife from Kozhikode. Her niece had died due to Nipah. She took care of her niece when she was in the ICU. The participant was placed in Govt. Medical College, Kozhikode, and then followed home quarantine.

Method

In-depth interviews were conducted to analyze the lived experiences of people who were isolated during the Nipah disease outbreak in 2018. An expert panel of five professionals from both the medical and mental health field was approached to develop a semi-structured interview for the purpose of the study. This set of semi-structured questions was utilized to collect data for the study. The questions are given below;

1. Can you explain the reason for being admitted in the observation ward of Govt. Medical College, Calicut?
2. What was your initial response to it?
3. What were your thoughts when you were admitted to the ward?
4. What was others' response to this news?
5. How your life has changed after this experience?

Along with these questions, necessary probes and prompts were added to obtain further details. The sessions were audio-recorded with the consent of participants and

analysed using interpretative phenomenological analysis proposed by Smith, Flowers & Larkin (2009).

Procedure

To obtain permission for the study, the researcher submitted an application to the IMHANS ethics committee on 27/09/2019. IMHANS Ethics committee has approved the research with reference number IMHANS/IEC/CPT/2019/024.

The contact details of people who were isolated during the Nipah disease outbreak was taken from the hospital registry of Govt. Medical College, Calicut with the permission of concerned authorities. A total of 12 participants were approached and 6 participants agreed to be part of the research. The interviews were carried out in a natural setting. The data was obtained from six adults who were resided in the Calicut district of Kerala. Face to face direct interview was conducted for five participants during February 2019. Due to the COVID restriction, one interview had conducted over the phone.

Interviews were conducted only after informed consent was obtained from the participant. Participants were assured about the confidentiality of data and accessed only by the researchers for the purpose of this study. The participants were also given the option of terminating the study at any point in time. Referral to a mental health professional was made for participants who were found to have significant difficulties and clinical consultation. The interviews lasted between 30 minutes and three hours. The sessions were audio-recorded and transcripts were written after each session. The interviews were transcribed and data was found to be adequate for the analysis. Transcripts were analysed using the IPA method as outlined by Smith, Flowers & Larkin (2009).

Process of Analysis

Transcripts were analysed using the IPA method as outlined by Smith, Flowers & Larkin (2009). Analysing the experiences based on interpretative phenomenological analysis involves mainly six steps.

Step 1-Reading and Re-Reading

The first step of interpretative phenomenological analysis involves reading and re-reading to familiarize us with the first-person experiences of accounts being investigated. Each transcript is read again and again. Here we actively engage with the data and the participant becomes the focus of analysis. Instead of focusing on psychological reductionism, the researcher gets immersed in the data. From noting down the initial recollection of the interview to striking the important observations about the transcript, it gives a gist of the overall interview structure.

Step 2- Initial noting

The researcher examines the original transcript in detail and provides a detailed set of notes and comments on data. On an exploratory level, three types of comments are provided in the process. It includes descriptive comments, linguistic comments, and conceptual comments. While descriptive comments focus on what was being said with the aim of describing the content, linguistic comments examine the specific use of language by the participant. With a growing familiarity with the transcript, the researcher is able to provide comments on a conceptual level, more on the implicit meaning of the content. In this study, free association.

Step 3- Developing emergent themes

The comments are grouped into themes based on the interrelationships, connections, and patterns between the exploratory comments and aims to bring down the volume of content. And thus emerging themes are derived.

Step 4- Searching for connections across emergent themes

Once the researcher has established a set of themes within the transcript, the next step is to identify patterns between the emergent themes. Putting together the emergent themes leads to the development of superordinate themes. There are six ways that lead to the development of the superordinate theme. They are abstraction, subsumption, polarization, Contextualization, numeration, and function.

Abstraction: Similar contents are put together and a new name is given for the cluster.

Subsumption: A useful way of looking at the connection between emergent themes is to bring together a series of related themes

Polarization: Instead of focusing on the similarities between emergent themes, the difference is taken into consideration

Contextualization: Contextual and narrative elements are given importance while looking at the patterns between emergent themes.

Numeration: Numeration is a way of looking at the relative importance of some themes.

Function: Emergent themes were drawn together by looking at the function it serves.

Step 5- Moving to the next case

The process is repeated with each case emphasizing the individuality of it and new themes are developed.

Step 6- Looking for patterns across cases

Here we are interested in taking account of the patterns across the case. The process involves identifying the most potent themes and sometimes lead to the reconfiguring and relabeling of themes.

Result

The present study aimed to explore the lived experiences of people who were isolated during the Nipah disease outbreak in 2018.

The results of the study are summarized in the table given on the next page.

Superordinate themes	Sub ordinate themes					
	Subject 1	**Subject 2**	**Subject 3**	**Subject 4**	**Subject 5**	**Subject 6**
Anger	Health system Deceased Society God	Deceased	Health system Deceased Society	Deceased God	Health system Deceased	Health system Deceased Society
Oh my God	Impact Utilizing religion	Impact Utilizing religion Belief changes	Impact Utilizing religion Gratitude Belief changes	Impact Utilizing religion Gratitude Belief changes	Impact Utilizing religion Gratitude Belief changes	Impact Utilizing religion Gratitude Belief changes
Being other centred	As a distraction Social connectedness	As a distraction Social Connectedness Fear of transmitting the disease	As a distraction Social Connectedness Fear of transmitting the disease	As a distraction Social connectedness Fear of transmitting the disease	As a distraction	As a distraction Social connectedness Fear of transmitting the disease
Accessibility Issues	Information Of resources Inadequate social support - Rejection - Social isolation - Stigma Last rites	Information Inadequate social support - Social isolation - Stigma Last rites	Information Of resources Inadequate social support - Social isolation Stigma Last rites	Inadequate social support - Social isolation - Stigma Last rites	Information Inadequate social support -Rejection -Social isolation -Stigma Last rites	social support -Rejection -Social isolation -Stigma
Trust	System	System	Media System interviewer	Media Interviewer	System Media Interviewer	------
The economics	Of resources Impact on job Lack of Compensation	Impact on job	Of resources Impact on job Lack of compensation	Impact on business Lack of compensation	Impact on business	Impact on business
Going by the gut feeling	Mind body interaction Irrational waiting/holding onto fantasy	Mind body interaction	Mind body interaction	Leaving job	Mind body interaction	Mind body interaction

Description of the Result

Seven Master themes have evolved after the step by analysis of the data.

They are

1. Anger
2. Oh my God
3. Being other-centered
4. Accessibility issues
5. Trust
6. The economics
7. Going by the gut feelings

1. Anger

Anger is the most expressed emotions in the entire transcripts. Anger is directed mainly toward four sources. They are anger towards the health system, the deceased, society & God.

Anger towards the Health System: Anger towards the health system mainly stems from the negligence they experienced from health care workers.

As participant I recalled

> ***"****What kind of hospital is that? He was shivering with fever. He talking illogically. He was in a very bad condition. Still the doctors said its nothing. They kept on saying he does not have any issue. They were trying to shoo away us. They were getting other cases. My son's life. I knew that he had some issue. That's why he was behaving like that. I had such a bad experience from causality. I won't be able to forget it."* (Lines 3-9)

Here the participant complains about how their needs were not prioritized and mentions the social hierarchical structure exists, where she feels to be inferior when comparing with others. The experience of being ignored by authority is again repeated by the participant. The participant tries to communicate that they did not enough help and ignored by the authority. She felt that they were taken lightly. She perceives discrimination and resentment towards the health system. Feelings of unrecognized create a sense of disappointment in herself.

> *"We took him to health centre first. They did some testing. Testing of Dengue and some more test. The test results were fine. Doctor asked him to take rest and eat light foods. Sent us back."* (Lines 24-28)
>
> *"They said doctor would come tomorrow and check."* (Lines 85)

When the participant proceeds, she complains about the infrastructure of the hospital and emphasizes the importance of developing better structures to avoid the spreading of illness. Delayed diagnosis and lack of specific treatment to date, contributed to their negative experiences.

> *"I really wish if they had done scanning earlier. At least for our peace. The place is like that. They have the same causality for all disorders.* (Lines 117-118)
>
> *"My son was the 14th one to get infected. Isn't that government had delayed to diagnose the illness and give proper treatment? (*Lines *254-256)*

Participant V recalled,

> *"We have a health centre here. Nurses and social workers work there. They are less educated. It's a government hospital" (*Lines *1619-1621)*

Here the participant assumes that health centers working under the government may not be as efficient as private sectors in the field. He contempt about the quality of help received from the staffs.

Participant VI said,

*"I am sure she got the disease from medical college itself. There is no other chance" (*Lines *1774)*

Participant considers hospital as a source of spreading the illness to others. The first case of NIPAH was brought to the hospital and could not identify the disease at that time.

Anger towards Deceased: Anger towards the diseased is associated with feelings of being left alone, guilty of not providing enough help and they assume the deceased as the reason for creating panic in their life. Coping mechanisms such as denial, regression, idealization had been used.

Participant I Said,

> ***"****The day before he got fever, he came and told that he was feeling dizziness. I scolded him for not eating food on time. He never takes food on time. I scolded him a lot."* (Lines 11-15)

Here the participant expresses her anger, especially towards the deceased, and feels guilty as she was not aware of what was happening with him. The participant attempts to find reasons for getting infected. The participant was trying to make sense out of her experience by attributing the illness to the factors under control. Interestingly, she glorifies his character at the same time.

> ***"****He was such as a good boy. You won't find such a good boy in this locality"*
>
> *(*Lines *15-16)*

Feelings of being left back and denial to accept death was also expressed during the interview. The participant never used the term ‘death’ when mentioning the loss of her son, it was replaced with words like ‘gone’, ‘never came back’ etc. In comparison with participant I, the reason to feel anger towards the deceased was mainly due to experiences they had to go through being in contact with the infected unknowingly.

Participant II reported,

> **“***He was my close friend. I drove his vehicle. That’s how I got trapped.”*
>
> *(*Lines *399-400)*

Participant III said,

> *“As a person, he was a kind of person who is unable to tolerate any kind of pain. Even for small headaches, he used to take Paracetamol. Even for small diseases, he used to depend on medicines. He did not have the capacity to tolerate pain. He do not take hot water. He takes tea only when it’s colder. Doctors said that his resistance power was less. Doctors said that since he was depended on many things, his resistance power was low.” (Lines 715-722)*

Both were doomed in the fear of getting infected and the relationship with diseased seemed a burden to them. Like participant I, participant III also tries to figure out external factors for getting infected with NIPAH. Though participant IV feels anger towards the deceased, he denies it at the same time.

> *“Because of him,, I got trapped. I got trapped. But I don’t have any issue with him”* (Lines 1274-1276)

Anger is projected not only to the diseased but to the family members of the infected.

Participant IV said,

"The disease was confined to their family only." (Line 1417)

Participant V said,

"They were just relatives. Nothing more than that. I had not involved much with them." (Line 1678).

Participant VI recalled,

"Sindhu's family did not have health issues. All misfortunes happened here. They did not have much issues there. Everything was happening here." (Lines 1835-1837)

Here the participants abandoned the family members of the deceased and we could observe some kinds of a stigma attached to the family. Subject VI has discounted the struggles experienced by family members of the deceased. To deal with the anger they are experiencing, participants engaged in idealizing the deceased. They made remarks about their positive qualities of them. Idealization was one of the defences used to cope with the loss of loved ones.

As said by participant V,

"He was a kind man. A man of good moral. Somebody was never into fight with anyone or never hold any grudge. All people had good impression about him. Still this happened to him" (Lines 1498-1501)

The participants also experienced guilt and they tried to overcome it using religious beliefs and overcompensation. Participant I had lost her son due to Nipah. The incident happened when they were building the first floor of their home for his wedding. After the demise of her son, she gave the upper part for rent. This can be interpreted as she was fulfilling her dream to make his son get married. Instead of one, five girls were living there.

As said by participant I,

> *"We had decided to look bride for him after the construction of ground floor. We did not have any chance. Now five girls are staying as paying guest in the upper stairs"* (Lines 370-371)

Participant VI Said,

> *"I had decided to look after her youngest son. To take him to my home."* (Lines 1879-1880)

The participants in the study tend to overdo the dreams of the deceased to deal with the feelings of guilt. Participants avoided suspects due to the fear of contagion. At the same time, this was anxiety-provoking to the participants. To deal with the guilt, they depended upon religious teachings. This is reflected in the excerpt said by participant V,

> *"There were speeches in all mosques. Religious speeches. They announced that we are not supposed to travel to places where infectious disease has spread."* (Lines 1570-1572)

Anger towards Society: Participants expressed anger towards society for not reciprocating the help they had offered to the people who were infected with Nipah. Though, unknowingly, the son of participant I helped to shift the person who was infected with Nipah and contracted the illness. Like this people who were quarantined were involved in helping others. But they had to go through the fear of getting infected, transmitting the illness, social exclusion, and stigma.

As said by Participant III,

> *"Why we are making people to struggle with these diseases? Everyone should get finished by this. This was my thought."* (Lines 1199-1201)

Participant III express his wish of destruction, anger and helplessness.

Participant IV said,

> *"After my arrival from hospital, people kept on asking me whether I have Nipah. I told them many times that I had tested negative. Actually I should ask them whether they have some disease. Because they have never done testing."* (Lines 1385-1389)

Here the participant becomes uncomfortable with the identity he has received and feels angry towards others. The majority of the participant had faced stigma for being placed in quarantine and having close ones died of Nipah. Though the journey of quarantine brought a sense of pride in participants, initially they struggled with labelling them as diseased.

Anger toward God: Only one participant had expressed anger toward God in the transcript. The Nipah outbreak happened during the Ramzan period, a religious festival celebrated especially by the Muslim community.

As recalled by participant IV,

> *"It was a situation everyone stayed away from God"* (Lines 1380)

This also reflects how their religious beliefs were altered when dealt with unprecedented events. In the following excerpts, the participant recalled the event as a punishment from God.

2. **'Oh my God'**

'Oh my, God' theme entails participant's shock about the outbreak, how unprepared they were to deal with the event, and how religious beliefs and spirituality helped deal with the stressful occasions. This superordinate theme includes four subordinate themes. They

are the impact of the event, utilizing religion as a coping strategy, gratitude & belief changes after post-event.

Impact of the Event: Participant I symbolize the fever to fire. Here the word 'fire' indicates the impact of the incident and their experiences were similar to getting burned in the fire.

"*My son had fever. It was like fire."* (Line 2)

As said by Participant II,

"*Only two people had died*." (Line 434)

This was the slip of the tongue from participant II. The subject and his friend had to be in quarantine due to contact with an infected person. Fourteen of the infected died. Although unconsciously he compares his experience equal to death.

Participant III said

"I and my brother was lying on the same bed" (Line 662)

This can be interpreted as even though he did not contract the illness, he had to go through the same pain and humiliation a person infected with NIPAH could have received. He proceeds saying

"He did not have the strength to stand up". (Line 645)

Utilizing Religion as a Coping Strategy: Among the various coping strategies, the majority had used prayers and religious beliefs as a way to deal with stressful events. They engaged in religious rituals, spend more time for it, and tried to interpret the events as God's intentions, which would gradually lead to a positive outcome. Participants reported that their faith in God has increased following the event and the majority of them expressed 'God as a savior'. They adopted religious practices even after two years of the event.

This is evident in the excerpt of participant II,

"My faith in God has increased. Whenever I became tensed, I read Khuran. It's obvious that our faith in God will increase if we are in trouble." (Line 540-542)

As participant III said,

"*My cousin's mom was praying all the time continuously."* (Line 944)

"My father was a pure believer in God. That helped him to go forward." (Line 1066)

Here the participant mentions vicarious learning, where he saw people relied on religious values to deal with stressful situations. Participant IV had contacted religious authorities for seeking prayer.

"I put a message seeking prayer in Whatsapp group. It was a group with religious masters" (Line 1384)

"I spelled prayers in my mind" (Line 1408)

Participant V & participant VI also mentioned practicing prayer that helped them during quarantine days.

Gratitude: Participants attributed God's grace as the reason for not getting infected. Participants were worried about getting ill and spreading it. They expressed amusement when they received a negative diagnosis of Nipah. In the transcripts, they expressed gratitude towards God for not assigning an illness to them and thanked him for his protection.

As said by participant III,

"I say thanks to God, for saving me, not giving me the disease. Nipah virus is something that spread through body fluids and all. I had cleaned his vomiting. I

had hugged him. His mother had his left over rice gruel. In all case, I have had close contact with him. He had kissed me when he was lying in the hospital bed." (Lines 1146-1154)

Participant V recalled,

"Happy that God has not given me that disease." (Lines 1744)

Participant VI Said,

***"**I am happy that God protected me from happening this to me."* (Lines 1848-1849)

From the excerpts of participants V & VI, it is observed that they tended to belief that those who got the disease and died, received the illness from God.

Belief Changes after Post-Event: The event had a significant impact on various domains of participants' life. One such domain was belief changes followed by a quarantine period. Majority of the used religious coping during the quarantine period. And continued it after the event also.

Participant II recalled,

"My faith in God has increased." (Line 540)

As said by participant III,

"My faith has increased after this incident. I started to go to temples. Initially I prayed only from home. I believe in God, only in him. Because many people who did not have much contact got infected with virus and died in Panthirikkara. My brother's friend met with an accident and he went along with him to the hospital. My brother got infected when he helped to lift a person who was vomiting. He got

from that person. If my brother had infected from being exposed to a person for a short period of time. I had close contact with him." (Line 1217-1224)

Here, participant III had close contact with his brother who was infected with Nipah. He believed that his faith in God saved him, while others who had even lesser contact had contracted the illness.

3. **Being Other Centered**

The theme 'being other-centered' includes how the participants were preoccupied with thoughts about others during the quarantine period. The subthemes are 'As a distraction ', 'Social connectedness & 'Fear of transmitting the illness to others'.

As a Distraction: During quarantine, they were highly anxious about whether they had the illness. To divert the attention from their anxiety, they focused on others' sufferings & tend to generalize their pain to others. Participants in the quarantine reported that they were anxious about their relatives who had contracted Nipah. Participants tend to discount their pain imagining greater struggles of others.

As said by participant I,

"*I had only thought about my son during that time. I just wanted to get him safe. I have never thought of my illness or staying in the observation ward. I was concerned about his health. Whether he was getting better."* (Lines 215-218)

Participant II recalled that,

"When we think of x's family's experience, I feel like I have not suffered anything. There was an incident his father had to leave from a tea shop. They refused to give him tea." (Lines 616-618)

From the excerpt of participant III

"I was not afraid much about myself. I was afraid that my brother was hospitalized. I was not concerned about me. My brother was at the hospital." (Lines 772-774)

"Everyone avoided my father. All his experiences were bad. He struggled that much." (Lines 1063-1064)

Participant IV and V reported similar attitudes.

Social Connectedness: Social connectedness was a protective factor for the participants who were placed in quarantine. Though they were unable to meet their close ones, social media helped them to be connected with them. The emotional support they received was associated with their wellbeing during that time.

As said by participant I,

"His friends visit us. They calls us 'Acha' 'amma'". (Lines 378-379)

Here the participant recalls about her life after the demise of her son. His friends continued to visit her and support was provided.

Participant III said,

"My elder brother was there. And cousin also. After that we were happy. I did not feel much distress after that. That friendship helped me. We spent time by talking with each other." (Lines 975-977)

In this excerpt, participant III recalls how the healthy relationship between inmates alleviated the stress of quarantine. The participant emphasized the importance of friendship and recreational activities that helped during the quarantine period.

Fear of Transmission: Another fear faced by participants was transmitting illness especially to close family members. In a way, this fear helped them to comply with quarantine rules and avoided contact with others.

As participant II said,

> *"I was concerned about whether my family members may get the disease. That's why asked them to stay away from home."* (Line 506-507)

From the excerpt of participant III,

> *"My father insisted to meet me. And he came to hospital. I had told him not to, but he did not listen. I was afraid something would happen because of me?"* (Line 897-899)

Participant VI said,

> *"My younger son and husband was with me. I was concerned about them. What if something happens to them because me?"* (Line 1815-1816)

4. **Accessibility Issues**

The participants were deprived of information, basic resources such as food, timely medical services, and could not attend the funeral of close ones. They experienced isolation, rejection, stigma and discrimination from others.

Information: With respect to information related to events, they lacked access to information. They also received misinformation and falsifying information which gave false hope about the conditions of their demised ones. As reported by participant I, she was completely isolated in a way that she had no phone in her hand, no newspaper was provided, and relied completely on others to know about the situation.

> *"Nobody gave me a phone. I was unable to make calls to anyone. I was not knowing anything. It was like I was isolated somewhere. A bad experience. Not knowing any information and not getting a chance to know. Doctors were walking here and there"* (Lines 209-212)

The participant also reported that the Malayalam movie made on this event helped them to better understand the situation.

"When the movie was released, I understood many things." (Line 355-356)

Lack of clarity in the information produced more distress and anxiety. Participant III communicates about the importance of explaining the results or medical condition to the general population in a simple and understanding language.

As said by participant III,

"Doctors asked us to be prepared for the worst. Everything went out of our expectation level. We understood his situation was critical, but could not understand what was the disorder or its consequences." (Lines 706-710)

"Doctors gave me a sheet. Test result sheet of my brother. The document contained information about my brother's condition. But I could not understand. So I called my friends who works in medical field" (Lines 722-725)

"We did not know whether the result was came or not. They did not communicate much with us. They asked us to leave. We felt like we were ok." (Lines 989-990)

Of Resources: Participants complained of not receiving a timely medical intervention, lack of availability of doctors. Some of the participants felt that they were taken for granted and their issues were taken lightly.

As said by participant I,

"They said doctor would come tomorrow and check." (Line 85)

Participant III reported that,

"He was becoming ill. The situation was going worse. Still the doctors asked us to wait. They kept on saying they would check. But they checked at 5-6 P.M."

"But all of them came only after observation period. During that time, we did not have much issues" (1135-1139)

Inadequate Social Support: The majority of the participants experienced social isolation. People avoided them due to the fear of contagion. Experience of rejection came from medical officials also.

As recalled by participant I,

"He had temperature like fire. The whole night he was shivering. I holded his hands till morning. Then the doctor came. He asked us to go to other hospital." (Lines 97-99)

Participant V recalled,

"*Here we have a health centre. When we went to talk about our involvement with Nipah infected case, there was a shock in their eyes. They took one step back from us with fear"* (Lines 1619-1621)

"*The doctor was running after seeing us."* (Lines)

Participant I talks about the social isolation they experienced in the following excerpt.

"*Everyone has isolated us. I was feeling tired that time. Even though we called many drivers, no was willing to come with us. We were not allowed in shops. Can't even stand on courtyard or footpath close to our house."* (Lines 164-167)

As said by participant IV,

"When we called ambulance, they were not willing to come. No drivers were willing to come with us. Everyone thought I had Nipah." (Lines 1286-1287)

Participants talked about the stigma they experienced during the event and following it. Not only to the presence of participants, had people showed fear of the lifeless

objects used by them. One example is people were unwilling to buy the auto of the demised even after months. It is shown in the following excerpt.

As said by participant II,

> *"When we took that auto, we did not know the seriousness of the disease. Initially we kept that auto in a nearer house. Immediately they shifted the auto from there. They had to shift it."* (Lines 424-427)

Participants were afraid about the reactions of people when participants had come to know about the disease outbreak and the necessity of being placed in quarantine. They were afraid that people would alienate them.

Participant II recalls,

> *"There were other people who had done the testing. But they kept it as secret. Only news about us was out. When the government kit was released, four people from our stand and fourteen people from outside stand received it. My relatives did not come to my home for a long time"* (Lines 484-487)

Participant V communicated about the fear of being stigmatized by neighbours.

> *"After the death of him, social workers had come to our home explaining about the issue, Nipah. They were two –three people wearing different kind of mask….I am someone who interacts with my people of my locality. I interact with others every day. What others would think of me if authorities come like that?"* (Lines 1635-1642)

One of the participant experienced stigmatization in workplace also.

As said by Participant III,

"Then my friend mentioned my brother was died of Nipah. The customer throw cigarette at my face and went. This was the most painful neglectful experience in my life. I felt in my chest, a suffocation and difficulty to breath" (Lines 1095-1102)

Last Rites: Due to the fear of contagion, specific rules were followed for the burial and funeral of the demised. The body of the demised was not shown to their relatives.

As recalled by participant I,

"*He was directly taken into ICU. We could not see him after that. Nobody let us to meet him. They did not allow saying we may create a scene there."* (Lines 136-137)

Participant II also expressed his distress about it.

5. **Trust**

Participants reported trust issues especially towards media, health system & regarding the intentions of the interviewer.

Media: The misinformation spread through media had a negative impact on the lives of participants. Due to easy availability and accessibility, people relied more on social media. The misinformation increased stigmatization towards the participants.

As said by participant IV,

"There was a news that the virus was spread through their pets. The news was fabricated." (Lines 1338-1339)

Participant III said,

"When we were in the isolation ward, two-three newspapers gave reports like we are in critical stage. Due to that reports, everyone waited for our dead bodies…My family were trying to convenience the people that I was fine. But After these reports, things became worse. All thought I died." (Lines 1050-1060)

One of the participants expressed that he stayed away from media.

Participant V said,

> *"But we did not interact with them"* (Lines 1521-1522)

System: Lack of information provided and not getting timely interventions, made the participants question the efficacy of the health system. Some of the participants compared to private hospitals and government services.

As said by participant V,

> *"We have a health centre here. Nurses and social workers work there. They are less educated. It's a government hospital"* (Lines 1619-1621)

Participant V recalled,

> *"He opinioned that it might be an experiment to understand which could be the effective medicine for the illness"* (Lines 1524-1527)

Interviewer: Some of the participants were doubtful about the intentions of the interviewer. The data collection was done during February. This was the time when Corona was spreading. The participant knew that the interviewer was from near to the medical college campus. And they were afraid that this interview may negatively affect them. Though agreed, repeatedly sought reassurance about the purpose of the interview.

As said by participant V,

> *"We are not supposed to travel to places where infectious disease has spread. People from infected places are not supposed to come here also. We should be careful during this time also, when corona is spreading. It's a common sense, right?"* (Lines 1578-1582)

One of the participants also suggested the interviewer not to visit the family of the demised for the interview.

As said by participant IV,

> *"Are you going to meet his family? I would say better not to go. They had suffered a lot. Why should we go there and remind them? Many people had already visited and enquired about all this."* (Lines 1425-1428)

Participant V expressed doubts about the intention of the researcher indirectly.

> *"My brother's wife is doing thesis. She is really crooked. People from our community do not do much research in this area and it's a rare topic"* (Lines 1683-1685)

One of the interviews was conducted over phone.

As said by participant VI,

> **"***She was talking without any connection"* (Line 1777)

The interview was conducted over the phone. Here the 'connection' means the relationship between interviewer and interviewee. This could reflect her difficulty to express emotions to a stranger over the phone

6. **The "Economics"**

There are three subordinate themes under the superordinate theme 'economics'. They are lack of resources, impact on business/job & Compensation.

Lack of Resources: Here the theme of lack of resources mainly implies financial difficulties faced by the participants. Since they were placed in quarantine, some of them could not go for a job. Some of the participants were worried about the medical expenses

of their close relatives who had contracted Nipah. Since they were unsatisfied with the treatment received, felt guilty of being unable to provide better treatment options.

As said by participant I,

> *"No doctors consulted him properly. If we had money, we would have taken him to some other places."* (Lines 65-66)

The same concern was expressed by participant III also,

> *"My brother was getting treated with costly medicines. We were quite anxious about how to arrange money."* (Lines 1112-1113)

In the case of participant I, he was the only income provider in the family. This affected their financial stability.

As expressed by participant I,

> *"It was his dream to build a house. And we took 5 lakh loan from bank. If my child was there, he would have paid it. Bank may seize our house. We had struggled that much to build it."* (Lines 367-369)

Impact on Business/job: The disease outbreak had an impact on business. Most of the participants reported that their business was down for them. And exportation of materials from Kozhikode was banned.

As said by participant IV,

> *"It was during the time of Ramzan. Season time. There was no one to buy dresses."* (Lines 1441-1442)

Participant V recalled that,

> *"Like all other people, mine was also affected. Almost all shops were closed. And items from Kozhikode was banned in other places."* (Lines 1752-1753)

Compensation: Some of the participants expressed their disappointment with the lack of compensation, especially those who had lost their close ones. The government had provided aid for treatment expenses. Since one of the demised was from the medical field, the Government offered a job to him. Though participants expressed gratitude to the frontline worker, they were unhappy that not all the people who had lost their close ones, received such kind of help. Participants perceived compensation as a way of recognizing their pain.

Participant I said,

> *"It's sad to think about sister. Even she had two children. Her husband got job and their children received money from many places. But what government has given us for losing our son?"* (Lines 245-247)

Similarly, participant V stated that,

> *"Three people, two brothers and father, died from the same family. But they did not get any compensation from government. They did not give them anything.* "(Lines 1720-1722)

7. **Going by the Gut Feeling**

The theme 'going by the gut feeling' how their intuitions influenced their behaviour. It consists of three subordinate themes; leaving Job, mind-body interaction & irrational waiting/ holding on to a fantasy

Leaving Job: The disease outbreak had created a persisting trauma in participants. This was reflected in their occupational activity also. After the incident, one participant, who used to wash dead bodies as part of his religious practice, left his job due to the fear of contagion that may happen in the future.

From the excerpt of participant IV,

> "*After these incidents medical authorities had given instructions to us. We should wear glove while touching or washing the dead bodies.*" (Line 1451)

Mind-Body Interaction: Participants were aware of the relationship between mind and body. They knew that disruptions in one lead to disruptions in another. The majority of the participants had physical symptoms during that time and they reported it as somatic. Participant II said,

> *"My fear was reflected as fever."* (Line 573)

As reported by participant V,

> *"My younger brother had fever. But that was somatic. Fever can happen that way also, right?"* (Lines 1645-1646)

The stress had a long term negative impact on health.

Participant I said,

> *"After his demise, his father lost vision of both eyes. He had high sugar and tension. They were really close like friends. He only has a slight vision now. Sugar level is not in control. Due to that we can't do operation."* (Lines 153-155)

Irrational Waiting: Only one subject had discussed irrational waiting of the demised. The participant still holds on to the fantasy that her son may return. Participant I said,

> ***"****Still we wait for him in the evening. When the time arrives, feel a pain in the chest. We just remove the curtain and check. Know that he won't come. Still"* (Lines 338-340)

Discussion

This study aimed to analyze the lived experiences of people isolated during the Nipah disease outbreak in 2018 in Kerala. Transcripts obtained using in-depth semi-structured interviews were analysed using the interpretative phenomenological analysis (IPA) method as outlined by Smith, Flowers & Larkin (2009). Seven Master themes emerged out of the step by analysis of the data including Anger', 'Oh my God', 'Being other-centered', 'Accessibility issues', 'Trust', 'The economics' & 'Going by the gut feelings'. Various subordinate themes were clustered under superordinate themes.

1. **Anger**

Anger is one theme derived after analysing the data. It has four subordinate themes. The participants directed their anger toward four sources, mainly towards the health system, deceased, society, and God. Smedslund (1992) has defined anger as a reaction that arose from a threat to a person's respect intentionally or unintentionally. Though no common definition has been derived for anger, two defining characteristics of anger include cognitive appraisal and action tendency. In terms of valence, anger is an unpleasant emotion and on intensity, it varies in a continuum from annoyance to rage.

Anger towards the Health System: The majority of the participants expressed anger toward the health system. This frustration was borne due to lack of information and resources provided, perceived injustice in the treatment facilities received, and lack of compensation. The participants did not receive clarity on information especially regarding the duration of quarantine, explanations to medical results. The anger was more intensely expressed by participants who had lost their close ones due to Nipah.

Similar themes had been derived from earlier studies. Anger has been widely observed among chronic physical conditions and recurrent conditions especially when the patient is provided with limited information regarding etiology and repeated treatment failures (Fernandez & Turk, 1995). Perception of the failure of the Government creates anger towards the system. People have raised doubts regarding governments' ability to handle situations (Wright et al, 2020). Alington et al (2020) point out that poor knowledge especially on the efficacy of government measures and conspiracy theories related to COVID 19 increases anger within people. This results in the non-adherence to protective measures (Kaniasty & Norris, 2004).

A study conducted by Smith et al (2020), investigated the factors associated with anger and confrontation during the COVID 19 pandemic in a group of 2237 UK residents. On the domain of anger, they measured whether participants have had disagreements on how to behave during COVID 19 pandemic and confronted someone for not following the measures. Over half of the participants stated that they had arguments with others on behaviours during COVID 19. The easing of restrictions around COVID 19 evoked conflicts and questioned trust in the Government system to eradicate it. Participants felt that the easing of restrictions was done immediately and this would lead to further spreading of the illness. People reported worry about relaxing the restrictions too quickly. Experience of anger was associated with the greater perceived risk of COVID, financial difficulties, and perceived stress during the pandemic. Olcer et al (2020) suggested that lifting the restrictions at a slower pace and a clear action plan and adherence to it builds people's trust in the Government. And it, in turn, reduces worries in people. Adherence to

Government guidelines was influenced by misinformation and conspiracy theories. Perceived inequalities are one of the reasons for anger (Mayer et al, 2015).

Earlier research has found that not only general people, health care workers also felt angry towards public health authorities and management. Lack of or conflicting messages had created panic among people and affected the disease control and prevention strategies. Authorities were also criticized for not taking immediate steps which would have minimized the effects of the outbreak.

Anger towards Deceased: Participants' anger was mainly due to two reasons. The people who had lost their close ones were haunted by the feelings of guilt not being able to help and being left away. The other group considered the deceased as the reason for their sufferings.

The grieving process is characterized by intense feelings of sadness and frustration. Kubler Ross had proposed a model of grief (1972), in which he describes stages that a person who is dying go through. It includes shock and denial, anger, bargaining, depression, and acceptance. The caregiver's anger towards the deceased stems from various reasons; the feelings of being left away, helplessness at being unable to prevent the illness, and getting adjusted to changing roles and functions in the family. The caregivers are bombarded with an array of negative feelings and one among them is anger towards the deceased. Earlier conflicts with the deceased escalate these feelings. And the idea that illness is a result of irresponsibility or neglect from the patient intensifies the anger towards the patient (Rueth & Hall, 1999).

It is important to note that 7% of bereaved people experience complicated grief, in which acute grief is long and intense. They continue ruminating about the incident, avoids

reminders excessively, and get stuck in the process (Shear, 2012). Having lost someone close is followed by emotional upheavals. Over time, the memories become less intrusive and the experience becomes integrated into our lives. Evidence indicates that grief is intense especially when parents lose children and the death of a life partner (Lannen et al, 2008). In the proposed criteria of complicated grief, one of the criteria is recurrent feelings of anger related to death (Shear, 2012). Prigerson et al (2001) noted the symptoms of traumatic distress experienced during bereavement and one among them is anger related to death. Anger is considered a normal reaction to the loss of a child. The intensity of the anger ranges from chronic irritation to intense rage. At times this anger is turned towards oneself. Spouse, family members, hospital staff, God, and even the child becomes the targets of their anger (Defrain, 1991). Guilt is commonly associated with grief. Loss of the child looms their competence as a caregiver. This may create feelings of worthlessness and feelings of hatred towards oneself (Klass, 1988).

The two-track model of bereavement incorporates emotional and physiological responses following the loss and gives importance to the relationship with the deceased. The bereaved ones are occupied with memories and thought about others. This model emphasizes the importance of looking at their thought process also, not just on the overt function (Rubin, 2001)

Anger towards Society: Participants experienced anger towards society. They felt that what occurred to them was unjust and felt angered by how they were the only ones affected by the outbreak. They were the victims of social ostracism. They experienced neglect and rejection from their relatives, neighbours, and community due to the fear of transmitting illness from them.

Earlier research has shown that prolonged danger and uncertainty about the danger creates tension within communities. Based on the cohesion and mutual support provided by each other during emergencies, communities can be classified as two; therapeutic community and 'corrosive communities'. Therapeutic communities provide support to each other while corrosive communities are characterized by a lack of cohesion as a team. The influence of incidents on various populations is different and the long-term existence of a pandemic creates inequality (Smith & Gibson, 2020). Substantial anger has been generated among people who undergo quarantine experience (Brooks et al, 2020).

Anger towards God: Participants reported their feelings of anger towards God. Some considered their stressful experience as a punishment from God. There was an attempt to find the reasons for their troubling experiences. They felt that God was unjust with them.

People tend to seek explanations for their sufferings (Hale-smith et al, 2012). People tend to assign happening of events to supernatural powers although natural explanations can be provided (Legare et al, 2012). Exline et al (2017) conducted a study to understand anger toward God among undergraduates in India. Anger reported by Indian undergraduates were more related to situation-specific. They perceived God as merciless, especially at their difficult times. Perceiving God as angry at oneself was associated with spiritual struggles (Exline et al, 2011). Similar results are emerged out from Wilt et al. (2014), Exline et al (2013) & Exline et al (2015).

2. **'Oh my God'**

This theme consisted of four themes. The impact is meant to represent the unpreparedness of the event and following emotional turmoil, the participants had gone

through. The majority of the participants used religion as a way of coping and there were significant changes in the belief system. Participants reported to be more religious and engage in religious practices.

Impact of the Event: Quarantine is often an unpleasant experience. As a prevention strategy of disease control, it restricts the movements of people who were potentially exposed to a contagious illness. This helps to rule out if the person has contracted an illness and if so, reduces the transmission of infection from one to another. Mood alterations and irritability were found to be reported by people who were quarantined during the SARS outbreak in Toronto (DiGiovanni et al, 2004). A study conducted on hospital staff who were placed in quarantine due to contact with SARS patients showed symptoms of acute stress disorder (Bai et al, 2004). Similarly, Blenden et al (2004) found that people under quarantine faced greater psychological impact than the general population. In another study, it was found that the event had a long-term impact on hospital staff being exposed to the 2003 outbreak of severe acute respiratory syndrome (SARS) in Beijing, China. Sprang & Silman (2013) investigated the effects of quarantine on children by comparing them with those who were not placed in quarantine. Children and parents who were placed under quarantine reported more post-traumatic stress-related symptoms. Anxiety symptoms and feelings of anger were evident during the quarantine period (Jeong et al, 2016). In a cross-sectional study conducted by Liu et al (2012) among 549 hospital employees, 19% of them had been quarantined reported depressive as well as post-traumatic stress symptoms.

Utilizing Religion, Gratitude & Belief Changes: Studies have found that religion plays an important role in dealing with a stressful situation. People rely on religious beliefs

and practices to cope with hurdles in their life. A positive relationship exists between mental health wellbeing and religious coping. Religion becomes a way to explain the most desperate circumstance that is not in control of a person and find meaning in situations (Koenig et al, 2012). Reliance on a higher power reduces the stress to control life's circumstances or bother about its repercussions (King et al, 2013). People try to interpret the situations as God's plan. Religious coping was found to be effective in cases of physical illness also (Harrison et al, 2001).

Abernethy et al (2002) explored the relationship between religious coping and depression in 156 spouses of lung cancer patients. Participants with a moderate level of religious coping reported less depressive symptoms. In a two year longitudinal study on 268 medically ill patients, Pargament et al (2004) found that religious coping was predictive of changes in physical and mental health. At the same time adopting negative religious coping was associated with a decline in health. Seeing the event as a curse from God, interpersonal religious discontent can contribute to deteriorating health. The belief that religious beliefs and practices can halt their lives gives them the strength to deal with desperate situations.

A study conducted by Aflakseir & Mahdiyar (2016), found that women with infertility problem used practice religious coping more frequently and passive and negative religious coping less frequently. Findings also suggested that religious coping especially strategies like active religious coping, practice religious coping, and benevolent reappraisal coping predicted reduction in depressive symptoms. Studies have found that although participants reported anger towards God for their sufferings, interpreted the events as having good intentions and thus helped to reduce the anger towards God (Wilt et al, 2017).

3. **Being Other Centred**

'Being other-centered' entails the concept of how the presence of others influenced the participants during a stressful situation. Participants had tried to cope with the negative emotions using generalizing pain, comparing their pain with others and discounting it, and thinking only about others during the quarantine period. The majority of the participants were genuinely concerned about transmitting the illness. Social connectedness had come into action as a protective factor in their miseries.

As a Distraction: Defense mechanisms come into action to deal with overwhelming anxiety. They are unconscious mental operations and protect the self from unwanted feelings, anxiety, conflict, shame, etc. (Granieri et al, 2017). Human beings are motivated to protect themselves from psychological threats including uncertainty to death anxiety. The awareness that death is inevitable creates defensiveness in people. Mortality salience can be dealt with by strengthening the relationship with others. When we experience threat physically or psychologically, we tend to rely on others, ensures security through maintaining interpersonal relationships (Hart, 2014). To deal with the terror of inevitable death, they are resolved into making themselves as 'good' members of society. According to the dual-process model in terror management theory, people make use of proximal defences such as denial, rationalization suppression such that fear of death gets minimized (Hart, 2014). Like this, participants in the study tend to use proximal defenses as well as interpersonal relations to reduce the pain associated with death anxiety.

Social Connectedness: Social connectedness was another theme that emerged from transcripts of participants. They shared how the support they received from family, friends, and government facilitated better coping. Evidence from past research brings a similar

theme where social cohesion and connectedness had a positive impact on the wellbeing of the people.

Social distancing is regarded as one of the effective ways of containing the disease. But, it becomes a threat when people lose connections with each other in the process. To deal with the psychosocial impact of disease outbreaks, mental health professionals emphasize the importance of using positive psychosocial capital. One among them is social cure. The term social cure implies the effect of social connections on our wellbeing. Social connectedness has been associated with increased self-esteem, happiness, and life satisfaction of the participants (Haslam et al, 2018).

Participants in the study reported how a close relationship with others had helped them during and after the quarantine period in facing the trauma associated with the event. In the study conducted by Robertson et al (2004), a sense of mutual trust and friendship shared among health care workers was found to be a motivating factor to go through the hurdles of a disease outbreak. Social relationships act as a protective factor in reducing the incidence of chronic diseases and potentially infectious diseases. Social cohesion enables healthy and preventive practices on the individual and community level to decrease the rate of viral transmission. Generally, the protective nature of social relationships is under looked at in past research (Cohen et al, 2003). Socially cohesive communities share collective goals and they have a feeling of 'we-ness' in achieving the goals. Resources are more likely to be equally shared within the members of the communities. A cross-sectional survey conducted by Paykani et al (2020) found that perceived social support enhanced compliance with quarantine rules during the coronavirus epidemic in Iran. Perceived levels of social support are associated with improved clinical outcomes (Strom & Egede, 2012).

Fear of Transmitting the Illness: The majority of the participants expressed their concern over transmitting illness from them to others, especially afraid of family members. The majority of them recognized themselves as belonging to the high-risk category though they tried to provide rationalization. Participants reported guilty feelings for putting others at risk. Studies conducted during disease outbreaks on people who were placed under quarantine and isolation reported fears of transmitting the illness (Cava et al, 2005; Desclaux et al, 2017 & Hawryluck et al, 2004). Fear of transmitting the illness was especially found among healthcare workers. When the SARS outbreak happened, it put tremendous pressure on healthcare workers and they juggled the responsibilities related to work and keeping the family safe from infections. They were worried about transmitting the illness from them to family members. Healthcare workers considered their service as voluntary, but cautious about exposing the threat to family members. This had created a conflict in healthcare workers feeling anxiety, guilt, and remorse (Hart et al., 2004). Participants in the study conducted by Maundar et al (2003), aimed to understand the psychological and social impact of an outbreak of severe acute respiratory syndrome (SARS) in Toronto and reported fear of infecting others. Participants were also concerned about not having the symptoms and unknowingly transmitting the illness.

4. **Accessibility issues**

During quarantine, participants were deprived of information, of resources including food, medical facility, lack of social support, and final chance to meet the deceased one. The unavailability of the resources exacerbated their anxiety.

Information: The amount of information available to the society regarding a crisis is an important factor in determining support given for each other. Information sources

especially social Media play an important role in propagating misinformation regarding the crisis. Participants relied more on social media as a source of information despite a lack of accuracy in reporting. As a result of the emergence of Coronavirus disease, people were forced to be in quarantine if they came into contact with people infected with COVID 19. And they experience profound psychological distress including stress, anxiety, and depression & Frustration (Serafini et al, 2020). The psychological impact of quarantine was exacerbated by misinformation provided by the media. Inadequate and anxiety-provoking information escalated psychological distress in people. Inadequate information not only created stress among general people, but it also had an impact on healthcare workers. Healthcare workers with inadequate training reported anxiety and depression during COVID 19 pandemic (Surrati et al, 2020). Robertson et al (2004) emphasize the importance of providing clear and easily accessible information dealing with infectious disease especially to the healthcare community. Due to the poor coordination between health authorities, people receive inconsistent information related to the same aspect of disease outbreak and created panic within the communities during the SARS epidemic in Toronto (DiGiovanni et al, 2004). Participants also complained of a lack of transparency from health and government officials (Braunack-Mayer et al, 2013).

Of resources: Participants complained of not receiving proper treatment from the medical officials. The inadequate supplies ranged from basic needs to timely treatment received. These issues were also reported during other disease outbreaks. Shaban et al (2020) explored the lived experiences of people who were admitted to COVID 19 isolation facility in an Australian healthcare setting. Limited interaction with health care workers has affected the quality of care received. This in turn influences a negative impact on the

overall wellbeing of the individual. Unavailability of resources triggered anxiety and anger among people who were placed under quarantine (Wester & Giesecke, 2019). Reports from earlier research show that unable to get a mask and thermometer was also a problem for the participants (Blendon et al, 2004). Another issue reported was the delay in receiving the items (Hoffman & Silverbergl, 2018).

Inadequate social support – Rejection, Isolation & Stigma: The majority of the participants in the study experienced social stigma, discrimination, and rejection. Evidence from earlier research reports the same problem faced by people who were placed in quarantine or isolation. Participants in the study explained described experiences of quarantine as a loss of intimacy with people. Restricted movements resulted in physical and psychological isolation.

Stigma was another psychosocial consequence experienced by healthcare workers after being quarantined because of exposure to severe acute respiratory syndrome (SARS). Participants were afraid that their family members would be ostracized because of them. These experiences of social isolation continued even after the outbreak had been contained and their quarantine period was over. Neighbours tend to avoid interactions with them due to the fear of getting infected (Robertson et al, 2004). They were not invited to attend social occasions and faced critical comments (Wilken et al, 2017) Being placed in quarantine and isolation affected their occupation also. Participants in other studies reported losing a job because of the fear of contagion (Desclaux et al, 2017)

Last Rites: Participants in the study communicated their sadness about not being able to see their close ones after their demise. To contain the spread of the virus, special

precautions were taken during cremation. The dead body was not allowed to see and sometimes religious sentiments were hurt.

Pellecchia et al (2015) conducted a study to examine Liberian community perspectives on state-imposed preventive measures of Ebola implemented in 2014 and 2015. One of the themes developed was ‘funerary and burial practices before and during the epidemic’. Although participants agreed upon the cremation of dead bodies as a way to contain the virus, the government was criticized for flaws in the implementation process. Social hierarchies influenced the implementation process, where those who could bribe the burial teams obtained a burial in a private cemetery or the use of funeral homes. Participants from low socioeconomic status had to send their dead for cremation.

5. **Trust**

Participants' experience has raised questions regarding the authenticity of media, the health system, and including the researcher. Many rumors related to the event were spread via social media and this contributed to the stigmatization. Lack of knowledge, awareness, and misinformation has affected the implementation of effective strategies to reduce the rate of transmission of a disease outbreak.

In our study, the trust issues towards the health system originated from a perceived lack of care from medical authorities, misinformation, and perceived injustice in the treatment received. Participants also complained of not obtaining timely interventions. Lack of trust in the media was due to rumors spread through social media and participants had to face the negative consequence of it.

Rapid access to information and easy availability makes social media people’s favourite platform for searching for information (Sahni & Sharma, 2020). Dhanani & Franz

(2020) investigated media consumption during COVID 19 pandemic. 1141 participants were surveyed. They found that people who had greater understanding and awareness of the situation were less likely to adopt misinformation. The representation of information by social media had taken various approaches. Some focused on evidence-based information, others on the other side try to give sensationalizing news focusing on controversial theories (Chiu, 2020). Based on political and personal motives, people depended on various sources of information and different types of institutions. Mitchell et al. (2020) reported that media coverage of COVID 19 exaggerated the risks. Despite the accurate information provided, misinformation had a long-term impact on health-seeking behaviours, such as hesitance to receive a vaccine (Soveri et al, 2020).

Fear towards the interviewer had mainly due to the participants were aware of the potential harm involved in the study; recalling these events may result in emotional difficulties for some time. Another reason was that anger towards the health system was directed towards the interviewer who was also from the same field.

6. **The Economics**

Under the theme ‘economics’, three subordinate themes were included. They were a lack of resources, impact on the job, and compensation. This theme represents how each participant financially struggled during the disease outbreak. The quarantine procedure and disease outbreak have affected the economy negatively. People during quarantine faced financial difficulties, especially when their relatives were admitted due to Nipah. It had an impact on business and jobs also. Materials from Kozhikode, district in Kerala was banned outside due to a disease outbreak. People believed that even providing compensation was based upon social hierarchy existed. Participants complained of not receiving

compensation from the government and compared them with a frontline healthcare professional who had lost their lives during the Nipah outbreak. Her family had received various help from different sectors.

Financial Difficulties and Impact on Job: In the present study, participants reported how being placed in quarantine had an impact on income. Two of the participant were especially concerned about the treatment expenses for their loved ones who had contracted Nipah. Though the Government had offered financial aid at a later stage. During the outbreak, the majority of the shops were closed and especially exporting from Kozhikode, a district in Kerala where the disease had emerged. Apart from this, participants had faced discrimination from other staff in their workplace.

Participants from other studies shared similar experiences. Being placed in quarantine or isolation with no advanced planning has resulted in socioeconomic distress among people. This was identified as one of the triggering factors for psychological symptoms experienced by participants in the study (Mihashi et al, 2009). Many countries have implemented measures as part of outbreak management and disease control. They had announced a national lockdown and the borders and airports were closed. People were not allowed to travel on a national and international basis. This also led to the closure of various businesses and people were forced to work from home (Shaban et al, 2020).

Compensation: Though the Government undertook the cost of treatment for people who had contracted with Nipah, only one family had received compensation. A frontline worker of Nipah had lost their life and her husband was offered the job. Participants in the study who had lost their close one expressed complaints about not receiving compensation like the family of healthcare worker did.

Ioannou et al (2017) conducted a study on people who have had orthopaedic trauma after 12-14 months of their injury. Participants experienced sufferings and feelings of perceived injustice. The feelings of perceived injustice were determined by Attribution of fault to another, consulting a lawyer, health-related quality of life, disability, and the severity of pain-related cognitions. The study conducted by Hulst and Akkermans (2011), examined the perceptions of monetary awards for following the demise of their close ones as a result of tort or violent crime. They found that participants had a positive response to the monetary award since it was a way of recognizing the secondary victim's psychological concerns and loss. Participants had a difference of opinion on standardizing the amount for the loss. The researcher concludes that the gesture associated with providing monetary award has more effect on the secondary victims.

7. **Going by the Gut feeling**

This superordinate theme represents how people believe in their intuitions and act on them. The subordinate themes are leaving Job, mind-body interaction & irrational waiting, and holding on to fantasy. The event had a persisting impact on people who were placed under quarantine.

Due to the persisting trauma, one participant had left the job in the present study. As a religious authority, he was involved in washing the bodies of the demised. He was the one who had washed the first reported case of Nipah unknowingly. Later he stopped engaging in such religious rituals. Although awareness regarding burial and cremation was provided by medical authorities, he preferred not to engage in it. Similar trends can be seen in earlier research where the attitude towards the job had changed. A study conducted by Desclaux et al (2017) found that family members of the health care workers perceived their

job as risky. This created conflicts between family members. They also experienced rejection from colleagues due to the fear of contagion.

Psychosomatic medicine has focused on the effects of bereavement on health (O'Connor, 2019). It has explored medical and psychological responses of bereavement including mechanisms in autonomic (particularly cardiovascular), endocrine, and immune systems. Earlier studies have verified that bereavement is associated with medical consequences. The mortality rate is found to be higher among bereaved people in the first six months after the death of loved ones and it is known as the 'broken heart phenomenon'. The relative risk of morbidity and mortality is greater among widowed men and women compared to a married couple (Moon et al, 2014). Another study noted that bereavement poses more risk on life than cardiovascular factors, such as smoking (Holt-Lunstad et al, 2010). Stressors influence our health. When the stress is prolonged it can negatively impact our health. The impact of stressors health is determined by the intensity of stressors, duration, and biological vulnerability, availability of resources & coping patterns of the individual (Schneiderman et al, 2005)

SUMMARY AND CONCLUSION

Pandemics had an enormous toll on humankind. It affects physical health as well as the psychological wellbeing of people. Kerala had witnessed the Nipah disease outbreak, a rare and highly pathogenic infection in a district Calicut during May 2018. Out of 18 people infected with the Nipah virus, 16 lost their life. Though early detection of outbreaks and implementation of infection control practices such as quarantine and isolation helped to contain the virus, the outbreak had a negative impact on the wellbeing of people.

This study aimed to analyze the experiences of people isolated during the Nipah disease outbreak in 2018 in Kerala. The sample consisted of 6 adults (4 Males and 2 Females) who were hospitalized in Govt. Medical College, Calicut and remained in isolation ward during the disease outbreak. The participant had contact with people who were infected with Nipah. Since the participant had fever symptoms, they were placed in an isolation ward as per the instructions from the medical officials. The duration of the stay in the isolation ward was at least one day and followed by home isolation. Five face-to-face in-depth interviews and one interview over the phone was conducted. Transcriptions were analysed using the IPA method as outlined by Smith, Flowers & Larkin (2009).

Seven master themes were emerged out of the study including ‘Anger’, ‘Oh my God’, ‘Being other-centered’, ‘Accessibility issues’, ‘Trust’, ‘The economics’ & ‘Going by the gut feelings’. The participants were found to carry persisting trauma about the incident. The disease outbreak and measures taken to prevent it resulted in anxiety and a widespread panic set in. The participants expressed anger towards the health system, deceased, society & God. Religion beliefs were found to be a significant factor in coping with stress. People relied on religious beliefs to find an explanation for their sufferings and

engaged in religious rituals more frequently. Participants reported a significant change in their belief system. Like being infected with the disease, participants were also worried about transmitting the illness. Being connected with others through social media alleviated their stress. Generalizing and discounting their pain and thinking only about others helped them to deviate attention from their worries. Participants were deprived of adequate information about the situations, distressed by falsifying information, lack of basic resources. Not being able to meet their close ones for the last time was a painful memory for the participants. The spread of rumors, inadequate care received made the participants to question the credibility of the health system & social media. Being placed in quarantine or isolation with no advanced planning has resulted in socioeconomic distress among people. Fear of contagion led the colleagues to avoid participants and changed the job. Compensation was perceived as a way of recognizing and valuing their loss. In some of the participants, the experience had a long term negative impact on health. To conclude, the study found that disease outbreaks and the following measures had a negative impact on the mental health of people.

IMPLICATIONS OF THE STUDY

- Finding from the study gives an overview of how participants made sense out of their quarantine experiences. Finding from this study emphasize the importance of psychosocial support needed to be provided for people during a disease outbreak, especially addressing the people who are placed in quarantine and isolation. Findings can be used for developing a psychosocial manual during a disease outbreak.

- In the study, the majority of the participants had persisting trauma related to the event, especially those who had lost their close ones due to Nipah. And the stress had a negative impact on their health also. Loss of family members during the quarantine period exacerbates the stress in participants. Special attention and care should be given to such participants. Availing support from mental health professionals during and after the event would be beneficial in dealing with stressful events and help them in better coping. Continuous follow up of their psychological and social well-being is essential.
- It is important to make sure the general population and people who are placed in quarantine or isolation receive authentic information related to the event. Many of the fears related to the disease outbreak were borne out of lack of knowledge, misinformation, and rumors. Sensationalizing news may increase anxiety among people. Paper and visual media should be sensitive when they give news.
- Participants who are placed under quarantine or isolation needs to be educated about the situation. Providing a rationale for quarantine enhances better compliance. It is necessary to communicate the duration of quarantine, rationale, explaining the medical reports in easy comprehensive language, and providing information on a timely basis.
- Necessary actions from the government should be taken to increase public awareness and thus reduce the stigma and discrimination experienced towards the people who were placed under isolation or quarantine.
- Basic needs of the patients should be met such as access to food, cloth, etc. Providing financial aid would help to deal with the uncertainties related to financial

difficulties. Providing facilities for recreational activities would help ease the stress in participants.

RECOMMENDATIONS FOR FUTURE RESEARCH

- This study had aimed to understand how people made sense of their quarantine experiences. Participants had varying periods of the quarantine period and some had lost their close ones. Grief is associated with quarantine experience. For further research, a unity regarding this can be checked.
- It will be beneficial for the general population to make a psychosocial manual based on the insights from the study.
- The researcher has used free association for analysing the data. Other interpretative strategies can be used.
- Using a mixed methodology would help to quantify the experiences as well.
- Different research tools could be developed to measure themes derived from the data.

LIMITATIONS OF THE STUDY

- The study had conducted two years of the event that had happened. The long duration between the event and data collection might have affected the memories of the participants.
- Since the data collection setting was based on the participant's preference, the researcher was unable to control the interferences from the setting such as noise, presence of other members.

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APPENDICE 1

INFORMED CONSENT

Participant information sheet

You are being requested to participate in a research study "lived experiences of people isolated during Nipah disease outbreak, 2018; an interpretative phenomenological analysis" conducted by Deena K Varghese from the Department of Psychology at IMHANS, Calicut. The results of this study will be used to fulfill the requirements of a research project/dissertation for the degree of M.Phil Clinical Psychology. This form contains information about this research and about your rights and responsibilities as a client/participant. Please sign this form in the space provided at the end once you have understood all the information and are ready to give your consent to participate in this research. Do feel free to share or inquire about any query or doubt that arises, with the researcher.

Purpose of the Study: This study aims to understand the experience of people who were isolated during Nipah outbreak of 2018.

Procedures: If you decide to participate in this study, you will be expected to participate in an interview with the researcher and share your experiences of being isolated in the hospital ward during the first Nipah outbreak, 2018. The interview would audio recorded for the purpose of the research and it would be a one-time meeting between researcher and participant. The duration of the interview would be between 10 minutes to 3 hours and open ended questions would be asked. You can refuse any question or withdraw at any time.

Potential risks and discomforts: The interview will cover topics which might cause

psychological distress to you and remind you of those days in the isolation ward of Govt. Medical College, Calicut. If you are willing, referral to a mental health professional will be made if you are found to have clinically significant difficulties. You can refuse any question or withdraw from the study at any time. You would not have to bear any of the financial expenses for the purpose of the research and the researcher would provide all materials necessary for the study. You will not be given any financial incentive for participating in the study.

Confidentiality: All the information given by you would be kept confidential and would not be misused or reused for any other purpose without the prior consent of the participants.

Participation and withdrawal: You may withdraw your consent at any time and discontinue participation without any penalty. If you have any questions or concerns about the research, please feel free to contact.

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പഠനത്തിൽ പങ്കാളിയാവുന്നവരുടെ അറിവിലേക്കായുള്ള പഠനത്തിന്റെ സംക്ഷിപ്ത രൂപം

ഈ ഫോമിൽ ഗവേഷണത്തെ കുറിച്ചും ക്ലയന്റ്/ പങ്കാളി എന്ന നിലയിൽ നിങ്ങളുടെ അവകാശങ്ങളെ കുറിച്ചുമുള്ള വിവരങ്ങൾ അടങ്ങിയിരിക്കുന്നു. എല്ലാ വിവരങ്ങളും പൂർണ്ണമായി മനസ്സിലാക്കുകയും ഈ ഗവേഷണത്തിൽ പങ്കെടുക്കാൻ നിങ്ങളുടെ സമ്മതം നൽകാൻ തയ്യാറാവുകയും ചെയ്തു കഴിഞ്ഞാൽ ദയവായി താഴെ നൽകിയിരിക്കുന്ന സ്ഥലത്ത് ഒപ്പിടുകയും ഗവേഷണ സംബന്ധമായി ഏത് സംശയവും ഗവേഷകയുമായി പങ്കിടാവുന്നതുമാണ്.

പഠനോദ്ദേശ്യം: 'Lived experience of people isolated during Nipah disease outbreak, 2018; An interpretative phenomenological analysis' എന്ന പേരിൽ നടത്തുന്ന പഠനത്തിൽ നിപ്പ രോഗമുണ്ടെന്ന് സംശയിച്ചു ഗവൺമെന്റ് മെഡിക്കൽ കോളേജ് കോഴിക്കോട് ഐസോലേഷൻ വാർഡിൽ കിടക്കേണ്ടി വരികയും പിന്നീട് രോഗമില്ലെന്ന് നിർണ്ണയിക്കപ്പെടുകയും ചെയ്തവരുടെ അനുഭവങ്ങളെ വിശകലനം ചെയ്യാനുള്ളതാകുന്നു.

പഠനരീതി: ഐസാേലഷൻ വാർഡിൽ കിടന്ന അനുഭവങ്ങളെ കുറിച്ച് പങ്കുവെയ്ക്കുന്ന അഭിമുഖം 10 മിനിറ്റ് മുതൽ 3 മണിക്കൂർ വരെ എടുക്കാം. പഠനത്തിന്റെ ഭാഗമായി ഇവിടെ വിവരങ്ങൾ റെക്കോർഡ് ചെയ്യപ്പെടുന്നതാണ് ഗവേഷകയും നിങ്ങളും പഠനാനുബന്ധമായി ഒരു തവണ മാത്രമേ കാണുകയുള്ളൂ.

നിങ്ങൾക്ക് ഏതു ചോദ്യവും നിരസിക്കുവാനും അഭിമുഖത്തിൽ നിന്നും പിന്മാറുവാനുമുള്ള സ്വാതന്ത്ര്യമുണ്ട്.

പഠനവുമായി ബന്ധപ്പെട്ടുണ്ടായേക്കാവുന്ന ബുദ്ധിമുട്ടുകൾ: ഈ അഭിമുഖം ഒരു ദുരന്തത്തെ കുറിച്ചുള്ള ഓർമ്മപ്പെടുത്തലായതിനാൽ മാനസിക പിരിമുറുക്കം ഉണ്ടായേക്കാം നിങ്ങൾക്ക് ഗുരുതരമായ മാനസിക ബുദ്ധിമുട്ടുണ്ടെങ്കിൽ നിങ്ങളുടെ അനുവാദത്തോടെ ഒരു മാനസികാേരോഗ്യവിദഗ്ദ്ധന്റെ അടുത്തേക്ക് അയക്കാവുന്നതാണ്. ഗവേഷണാനുബന്ധമായി യാതൊരു വിധത്തിലുള്ള

സാമ്പത്തിക ചെലവും സഹിക്കേണ്ടി വരില്ല. ഈ പഠനത്തിന്റെ ഭാഗമാകുന്നതിന് നിങ്ങൾക്ക് ഗവേഷകയിൽ നിന്നും സാമ്പത്തിക സഹായം ലഭിക്കുന്നതല്ല.

സ്വീകാര്യത: അനുഭവത്തിൽ പങ്കുവെയ്ക്കുന്ന വിവരങ്ങൾ രഹസ്യമായും ഗവേഷണാനുബന്ധമായും മാത്രമേ ഉപയോഗിക്കപ്പെടുകയുള്ളൂ എന്നും ഉറപ്പു നൽകുന്നു.

ഗവേഷണ വിദ്യാർത്ഥി : ഡീന കെ വർഗ്ഗീസ്

ഗൈഡ് ഡോ. അബ്ദുൾ സലാം കെ പി

ഹെഡ് ഡിപ്പാർട്ട്മെന്റ് ഓഫ് ക്ലിനിക്കൽ സൈക്കോളജി, ,ഇംഹാൻസ്

കോ-ഗൈഡ് ഡോക്ടർ ചാന്ദ്നി

ഹെഡ് ഡിപ്പാർട്ട്മെന്റ് ഓഫ് എമർജെൻസി മെഡിസിൻ

ഗവൺമെന്റ് മെഡിക്കൽ കോളജ്, കോഴിക്കോട്

കോ-ഗൈഡ് ഡോ. ജി രാഗേഷ് ലെക്ചറർ

ഡിപ്പാർട്ട്മെന്റ് ഓഫ് സൈക്ക്യാട്രിക് സോഷ്യൽ വർക്ക്, ഇംഹാൻസ്

സമ്മതപത്രം

"ഗവേഷണ വിദ്യാർത്ഥിയായ ഡീനാ കെ വർഗ്ഗീസ് നടത്തുന്ന പഠനത്തെ കുറിച്ച് ഞാൻ ..... പൂർണ്ണമായി മനസ്സിലാക്കുന്നു മേൽപ്പറഞ്ഞ പഠനത്തിൽ പങ്കെടുക്കാൻ ഞാൻ സ്വമേധയാ തയ്യാറാണെന്ന് ഞാൻ ഇതിനാൽ അറിയിക്കുന്നു."

പേര്.

ഒപ്പ്