

ORIGINAL ARTICLE

Experiences of nurses amidst giving care to COVID-19 patients in clinical settings in Iraqi Kurdistan: A qualitative descriptive study

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Abstract

Aim and objective: We explored the experiences of nurses who cared for coronavirus disease 2019 patients in Iraqi Kurdistan.

Background: Nurses play a major role in response to pandemics and epidemics in delivering patient care. The experiences of nurses who provided care have significant short and long-term consequences for individuals, communities, and the nursing profession.

Methods: Descriptive qualitative research approach was adopted in this study. We interviewed 12 nurses (22–50 years) who cared for the coronavirus disease 2019 patients in one of the clinical units of two coronavirus disease 2019 hospitals in Iraqi Kurdistan in 2020. Interviews were conducted via phone calls and were analysed using the thematic analysis method. The Consolidated criteria for reporting qualitative research checklist was applied when constructing this paper.

Results: The nurses had to care for a number of situations during the outbreak of coronavirus disease 2019 in Kurdistan. As people in the public did not believe that there was such a virus, nurses often had to deal with this lack of knowledge and aggression from some patients and their family members. Most nurses changed their preventive behaviours since the coronavirus disease 2019 outbreak at hospital or in public. This was mainly to protect not only themselves but their patients, colleagues, family members and friends. They were cautious about the use of a mask at the hospital and in public. Most nurses experienced fear, stress, anxiety and isolation during this period.

Conclusions: The patients had some concerns about their health and staying at hospitals, and some of them had aggressive behaviours towards nurses at corona hospitals. The public, close friends and relatives of the nurses had a fear of getting the infection by the virus through the nurses. However, the nurses attempted to protect themselves, colleagues and family members, and provide the best care to coronavirus disease 2019 patients. The nurses had a high obligation towards care giving at hospitals.

Relevance to clinical practice: The negative experiences of the nurses regarding the care of coronavirus disease 2019 patients must be considered in clinical settings. Sensitive policy programs must be established to protect nurses from the ostracization

and stigmatization of the coronavirus disease 2019 pandemic and to allow them to be able to achieve their professional practices safely.

KEYWORDS

behaviours, COVID-19, discrimination, nurses, pandemic, qualitative research

1 | INTRODUCTION

The World Health Organization (WHO) reported the outbreak of coronavirus disease 2019 (COVID-19) in 2020. By 27 August 2020, the worldwide total number of confirmed cases and deaths were 24,021,218 and 821,462. The total number of confirmed cases and death in Iraq were 140,603 and 5,161, respectively (World Health Organization, 2020e). The outbreak has been spread to many countries, including Iraqi Kurdistan (Abdulah et al., 2020).

Pandemics have large implications on healthcare systems, especially in the workforce (Abdulah & Mohammed, 2020; Abdulah & Musa, 2020). The respiratory infectious pandemics and epidemics are virulent owing to spread through droplets and close interpersonal contacts (Koh et al., 2012). Nurses, as the largest group of health practitioners, are the frontlines of the healthcare system responses to epidemics and pandemics. Nurses deliver healthcare directly to patients in close physical proximity. They are often exposed to these viruses and are at risk of contracting the disease (Hope et al., 2011). Health-care workers (HCWs) are more likely to be exposed to a viral overload regardless of the personal protective equipment (PPE) and any other protective systems and equipment. Given the potential impacts of COVID-19 on nurses providing front-line care, the purpose of this qualitative study was to explore the experiences of nurses who work in two COVID-19 hospitals in Iraqi Kurdistan.

Health-care workers are at the greatest risk of infection in the epidemic chain. The rates of infection among HCWs were about 20% in Lombardy, 26% in Spain and 19.6% in the Netherlands (The Lancet, 2020). Chiang et al. (2007) reported that during the SARS outbreak in Taiwan, 4 of the 70 deaths were nurses. The early reports of the COVID-19 indicate that HCWs are at a high risk of infection (Huang et al., 2020).

Nurses have concerns about their working conditions despite a professional obligation to care for COVID-19 patients. These concerns could affect the psychological wellbeing and clinical performance. Some of these concerns are the risk of being infected, disease transmission to family members, stigma about the susceptibility of their job, and limitations on personal freedom (Chiang et al., 2007). Nurses can also experience stress related to family separation, sleep deprivation and heavy workloads due to health system demand and medical staff shortage (Huang et al., 2020). In addition, the patients, public and relatives' attitudes, and behaviours towards nurses who care for the COVID-19 patients could have a further effect on their psychological wellbeing.

What does this paper contribute to the wider global clinical community?

- In general, this paper reveals the experiences of nurses in dealing with the confirmed cases of the COVID-19 in clinical settings in Iraqi Kurdistan.
- Specifically, the paper shows how people in Iraqi Kurdistan understand the pandemic and the implications on the health and well-being of nurses.
- Additionally, it has implications for health managers to be sensitive to the psychological well-being of nurses who care for COVID-19 patients in Iraqi Kurdistan and elsewhere. Sensitive policy programs must be established to protect nurses from the ostracization and stigmatization of the COVID-19 pandemic and to allow them to be able to achieve their professional practices safely.

There have been few research reports regarding the nurses' experiences of giving care of the COVID-19 patients during the pandemic. LoGiudice and Bartos (2021) reported that the nurses had concerns about the changes in hospital's protocols, direction, and endless questions. The negatives emotions, frustration, anxiety, and stress of nurses originate from unknown, and from constantly changing protocols related to patient care. In addition, the concerns are stemmed from the continual changes surrounding appropriate use and allocation of PPE. The nurses had concerns about inadequate information and data on how to provide optimal care for the COVID-19 patients. LoGiudice and Bartos (2021) added that the nurses were concerned that the patients are depressed and fearful. Some patients asked the nurses if they were going to die. The nurses expressed heavy emotional feelings towards patients dying without their family members present in hospital. Not surprisingly, also the nurses had strong concerns about whether they would contact COVID-19 due to being in a room without sufficient protective equipment. The nurses' concerns were fear of getting sick, potentially dying, and leaving their children without a parent (LoGiudice & Bartos, 2021). In Iraqi Kurdistan, the medical staff, including nurses and doctors and other health professionals, were trained at the early stage of the pandemic. The training course was a 2-hr session on how to protect themselves against the disease transmission. The training has not been documented yet.

Fernández-Castillo et al. (2021) conducted research on the nurses' experiences in intensive care in Spain. They found that nursing activities were limited by the patients' isolation. The following factors had impairment effects on performance of care; isolating environment, minimizing the contact with the patients and lack of closeness. Other has revealed the positive feelings of nurses as part of the new experience, and feeling helpful and proud of being in the hospital (Casafont et al., 2020).

The European Network of Equality Bodies claimed that daily lives of nurses, doctors and HCWs are increasingly being affected by discrimination attitude and harassment. For example, a nurse called Unia reported cases in Belgium of HCWs who are asked not to park their car in the neighbourhood. The nurses were asked to wear gloves or clean the building when entering the premises. The public asked other caregivers to move as quickly as possible or even were evicted from their homes. Unia has reported several cases of caregivers being stigmatized or even harassed by their neighbours and roommates. Also, in France, the Prime Minister, Edouard Philippe, denounced discriminatory practices towards HCWs. A nurse in Bretagne claimed to have been evicted from her house because of caring job. Also, in Bayonne, a nurse arrived to her home after caring COVID-19 patients. She found a letter on her door asking her to park her car away from the neighbourhood and not to touch anything when she entered. The letter asked her to move as soon as possible so as to not put other tenants in danger (EQUINET, 2020).

A recent study conducted with nurses in several hospitals in Iran reported that the majority of the nurses are in contact with suspected/confirmed cases of COVID-19 (93.4%) and have a high level of anxiety and depression. Importantly 42.0% of their relatives have been infected. The related factors to anxiety were being female, working in COVID-19 hospital, being suspected of COVID-19 infection, and inadequate PPE (Pouralizadeh et al., 2020). The level of anxiety in nurses is important and must be managed, given the risk of mental health issues and even suicide (Fazel et al., 2019). Montemurro (2020) reported that two infected Italian nurses committed suicide possibly owing to fear of spreading infection of COVID-19 to patients. The WHO has reported that the COVID-19 pandemic has likely both short and long-term impacts on mental health (World Health Organization, 2020c). A multi-centre, cross-sectional study of frontlines nurses from China reported that 9.4% ($n = 442$) had depressive symptoms, 8.1% had anxiety ($n = 379$), and 42.7% had somatic symptoms ($n = 2,005$). Importantly, 6.5% of the nurses ($n = 306$) had suicidal ideations (Hong et al., 2020).

There is an urgent need to explore the experiences of nurses who care for COVID-19 patients in other parts of the world. These experiences could be useful for establishing the appropriate strategies in the health system. The nurses' experiences could determine particular stressors and coping strategies to inform support services. Also, understanding the experiences of nurses is vital to ensure that these essential workers are well allocated to support the workforce and facilitate high-quality healthcare during the current and any future pandemics. Knowledge of the experiences, perceptions, and

fears of future health-care professionals including nurses will form the core of a rapid and better future response.

In this paper, we discussed the experiences of nurses who work in two COVID-19 hospitals in Iraqi Kurdistan in 2020. Specifically, we explored the behaviours of patients and their family members, the public, relatives, and friends towards the nurses and the impact of COVID-19 on nurses' psychological well-being. The primary research question was: What are the experiences of nurses who work in two COVID-19 hospitals in Iraqi Kurdistan? Within this main research question, we explored the nurses' perspectives of the following three issues:

1. What are the attitudes and behaviours of the public, patients and family members towards the nurses?
2. Was there any change of behaviour of the nurses when working at COVID-19 hospitals?
3. What is the impact of caring for COVID-19 patients at hospitals on the psychological well-being of the nurses?

1.1 | Policies of Iraqi Kurdistan government on the COVID-19 outbreak

The Kurdistan Regional Government (KRG) has reduced the official working hours of the governmental agents considerably since the onset of the COVID-19 outbreak in this region. As such, the suspected cases of the COVID-19 are referred to special clinical settings for medical diagnosis and treatment. The suspected cases are the individuals who attended a medical setting and were found to have the symptoms of the COVID-19. The cases are admitted to the special hospitals following confirmation of the disease. In addition, the individuals who have close contact with the confirmed cases of the COVID-19 are referred to the special settings for screening. There were two special COVID-19 hospitals in Duhok governorate during data collection. Firstly, the previous Burn and Plastic Surgery Hospital was converted into the COVID-19 hospital. Later on, a special hospital was constructed to treat severe and critical patients.

2 | METHODS

2.1 | Study design

A qualitative descriptive research study was conducted to explore the perceptions and experiences of nurses working at COVID-19 hospitals in Iraqi Kurdistan. Qualitative research is essential when we know little about the issues that we wish to examine (Liamputtong, 2020), such as the perceptions and experiences of nurses who work at hospitals during this COVID-19 pandemic in Iraqi Kurdistan. We used a qualitative descriptive research approach as this allows us to examine the issues in great depth within a shorter time frame (Sandelowski, 2000) that we were able to do during the pandemic.

The interviews with the nurses were conducted following the ethical approval of the study.

2.2 | Participants and settings

Nurses who cared for confirmed cases of the COVID-19 during the outbreak were invited to participate in an interview. The invited nurses worked in different clinical units in one of two COVID-19 hospitals in Duhok city, Iraqi Kurdistan, in 2020. In addition, they were working in different shifts, and had different experiences in clinical practice. The clinical departments were ICU and medical unit. The persons who complete 2 years studying at university receive the institute certificate.

2.3 | Inclusion and exclusion criteria

The nurses were invited into this study irrespective of age and clinical experience. We tried to invite nurses from different educational backgrounds. The nurses who worked for at least 1 month and more in one of two COVID-19 hospitals were eligible to participate in this study. We felt the nurses who had less than 1 month working in the COVID-19 hospital had no time to have sufficient exposure to patients, public, and their relatives. The interviewer contacted the head nurses of these hospitals for the explanation of these criteria. All participants were recruited with the assistance of the charge nurse in two COVID-19 hospitals in Duhok. We asked the head nurses to assist us to recruit nurses with different educational levels who worked for at least 1 month at the COVID-19 hospital.

2.4 | Procedures

The interviews were performed by the second author in August 2020 through telephone interviews. The interviewer invited the nurses to determine a suitable time for an interview. The consent was obtained from all nurses before conducting the interviews. Their consent was recorded through their voice in the phone call. They also signed an online written consent form for this project. There was no rejection of participation in this study. The objectives of the study were explained to the nurses through phone call. Their responses were recorded on a mobile phone. Due to their work commitments, each interview lasted about 15–20 min only as we felt that a long interview was inappropriate during this crisis time.

We used a semi-structured interviewing method for data collection. We developed several open-ended questions before conducting the interviews. The first author established the themes of experiences based on previous investigations as the focus of the questions asked of each participant (Chiang et al., 2007; Huang, Lei, et al., 2020). We reviewed and arranged these questions into five

main opened questions/themes. Please tell us about the behaviours of patients and family members towards you as a nurse.

1. What are the public action towards nurses at the community level?
2. What are the behaviours of your friends and relatives towards you?
3. Have your own behaviours changed since the COVID-19 at home and work? Why/Why not?
4. Please tell us about your psychological wellbeing for caring for COVID-19 patients at hospitals.

The same pre-set questions were asked of each participant. The interviewer asked the participants to respond to the questions one by one. Their responses were followed up using probes and prompt for clarification. The interviewer provided ample time for the participants to respond.

2.5 | Data analysis

The interview was performed in the Kurdish language. Initially, the first author reviewed, arranged and translated the interviews to the English language. The data were analysed using the thematic analysis method (Braun & Clarke, 2006; Liamputtong, 2020). Thematic analysis is a common method for analysing qualitative data (Liamputtong, 2020). The transcribed data was read and re-read to make sense of the data generated to determine appropriate themes that arose from the process of coding. Initial coding was commenced to identify codes that were present amongst the transcripts. Coding themes were developed to form a theoretical understanding of the issues. Axial coding was then attended for further evaluation of the codes in establishing the links and connections between the data to form themes. This resulted in final themes that are used to explain the experiences of the participants in the finding section. See Table 1 for examples of our data analysis using the thematic analysis method.

In term of rigour, the triangulation of researchers was adopted to ensure clarity and accuracy. Researcher triangulation or investigator triangulation refers to when more than one research collect or analyse the same research situation (Archibald, 2016; Liamputtong, 2020). Typically, this occurs when researchers work as a team examining the same phenomenon. In this study, three research teams worked together to ensure the trustworthiness of the data and analysis. The second author collected the data using the Kurdish language after being trained by the first author about how to conduct an interview. The data were reviewed by the first author for accuracy before data analysis. The analysed data reviewed by the third author. Once the verbatim quotations used in the paper were constructed and translated into English, they were also checked by the third author for conceptual understanding. The authors followed the Consolidated criteria for reporting qualitative research (COREQ) for drafting the paper (Equator Network, 2015) as see in Supporting Information.

TABLE 1 An example of participants' responses, initial coding, probes and themes

Questions	Probes	Participant responses	Codes	Themes
Please explain what were the behaviours of the patients towards your health services at hospital?	How were patients reacting to you?	The patient's behaviours were normal. The patients were very important persons (VIP) at the beginning	Patients' Reactions	Theme 1: Dealing with behaviours of patients and family members
Please explain how were the behaviours of the patients' families towards your health services at hospital?	How did the families of patients react to you?	At the beginning, the close friends and persons had a fear to us because of getting infection. They were so scared to have a close contact with us due to fear of getting infection. Also, I tried to be far from them accordingly. I understood of their faces	Patient Families' Reactions	
How did you protect against the corona virus infection at hospital, family and in public?	What did you do?	I tried to protect more myself. I washed my hands more than the regular time. For example, I always used mask when I arrived home. I use the mask continuously since the onset of the corona. I do not use my personal cloth in the hospital. I did because we have too much contact with the people. Cleaning the surfaces regularly and continuously at the hospital. I had no fear at hospital. Only hand washing was more important for me. I tried to be far from the colleagues and nurses at hospital. I had far contact with the colleagues When I saw a gathering of people I did not accept and asked the police to separate them from each other I asked the people to use the masks at the hospital. We tried to be far from each other for one meter. I always use the mask except in the dining room, rest room, and sleeping room We were not close to each other at dining room, rest room, and sleeping room I tried to follow the guidelines always with the people. For example, my uncle died during the corona outbreak, I insisted to not hold the condolence ceremony Mostly I tried to teach the people to understand the guidelines My wife had a surgery (cesarean section) during the corona virus outbreak. I sent my wife to my father's home for 15 days to not be infected by the infection. I disinfected the materials from the markets	Personal Protection	Theme 2: Nurses' behaviours and practices in hospitals
How did the public think and behave about your working at the COVID-19 hospital?	What did they do?	I had so less contact and relation with the people. I went only one time to the market. Mostly, I requested the takeaway	Public Reactions	Themes 4: Behaviours of friends/relatives and public
Did you face the unethical behaviours of public due to your working at the COVID-19 hospital?			Public Reactions	

(Continues)

TABLE 1 (Continued)

Questions	Probes	Participant responses	Codes	Themes
Please explain your personal behaviours, your behaviours towards your spouse and children have been changed since working at the COVID-19 hospital?		I had no contact with my siblings except for calling. My behaviours were changed with my family. I considered a special room for me to change my cloth to not infect my wife. I did not mix my cloth with my family members. My wife put the disinfecting materials at the door to clean my cloth. I did a bath and changed my personal cloth and entered the hall or sharing room. I cleaned the surfaces continuously at home; including elevator	Family Reactions	Theme 3: Protection of family members
Please explain how the behaviours of your spouse and other family members were changed to you since your working at the COVID-19 hospital?	What were the reactions of your spouse			
How did working at the corona hospital affect your health; in terms of stress, anxiety, depression and other mental health?	Please tell me more about your mental health	I had stress. For example, when I finished working at corona hospital, I did a test for myself. But, I had a normal life, no screaming, dreaming, etc. I had contact with my wife, but I tried to be far from her for one meter. Because, If I infected by the virus, it is impossible to not infect others I had no fear of the infection during the patient care	Psychological Reactions	Theme 5: Psychological Burdens: Fear, stress and anxiety

2.6 | Ethics

The authors obtained the approval of this protocol from the College of Nursing, University of Duhok registered number 9 on 15 April 2020. The written online signed consent form was taken from all participants before the interview. The confidentiality of personal information of the nurses was protected in this study. We used a number (such as Participant 1) to refer to the participants in the result section to retain confidentiality.

3 | RESULTS

The mean experience of nurses in nursing was 7.08 years (1–27 years). The mean age of the nurses was 31.25 (SD: 7.40 years) ranged 22–50 years. We included eight male and four female nurses in this study, and were graduated from high-school (n = 6) and a nursing institute (n = 6) either enrolled or registered nurses. The nurses worked 6 hr shifts per day for 4 days in a week at a COVID-19 hospital. Only the nurse manager worked 7–8 hr daily for 6 days per week. Four nurses worked in other public hospitals and one nurse in a private hospital other than the COVID-19 hospitals. Other public hospital and the private hospital were not the COVID-19 hospitals. The nurse who worked in a private hospital did not care and contact the COVID-19 patients as well. One of the nurses was infected with the COVID-19 through his contact with his father (see Table 2). Originally, we interviewed nine males and four females. However, one of the nurses' responses were incomplete, therefore we excluded him from the study (see Figure 1).

There were five themes that we developed from the qualitative data (see Figure 2). These are discussed below.

3.1 | Theme 1: Dealing with behaviours of patients and family members

Some people in Iraqi Kurdistan did not believe that there was an outbreak of COVID-19 in their region (Abdulah & Saeed, 2021). Due to this, some patients did not believe that they had the virus, and had conflicts with nurses. A few nurses reported that the patients exhibited aggressive behaviours towards them during care provision.

The patients did not believe that there is a corona [virus in this region]. Most of them did not believe that they have a coronavirus. Some of them were so angry. I had to have good behaviour with them and tried to convince them. I could not say some of the patients that you have corona. They would be so angry. (Participant 10)

Some patients exhibited aggressive behaviour towards the nurses due to their perceptions that they did not have the virus.

TABLE 2 General information of nurses cared for confirmed cases of COVID-19

Participants	Age (years)	Gender	Experience in nursing (years)	Education	Working at corona hospital
Participant 1	36	Male	11	A high school in nursing	1 month and 5 days
Participant 2	28	Male	5.5	A high school in nursing	2½ months (infected by COVID-19)
Participant 3	34	Female; single	9	A high school in nursing	5 months and 3 weeks
Participant 4	35	Male	12	A high school in nursing	5 months and 3 weeks 7–8 hr for every day except Friday
Participant 5	50	Female	27	A high school in nursing	1 month I work in renal transplantation as well
Participant 6	30	Male	4	Institute degree in nursing	4 months and 2 weeks I work at Azadi hospital as well
Participant 7	28	Male	4	Institute degree in nursing	1½ months
Participant 8	22	Male; single	10 months (volunteer)	Institute degree in nursing	2½ months
Participant 9	32	Male	5	Institute degree in nursing	5 months and 3 weeks I work in an emergency hospital
Participant 10	28	Female	2 years (volunteer)	Institute degree in nursing	5 months and 3 weeks I work in a private hospital as well
Participant 11	22	Male	1.5 years (volunteer)	Institute degree in nursing	5 months and 3 weeks
Participant 12	30	Female; single	3	A high school in nursing	Since 10/6/2020 till now 5 months and 3 weeks I work in Azadi hospital as well

Some of the patients did not have good behaviours. When I gave care, some of them said that they had no disease. Why they were here? Why they had to take these medicines. I instructed them to not infect other persons and their family members, they needed to take these medications. Accordingly, they were convinced afterward. (Participant 8)

For those who had been admitted to the hospital, they had great concerns about their health and staying at the hospital. They became aggressive due to their perceptions of hospital environment.

Some of the patients had not a good behaviour. They were not happy. They speak harshly, but we do talk well. The hospital is like a prison, so we need to behave well to patients. (Participant 12)

The patients and their family members also exhibited fear about the nurses, the tests and treatments in corona hospitals.

The people and family had fear of us. They tried to be far from us. We told the people to not to have fear because we were trying to protect them and following the guidelines. Also, we asked people to be far

from us to protect each other. Even when we tested the suspected persons, we tried to be far from them. (Participant 5)

However, the nurses attempted to provide the best possible care to their patients. They tried to convince them by giving emotional support and some information about the COVID-19. This made some patients to be more at ease with hospital care.

The patients were good with me. I tried to give my best care to the patients. But, some patients said that when they had received their test, they wanted to get out from the hospital. They were so tired of being at the hospital. (Participant 3)

Some patients would comply with the care and instructive given at hospital.

The patients were good and had no complaints because it was the early stages of the outbreak. The patients accepted our instructions. We gave the mask and other required materials to the patients and suspected patients. The suspected patients who had contact with the patients were referred to quarantine. (Participant 5)

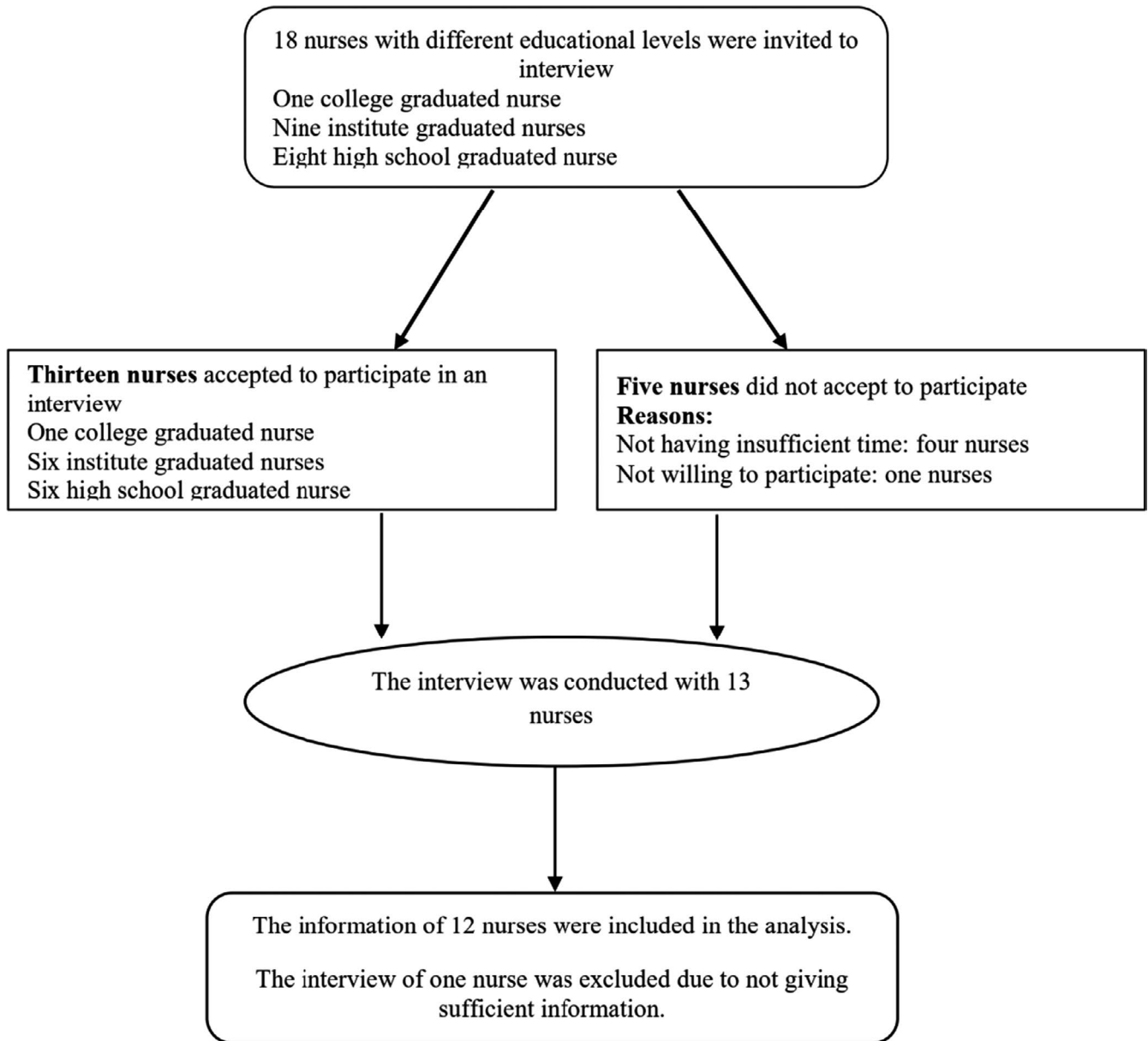


FIGURE 1 Flow chart of participation of nurses

Most nurses tried to give the best care to the patients during this critical period of their lives.

Most of the patients had good behaviours, except for a few of them. They said that you are here to receive more money. But, I treated them as my family members. I behave humanisticly with the patients. (Participant 9)

3.2 | Theme 2: Nurses' behaviours and practices in hospitals

The behaviours of most nurses changed since the COVID-19 outbreak; in terms of increasing handwashing, using a mask, gloves,

cleaning the surfaces regularly at the hospitals and social contacts (if any). Most of them used a mask in markets and other public areas. They asked other nurses, medical staff and visitors to use a mask at the hospitals. The nurses reported that they always used a mask at hospitals and gloves when required. They had a schedule for eating food at the hospital [they do not eat food at the same time]. They only had contact with other nurses only during rest or meal breaks.

I did not use gloves and mask before the COVID-19 outbreak. Now, I use a mask and gloves continuously. Handwashing has been significantly increased since the onset of the outbreak. I wash my hands several times during a working day. (Participant 3)

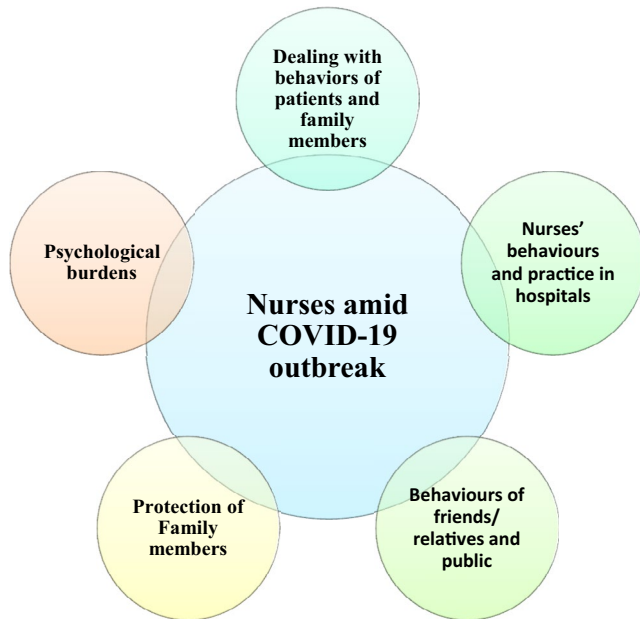


FIGURE 2 Themes of the study [Colour figure can be viewed at wileyonlinelibrary.com]

The nurses used a mask or gloves in the hospital during care. They suggested that they sit together with other nurses at the hospital if required with an acceptable distance to not infect each other. In addition, they tried to be far from the patients except for the required caring times. They also attempted to be far from the crowded areas of the hospitals.

We sit together with other nurses, but we use a mask and gloves. We cannot be far from each other due to a limited place. I try to be far from other persons as much as possible. I use a mask continuously. I use special cloth and I take a bath when I finish my job directly. (Participant 7)

However, some nurses became angry when they saw that other nurses did not pay much attention to hygiene during the outbreak.

Sometimes, I had aggressive behaviours to the nurses for not following the infection measures. I tried to instruct the persons about the guidelines at the hospital, but I did not try to be far from them. I followed the infection measures entirely and I had no fear of the infection. Our colleagues tried to be far from the suspected cases who came to us for COVID-19 test. (Participant 5)

When I saw that people gather at the hospital, I did not accept and I asked the police to separate them from each other. I asked the people to use a mask at the hospital. We tried to be far from each other for

one meter. I always use the mask except in the dining room, restroom, and sleeping room. We were not close to each other in the dining room, restroom, and sleeping room. (Participant 1)

3.3 | Theme 3: Protection of family members

Many nurses attempted to protect their family members by avoiding contact with them during their work in corona hospitals.

I always tried to follow the guidelines. For example, my uncle died during the corona outbreak, I insisted to not hold the condolence ceremony. Mostly I tried to teach the people to understand the guidelines. Also, my wife had surgery (cesarean section) during the coronavirus outbreak. I sent my wife to my parents' home for 15 days to not be infected by the virus, because I was in corona hospital at that time. (Participant 1)

Most nurses changed their behaviours at home. One of the nurses had identified a special room to change his clothes. He disinfected the clothes and shoes before entering the house. He did not allow anyone to enter the special room even for cleaning. The nurse regularly cleaned the door knobs and surfaces at home.

My behaviours were changed with my family. I determined a special room for myself to change my clothes to not infect my wife. I did not mix my clothes with my family members. My wife put the disinfecting materials at the door to clean my clothes before entering the house. I do a bath and change my clothes and enter the hall or sharing room. I clean the surfaces continuously at home, including the elevator. (Participant 1)

Due to the fear of infecting family members, Participant 7 would try to separate themselves from their family members at home.

I have special food and clothes at home. I asked my family members that I disinfect my room by myself before sleeping; including surfaces, doors knock. I do not allow anyone to go to my room. (Participant 7)

Some nurses would ask their relatives not to visit their home during the virus outbreak for fear of being infected by others, as well as them infecting others:

I ask relatives to not come to our home. We do not have close contact with anyone at home. We have forbidden it. (Participant 9)

However, few nurses reported that they did not change their behaviours at home. They were the same as before the outbreak. But, they tried to protect themselves at both home and hospital. They did not try to be far from their family members. A few nurses stayed in a dorm with other nurses during this period. They were far from their family members and tried to not go home to infect their family members. The nurses did not report any conflict with their family members.

I did not change my behaviours towards my husband and my children. I said them that I protect myself at the hospital before and after the outbreak. I was so happy when suspected cases are tested negative for the COVID-19. (Participant 5)

3.4 | Themes 4: Behaviours of friends/relatives and public

Most of the nurses were disconnected and isolated from their friends and relatives since working at corona hospitals. They felt that their close friends and relatives had a great fear of infection when they attempted to have contact with them.

I understood that the behaviours of my friends have been changed since the onset of the outbreak. My friends asked me not to come to my home because you work at corona hospital. I am also happy to be alone to not affect anyone. (Participant 7)

There was one nurse in our study who contracted the virus. Although he had recovered from it, he felt that his close friends and relatives tried to stay away from him so that they would not be affected by the virus. This increased his sense of isolation.

I was at quarantine for 3 days for testing [He had close contact with a confirmed case]. My relatives were not so happy when they came to me. My friends and relatives tried to be far from me, but I said that it is OK. They have the right to protect themselves. (Participant 4)

In terms of social events, many nurses cancelled all their social events. For example, for one nurse, it had been 8 months that he had not gone to the home of his father-in-law. Another one did not go to the wedding of his brother as he was afraid that he might infect other persons. These types of familial connections and social events are important for people in Iraqi Kurdistan. Some nurses did not go to the markets or other crowded areas. In terms of food, some asked the market store holders and relatives to bring the required items for them. Others tried to store their necessities for 1 or 2 months.

I have cancelled several events, for example, it was the wedding of my brother, but I did not go there. I

have reduced going to the markets if required. I tried to be far from the crowded areas. Mostly I use a mask and gloves in public. (Participant 6)

3.5 | Theme 5: Psychological burdens: fear, stress and anxiety

Fear, stress and anxiety were present among the nurses in our study. Most nurses had fears of being infected during working at corona hospitals.

I have a fear of infection. I had fear of the people when they came to the hospital. I had so high level of anxiety. I have no sufficient time to sleep due to working at the hospital. I disinfect my clothes at the hospital, but I am not comfortable and I disinfected the clothes again at the hospital. (Participant 5)

One of the nurses reported that when he finished working at the hospital, he did a test for himself to ensure that he would not infect others if he was affected by the virus.

I had stress. For example, when I finished working at corona hospital, I did a test for myself. But, I have a normal life with no nightmares. I have contact with my wife, but I tried to be far from her for one meter. Because, if I am infected by the virus, it is impossible to not infect others. I had no fear of the infection during patient care. (Participant 1)

One nurse reported that he could not sleep and he had a great fear that he might infect his father and mother at home.

I have a fair bit of fear. I cannot sleep now. For example, I cannot sleep until 3 am. I have a fear to infect my mother and father. (Participant 7)

Although some nurses reported stress and fear, they still provided good care to their patients and had a rewarding feeling when the patients recovered from the virus.

I have a good feeling when I give care for the COVID-19 patients. Because I feel that I help them especially when they cured of the disease and discharged from the hospital. (Participant 6)

However, they felt sad when their patients' conditions did not improve.

I sometimes have a little bit of fear and depression. I have so a good sense when I give care to the patients, especially when they are recovered. I have no

good sense when the patients' situation are escalated.
(Participant 12)

Professionally, some nurses suggested that feeling fear and anxious would not help them in a crisis situation. As a nurse, they must provide good care to their patients and despite their risk of being exposed to the virus, they must prepare it as best as they could.

I have no fear and anxiety, but I protect myself. I am not so anxious, because the anxiety does not allow me to work well. I feel so good when I give care to the patients because our job is humanistic. I have no fear to be infected by the virus because we have continuous exposure to the risk, so we need to be comfortable. (Participant 9)

Socially, many nurses reported feeling isolated from their own family members and this was the main stress that they had during the pandemic. Participant 5 remarked:

I liked to visit my daughter, but I was so scared to infect her due to working at the corona hospital. The house of my daughter is close to me, but I did not go there. (Participant 5)

Similarly, Participant 11 suggested that he felt isolated from his social networks.

I have not too much contact with the people and friends ... Just, I have contacts with nurses at the hospital during my rest time. My contacts with others have been decreased significantly compared to before outbreak time. (Participant 11)

4 | DISCUSSION

The nurses in our study had to deal with a number of situations during the outbreak of COVID-19 in Kurdistan. As some people in the public did not believe that there was such a virus (Abdulah & Saeed, 2021), nurses often had to deal with this lack of knowledge and aggression from the patients and their family members. Most nurses changed their behaviours during the COVID-19 outbreak. This was mainly to protect not only themselves but their patients, colleagues, family members and friends. They were cautious about the use of a mask at the hospital and in public. Most nurses experienced fear, stress, anxiety and isolation during this period.

4.1 | Responses of nurses to behaviours of patients, family members and public

The social events of some nurses made a serious risk to community members, the close friends of nurses and family members.

Coronavirus spreads from a person-to-person by droplets and contact transmission. Therefore, the chains of human-to-human transmission must be broken to stop the disease spread and to maintain the number of new cases created by each confirmed case below 1 (effective reproductive number <1; World Health Organization, 2020b). One nurse infected his wife through close contact. This behaviour could extend further risk to older parents of the nurses (Centers for Disease Control & Prevention, 2020). The nurses' behaviours at home have important implications for their family members, especially old parents due to their physical susceptibility to the virus (World Health Organization, 2020d).

Some nurses reported that their close friends and relatives asked them not to visit them at their homes. It seems that friends and relatives had a high level of fear of getting infected by COVID-19, which suggests that the nurses were seen as a means to spread the virus to others. The frontline HCWs have elevated pressure due to some factors such as inadequate PPE, a high risk of infection, heavy workloads, staff shortage, discrimination, isolation, confusion, patients with negative emotions, separation from their families and burnout (Ayanian, 2020; Kang et al., 2020). For example, in Philippines, a man attacked a nurse by pouring bleach on his face (The Economist, 2020). In this regard, several nurses are afraid to wear their uniforms outside of the medical settings to save their own lives (Semple, 2020). This indicates that people have a high level of fear of getting the infection by the virus and have a fear of HCWs. The recent survey conducted in this region reported that the mean score of fear toward the COVID-19 disease is 4.40 of 10. Interestingly, 81.9% of the individuals living in this region participated in the survey ($n = 1,343$; Abdulah et al., 2020).

The nurses in our study feared infecting their family members or their relatives. Despite this fear, they committed to giving care to their patients, and felt fulfilled when the patients recovered from the virus. A systematic review of the experiences of nurses working in acute hospital settings during a pandemic showed that nurses are obligated to fulfil their role during a pandemic, despite having the risk of potential infection. They have a great commitment to patients care (Fernandez et al., 2020). But, this professional commitment has created an ethical and moral dilemma for nurses, because they have to decide between the patients and their family responsibilities (Holroyd & McNaught, 2008). This personal sacrifice leads to social isolation by separation from their families and friends (Chung et al., 2005).

We did not ask the nurses about the conspiracy thinking, but the conspiracy thinking could be one of the reasons for non-adherence to preventative measures while in public by some nurses (Lewandowsky et al., 2013). The recent study conducted with the public in this region reported that 14.0% do not believe that there is COVID-19 in the region, and 20.1% have no concern about the disease spread. The prevalence of conspiracy thinking towards COVID-19 outbreak was 27.4% in public (Abdulah & Saeed, 2021). Globally, there are some claims that COVID-19 is a hoax and that it was created artificially (Desta & Mulugeta, 2020; Imhoff & Lamberty, 2020) and spread on purpose (Uscinski et al., 2020). It is not well

understood what is behind shaping people's opinions such as about outbreaks and childhood vaccinations. But, free-market worldviews are determined to be an important predictor of the rejection of scientific findings (Lewandowsky et al., 2013).

4.2 | Fear and anxiety of nurses amid giving care to the COVID-19

The nurses reported a high level of anxiety for their own health while giving care to infected patients during a pandemic (Abdulah & Mohammed, 2020; Holroyd & McNaught, 2008; Lam & Hung, 2013). The nurses' concerns about infection were associated with fear of the new phenomenon and the possibility of mortality (Lam & Hung, 2013). In addition, the nurses were scared to transmit the infection to their colleagues by sharing resources (Koh et al., 2012) and of placing their family and friends at greater risk of infection (Shih et al., 2007).

The patients who were admitted into the COVID-19 hospitals in this region have severe and critical situations. The patients with mild and moderate severity are requested to stay/receive care at home. The severe and critical COVID-19 patients have the potential to transmit the disease to HCWs, especially those patients who require advanced respiratory support, high flow rates of oxygen or aerosol-generating procedures (World Health Organization, 2020a). This potential transmission of the disease has created great concern in the nurses. In addition, the rapid spread of the disease has imposed severe pressure on HCWs. We found that the nurses had a high fear of getting an infection through colleagues who work in another hospital along with the corona hospital. These fears were compounded by the fact that one of their colleagues has been affected by COVID-19 and infected his wife as well.

The unfamiliarity of nurses towards the pandemic environment has created a sense of loneliness (Kim, 2018) and frustration in nurses. A study reported that nurses and doctors who dealt with the COVID-19 patients in Spain had the perception of the emergency and a threatening clinical context during the pandemic. In addition, they had a fear of the risk of transmission to their families. The infection, disease, safety, exposure, personal protection and overwhelmed health were determined as predictors for fear of infection. Similarly, transmission vector, cohabitation, family home vulnerability, group cross-infection, being asymptomatic and contagion were determined to be the fear of the risk of transmission to the family context (Collado-Boira et al., 2020). Not controlling patient flow has made both physical and psychological exhaustion to nurses (Kang et al., 2018). In addition, the mortality among some nurses could create uncertainty and heightened anxiety and stress among HCWs (Kang et al., 2018; Koh et al., 2012). However, our finding suggested that nurses immersed themselves in patient care as a way to manage their anxiety and pressures in a dynamic hospital environment (Liu & Liehr, 2009).

4.3 | Reasons for fear and anxiety of nurses amid the COVID-19 pandemic

The shared fears among the families, friends and neighbours of HCWs result in the disruption of interpersonal relationships. This could be another factor that induces psychological morbidity among HCWs. This fear in nurses affects the nurses' attention, understanding and decision-making ability, which may hinder the nurses' performance and long-term overall wellbeing (Hong et al., 2020). Collado-Boira et al. (2020) in their study about the experiences of the nurses during the COVID-19 pandemic, reported that more than 45% of the nurses and doctors have a fear of the possibility of infecting their relatives. The positive point of the nurses who were included in this study is that most of them try to cancel their social events and avoid visiting their relatives and friends. It is important to note that fear of infection in nurses may help them to protect their family members, colleagues, and friends. However, a few nurses interviewed for this study did not cancel their social events and did not intend to cancel them. This behaviour could raise the possibility of infection in this community (Merza et al., 2020), especially in the case of being asymptomatic.

A recent systematic review showed that nurses experienced physical and emotional impacts due to concerns for personal and family safety; and fear, susceptibility and psychological problems during a crisis (Fernandez et al., 2020). The nurses are concerned with spreading the infection to susceptible family members, such as old and immunocompromised persons, and young children (Ives et al., 2009; Lam & Hung, 2013). The nurses in our study had to keep in mind to protect their family members by protecting themselves through suitable actions. Some nurses did self-isolation protection of their wives or parents at home. Even one of them determined the special room to change his clothes. The nurses of this region noted that they disinfected the surfaces regularly, including door knobs, elevators, and surfaces.

The nurses at the frontlines during COVID-19 have an extremely high prevalence of somatic alteration compared to non-COVID-19 times (Gu et al., 2019). Previous investigations have shown that emotional disorders, such as depression or anxiety predict the emergence of somatic symptoms leading to worsening an individual's wellbeing (Berghoff et al., 2017; Creed et al., 2018). The decreased psychosomatic health of nurses leads to a negative influence on clinical performance (Gu et al., 2019; Johnson et al., 2018). Even occupational stressors during the outbreak are associated with poorer mental health outcomes and suicidal ideations (Hong et al., 2020). Discrimination against nurses is associated with psychological morbidities. The nurses are labelled as the source of infection during an epidemic. The discrimination and stigmatization raise the level of isolation in nurses, and even leads to potentially long-term impacts on psychological wellbeing (Liu et al., 2012; Robertson et al., 2004).

5 | CONCLUSIONS

This paper showed that the nurses have to deal with patients who have some concerns about their health and staying at hospitals and some of them had aggressive behaviour towards nurses at corona hospitals. The nurses also have a fear of getting infected by the virus. Few nurses have not cancelled their social events in public and have not changed their behaviours at home and in public. The public, close friends and relatives of the nurses have a fear of getting an infection by the virus through them. However, the nurses attempted to protect themselves, colleagues, and family members, and provide the best care to COVID-19 patients to meet the standards of nursing care of their nursing profession. The findings have implications for health managers who need to be sensitive to the psychological well-being of nurses who care for COVID-19 patients in Iraqi Kurdistan and elsewhere. Better support and facilitation of nurses (and other HCWs) need to be established as this would provide more effective and safer working practices. Importantly, the ostracization and stigmatization experienced by many nurses and HCWs in Iraqi Kurdistan and other parts of the world must be eradicated to allow them to achieve their professional practices. We contend that the COVID-19 pandemic acted as an external stressor to nurses and resulted in altering their relationships with the public.

It is suggested more support services/training should be available for nurses during COVID 19 pandemic. We have not official documented the training of the nurses in terms of the social and behavioural issues mentioned by the nurses in this study. However, it seems that the nurses always fully do not understand the implications and responsibilities of health-care providers in maintaining COVID-19 precautions/procedures/policies.

6 | RELEVANCE TO CLINICAL PRACTICE

The negative experiences of the nurses regarding the care of coronavirus disease 2019 patients must be considered in clinical settings. Sensitive policy programs must be established to protect nurses from the ostracization and stigmatization of the coronavirus disease 2019 pandemic and to allow them to be able to achieve their professional practices safely.

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CONFLICT OF INTEREST

The authors do not have any conflict of interest to declare.

AUTHOR CONTRIBUTION

D.M.A.: Concept, study design, review, data arrangement, writing and analysis. H.A.M.: Data collection, interviews, recording and approval. P.L.: Review, editing, analysis and approval.

DATA AVAILABILITY STATEMENT

The raw data of the study are available.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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