Lived Experience of Recovered COVID-19 Nursing Intern Students: A Qualitative Study

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Abstract

Background: Since its inception, Corona virus disease (COVID-19) has severely overburdened hospitals and all healthcare workers. One of the important key people were the nurses who did their best to provide nursing care for COVID-19 patients over extended hours. Due to the increased need for nursing staff, nursing intern students were deployed to help. The aim of the current study was to explore the lived experience of recovered COVID-19 nursing intern students. **Materials and Methods:** This phenomenological qualitative study was carried out in Cairo-Egypt. A purposive sample of 15 nursing intern students was recruited who worked at Internal medicine hospital (isolation hospital), which is affiliated to Cairo University hospitals. Data was collected through a semi-structured individual interview using a video recording zoom meeting. The technique of Colaizzi's data analysis was used to extract, organize and analyze the data. **Results:** Five themes emerged from the data analysis as follows: response toward working with COVID-19 patients; readiness and preparation; challenges of the disease process; support system and coping; and post recovery state. **Conclusion:** Findings of the current study provide information about the challenges confronted by the participants and highlight support needs. Continuous education and training should be provided to assure that intern students are confident in taking care of patients during a pandemic. Also, the government should consider including intern students in the labor law to ensure adequate health care coverage for them.

Keywords: COVID-19- Nursing - Qualitative - Recovered- Experience of intern.

Introduction

COVID-19 has perturbed the life and health of communities across the world because of the quick spread of the virus and aggressive progress of the patients. Many countries' healthcare systems are overburdened as a result of this, and of course affects the healthcare teams who are struggling to protect and promote the lives of everyone affected (Ching, Hur& Luan, 2020).Nurses and nursing intern students constitute the majority of the health care team who represent the frontline of the health care system response to both epidemics and pandemics (Newby, 2020; World Health Organization, 2020). Nurses and nursing intern students deliver care directly to patients in close physical proximity and spend more time in contact with patients than any other health care provider (Ching, Hur & Luan, 2020; Huang & rong Liu, 2020). Their responsibilities in treating COVID-19 patients include triaging patients and detecting suspected infection cases; providing essential treatment in an emergency and dealing with suspected patients with precautions; assisting in decontamination and coordination with other healthcare providers; providing holistic nursing care in managing multiple infections simultaneously; and playing critical roles in decontamination and coordination with other healthcare providers (Buheji & Buhaid, 2020; Xie et al., 2020). During the COVID-19 pandemic, nurses around the world faced a slew of unexpected and unpredictable obstacles in their personal lives, as well as demands for extended hours of work and workplace safety concerns. Many nurses were injured by the use of tight masks and relentless 10-hour shifts, and passed out due to lack of sleep. Some nurses complained about not being able to use the restroom or drink for more than six hours. Many nurses have expressed their anxiety and fear of not adequately putting on their personal protective equipment (PPE) or accidentally touching any dirty surface (Kim, 2018; Buheji & Buhaid, 2020; Ming et al., 2020). On the other hand, quality nursing care for patients with COVID-19 is a major

challenge. While providing care for patients with COVID-19, nurses and nursing interns are at danger of serious injury or death. Working stress, the daily flood of patients into hospitals, inadequate hospital capacity, and a low nurse-to-patient ratio have all contributed to the problem of care. Despite all efforts to protect health care workers, some exposure is inevitable. Such exposure can occur at the workplace or outside the work environment in the community (Gilory & Ford, 2020; Hilliard, 2020). Nursing intern students represent the future of the nursing profession and they are considered as the ideal solution to bridge the nursing shortage. They are emerging with an honorable image to help in the pandemic of COVID-19 in Egypt. Exploring their experiences with training conditions, challenges, illnesses, and risks will help nursing managers and educators respond appropriately to their needs and to help them make the transition from the practical to the professional world. There are few research on nursing intern students' reactions to a pandemic or epidemic, especially when compared to other health professions. Obviously, there is very scant data reported with regards to the experience of nursing intern students who get infected and recovered from COVID-19 nationally and internationally. Therefore, understanding the experiences and impacts of COVID-19 pandemics on nursing interns student is vital to ensure that these essential workers are well supported to stay in the workforce and be able to deliver high quality health care during this time of elevated health need in the community (Fernandez et al., 2020; Wang, Zhou & Liu, 2020). Furthermore, exploring the challenges faced by the recovered nursing intern students from COVID-19 will help to support nursing interns' future by developing protocols to improve their preparedness, protect them from being infected during facing the other waves of the disease, and ensure that they can work and respond to crisis with more confidence. Additionally, the implications of this study could help in understanding the COVID-19 patients' lived experience, their susceptibilities, and their related environment that guide in identifying their needs and improving patient care delivery. With regard to the challenges and stress faced by nursing intern students, the present study aimed to explore the lived experience of recovered COVID-19 nursing intern students.

Materials and Methods

Research design:

This qualitative study was carried out using the descriptive phenomenological design on the lived experience of the recovered nursing intern students from COVID-19 in Cairo University hospitals.

Setting:

The Internal medicine hospital (isolation hospital), which is affiliated to Cairo University hospitals was the setting where the nursing intern students allocated according to their training schedule rotation.

Sample:

A purposive sample of fifteen recovered nursing intern students from COVID-19 who are at the final year were selected purposefully. The inclusion criteria included working at the internal medicine hospital (isolation hospital affiliated to Cairo University hospitals) where the nursing intern students allocated according to their training schedule rotation , and getting the infection while caring for patients in the isolation hospital; however all students who were working in private hospital were excluded.

Tools of Data Collection:

The data were collected a few days after recovery through Semi-structured individual interviews using video recording via an online zoom meeting guided by the following two tools: (a) A personal /Medical Information Sheet created by the researchers that included data such as: age, gender, marital status, place of residence, medical history of any chronic diseases, area of allocation, duration of disease, type of isolation, place of isolation, duration of isolation, type of treatment; and (b) 13 open ended questions pertinent to nursing intern students' experience after recovery from COVID-19.

Procedures

The researcher proceeded with the data collection after Ethical Research Committee permission was granted. Nursing intern students who were willing to participate were interviewed

individually at least three times through online zoom meetings. The first individual interview session included verbal explanation of the nature and purpose of the study as well as obtaining electronic written informed consent for voluntary participation and using the recording from the participant. The second interview started with opening questions such as what are your feelings when you are assigned to care of patients with COVID-19? Following this, the researcher continued with the study questions. During the interview sessions, the researcher used minimal probes to help participants to concentrate; and monitor the effect of the interview on the participants. The interviews lasted for 30–50 min, and the average duration was 40 min. At the first opportunity after the interview, they were transcribed as expressed by the subjects (verbatim), and data were collected and analyzed simultaneously until data saturation was reached. The data saturation was reached after 15 interviews. A third interview was done for all participants to gain feedback and a member check. All interviews were conducted at suitable time as agreed upon by the participants to ensure full cooperation by all.

Trustworthiness of Data

Trustworthiness of data analysis was assured using the following proceedings: all the participants were asked the same questions and interviewed till the point of data saturation; prolonged engagement with the participants to obtain more in-depth data; participant member check and feedback; thick description of the methodology and the data analysis process; findings were compared with existing relevant literature and research.

Data Analysis

The data analysis for the current study was based on Colaizzi's 1978 phenomenological method . Transcription of the online zoom recording was done by the researchers in handwriting word by word after each interview; the researchers went through the transcripts line by line and word by word very closely, extracting significant statements and coding each of them. Then the codes merged into categories; which are then clustered together into subthemes, and finally, major themes.

Ethical Considerations

An official approval (Code: 2020/59) was obtained from the Ethical Research Committee at the Faculty of Nursing, Cairo University to carry out the current research. All participants were provided with information sheets detailing the aim of the study and the study process; they were also given the opportunity to ask questions about the research; and were fully assured that they could withdraw from the study at any time without any negative consequences. Participant informed consent was obtained prior to the commencement of data collection. Anonymity and confidentiality of the collected data was assured through coding as well as keeping the documents in a safe locked place.

Results

Participants' Profile:

Participants consisted of 15 nursing intern students, 4 males, and 11 females. Age was ranged between 23 and 27 years old. All participants were single with no previous medical history of any diseases. 6 of them were living with friends and the other 9 were living with their families. They were allocated to work at internal medicine isolation hospital according to their internship training schedule. All of them were isolated and treated at home, however only one participant was isolated and treated in the hospital. The duration of isolation ranged between 10- 40 days.

Themes and Subthemes

Five major themes were emerged from the data analysis as follows: response toward working with COVID-19 patients; readiness and preparation; challenges of the disease process; support system and coping; and post recovery state. Each theme consisted of subthemes.

Table 1: Main themes and subthemes emerged from data analysis

Themes	Sub themes
1- Response toward working with COVID 19 patients	1.1- Initial Refusal
	1.2- Fear and Panic of being infected
2- Readiness and preparation	2.1- Lack of work place preparation
	2.2- Scant supplies and resources
	2.3- Self learning
3- Challenges of the disease process	3.1- Shock of being positive
	3.2- Concern of infecting family/ others
	3.3- Symptoms Experience
	3.4- Investigation and treatment suffering
	3.5- Source of Exposure/ Reason of infection
	3.6- Isolation miserable feelings
	3.7- Social impact on family
4- Support system and coping	4.1- Family support
	4.2- Friends spirit
	4.3- Believe in God and Hope
5- Post recovery state	5.1- Psychological / emotional changes
	5.2- Mental/Physical exhaustion
	5.3- Work recommence

Theme 1: Response toward Working with COVID-19 Patients

Participants expressed different feelings toward working in isolation areas with COVID-19 patients. This theme consisted of two subthemes as follows:

1.1- Initial Refusal

In the beginning, the participants had negative and rejection responses toward working with COVID-19 patients during their internship rotation and it is obvious from their verbatim. A participant said: "*In the beginning, I refused to start my internship rotation and I didn't want to work with COVID-19 patients"* (Participant 1).

"*At first, I absolutely refused and it was impossible for me to work in isolation area with COVID-19 patients during my internship period*" (Participant.7).

"*All of us refused and we were scared at the beginning*" (Participant.12).

"*Actually there was rejection and fear to deal with patients, all of us were afraid; sure there was a fear*"(participant 3).

1.2- Fear and Panic of being infected

There was fear and panic feeling among participants from getting the infection from the patients. A participant said:"*The first thing came to my mind that I am afraid of getting the infection, however at the same time I felt that I will live a new experience*" (Participant.9).

"*I was very scared from the idea that I will get the infection and I didn't know how can I protect myself*" (Participant. 10).

"I *will not say that I was not afraid in the beginning but after that, it became normal"* (Participant.14).

" *As an intern student has no experience in work, I was very afraid and hundred percent I felt that I will be infected anyway*" (participant 8).

" *At first I was very scared and worried, it was a very hard day how I will deal with such patients*" (*participant* 13).

Theme 2: Readiness and Preparation

Regarding intern students' readiness and preparation before working in isolation areas with COVID-19 patients, three subthemes were emerged:

2.1- Lack of work place preparation

Participants expressed a lack of preparation and insufficient information before starting to work with COVID-19 patients from hospital staff in their allocated areas. A participant said: "*We were wearing and changing our clothes and nobody told us how to do it and what is the proper way. No one teach us in the hospital*" (Participant. 1).

"*Frankly, I had not enough information, I did not know the nature of the disease or type of cases*

and other sides of the disease, there was not enough preparation for us"(Participant. 9).

"No one did anything for us and we were surprised when seen the first case of COVID-19 and we didn't know what to do" (Participant. 5).

"*Actually, no preparation even the way of wearing the personal protective equipment (PPE), I was not aware how to do, I just knew it from my colleague, I was just do like them*" (Participant 10).

2.2- Scant supplies and resources

Supplies and resources were not enough and not available as reported by the participants. A participant said: *"There was not enough masks or gloves for us to use*"(Participant.1).

"*There was not enough supplies to protect ourselves, only one mask and if it tore there was nothing instead*"(Participant. 6).

"*There was not enough PPE at all, they were giving us only one mask for 12 hours and sometimes taken it late till the charge nurse come and distribute*"(Participant.11).

"*Unfortunately, supplies in the place, where we assigned for, was not available and we may face a big problem if we use a sterile gown. We were using only one gloves in 24 hours and only one mask*" (Participant 5).

2.3- Self learning

Participants expressed self searching and learning through reading and watching videos in order to fill in the gap of information related to COVID-19. A participant stated: *"I read general information about the way of transmission and learned how to wear and how to remove the PPE"* (Participant. 3).

"I was watching videos in YouTube and take information from my colleagues who was assigned before me" (Participant. 9).

"I read about the disease and the cases as much as I can and also I read about the necessary precautions" (Participant. 12).

Theme 3: Challenges of the Disease Process

Challenges and obstacles that participants faced during the disease process are shown in the following emerged seven subthemes:

3.1- Shock of being positive

Being infected and positive for COVID-19 was a great shock and unexpected from the participants. A participant said: *"They told me that the result is positive, it was a very hard feeling, I was shocked and confused"* (Participant.1).

"I was very shocked and scared, I expected that I will die"(Participant. 8).

"*Frankly I didn't expect and I was confused because I had no symptoms, I was shocked and stayed annoyed and worried"*(Participant.15).

"When I knew almost I was in a shocking state, I was shocked how I got the infection, although I was from the kind that very keen and I was taking all the precautions, how?" (Participant 4).

"Once I am told that the result is positive, I was angry and cried, I was expecting but I cried and I asked my family to leave me alone" (Participant 12).

3.2- Concern of infecting family/ others

Fear of infecting others especially family members was the main concern to the participants. A participant said*: "I was afraid about my family and the other people that I stay with*"(Participant.5).

"Although I had a few symptoms, my first and last fear was about infecting my family especially my father because he was diabetic"(Participant.7).

"The biggest problem for me was to get out and be a source of infection to anyone" (Participant.8).

"First thing I was depressed, afraid and worried from infecting others from my family and being a source of hurt to others. I was afraid of the spread of infection through me" (Participant 2).

"For me, I was worried about my family especially my mother as she was the one who brought the food to me and always come to me" (Participant 4).

3.3- Symptoms Experience

Symptoms were different and unequal in all participants: "*It was very hard period, sense of smell; shortness of breath; and difficulty of moving. Really very hard condition*" (Participant.1).

"*Symptoms were severe, high temperature for long period and a very bad cough that I saw ever, I was sleeping all the time*"(Participant.3).

"I had light symptoms in respiration and some vomiting, it was not that much bad"(Participant.7).

"I had some sneezing and running nose and I thought it was just a common cold"(Participant.10).

"Pain in all my body and abdomen; dizziness and vomiting for the first five days"(Participant.13).

" I had no symptoms except dizziness and feeling of fatigue and some shortness of breath" (Participant 4).

"*There was running nose; fever and no sneezing but I had a severe headache that persists all the day"* (Participant 14).

3.4- Investigation and treatment suffering

Participants had a hard time during their investigation and treatment phase. A participant said*: "I was treating myself, there was no follow up from the hospital*"(Participant.2).

"Medications were not available and I was searching in all pharmacies and asked some others to bring it to me from other countries, also I could not find any public hospital to treat me and I had no money to afford the private one" (Participant. 6).

"The biggest suffering for me was to get the medications and also the idea that I have to go out and do the swab"(Participant 7).

"My problem was to adhere to the treatment as I hate taking medications and I was afraid about hurting my kidneys" (Participant 10).

" Getting the medications was a problem for me as the hospital refused to dispense it to us and finally I brought it from my own money and also the swab I afford it myself" (Participant 13).

3.5- Source of Exposure/ Reason of infection

The actual source and reason of infection were not clear and unknown for the participants. A participant said: *"The first day when I changed my clothes I think I did it with a wrong way and I felt that I got the infection on that day*" (Participant 1)

"This is the only thing that I don't know how, I am the one that much keen and applying all the precautions appropriately, maybe my immunity?"(Participant.4)

"May be from the patient that I cared for or might be from one of my friends, really I don't exactly know"(Participant.7)

" I don't know the reason, maybe lack of experience as I am an intern student with no experience to deal with patients and have lack of experience in using the PPE properly, frankly I don't know" (Participant 8).

" The wrong things that we were doing, I didn't wear the face shield and I couldn't tolerate wearing it, also it was not allowed to us to use the phone but I used to answer the calls coming from my family" (Participant 12).

3.6- Isolation miserable feelings

Participants had very difficult and hard feelings during their isolation period. A participant said:"*Almost I was going to reach the depression state, I was away from my family, not going out, not seeing street, I was angry as I had nothing to do, all the time holding my mobile"* (Participant.4).

"My psychological state was very bad, I could not able to stay alone, the matter was very bad"(Participant.7).

"Psychologically I was not okay, thinking all the time that I will die at any time and crying too much"(Participant.8).

" All the day sitting on the bed, I do not do any movement, I was depressed because I am a person who cannot stay alone, it was a killing thing to me" (Participant 10).

"Strange feeling, your family outside and you cannot stay with them, my psychological state was very bad surely, sitting alone for a long time and I didn't like that" (Participant 11).

3.7- Social Impact on family

Participant's families were affected and their social roles were disturbed. A participant said:*"My father and mother are educated and well understanding the situation, they asked me to stay with them at home"(*Participant 1)

"All my family and I were isolated and I felt guilty because all my family got the infection and they were sick" (Participant.2)

"*My family was living in a horrible condition and very scared about me, it was hard for me to convince them not getting close to me"*(Participant.7)

"*My family were very angry and wished that I never go to hospital and even wished that I never join that field"(*Participant 14)

"My family couldn't go out from home and they were afraid to contact others, all were isolated, surly they were not practicing their normal life scared to infect anyone" (Participant 4).

" People in my country once hear someone had COVID it means goodbye to life and he will die at any time, this caused a very bad effect on my family and we spent a very harsh time" (Participant 8).

Theme 4: Support System and Coping

Support system and coping consisted of three subthemes as follows:

4.1- Family support

The main support system for the participants was the family members. A participant said: "*My family told me it's okay, they always encouraging me and make jokes with me specifically my sister, she was so closed to me"* (Participant.1).

"God first, then my family, they were telling me don't worry everything coming from God is good" (Participant.2).

"*My family were calling me every day, talk to me, and reassure me until my isolation time finished, my family were doing everything to me"* (Participant.4).

" My mother was always searching on the net and tried to do all food that might increase my immunity and she was doing all the food that I like, she used to talk to me every minute on phone" (Participant 11).

" My mother was talking to me all the day by video call through phone and my sister was doing food and juices for me, my father used to stand on my door every day and asking how do I do and be assured about me" (Participant 12).

4.2- Friends spirit

Participant's friends played an important role in supporting and encouraging. A participant said: "*My friends used to call me and make me laugh and reassure me, thank God"* (Participant.3)

"My friends were always calling and caring about me, actually they were supporting and they didn't leave me alone" (Participant.8)

"My friends used to group together in any place and talk to me through video call, encourage and assure me" (Participant.12).

"Presence of my friends beside me was the motive that made the time passed, they were bringing me food, medications and all that I needed" (Participant 13).

4.3- Believe in God and Hope

Believe in God and trust was a very important issue that helped participants during their hard time. A participant said:*"Surely, God first and last, I was thanking God for anything happened to me and I didn't object for anyway"*(Participant 7).

"Frankly, I was telling myself I am better than anyone else and I used to say thank God" (Participant.9).

"I was telling myself it is just a matter of time and it will pass, I used to assure myself and also my relationship with God and praying, all of that helped me" (Participant.13).

" I used to care of patient properly and I knew that who do good will get good, I was convinced that this is a God's will, my God will be with me and I will recover soon and back to my normal life again" (Participant 11).

Theme 5: Post Recovery State

Participants suffered from some changes in their normal life after recovery and this emerged in the following three subthemes:

5.1- Psychological / emotional changes

Participants report some psychological and emotional changes after recovery. A participant said: *"Actually, psychologically I disturbed and I remained more than month and a half didn't talk to anyone and I didn't go out"* (Participant.1).

"The matter is that I still have fear of living this again and pass-through this experience again" (Participant.2).

"Psychologically I still affected, people in my country didn't contact me even after recovery, they were afraid" (Participant.5).

5.2- Mental/Physical exhaustion

Some mental and physical problems were expressed by the participants after recovery. A participant said: "*I still have some dizziness when I walk and sometimes I have shortness of breath especially when I do some effort"* (Participant.4).

"My sense of smell still weak and I become easily having shortness of breath more than before even if I go upstairs for one floor" (Participant.8).

"Only the headache that was continuous with me and no other symptoms" (Participant.14).

"Thanks God, only the matter of sore throat it comes to me every a while, my voice is still affected and also my normal weight I still can't gain it back" (Participant 9).

5.3- Work recommence

Different responses were expressed by participants regarding work resuming at isolation hospital after recovery. A participant said: *"When I returned back I refused to work in isolation hospital again but after a while I did"* (Participant.3).

"Now, I have no problem before I was not ready but now no problem at all"(Participant.5).

"Actually, there will be refusal from my family and I still have a feeling of being afraid about my family" (Participant.9).

"I can't give care, I can't take risks like this again unless all safe things and presence of enough supplies otherwise I apologize to work again with COVID patients"(Participant 2).

"Frankly I will not accept. It affected me and my family a lot, however if it is necessary for my carrier I will have to but I will take strict precautions" (Participant 8).

Discussion

As nursing intern students, they have to pass one year internship rotation in a university hospital according to their training schedule and supervised by the academic faculty members. During the peak phase of COVID-19 pandemic, all of them requested to work in the isolation areas, emergencies and intensive care units (ICUs) where COVID-19 is cared for in order to fill in the gap and shortness of nursing staff. In the beginning, most of the participants expressed feelings of unwilling and rejection toward working in isolation areas and providing care for COVID-19 patients. Almost all of them were scared and having fear of getting the infection from patients. Actually as an intern student with no experience, no preparation, fear is considered a normal feeling. This finding is consistent with Gharebaghi& Heidary, (2020) who revealed that all participant nurses were fearful of contracting the disease, finding also in congruence with Khalid et al., (2016) together with Gunawan et al., (2021) and Wang et al., (2020) who concluded presence of initial fear and stress among nurses caring of COVID-19 patients. Regarding to readiness and preparation, most of the participants reported lack of preparation and training to qualify them as intern students to deal with COVID-19 patients. This is may be due to the urgency of intern joining time to mitigate staffing shortages from illness or absenteeism. Also the participants reported insufficient information about the disease before working with COVID-19 patients. This is may be clarified by participants dependence on self learning and searching on internet to get general information about the disease, mode of transmission and precautions. Furthermore, most of the participants reported lack of protection supplies (gloves, face shield or gowns) and resources within the work area as they were asked to wear only one mask during the shift to overcome the shortage. This finding is in agreement with Gunawan et al., (2021) who reported lack of supplies and mentioned that shortage of masks has forced nurses to wear the mask for the duration of the shift and reuse it for days at a time. Additionally the finding is consistent with Wang, Zhou, Liu, (2020) who revealed that availability of PPE and other essential resources was a source of constant worry for majority of

participants. Absolutely, lack of preparation and readiness could be the reason that the participants expressed previous rejection and fear of caring of COVID-19 patients. Adams and Walls, (2020) pointed out that without proper channel of communication or dissemination of facts, nurses may be exposed to misleading information which can cause higher levels of fear, stress and confusion. Participants faced a lot of challenges and difficulties during the disease process from the start till the end (Shanafelt, Ripp& Trockel, 2020). At first, all participants expressed feeling of shock once being informed that they were positive COVID-19. It was not expected for most of them, they reported feelings of denial, unbelievable, angry, annoying, and worrying of death. This is matching with Adams and Walls, (2020) who revealed that COVID-19 patients were shocked about their diagnosis and became worried about dying. In fact, during the initial stages of the pandemic, there was insufficient and contrasting information on the treatment, mode of transmission and measures to contain the virus, in addition of the increasing number of COVID-19 patients who died, all of these facts contributed to the sense of worrying and fear of death among participants and patients. The entire participants expressed one main concern after diagnosis which is fear of infecting others especially family members. They were particularly concerned with spreading the infection to vulnerable family members, such as the elderly, immune-compromised and young children. This finding is consistent with Millar, (2020) who reported that the majority of patients within the study experienced fear of spreading COVID-19. Anticipation of spreading the virus to older parents was a major concern. This finding is also in congruence with Hu et al., (2020) who reported that most of the participants were afraid of spreading the virus to their families. Almost all the study participants were treated and isolated at home and their families were providing them the care, this contributed to the concern of being a source of infection to them. Regarding to symptoms experience, participants reported a different symptoms which is unequal in severity and timing. This is matching with Chen, Lai& Tsay, (2020) who mentioned that patients described a wide range of symptoms including chills, shortness of breath, headaches, fatigue, weakness, diarrhea, fever, back pain, chest pain, cough, loss of taste, decreased appetite, and loss of smell. Participants of the current study experienced a hard time and a great suffering during the investigation and the treatment phase, most of them reported difficulty in getting the medications. They had to buy it by their own expense and also some medications were deficient in the pharmacies. Moreover, participants expressed that they faced a difficulties in withdrawing the labs, CT, and swabs in the hospital and most of them did all of these with their own money (Arabi, Murthy& Webb, 2020). As the intern students are not eligible to receive healthcare coverage from their employer because they are not considered under the labor law. This finding is consistent with Kang et al., (2020) who mentioned that most patients reported financial ramifications resulting from the COVID-19 treatment journey. The reason for exposure and source of infection were not surely known to all the participants. Some expressed lack of supplies and insufficient PPE; others expressed lack of experience and improper use of PPE. Some others reported absence of windows and air condition within the working place. This finding is in agreement with Wang et al., (2020) and Heinzerling et al., (2020) who mentioned many reasons leading to COVID-19 acquisition by health care workers (HCWs) within healthcare settings. A shortage of personal protective equipment (PPE), long-time exposure to large numbers of infected patients, inadequate training in infection prevention and control, and exposure to unrecognized COVID-19 patients. Isolation period was the most miserable time as expressed by most of the participants, they reported feeling of depression as they had to spend all the time alone, away from physical contact with their families, thinking of death, and doing nothing for long time. These findings are matching with Zhang et al., (2020) and Millar, (2020) who reported that many patients reported social isolation and loneliness. Being diagnosed as COVID-19 has a different responses and impact on families as expressed by participants of the current study. Some families accepted the situation and isolated from others surrounding. Some families were very scared about their patients and wished that they could not be in that carrier.

This may clarify the psychological distress and social burdens experienced by healthcare professionals and nurses during this outbreak. So better understanding the perceptions, stress, and concerns of nursing and other healthcare professionals may provide critical new information that administrative systems may use to better support these professionals during future infectious disease outbreaks. During the period of disease till recovery, participant explored that family and friends constituted their social support system and they were caring, encouraging, supporting, and assuring them. Families were preparing food, juices, and medications. Friends were always jokes and assure. Above all, most of the participants reported believe in God and have faith that everything coming from God is good and they were praying and trusted that they will return to their normal life. This finding is in agreement with Chen, Lai& Tsay, (2020) who highlighted the role of psychological and social support for patients, healthcare professionals, and nurses in coping with stressful situations. Current study participants reported some emotional and physical changes after their complete recovery. Some of them reported mental exhaustion, lack of concentration, and emotional fear of getting the infection once again. Other participants reported persistent headache, dizziness and shortness of breath with minimal effort. This findings is in agreement with Hilliard, (2020) who reported that two-thirds of people who have "recovered" continue to suffer fatigue, experience ongoing problems post-recovery, with other issues including anxiety, "brain fog", dizziness, recurring fever and palpitations. Finally, participants described a mixed feeling toward resuming work and caring of COVID-19 patients in the future. Some explored no problem at all to care of COVID-19 patient in the future and felt that it will be a challenge. Other participants explored refusing to get the risk and afraid of getting the infection again. Some others reported that they will accept dealing with patient in case of availability of the recommended supplies and other resources to protect themselves (Martin, 2011).

Conclusion

The intern students in Egypt were willing to mitigate the nursing shortage and work with COVID-19 patients. So, it is mandatory to provide full support and overcome their challenges. However, the study addressed many challenges faced by the intern students that highlighted the need of providing comprehensive support to them to protect their well-being. As Continuous education and training should be provided to assure that intern students are confident in taking care of patients during a pandemic. Also, the government should consider including intern students in the labor law to ensure adequate health care coverage for them. Also establishing protocol to improve their preparedness is highly recommended. In addition, findings of this study provide understanding of the needs of COVID-19 patients that help improving patient care.

Recommendation

- The focus of this qualitative study was on the experiences of nursing intern students in Cairo's culture and surroundings. As a result, generalizing the findings should be done with caution, and further research should be done in diverse cultures and circumstances to have a better understanding of the nursing intern students' experience.
- Continuous education and training should be provided to assure that intern students are confident in taking care of patients during a pandemic.
- The government should consider including intern students in the labor law to ensure adequate health care coverage for them.

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Conflict of Interests

Nothing to declare.

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