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Research Article

The Ethical Dilemmas Faced by Senior Nurses in the COVID-19 ICU: A Phenomenological Study

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Abstract.
Working with hi-tech life-supporting machines in the midst of rapid changes in regulations and settings has raised dilemmas among senior nurses who must inevitably work with fresh-graduate nurses during the COVID-19 pandemic. Staffing limitations in nursing, in terms of both quality and quantity, where the nurses must be dressed in hot personal protective equipment suits, have added a conflict in the intensive care unit. This research sought to reveal the reality in the ICU setting during COVID-19 based on nurses' narratives of their experiences and feelings working in the COVID-19 ICU. This research was conducted in the COVID-19 ICU of one of the public hospitals in Riau Province. The purposive sampling technique was used to choose intensive care unit nurses. In-depth recorded phone interviews were performed from June to July 2022. The total number of participants joining this research until the researcher reached a data saturation point was five. This research used Colaizzi's phenomenological method to uncover the meanings behind patients' stories. The majority of participants were female, and there was only one male nurse. Sixty percent of the nurses had Bachelor's degrees, and the remaining 40% had nursing diploma degrees. Four participants (80%) were government employees, and one (20%) was a freelance daily worker. The participants had been working for eight years on average. Five themes emerged: 1) work motivation, 2) COVID-19 protocol, 3) the competencies of nursing volunteers, 4) family roles, and 5) professional ethical dilemmas.

Keywords: ethics, dilemma, nurses, COVID-19, intensive care unit

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1. Introduction

During the COVID-19 pandemic, the demand for ICUs is higher. Although COVID-19 infections are mainly manifested as fever, cough, and shortness of breath, the majority of people infected with the virus show only minor symptoms or no symptoms at all. A total of 14% of infected people experience symptoms, which worsen very quickly. Consequently, it only takes a short time before they experience dyspnea, ARDS, and respiratory failure (1).

These patients require treatment in intensive care units, with very limited availability, because they require very expensive life support equipment and nurses trained in ICU care. However, the conditions of social restrictions that limit individual movement during the pandemic have made it impossible to have nurses receive a proper ICU training. The hospital tries to solve the staffing limitations in nursing in terms of both quality and quantity by recruiting nursing volunteers and conducting in-house trainings in basic ICU care provided by senior nurses and doctors who are expert in ICU care. This means, not only are they obliged to provide services wearing hot personal protective equipment (PPE), senior nurses must also provide trainings to newly recruited ICU personnel for them to be able to quickly understand high-tech life-support equipment in the ICU (2). Many hospitals are unable to meet the high demand for care due to the insufficient substance and equipment availability, such as sedatives, personal protective equipment (PPE), ventilators, dialysis machines, and ICU beds, as well as, most importantly, insufficient health workers availability, especially trained doctors and nurses (3).

2. Background

2.1. The neuroscience of a dilemmatic decision

Dilemmas are born from the human need to make decisions from various choices of decisions that can be taken. The neuroscience of decision dilemma is like seeing five trolleys speeding down a path leading to a ravine, where you have the choice of pressing a button that can drop one trolley and block the other four trolleys or letting all the trolleys fall into the ravine. This means that you have to sacrifice one person to save four rather than letting all five fall into the abyss and dying. Decisions are not only made by humans through rational thinking (4). The results of an examination of neuropsychological and neuroimaging data show that two parts of the brain are active when humans make decisions, namely, the orbitofrontal cortex and amygdala (5). Here the brain predicts things that might happen if a decision is made and how much regret will be suffered based on the accumulated feelings left in the amygdala by previous events stored by the hippocampus that give rise to motivation or even demotivation that must be decided by the prefrontal cortex.

The nursing ethical dilemma is a problem faced by a nurse when she/he wants to make a decision which involves two or more morals but there is no alternative that can be done and is satisfactory. When nurses experience an ethical dilemma,

there is no right or wrong in decision making.Originally, historical Greek is where the word ethics comes from. This term is associated with the implementation of proper vs incorrect or bad vs good values. The nursing profession is recognized as having specific knowledge and skills requiring continuous trainings. The nurse performs their job based on eight nursing ethic codes: Autonomy (Independence), Beneficence (Doing Good), Justice, Non-Maleficence (Not Harmful), Veracity (Honesty), Fidelity (Keeping Promises), Confidentiality, and Accountability (6)

2.2. Scarcity of Resources as one of the source ethical dilemma

During pandemic of COVID-19 many hostpital face ICU bed shortage. One solution to overcome the shortage of ICU beds is to immediately prepare a new ICU. This requires the availability of rooms in hospitals or the rapid construction of new units, as was done in China and at a hospital in Riau Province, Indonesia. This option effectively increases the number of ICU beds by almost 100% in some countries and facilitates the immediate admission of large numbers of patients requiring mechanical ventilation. It was made possible by the dedication of nursing volunteers who had agreed to work in a new, stressful environment. However, this option has been associated with a significant risk of decreasing quality of care for several reasons related to the difficulty in meeting national standards for critical care facilities in this type of emergency context. Because many of the nursing volunteers are fresh graduates who have never worked in general wards, not to mention intensive care units, it may not be feasible to provide specific and sophisticated ICU treatments, despite hastily improvised teaching sessions such as the in-house ICU trainings organized to help them learn. In addition to the risk of declining skill levels, these inadequate trainings of health workers increase workloads (7).

A previous qualitative research work involving 18 respondents was conducted by Jia et al. (2021) to investigate nurses' ethical challenges in caring for people with COVID-19, with neglected patient rights. The six main findings obtained were concerned with numerous levels of exposure to infectious environments, conflicting roles of nurses, weak responses to emergency situations, insufficient sense of responsibility, and low quality of skills and knowledge (8). Another study by Turalle et al. was focused on moral conflict, prolonged working time, and high pressures from acute patient conditions faced by nurses during the COVID-19 pandemic (9).

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2.3. The purpose of this study

This research aimed to explore the ethical dilemmas experienced by nurses who worked in the COVID-19 ICU in Indonesia during Pandemic of COVID 19

3. RESEARCH METHODS

This study used a qualitative research method with a phenomenological approach. This research was conducted in the ICU of a hospital in Riau Province. The population in this study consisted of all nurses in the ICU. The sample size required for a qualitative research study depends on when saturation is reached.The total number of participants joining this research until the researcher reached a data saturation point was five. In this study, the sample was extracted using the purposive sampling technique. The criteria inclussion for the participants are any senior ICU nurse who are now working in ICU for COVID-19. The data used in this study were qualitative data. Respondent data on age, education level, length of time working in the COVID-19 ICU, and gender were collected first. The data were collected from primary sources, namely, the respondents. The data collection technique used was unstructured interview.Unstructured interviews are free interviews where the researcher does not use interview guidelines that have been arranged systematically and completely for data collection. The researchers collected necessary data using data collection tools that included a respondent data sheet, a recording device, and notes. The data collected in this study were then analyzed using Colaizzi's method. Using Colaizzies's as in Polit & Beck (2004), transcriptions in this study were made by playing and listening to interview recordings and transcribing them in a file. The transcriptions were then read multiple times. Keywords were grouped in categories. Keywords found in each statement of the participants that were identical or similar in meaning were lumped together in the same category. The categories were then further divided into several sub-themes. Sub-themes that were the same in meaning and bound were formulated under a structure or concept named a theme. After the themes determination, the researchers drew conclusions from the overall results in the form of an in-depth descriptive narrative based on the phenomenological study conducted. The final step was to ask for the participants' confirmation regarding the conclusions for a data validation purpose (10).

4. RESULTS

Data were collected in October after the ethical clearance procedure was fulfilled. Since the research was conducted during the COVID-19 pandemic, interviews were conducted by telephone and recorded with the permissions of the interviewed nurses. Each interview took approximately 15 to 30 minutes. After the completion of each interview, the researchers would ask the interviewee if there were any data they wanted to add or delete. The answers provided by the interviewees were then reviewed. Their statements were transcribed in a Microsoft Word file. In phenomenological research, no particular sample size is specified. A phenomenological study will be terminated if the data obtained are repeated and there is no updated information. Because in this study, data repetition occurred until fifth respondent, the study was then terminated.

A. The Demographic Characteristics of Participants

The participants in this study consisted of five COVID-19 ICU nurses who met the research criteria, were willing to be interviewed, and had experiences working in general ICUs. The characteristics of participants in this study included age, gender, education, length of work, and marital status. Five nurses were in the age range of 25–42 years. The majority of participants (80%) were female. Three nurses (60%) had Bachelor's degrees, and two (40%) did D3 degrees in nursing. Four participants were civil servants (80%), and one (2%) was a freelance daily worker. The nurses had been working for an average of eight years.

According to the results of the interviews with the nurses, there were a total of five main themes and 20 sub-themes. The main themes found were as follows:

1. Work motivation

Participants described that on the beginning of pandemic, they certain that the motivation of most nurses are otherwise being chosen by the nurse manager and obligated to work in ICU for COVID-19 or sincerely chose the placement. However by time, the regulation of incentives for the nurse or health worker who work in the red zone of COVID-19 is quite tempting. The incentives does not see the workload and qualifications and responsibilities of a nurse but divided equally according to the number of patients treated. And it rose Jealousy among the senior nurses and the sense of being treated unfair. Because the Volunteering Nurses is mostly fresh graduate, and have a very limited knowledge and skill as ICU nurse, hence most of the time they only observe and the senior are bond to supervise, yet with the same payment. Should they

just let go the new nurse to deliver care out of their supervision? Will it not endanger patient's life?

a. Willingness or incentive

There have been many studies proving the correlation between incentives or work motivation and nurses' job satisfaction. Among those studies is one conducted by Chumba et al., which proved the effect of reward on the work performance of nurses (11). In the early phase of the COVID-19 pandemic, the need for volunteers was very high, and every person with a health background was expected to be willing to intervene in overcoming this pandemic. The recruitment of volunteers, however, was without any incentives. As time went by, considering the very high demand for volunteers and their low availability, as well as to appreciate their willingness to work in red zones with the risk of contracting the disease and even dying, the government began to provide incentives (12).

...Sometimes I question the motivation of all of us to deliver care. Do we do so to carry out our responsibilities as nurses or are we motivated by incentives? In my case, both are true (laughing). Nurses should be rewarded generously (4.1).

b. Jealousy

...Some of the volunteers just followed the nurse's steps and observed, and they said they did not have the courage to provide care. However, they are given the same amount of incentives (5.1).

2. COVID-19 protocol

The COVID-19 protocol for providing care for COVID-19 patients was established to create a healthy situation for patients and a safe situation for staff. However, this protocol also poses a dilemma for nurses who provide nursing care,

a. Heat stress from wearing Personal Protective Equipment (PPE)

Senior nurses in ICU COVID-19 are wearing PPE; Gawn, gloves, face shield, mask, boot which are very hot and wet. Even in a normal situation, delivering care such as bathing already drain sweat from your body, moreover if your body covered with thick layer of PPE. Therefore they feel they work is not accomplished well.

... I am highly restricted in providing treatment. The restriction comes from walls and PPE. Being dressed in a layered PPE suit, with the heat and profuse perspiration, for more than 3 hours is something that I cannot bear (1.2).

...The COVID-19 ICU is much more complicated because we are wrapped in coveralls like astronauts. It is like the patient is out of reach (3.6).

...When one hour is over and it is time to take off the PPE coverall suit, we find that the bottom part is already filled with sweat (3.8).

b. Monitoring via CCTV

ICU for COVID-19 is set up in such a way that there are divisions for red zone and yellow zone areas. The Red Zone is where the nurse with complete PPE acts on patients. While the yellow area is an area where nurses deal with medical records, patient families, and patient supervision through monitors. If something seems wrong on the monitor, the nurse in the yellow area will report it to the nurse in the red area. But sometimes the communication is not that smooth. Meanwhile if they enter the red area again they have to wear a complete PPE, and that takes time and anyway they are tired and it's their time to rest, but what about patients who clearly don't look well, dilematic situation for them.

...I am a trained nurse. I know what my patients need, but the protocol makes me look like an idiot. When a monitored patient's NRM is pulled, I cannot run fast enough to fix the NRM. It is so annoying (1.3).

...It's suffocating to see the patient only from the CCTV, where you cannot read the vital sign on the monitor. It's not clear. The next moment, the alarm suddenly sounds (1.7).

c. Rapid molecular test for patients who died

Nurses also find it difficult and risk being the target of family anger when a patient died and the family members are unwilling to follow the funeral procedure designated for COVID-19. Every deceased patient must be subjected to a rapid molecular test to ensure whether they died from COVID-19 or whether they died in a negative state. If the deceased patient was negative for COVID-19, then the family members are allowed to carry out the funeral in the usual way. However, if they were positive, the funeral must be conducted in the COVID-19-appropriate method, where the dead body must not be handled in a perfect religious manner. The burial must not be witnessed by family members but one or two. More members may attend the funeral if they can afford the proper PPE.

...Last Week was so much Crowded, I must call police, otherwise they can kill us for stopping them from bringing home the deceased patients (4.7)

3. Working with very limit competence of nursing volunteers

The pandemic condition where even health workers as the spearheads in handling this case might run away for fear of being infected makes patients far outnumber nurses. Therefore, world governments, including the government of Indonesia, encourage volunteers, including retired nurses or doctors, nurses who have not worked, and students, to give assistance (13). .

a. Ineffective placement

In Indonesia, most volunteers are fresh graduates. Patient care in the ICU requires more skills than the patient care in the usual treatment room, and this is especially true for the COVID-19 ICU. The setting of the COVID-19 ICU is also different from that of the general ICU. It takes time and sufficient training to get usual with the situation moreover the knowledge and skill, which the volunteer nurse doesn't have, and the burden is on the senior nurse

...In the room, sometimes the nurses are many, but they have minimal knowledge. Volunteers should be placed in ordinary rooms,while senior nurses who come here should exclusively be placed in the COVID-19 ICU. However, this is also a matter of incentives; incentives will be paid to volunteers only if they are placed in the ICU for COVID-19 (1.5).

...I feel tired physically and mentally. The patient's burden is on me because I am the most skilled in that shift (1.6).

...I really hope that the nurses placed in the ICU who are charged with complex work are skilled nurses (1.11).

...In my opinion, nursing volunteers are quite helpful in performing simple things such as bathing patients, changing IV bags, performing suction, and so on, but they should not be counted as core staff (2.8).

b. Insufficient supervision

The senior nurses realize the sophisticated and complicated patient and the instrument on the patient, hence the volunteer nurses need to be supervised, however they don't have enough time and power to do so. And that cause fear

...I fear that the incompetence of volunteers who are mostly fresh graduates will endanger patients, but I cannot accompany them at all time because I am also busy with other patients. These volunteers are counted as core staff, however (2.12).

c. The demand for independence

Most of these volunteers are students of the online era, whose lab skills are learned online. As a result, at first, they are mostly shocked by the work that requires them to be independent and by patients' severe conditions.

...I can't accompany them all the time, there are even some volunteering nurses who run away on the first day of work (laugh) (2.10).

...I consider that this occasion will give my volunteer students a rich experience, and I believe that they will be stronger as persons than others (2.11).

d. The need for training

There are some requirement to be an ICU nurse, years of experience as a nurse, and already trained as ICU Nurse, which neither are owned by volunteer nurse, however this hospital provided internal house training for ICU

...I am grateful and very happy that the nursing committee provides a basic ICU training for ICU nurses who have never received any training, especially volunteers (4.4).

4. Family Roles

The intensive care unit is where almost all patient needs are provided or met by nurses. Family members who are present near a patient may provide a company and a bridge for the patient who is cognitively and physically unable to make decisions on their own related to their care. Both the patient and family members have the autonomy to make decisions.

a. Family members as motivators vs demotivators

Family members serve to motivate the patient to recover. However, if the family members are not coping well with changing situations in which a family member is critically ill and may be separated forever, their anxiety may be contagious to the ill family member as stated by the participants

...These patients gravely need motivation. If the COVID-19 protocol weren't too strict, maybe the mortality rate wouldn't be too high (4.3).

...Motivating patients, on the other hand, also requires the role of the family because we as nurses cannot make the patients feel the same way the family will (2.4).

...I see the presence of family sometimes becomes a burden for the patient, as is seen in the case where the high or low nasal cannula of a patient becomes congested when there is a family member, maybe because there is a problem I don't know or maybe it bothers the patient (2.5).

b. Family at the end of the patient's life

No one ready to face or to experience end of life, the existance of other when this happen will help each other.

...the patient's family wasn't there to accompany the patient while their condition was critical. Someone should have watched over them while we couldn't stay long because of the shortage of nurses (1.8).

...In normal conditions, as in the general ICU, if the patient's condition is critical, then their family members will be asked to accompany them. Meanwhile, for COVID-19 patients, it is different. It breaks our hearts as nurses as we know how much the family and the patient want to be together (3.1).

c. Family being helpful or making it more difficult

Family members should be helpful or may give the inverse effect. Whom of the family members are to be allowed to visit the patient must be carefully selected to avoid adverse effects, especially if the family members are not able to adapt to a new COVID-19 ICU environment along with its rules, changes in their roles as family to the patient, changes in daily activities, and the attitude and task of health workers in providing information (14)

...There are some patients who at last are permitted to have the company of their family members in the COVID-19 ICU, of course on the condition that the family members follow the procedures, including not going in and out the room and wearing PPE, but what happens is that many do not comply with the procedures because they cannot bear with wearing PPE suits (2.3).

...Another difficulty caused by the family is that a nurse must go back and forth to a patient to deliver food as if they were a waiter. And they have to do it while also performing their duties. If they are late, then the family will complain of dissatisfaction, and the nurse will be blamed (2.4).

...The presence of a family member near the patient is also very helpful. For instance, when we are not nearby, and when there is something wrong with the patient, the family member can temporarily fix it (2.6).

5. The ethical dilemmas of the nursing profession

Ethical dilemma can be a source of stress among nurses. In caring for critically ill patients in a COVID-19 ICU or RICU, several ethical dilemmas in nursing can be found:

a. Justice

...To make a reservation for a COVID-19 ICU room, it is the same as making one for a regular ICU room. However, the queue is longer, and the triage that is carried out often takes into account the standing of a person in a setting, such as, whether he is an official or an important person in the hospital (3.3).

...On the other hand, when an official or public figure is admitted, this regulation can bypassed; the family may accompany us here. We feel that we are being unfair (3.2).

...Sometimes we think these patients are healthy. They only need NRMs. There are others who need care and deserve to be admitted to the ICU more, but because these patients are important persons, they are given priority. Sometimes I can understand, but the other time I can't (3.4).

...You know it for yourself. If a patient is nobody, the chances of him being pushed aside are very high (3.5).

c. Maleficence

Malefincene means doing no harm to your patient. Treating patients with shortage of Staff both in quality and quantity, rise the possibility to do that.

...Sometimes I see myself and other COVID-19 nurses as cruel people (1.12).

...I see everywhere that the death rate for COVID-19 patients treated in the ICU is indeed a serious matter because it is accompanied by comorbidities. But I still feel that the lack of skilled personnel is a contributing factor. A lack of skill can be dangerous, can it not (5.6)?

d. Beneficence

Doing a good thing for your patient also requires a strong Nurse in both meaning: psychological and physicological and sometimes willing to work overtime.

...Working in the COVID-19 room keeps me from coming home early because I can't bear leaving a patient with a nurse who is not competent in the ICU (5.7).

e. Fidelity

Sometimes the bed is full occupied and so many fear, anxiety and need from the patient who are alone, that makes some nurses cannot fulfill their promise.

...I often forgot to continue the action I had performed on a patient because of the alarm from another patient. I promised to come back, but I forgot. I only remembered when I reached home (5.4).

...I was called by a patient to change his diaper, and I said 'a moment, Sir' because I needed to change the IV bag of another patient in another room, but after that I forgot (3.9).

f. Veracity

Being honest is not always that easy, moreover when your honesty can endanger someone else, as it statede by one of the participant.

...Once there was a husband and a wife being treated. The wife was treated in the COVID-19 ICU, and the husband was in the COVID-19 treatment room. On the second day of treatment, the husband got worse and died. The wife who was still being treated in the ICU asked about her husband's condition, but because I was worried that she would be shocked from hearing the bad news, I had to lie and tell her that her husband was okay (3.8).

g. Confidentiality

In pandemic situation, when data of source infection should be informed to the public, rise the sense of breaking the rule of confidentiality among the nurses

...The names of confirmed COVID-19 patients were announced, so I feel that the principle of confidentiality was neglected (5.2).

...Sometimes my friends would ask whether patient X was confirmed to be positive or not, in which case I was forced to lie in order to maintain the patient's confidentiality. But sometimes I'm confused too. I don't need to tell them about this. After all, they are my friends. But who knows it will have a bad impact on the patient and their family (5.3)?

h. Autonomy

In the effort to limit the infection, anyone who are confirmed with COVID-19 must be hospitalized, and that breaking the princip of autonomy

...Patients should be free to choose whether they are to be treated or not, but in the case of COVID-19 patients, they can't choose. Sometimes their anger towards the system is directed towards us (4.6).

5. DISCUSSION

The present qualitative study aimed to find out in depth the experiences of nurses working in the COVID-19 ICU of a public hospital in Riau Province. Working with a different

protocol, dedicated and complicated personal protective equipment, and inexperienced nursing volunteers who are mostly fresh graduates makes senior nurses experience stress and burnout. Stress among the senior nurses are mostly because the junior or the volunteering nurses are at high risk of endanger patient if left unsupervise. It can break the ethical principle, especially beneficence and maleficence. Beneficence means doing good for your patient and Malefincene means doing no harm to your patient.The existance of family is also rise dilema among the nurses. The situation in red zone, alone, no relative, while they are in moderate to severe respiration problem, rise fear and anxiety which devastated their condition. The family which usually helpful with the patient basic need cannot be implemented here. Everything is fulfilled by the nurses, even the dying process in the end of life care. Family urged to be let in, even they were willing to pay their own PPE, however, regulation cannot be broken, and in this situation, the nurse can be the target of anger. Even worser when the patient died.

The other situation that rise tension and dilematic situation is treating patients with shortage of Staff both in quality and quantity. In addition, the regulation of the Minister of Health that gives incentives to nurses who only work in the COVID-19 area has raised jealousy and placement confusion amid the issue of nursing staff shortage; there arose the question of whether to place nursing volunteers in the less-complicated general nursing ward and senior nurses in the COVID-19 ICU or the other way around. If the first option was to be taken, then the nursing volunteers would not be given the incentives. The management decided to place the nursing volunteers in the COVID-19 ICU after a short in-house ICU training and join them with senior nurses as part of the core staff in the COVID-19 ICU. Most of the nursing volunteers were fresh graduates who were still unable to perform basic nursing care independently. This must be uneasy for fresh-graduate nurses to work in a disorganized transition with trained nurses to professional nurses in a more obscure situation than normal conditions (15)(16).

6. CONCLUSION

COVID-19 ICU nurses are faced with numerous options in providing nursing care. Sometimes, the good and bad impacts are balanced out, causing a dilemma about which decisions or actions to be taken. From the present qualitative research on the ethical dilemmas experienced by COVID-19 nurses in carrying out critical nursing care, five themes and 20 sub-themes were obtained. The five themes that emerged were work motivation, COVID-19 protocol, the competencies of nursing volunteers, family roles, and professional ethical dilemmas. Meanwhile, the sub-themes obtained were willingness or

incentives, jealousy, heat stress from wearing PPE, monitoring via CCTV, rapid molecular test for patients who died, ineffective placement, insufficient supervision, the demand for independence, the need for training, family members as motivators vs demotivators, family at the end of the patient's life, family being helpful or making it more difficult, and ethical dilemmas of justice, maleficence, beneficence, fidelity, veracity, confidentiality, and autonomy.

According to the COVID-19 ICU nurses' honest expressions, the dilemmas that they were experiencing were predominantly concerned with their sense of guilt for being unable to provide maximum nursing care. This may be caused by numerous factors, making it necessary to hold a focus group discussion to find solutions. There was also a concern of the placement of volunteers, most of whom were fresh graduates and were unable to provide nursing care independently. According to these nurses, these volunteers should be placed in general care wards. This may be applied in the next occasion when the hospital needs volunteers. It is suggested to place skilled nurses in rooms that require independence and nursing volunteers in wards where proper supervision is possible. The nursing management should consider the possible demand for nursing staff in intensive and emergency care. Therefore, staff rolling and training will be required (17).

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References

[1] Bialek S, Boundy E, Bowen V, Chow N, Cohn A, Dowling N, et al. Severe outcomes among patients with coronavirus disease 2019 (COVID-19) — United States, February 12–March 16, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(12):343–346.

[2] Shanafelt T, Ripp J, Trockel M. Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. JAMA - J Am Med Assoc. 2020;323(21):2133–2134.

[3] Al Thobaity A, Alshammari F. Nurses on the frontline against the COVID-19 pandemic: An integrative review. Dubai Med J. 2020;3(3):87–92.

[4] Plunkett D, Greene JD. Overlooked evidence and a misunderstanding of what trolley dilemmas do best: Commentary on Bostyn, Sevenhant, and Roets (2018). Psychol

Sci. 2019;30(9):1389-1391.

[5] Gangopadhyay P, Chawla M, Dal Monte O, Chang SW. Prefrontal–amygdala circuits in social decision-making. Nat Neurosci. 2021;24(1):5–18.

[6] Fowler M. Why the history of nursing ethics matters. Nurs Ethics. 2017;24(3):292–304.

[7] Adams LM, Melius J. Prepared to respond? Exploring personal disaster preparedness and nursing staff response to disasters. Disaster Med Public Health Prep. 2021;15(5):557-562.

[8] Jia Y, Chen O, Xiao Z, Xiao J, Bian J, Jia H. Nurses' ethical challenges caring for people with COVID-19: A qualitative study. Nurs Ethics. 2021;28(1):33–45.

[9] Turale S, Meechamnan C, Kunaviktikul W. Challenging times: Ethics, nursing and the COVID-19 pandemic. Vol. 67, International Nursing Review; 2020. p. 164–7.

[10] Polit DF, Beck CT. Nursing research: Principles and methods. Lippincott Williams & Wilkins; 2004.

[11] Jelagat Chumba R, Muindi F, Njihia J. Effect of reward on nurse job performance in Kenyan National Referral Hospitals. J Hum Resour Leadersh. 2018;4(2):77–92.

[12] Harisah H. Kebijakan Pemberian Insentif Pada Tenaga Medis Virus Corona Covid-19 Pendekatan Maslahah. SALAM J Sos dan Budaya Syar-i. 2020;46(7):519-528.

[13] Rafieepour A, Masoumi G, Dehghani A, Gh M. Research paper: Health responses during the COVID-19 pandemic: An international strategy and experience analysis. 2021;6(3):147–160.

[14] Home SPM, Asche SE, Morton S, Solberg LI. Support and strategies for change among small patient-centered medical home practices. 2013;6–13.

[15] Bogossian F, McKenna L, Levett-Jones T. Mobilising the nursing student workforce in COVID-19: The value proposition. Collegian. 2020;27(2):147–149.

[16] Roca J, Canet-Vélez O, Cemeli T, Lavedán A, Masot O, Botigué T. Experiences, emotional responses, and coping skills of nursing students as auxiliary health workers during the peak COVID-19 pandemic: A qualitative study. Int J Ment Health Nurs. 2021;30(5):1080–1092.

[17] Gold R, Evans M. Why did covid overwhelm hospitals? A yearslong drive for efficiency. Wall Str J [Internet]. 2020; Available from: https://www.wsj.com/articles/hospitals-for-years-banked-on-lean-staffing-the-pandemic-overwhelmed-them-11600351907