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Factors inhibiting adaptation to nursing care, the neglected loop in the mental health of intensive care unit nurses: A qualitative study

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Abstract:

BACKGROUND: As intensive care unit (ICU) nurses mainly care for critically ill patients, they face many professional challenges, including communicating with patients and working with various devices. Therefore, they need to adapt to the existing conditions, thereby providing high-quality care. Explaining factors inhibiting adaptation to nursing care among ICU nurses.

MATERIAL AND METHODS: This is a qualitative study conducted using a conventional content analysis approach in a health center affiliated to Shahroud University of Medical Sciences, Iran. This hospital was equipped with an air ambulance and four ICUs and was also considered as the regional trauma center in the Northeast of Iran. Data were collected using semi-structured face-to-face interviews (from January 2020 to April 2021) and then analyzed using Graneheim and Lundman's (2004) qualitative content analysis method.

RESULTS: It was shown that factors inhibiting adaptation to nursing care among ICU nurses consist of three main categories including "personal barriers to adaptation", "dominant management", and "educational concerns".

CONCLUSION: To adapt more and as a result to improve the mental health of nurses, it is important to know the barriers to adaptation. Efficient management, paying attention to nurses' issues, and practical training constitute key elements affecting the adaptation to critical nursing care. Therefore, it is necessary to take measures to ensure adaptation in this group of health workers. Thus, an environmental approach of health promotion has social experience and organizational development.

Keywords:

Adaptation, inhibitory factors, intensive care unit, nurse, nursing care

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Introduction

Nowadays, increased healthcare competition has affected the healthcare industry.[1] The most important competitive duty of a healthcare provider is to provide quality healthcare. Nursing care is one of the major components of healthcare service.[2] Providing nursing care in an intensive care unit (ICU) requires adaptation to the challenges and tensions in this unit.[3] Most critically ill patients are mainly treated in ICUs using special equipment.[4] ICU nurses face occupational and personal problems due to their high contact with critically ill patients and heavy workload, which in turn can cause them to suffer from a lot of stresses.[5,6] Adaptation is defined as a personal cognitive and behavioral effort exerted to control external and internal demands in coping with the personal environment. The adaptation process in nursing involves learning and applying the knowledge and values of this profession.[7] In this process, new graduate nurses adapt to their new roles and responsibilities. The process of adaptation can occur both quickly and slowly

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for nurses. Adaptation improves not only the physical and psychological health of individuals but also their personal and organizational performance.[8] Although adaptation in nurses is essential to keep up the quality of care, it is greatly important to explain the adaptation to nursing in ICU nurses.[9] The available evidence shows that adaptation is the result of one's interaction with the work environment and interpersonal communication.[10] Adaptation can create satisfaction, mind peace, and mutual acceptance. Nurses who are more adaptable will provide better quality care.[11] In other words, profession and professional characteristics can be effective in acquiring adaptation.[5] Adapting effectively is related to mental health. On the other hand, mental health means living in favorable conditions, which means that by identifying one's abilities, a person can deal with problems effectively, establish useful and effective relationships with his family and friends, and fulfill his social role well. Therefore,[12] there are few studies on adaptation in ICU nurses. Park *et al*. (2011)[13] conducted a study on the effect of occupational stress and lack of specialized knowledge in the adaptation of ICU nurses. The results of a study conducted by Stewart (2021)[14] also revealed that ICU is a challenging environment for nurses and it is very important to create supportive social relationships for improving adaptation to this complex clinical environment.

Objectives

To improve the process of adaptation to nursing care among ICU nurses, it is important to identify adaptation-related barriers. Considering the existence of only a few context-based studies in this area[15], especially in Iran, and the need to understand the differences in caring behaviors between different contexts[11] and provide an in-depth understanding of the characteristics of this phenomenon, the present study aimed to determine and explain the barriers to adaptation to nursing care among ICU nurses.

Materials and Methods

Study design and setting

This is a qualitative study conducted using a conventional content analysis approach. Content analysis is a process, through which raw data are classified into categories based on the researcher's accurate and systematic interpretation and inference. The categories are extracted from raw data by the researcher's precise analysis and constant comparison of the data.[14] Inductive content analysis was adopted because there was a lack of evidence about nurses' experience on factors inhibiting adaptation to nursing care.

Participants and setting

In this study, a total of 13 ICU nurses were recruited using purposive sampling. All participants were working at a hospital affiliated to Shahroud University of Medical Sciences. This hospital was equipped with an air ambulance and four ICUs and was also considered as the regional trauma center in the Northeast of Iran. Inclusion criteria consisted of the following: (a) Being a nurse with at least six months of work experience in the ICU, (b) having no experience of bereavement during the last six months, and (c) willingness to participate in the study. The written informed consent was obtained from all participants comprising.

Data collection

Data collection was conducted using semi-structured face-to-face interviews by the first author. After providing the necessary information about the study objectives, the interviews were conducted using general questions followed by more probing questions (e.g., "*What conditions did you have to deal with critical nursing care?*" and "*Was there any barrier in this regard?*") based on the conceptual categories and study objectives. The interviews were conducted in a place agreed upon by the interviewees (nurses' rest room or hospital outdoor space). Interviews lasted for 30-120 minutes. The first interview was conducted twice to provide further explanation. The interview content was recorded using a mobile recording software. The participants' nonverbal reactions, behaviors, and communication were also recorded. Data collection was continued until the data saturation point, at which no new data could be extracted.

Data analysis

As the data were being collected, they were analyzed using Graneheim and Lundman's (2004) qualitative content analysis approach at five stages including (a) transcribing the interview content immediately after each interview, (b) examining the whole transcript of the interview to get a general understanding of its content, (c) explaining semantic units and initial codes, (d) classifying similar codes in more comprehensive categories, and (e) determining the hidden content of data.[16] All data analysis processes were conducted using MAXQDA software (version 10; VERBI, Berlin, Germany).

In the first step (transcribing), the content of the interview was transcribed verbatim and read several times to gain a comprehensive understanding of the data. In the second step, the transcripts were carefully examined and the semantic units were identified. In the third step, the semantic units were summarized, semantic units were abstracted, and the codes were selected. As per the participants' experiences, explicit and implicit concepts were identified in the form of sentences or paragraphs using the extracted codes. Ultimately, labeling was done by giving appropriate codes.

In the fourth step, the codes signifying a single theme were placed in a single category based on the constant comparison of similarities, differences, and proportions. The categories were also divided into subcategories. In the fifth step, the categories were summarized and the main concept of each category was identified. Moreover, the relationship between the categories was identified by extracting the main and abstract concepts at the interpretive level, which signified the hidden content of the data (formulating categories). The concepts were identified based on the description of internal categories in the transcripts and these internal categories were reviewed based on the whole data.

Rigor and trustworthiness

The rigor of data was ensured using Guba and Lincoln's criteria. For ensuring credibility, data were collected and analyzed using a variety of methods such as interviews, observation, and field notes. Furthermore, a combination of data sources (i.e., interviews with nurses, patients, residents, and head nurses under different conditions) was used for ensuring data validity. To ensure the accuracy and validity of the data, a list of the extracted codes and categories were given to 7 participants, including a supervisor, 4 nursing faculty members, and 2 nurses, to get their feedback (member-checking). Long-term contact and engagement with participants and data led to high levels of rigor and a comprehensive understanding of their experiences. The reliability of the data was obtained using the data collected from interviews, observations, and field notes. Moreover, all stages and processes of the study were recorded from the beginning to the end. Also, the researcher's prolonged engagement with data, appropriate interaction with the participants, and member-checking constituted the activities for establishing data dependability. For establishing confirmability, the appropriate data collection and sampling methods were applied and the participants were selected in a way to have a wide range of samples and gender diversity. Besides, the findings were examined by three people outside the study (external auditing) to improve data transferability.

Ethical considerations

This article is derived from a Ph.D. dissertation in nursing. Prior to the beginning of the study, necessary permissions were received from the officials of the School of Nursing and Midwifery of Semnan University of Medical Sciences. Moreover, ethical approval was obtained from the Regional Committee for Medical and Health Research Ethics (Approval No. IR.SEMUMS.REC.1398.261).

Results

Characteristics of participants

Participants were comprised of ICU nurses who were willing to participate in the study. In this study, participants were composed of 13 people including 9 nurses (i.e., nine ICU nurses, a nurse manager, a head nurse, and a nurse instructor) and a resident. The age of participants ranged from 24 to 49 years. A number of five nurses had a bachelor's degree and three had a master's degree. Four participants were male and the rest were female [Table 1].

Categories

Based on the results of data analysis, three categories of "personal barriers to adaptation", "dominant management", and "educational concerns" were explained as inhibitory factors affecting the adaptation to nursing care among ICU nurses [Figure 1].

Category 1: Personal barriers to adaptation

The "personal barriers to adaptation", which were considered a barrier for nurses to adapting to nursing procedures, included three subcategories of "intolerance to patient death", "unnecessary-care-related frustration", and "emotional and psychological conflict".

Table 1: Participants' demographic characteristics

Participants ID	Gender	Marital status	Age (years)	Overall work experience (year)	Work experience in ICU (year)	Level of education
P1	Female	Married	35	16	16	BSc*
P2	Female	Married	27	7	2	MSc**
P3	Female	Married	24	2	2	BSc
P4	Female	Single	33	8	8	MSc
P5	Male	Single	24	4	2	BSc
P6	Female	Married	45	26	13	BSc
P7	Male	Married	41	5	3	Specialist
P8	Female	Single	30	8	8	BSc
P9	Male	Married	41	12	5	BSc
P10	Female	Single	49	26	7	MSc
P11	Female	Married	35	12	8	MSc
P12	Male	Married	28	6	3	BSc
P13	Female	Single	34	10	10	BSc

*Bachelor's degree; **Master's degree

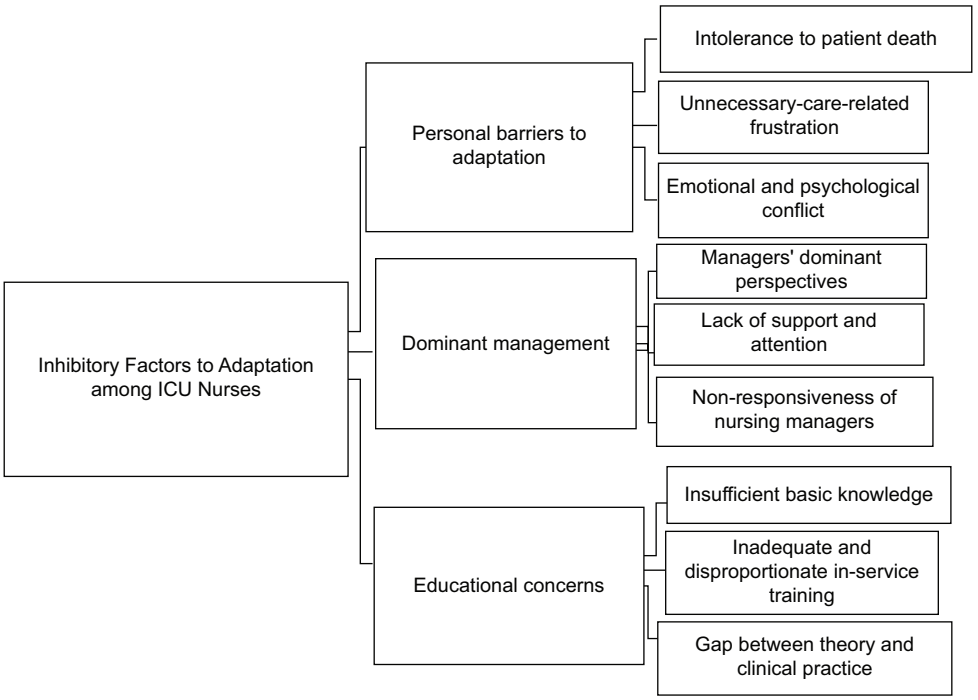

Figure 1: Themes obtained for barriers to adaptation in ICU nurses

Subcategory 1: Intolerance to patient death

Exposure to frequent deaths of ICU patients was annoying for ICU nurses and caused them mental breakdowns. Observing frequent patient deaths has caused a feeling of frustration in nurses and has been a barrier to the adaptation to providing nursing care. Most of the participants of both sexes mentioned this issue. One of the participants stated her experience in this regard as follows:

"Many of them will expire. Two patients passed away last night. It is very difficult for me to see the death of other ones. As I try to cope with caregiving, observing these frequent deaths stops me from moving forward." (P. 6)

Subcategory 2: Unnecessary care-related frustration

From the ICU nurses' point of view, unnecessary care does not lead to the patient's survival and discharge or improvement of patient condition and this was regarded as an uncomfortable condition for the participants.

One of the participants presented his experience in this regard as follows:

"You do everything, but you see it is all futile. This really makes you feel still exhausted." (P. 5)

The implementation of care that the nurse knows is useless for the patient prevents the provision of effective care.

"When I see that care is useless for the patient, I get discouraged from doing other care." (P. 12)

Subcategory 3: Emotional and psychological conflict

A newly graduated nurse may inevitably find the condition existing in the work environment against her/his values and beliefs. From a nurse's perspective, a young patient has a chance to live and should not die early or suffer from serious diseases. Emotional and psychological conflicts prevent the acquisition of effective adaptation to nursing care among ICU nurses. Below is an opinion mentioned by one of the participants:

"It bothered me to see young patients. I tell myself that they still have many opportunities and they have hopes and dreams". (P. 2)

One of other participants said: *"A young person should build the future and they should not be caught in this bad situation."* (P. 10)

Category 2: Dominant management

Some managers take advantage of their managerial power and organizational position and create a supervisor-subordinate feeling in nurses. Understanding this experience is a barrier to adapting to intensive and difficult care provided in the ICU because nurses see managers against themselves not with themselves. The category of "dominant management" has three subcategories of "managers' dominant perspectives", "lack of support and attention", and "nonresponsiveness of nursing managers".

Subcategory 1: Managers' dominant perspectives

The dominant perspective of nursing managers toward nurses acts as a barrier to their adaptation and instills a sense of inferiority in them. Nurses can no longer see themselves as key members of the health team and do not try to cope with problems.

"If a nurse like me gives a suggestion to nursing managers, they will say we are not at a position to tell them what to do. They look down on us and that means they don't want to understand us." (P. 11)

Subcategory 2: Lack of support and attention

Lack of support and attention to ICU nurses act as a deterrent to their adaptation to providing healthcare and cause them to be indifferent to providing patients with quality healthcare.

One of the participants depicted his experience in this regard as follows:

"ICU nurses face more problems and receive less support." (P. 13)

Nurses who work in ICUs think that they have been given the mission by the manager to do the work in the health system and that they themselves have no value. They provide patients with many health services and thus feel the need to receive more support from the manager.

Below is a comment of one of the participants in this area:

"We are expected to take care of patients and hand them off to the next shift, regardless of whether we ourselves need attention or not." (P. 4)

Subcategory 3: Nonresponsiveness of nursing managers

Regarding the nonresponsiveness of nursing managers, participants complain about inattention to their demands. The nursing managers' nonresponsiveness to ICU nurses can be an obstacle to their adaptation to nursing care since their demands are not well responded to.

Below is a comment stated by a participant in this regard:

"When we have a request, we receive no response from anyone, neither the head nurse nor other nursing managers. We do not have a manager with the ability to answer our demands." (P. 8)

Category 3: Educational concerns

It is very important to provide ICU nurses with adequate training and update their information about different cases and equipment. Accordingly, we can facilitate their adaptation to the provision of nursing care. Inadequate training is, of course, a major obstacle to the acquisition of adaptation among ICU nurses.

The category of "educational concerns" included "insufficient basic knowledge", "inadequate and disproportionate in-service training", and "gap between theory and clinical practice".

Subcategory 1: Insufficient basic knowledge

It is essential for ICU nurses to receive training upon their entry into the job. Failure to receive this training or its inadequacy will lead them to be confused and prevent them from being adapted to the provision of nursing care.

One of the participants expressed her experience in this regard as follows:

"I have a problem with the smallest thing in the ICU. Even working with the HIS (Hospital Information System) is really difficult for me. For example, I don't know how to enter a patient's test in this system. This requires training, especially for someone who has entered the clinical setting as a newly graduated nurse." (P. 3)

One of the participants expressed his experience in this regard as follows:

"Those who have newly started their work should not enter the ward without training, but this is not considered at all." (P. 7)

Subcategory 2: Inadequate and disproportionate in-service training

Considering the rapid advancement of science and technology, inadequate in-service training for ICU nurses keeps them away from up-to-date information and this issue acts as a barrier to their adaptation process. ICU staff require more specialized information in their area of work.

Here is a statement expressed by one of the participants in this regard:

"We have to learn from our experience, trials, and errors because there is not enough training for us. For example, a ventilator course was held but ICU nurses were not allowed to participate in that course." (P. 1)

Subcategory 3: A gap between theory and clinical practice

Participants who entered the ICU immediately after graduation considered the theory-practice gap as an important barrier to adaptation. Accordingly, nurses regarded their knowledge as worthless and considered it as a barrier to adaptation to nursing care.

"We learned different things at the nursing college. We came here and understood that it was something completely different. In theory courses, nursing care procedures were different from what was done at the patient's bedside. This situation disappointed me with continuing my job." (P. 9)

Discussion

The present study was aimed at exploring and explaining the factors inhibiting adaptation to nursing care among ICU nurses. Based on the findings, the major categories were made up of "personal barriers to adaptation", "dominant management", and "educational concerns".

"Intolerance to patient death" was the first subcategory of the "personal barriers to adaptation" category. Many ICU nurses are frequently faced with patient deaths.[17] Itzhaki *et al*. (2018)[18] concluded that nurses are exposed to a lot of stresses, including continuous and long-term communication with ill patients nearing death due to their job. Concerning long-term contact with critically ill patients, the provision of special care to special patients, frequent patient deaths, and the sensitive and stressful nature of their duties in the ICU compared to other wards, ICU nurses suffer from psychological injuries more frequently compared to nurses working at other wards.[19] Considering the Islamic culture of Iranian people and despite the fact that death is the end of life and a step toward another world, nurses will experience emotional and psychological conflict due to knowing about the patient's family and the death-related discomfort and consequences.

The second subcategory of the "personal barriers to adaptation" category was "unnecessary-care–related frustration". A poor match between the care services and the patient prognosis leads to ineffective therapeutic measures and makes nurses suffer from this situation. In fact, nurses felt higher levels of stress when performing unnecessary care compared to physicians.[20] Asayesh *et al.* (2018)[21] considered the level of unnecessary care to be high in ICU and stated that the different types of care and services existing in other wards cause nurses to face different challenges compared to other nurses. ICU nurses witness the pain and suffering of patients who undergo difficult and high-cost treatments for weeks and even months, all of which are often futile in their opinion. Futile care indirectly affects nurses and their adaptation to nursing care.

The last subcategory of the "personal barriers to adaptation" category was "emotional and psychological conflict". In this regard, participants talked about their emotional involvement and nonacceptance of the disease and death in young patients. In line with the results of our study, Wocial *et al*. (2020)[22] considered the health deterioration and death of young patients as one of the themes for the incidence of stress in ICU nurses. Sudden and unexpected deaths cause stress in nurses and deprive patients of the opportunity to think about future tasks and say goodbye to their relatives and acquaintances.[23]

The existence of a dominant perspective among nursing managers is the result of "dominant management". Wall *et al*. (2016)[24] revealed that the deeper the management of interpersonal relationships is, the easier it will be for nurses to adapt to the hospital environment. In a study by Difazio *et al*. (2019),[25] it was indicated that coercive behaviors and the dominant perspective in the nursing profession are manifested by a physician or manager toward a nurse, a nurse to a colleague, a nurse to a patient, and a patient to a nurse. This phenomenon has been reported to have different statistics in different countries for reasons such as semantic differences, study designs, cultural issues, public or private healthcare organizations, and different attitudes toward this phenomenon. Managers who look down on ICU nurses induce a feeling of the worthlessness of the care provided by nurses for the patients and prevent them from being adapted to the provision of nursing care.

"Lack of support and attention" was another subcategory of the "dominant management" category. AllahBakhshian *et al*. (2017)[26] argued that the lack of support offered by managers affects nurses' adaptation process so that their ability to achieve professional independence will increase in a supportive work environment. Furthermore, it has been shown that nurses' wellbeing can contribute to work engagement, increase the level of motivation, and ultimately improve the quality of care.[27] Managers have an indirect effect on nurses' adaptation and performance. Adams *et al*. (2019)[28] also found that managers' performance can affect the performance of ICU nurses. An ICU nurse expects nurse managers to pay attention to and meet his/her needs as a nurse who is under a heavy workload.

The "nonresponsiveness of nursing managers" to nurses' demands is a subcategory of the ''dominant management'' category. Adams *et al*. (2019)[28] also found that managers' performance can affect the performance of ICU nurses.

Nurses talked about managers' nonresponsiveness to their demands. Accountability is one of the main goals and components emphasized by health system managers.[29] It is one of the requirements of management in the current situation. Managers will be inefficient and vulnerable as long as they fail to respond to their subordinates.[30] Managers who are not responsive to the demands of nurses make them feel discouraged from work, as nurses see this issue as an obstacle in their way to adapting to nursing care.

Based on the participants' experiences, it was demonstrated that ICU nurses are provided with "insufficient basic knowledge". Lack of sufficient knowledge and skill to provide nursing care in the ICU

was among the experiences of most of the participants. The presence of nurses with sufficient and practical knowledge plays an effective role in raising the quality of nursing care in critical care units. The most important feature and condition for a nurse to enter the critical care unit is strong scientific knowledge. Moreover, the lack of adequate and proportionate training for ICU nurses hinders their adaptation.[31]

"Inadequate and disproportionate in-service training" constituted one of the subcategories mentioned by the participants. Karaca (2019)[32] believed that the lack of adequate training in the nursing profession is a particularly important issue because nurses, as the largest group of healthcare providers in healthcare centers and as the main staff of hospitals, play a vital role in offering effective patient care. Therefore, receiving adequate training tailored to the needs of nurses is of particular importance.

The existence of a "gap between theory and clinical practice" in ICUs creates problems for beginner ICU nurses. As the nurses' knowledge and skills are tailored to the needs of society, scientific advances, and technological changes, their level of confidence and adaptation to the provision of nursing care will significantly improve.[33] Yun *et al*. (2021)[34] considered the theory-practice gap as a fundamental growing problem in clinical settings, especially in nursing. The discrepancy between what nursing students have learned in the classroom and what they experience in the clinical setting will make nurses feel uncomfortable.[30]

Considering the results, a conceptual study is recommended to be conducted to identify adaptation-facilitating behaviors in the ICU. It is also recommended to compare the experiences of nurses working in general wards with those working at ICUs and conduct a study on adaptation in different contexts to understand the similarities and differences between ICU nurses in terms of adaptation to nursing care provision.

Study limitations

All participants consisted of nurses who were working at the same hospital and they might face similar challenges. Accordingly, similar studies are recommended to be carried out in different contexts to gain a wider range of experiences.

Conclusion

In this study, factors inhibiting adaptation to nursing care were examined among nurses working in ICUs. Nurses considered personal caregiving-related characteristics, management-related problems, and educational concerns as obstacles to their adaptation. Given the key role of nurses in patient care in the ICU, they expect their managers to support them, solve their problems, improve their conditions, and increase their adaptation levels by removing the deterrents in this regard. In fact, to promote mental health, an environment should be created to improve people's psychological wellbeing and support people's mental health. An environment that respects and protects the basic civil, political, economic-social, and cultural rights of people. This environment should include programs to improve and promote people's mental health in their executive policies. It is also necessary for ICU nurses to receive adequate training for being capable of providing patients with desirable and high-quality care. It is also suggested to solve care challenges by improving the mental conditions of nurses, counseling nurses after patient deaths, reviewing the treatment protocols, eliminating useless measures, and creating a platform for talking and accepting patients' critical conditions to create compatibility with care measures.

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Conflicts of interest

There are no conflicts of interest.

References

1. Alsaqri S. Patient satisfaction with quality of nursing care at governmental hospitals, Ha'il City, Saudi Arabia. Biol Agr Healthc 2016;6:128-42.
2. Lotfi M, Zamanzadeh V, Valizadeh L, Khajehgoodari M. Assessment of nurse–patient communication and patient satisfaction from nursing care. Nurs Open 2019;6:1189-96.
3. Obeidat RF, Qan'ir Y, Turaani H. The relationship between perceived competence and perceived workplace bullying among registered nurses: A cross sectional survey. Int J Nurs Stud 2018;88:71-8.
4. Kim L, Garg S, O'Halloran A, Whitaker M, Pham H, Anderson EJ, *et al*. Risk factors for intensive care unit admission and in-hospital mortality among hospitalized adults identified through the US coronavirus disease (COVID-19)-associated hospitalization surveillance network (COVID-NET). Clin Infect Dis 2021;72:e206-14.
5. Kelbiso L, Belay A, Woldie M. Determinants of quality of work life among nurses working in Hawassa town public health facilities, South Ethiopia: A cross-sectional study. Nurs Res Pract 2017;2017:5181676.

6. Shen X, Hu B, Pang X, Lin J, Yin X, Jiang Y, *et al*. Nurses' behaviours towards physical restraint use in the ICU: A descriptive qualitative study. Int J Nurs Pract 2021;27:e12868 doi: 10.1111/ijn.12868.
7. Mikkonen K, Tomietto M, Cicolini G, Kaucic BM, Filej B, Riklikiene O, *et al*. Development and testing of an evidence-based model of mentoring nursing students in clinical practice. Nurse Educ Today 2020;85:104272.
8. Karatepe OM, Avci T. The effects of psychological capital and work engagement on nurses' lateness attitude and turnover intentions. J Manag Dev 2017;36:1029-39.
9. Havens DS, Gittell JH, Vasey J. Impact of relational coordination on nurse job satisfaction, work engagement and burnout: Achieving the quadruple aim. J Nurs Adm 2018;48:132-40.
10. Kristof-Brown AL, Zimmerman RD, Johnson EC. Consequences OF INDIVIDUALS'FIT at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit. Pers Psychol 2005;58:281-342.
11. Hussein R, Everett B, Ramjan LM, Hu W, Salamonson Y. New graduate nurses' experiences in a clinical specialty: A follow up study of newcomer perceptions of transitional support. BMC Nurs 2017;16:1-9.
12. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, *et al*. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. Lancet 2020;395:912-20.
13. Park HS, Kim KN, Kang EH, Lee JM, Park SM. Lived adaptation experiences of new ICU nurses who are working in a newly established university hospital. J Korean Acad Fundam Nurs 2011;18:226-36.
14. Stewart C. Understanding new nurses' learning experiences in intensive care. Intensive Crit Care Nurs 2021;67:103094.
15. Polit D, Beck C. Essential of Nursing Research. 7th ed. Lippincott Williams Wilkins Co.; 2010.
16. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004;24:105-12.
17. Wolf AT, White KR, Epstein EG, Enfield KB. Palliative care and moral distress: An institutional survey of critical care nurses. Crit Care Nurse 2019;39:38-49.
18. Itzhaki M, Bluvstein I, Peles Bortz A, Kostistky H, Bar Noy D, Filshtinsky V, *et al*. Mental health nurse's exposure to workplace violence leads to job stress, which leads to reduced professional quality of life. Front Psychiatry 2018;9:59.
19. Alipoor F, Inanloo M. The general health of the intensive care unit nurses of the selected teaching hospitals affiliated to Iran University of Medical Sciences (2019). Iran J Nurs 2020;33:1-12.
20. Rostami S, Esmaeali R, Jafari H, Cherati JY. Perception of futile care and caring behaviors of nurses in intensive care units. Nurs Ethics 2019;26:248-55.
21. Asayesh H, Mosavi M, Abdi M, Masoud MP, Jodaki K. The relationship between futile care perception and moral distress among intensive care unit nurses. J Med Ethics Hist Med 2018;1:2.
22. Wocial LD. Resilience as an incomplete strategy for coping with moral distress in critical care nurses. Crit Care Nurse 2020;40:62-6.
23. Morley G, Field R, Horsburgh CC, Burchill C. Interventions to mitigate moral distress: A systematic review of the literature. Int J Nurs Stud 2021;121:103984.
24. Wall S, Austin WJ, Garros D. Organizational influences on health professionals' experiences of moral distress in PICUs. HEC Forum 2016;28:53-67.
25. Difazio R, Vessey J, Buchko O, Chetverikov D, Sarkisova V, Serebrennikova N. The incidence and outcomes of nurse bullying in the Russian Federation. Int Nurs Rev 2019;66:94-103.
26. AllahBakhshian M, Alimohammadi N, Taleghani F, Nik AY, Abbasi S, Gholizadeh L. Barriers to intensive care unit nurses' autonomy in Iran: A qualitative study. Nurs Outlook 2017;65:392-9.
27. McClelland LE, Gabriel AS, DePuccio MJ. Compassion practices, nurse well-being, and ambulatory patient experience ratings. Med. Care 2018;56:4-10.
28. Adams AMN, Chamberlain D, Giles TM. The perceived and experienced role of the nurse unit manager in supporting the wellbeing of intensive care unit nurses: An integrative literature review. Aust Crit Care 2019;32:319-29.
29. Akpapuna M, Choi E, Johnson DA, Lopez JA. Encouraging multiculturalism and diversity within organizational behavior management. J Organ Behav 2020;40:186-209.
30. Kelley DP III, Gravina N. A paradigm shift in healthcare: An open door for organizational behavior management. J Organ Behav 2018;38:73-89.
31. Khiewchaum R, Thosingha O, Chayaput P, Utriyaprasit K. Coping with traumatic brain injury using the preparation program among caregivers of patients in the intensive care unit. Siriraj Med J 2011;63:128-31.
32. Karaca A, Durna Z. Patient satisfaction with the quality of nursing care. Nurs Open 2019;6:535-45.
33. Asiamah N, Mensah HK, Ocra B. An assessment of education, in-service training and tenure prolongation as methods for enhancing nursing performance. Int J Health Care Qual Assur 2019;32:910-26.
34. Yun C. Optimization for Deep Learning: Bridging the Theory-Practice Gap. MIT; 2021. Available from: https://hdl.handle.net/1721.1/139962.