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A qualitative study to explain the criteria of nursing managers in selecting effective nursing diagnosis

Original article

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Abstract: **Objective:** This study aimed to explain the criteria of managers at different levels of nursing in selecting effective nursing diagnosis.
Methods: In conventional content analysis, 10 nursing managers at different levels including head nurse, supervisor, and nursing manager were interviewed. Data was collected with semi-structured interviews and a narrative approach. Data analysis was performed using the Zhang–Wildemuth method simultaneously with sampling.
Results: Four head nurses, four supervisors (educational, clinical), and two nursing managers were interviewed. The results of the analysis led to the extraction of two main categories: centrality of the nursing profession, with the sub-categories compatibility with nursing practices and compliance with organizational and professional principles of nursing, and covering the patient care aspect, with sub-categories of having potential to facilitate and adapting to patient care conditions.
Conclusions*:* The analysis of the views of nursing managers shows that health managers should consider various management aspects such as functional and organizational to increase the efficiency of nursing interventions in the selection of nursing diagnostic systems. From the point of view of health managers, nursing diagnoses should cover the considerations of patients, nurses, and work environments.

Keywords: *intensive care unit • nursing diagnosis • nursing managers • qualitative research • conventional content analysis*

1. Introduction

In the field of nursing, nursing diagnosis, as the second stage of the nursing process, refers to the practice of identifying health problems. It is one of the main concepts of nursing that strictly define and map the relevant knowledge.[1,2] According to the theory presented by Yura and Walsh, nursing diagnosis is a clinical judgment regarding the care and response of the individual, family, or community to potential or actual health problems or life processes. In the formulation of any nursing care plan, patient examination and nursing diagnosis are two important components. Accurate and documented nursing diagnosis is considered as the basis for making decisions in nursing interventions.[3,4] Nursing diagnosis classification systems have been developed to help

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nurses recognize patient problems to establish communication between nurses and other health care providers.[2,5] The need for nursing diagnoses was first recognized at the first national conference in 1973. In 1982, the same conference team adopted the name the North American Nurses Diagnosis Association (NANDA) by recognizing the participation and assistance of nurses.[6] The NANDA Nursing Diagnostic Standard Terminology is one of the most important and widely used international standard terminologies for nursing care worldwide. This classification system is currently translated into more than 15 languages and is used in more than 30 countries.[1,2] Diagnosis is the major denominator of all fields of knowledge, especially those of medical disciplines.[2]

Studies on the integrity of nursing diagnoses are perceived to be strongly influenced by the methodological framework developed in the 1980s. However, the effectiveness of these models for validating elements of nursing diagnoses is widely debated.[7] Regarding nurses' attitudes toward diagnosis, D'Agostino et al.[8] argued that classifying nurses based on belief patterns can help administrators and educators provide operational interventions in nursing diagnosis. Lotfi et al.[9] showed that nurses are interested in implementing the nursing diagnosis, but there are obstacles in this regard, including the lack of human resources and electronic facilities. Moreover, Gazari et al.[10] showed that low awareness, low nurse-to-patient ratio, lack of interest, lack of resources, and poor supervision are important challenges for nurses. Zamanzadeh et al.[11] also stated that the most important challenge of nursing is the intangible understanding of the concept of the nursing process. Therefore, the nursing process and diagnoses are often cited as a practical and basic standard for selecting nursing interventions in achieving the expected outcomes.[6,12] Considering the significance of nursing diagnoses in recording clinical care and the lack of studies on the selection of effective nursing by nurses and nursing managers, the purpose of the current study was to examine the criteria of nursing managers at various organizational levels in selecting effective nursing diagnosis.

2. Methods

2.1. Design

This study was qualitative research that used conventional content analysis and was conducted in 2021 in Alborz province, Iran. This study aimed to explain the criteria of managers at different levels of nursing, including nursing managers, clinical and educational supervisors, and head nurses, in selecting effective nursing diagnosis.

Conventional content analysis is widely used by researchers as a systematic approach to explain a concept or notion on which there is not much information, leading to revision, valid inferences from information, and the production of new knowledge and insights. This approach is highly recommended for examining the experiences and attitudes of individuals toward a particular subject.[13] Moreover, since there is not enough information about the views of nursing managers in the field under study, the qualitative method was used in this study.

2.2. Participants

Participants were selected from among nursing managers at various levels, including nursing managers, clinical and educational supervisors, and head nurses from intensive care and general wards. Purposeful sampling was performed with maximum variability for the study. Inclusion criteria included those having a bachelor's degree or higher in nursing and at least 1 year of management experience at various levels of nursing. Exclusion criteria included those who did not did not consent to publish information in the final research report and did not want to attend a probing interview if necessary.

2.3. Data collection

Individual, semi-structured, in-depth face-to-face interviews were used for data gathering. The interview was started by the first author using the following general question: "How do you think a nursing diagnosis system can be appropriate and useful?" The location of the interview was according to the request of the participants after their work shifts in the hospital; the interviews lasted from 30 min to 45 min. The participants were informed about the aim of the study; the interviews were carried out after the participants consented; moreover, the time and location of the interviews were based on the participants' preference. After receiving demographic information from the participants, the main interview questions were asked in a semi-structured manner, and the interviews were recorded digitally with the informed consent of the participants.

2.4. Data analysis

Data analysis was performed using the Zhang–Wildemuth analysis method at the same time as data collection (Table 1). In this method, codes and categories were extracted directly and inductively from raw data through a systematic and transparent 8-step process. (1) Only one interview was conducted in each session. Interviews

Parameter	Frequency
Managerial level	
Head nurse	4
Educational supervisor	1
Clinical supervisor	3
Nursing manager	2
Gender	
Male	3
Female	7
Educational level	
Bachelor's degree	6
Master's degree	3
PhD	1
Work experience	15 ± 3

Table 1. Demographic characteristics.

were strictly transcribed by the first author immediately after each interview; (2) each interview was read and reviewed several times by the research team to extract semantic units, which were then reviewed and coded several times; (3) the extracted codes were classified based on the conceptual and semantic similarity and were formed into sub-categories; (4) the research team constantly reviewed the extracted codes to achieve clarity and consistency; (5) data collection then continued until saturation was reached; (6) re-check the accuracy and stability of the data by all authors and two external peer reviews, (7) finalizing and confirming categories and subsets, and (8) finally, full report of 8 steps of analysis.[14]

2.5. Trustworthiness

To enhance the validity of research data in this study, various data-optimizing methods were employed to ensure the credibility of the data, for example, allocating 3 months for collecting data, sustained daily involvement with the subject and research data by conducting a weekly interview, and constant appraisal of the extracted data by the research team. Confirmability was determined by seeking the help of an external reviewer expert in the field of qualitative studies. Moreover, all data were periodically reviewed by the authors. Several brainstorming sessions were also conducted during the data collection and analysis stages for fine-tuning the data. For transferability, data sampling was performed with maximum diversity, gender, age, and management levels (Table 1) and one data check was performed by 8 participants. For dependability, all stages of the research were written and reported in detail.[15]

2.6. Ethical considerations

This study was approved by the Ethics Committee of the Alborz University of Medical Sciences with registration number IR.ABZUMS.REC.1400.168. Informed consent was obtained from all participants, according to which the authors were permitted to have the voice of the interviewees recorded. Participants were informed about the purpose of the study and the confidentiality of the information collected and their names and were permitted to leave the study at any time.

3. Results

Two nursing managers, one educational supervisor, 3 clinical supervisors, and 4 head nurses from intensive care and internal medicine wards were interviewed. Three were the male and seven had a bachelor's degree in nursing (Tables 2 and 3). The results of the analysis lead to the extraction of two main categories: "centrality of the nursing profession," with the sub-categories: having nursing function and compliance with organizational and professional principles of nursing, and "covering the patient care aspect," with sub-categories of having potential of facilitating and adapting to patient care conditions (Table 2).

3.1. Centrality of the nursing profession

This category consists of two sub-categories: "compatibility with nursing practices" and "compliance with organizational and professional principles of nursing." Nursing managers generally argue that efficient diagnoses should not only bear the functional aspect of nursing but also be in line with all organizational and professional goals of nursing.

3.1.1. Compatibility with nursing practices

According to nursing managers, efficient nursing diagnoses should be based on criteria such as being specific to nursing and compliance with various delegation methods in nursing. Nursing managers stated that for nursing diagnoses to be practical, they must be compatible with nursing concepts. In this regard, participants 4 and 6 stated, respectively,

> *"Certainly, if the nursing diagnoses are chosen in general and are applicable for all fields of medical sciences, it will cause many problems for nurses, the least of which is confusion."*
> *"It should be noted that nursing diagnoses, if not tailored to the concepts and work style of the nursing field, will discourage nurses from using them since they would unaccustomed to."*

Category and sub-category	Codes
Centrality of the nursing profession	
Compatibility with nursing practices	Being specific to the field of nursing; ability to establish team communication; usability in intercultural nursing; complying with task delegations; compatible with nursing concepts; being operational and clinical; ease of use for nurses; acceptance by clinical nurses and nursing managers; applicable in physical and mental illnesses
Compliance with organizational and professional principles of nursing	Usability in emerging and recurrent diseases; increasing patient–nurse satisfaction; time-effectivity; improving the responsibility of nurses; having a guide and systematic nursing diagnoses; being comprehensive; cost-effectivity; reducing the workload of nurses; being updatable
Covering the patient care aspect	
Having potential to facilitate	Ability to establish more patient–nurse communication; eliminating barriers to active involvement of nurses in bedsides; leading to the alteration of attitudes of staff and clients
Adaptation to patient care conditions	Being both process- and outcome-driven; compatibility with the conditions of patients in different wards; having a nursing diagnosis for all stages of care from hospitalization to death

Table 2. Categories and sub-categories.

Participant number	Age (years)	Gender	Educational level	Clinical experience (years)	Managerial level
1	36	Female	Master's degree	12	Clinical supervisor
2	33	Male	Bachelor's degree	6	Head nurse; ICS
3	44	Female	Bachelor's degree	20	Nursing manager
4	44	Female	Bachelor's degree	18	Head nurse; general
5	25	Female	Master's degree	2	Educational supervisor
6	26	Female	Bachelor's degree	3	Clinical supervisor
7	47	Female	PhD	23	Nursing manager
8	39	Male	Bachelor's degree	14	Head nurse; general
9	31	Male	Master's degree	3	Head nurse; ICS
10	33	Female	Bachelor's degree	7	Clinical supervisor

Note: ICS, intensive care setting.

Table 3. Demographic characteristics of participants.

Nursing managers agreed that nursing diagnoses should have operational and clinical features as its ease of application would be welcomed by clinical nurses and nursing managers. It should also be applicable in all areas of nursing work, such as for patients with psychological and physical problems in the acute or chronic phase. As such, participants 2 and 5 stated, respectively,

"Extremely theoretic-based diagnoses are not usable in the applicable, as they should be backed by some level of evidence."

"Appropriate nursing diagnoses, if written and endorsed by clinical nursing professors, can be used in all wards and different hospitals."

Nursing managers further argued that the related diagnoses should have the actual and potential capacity of establishing relationships between nurses, physicians, and other medical staff. While being aligned with Iranian culture, the routines should be applied in cross-cultural scenarios as well. As such, since effective communication in nursing is critical to its integrity, nursing diagnoses should be enabling and rich in educational values. Participants 3 and 10 stated, respectively,

"One of the most important things we seek in nursing routines is to have an effective and strong relationship with the patient and other colleagues. Nursing diagnoses missing this feature may not be applicable altogether."

"In recent years, attracting foreign patients has become very important for us and we are definitely looking to provide international nursing, hence the significance to nursing diagnoses."

3.1.2. Compliance with organizational and professional principles of nursing

Mid-level and high-level nursing managers seek to determine the effectiveness of nursing diagnoses in the quantity and the quality of care, in actual medical applications, and the implementation of the goals of medical organizations and the nursing profession. Since they adopt a rather macro-level attitude, they also include non-clinical criteria that are in line with the goals of accreditation and clinical governance in their nursing diagnoses. Nursing managers are looking for important criteria such as improving the accuracy and responsibility of nurses and increasing patient and nurse satisfaction seeking the use of nursing diagnoses. Participants 2 and 5 stated, respectively,

"In private hospitals, we need to improve the satisfaction of our patients, and it is very critical to the perceived competition with other hospitals … nursing diagnoses missing this simple feature are immediately discarded as useless."
"The selected nursing diagnoses that lead to the dissatisfaction nurses and hence their resignation will cause us trouble, as hiring new nurses is very time consuming and costly for us."

Given that nursing managers are aware of the high workload of nurses in case of a low nurse-to-patient ratio, nursing managers actively seek out nursing diagnoses that do not increase the workload of nurses. That is, the nursing diagnoses deemed time-consuming is again discarded. In this regard, participants 2 and 4 stated, respectively,

"High-level managers frequently stress the need to reduce costs as much as possible. Diagnoses that exacerbate the current workloads are simply unjustifiable as the costs of managing hospitals are already high."
"Our nurses constantly complain about the increase in their workload when a particular arduous nursing diagnosis is insisted."

Nursing managers argued that they were looking for nursing diagnoses that were flexible to the diseases and clinical cases of the medical world. Given the time and expense involved in trying to keep the skills and knowledge of the nursing staff up to date, the managers stressed the significance of nursing diagnoses in this regard, further arguing that nursing diagnoses should not only be comprehensive in various aspects but also should be able to be updated and used for emerging and recurrent diseases. As such, participants 2 and 7 stated, respectively,

"Since customers paying high sums to hospitals are expecting up-to-date equipment and methods, the nursing diagnoses need to be up-to-date and be constantly updated to suit the current state of the medical world."
"We are working in a world where every day a new disease like SARS (severe acute respiratory syndrome) or COVID-19 (Coronavirus Disease 2019) is being identified and challenging the nurses, and thus nursing diagnoses should pave the way for better working conditions."

3.2. Covers the patient care aspect

This category consists of two sub-categories: "Having potential to facilitate" and "Adaptation to patient care conditions." From the point of view of nursing managers, in addition to organizational aspects, nursing diagnoses should be compatible with all conditions of patients with different conditions and patient–nurse relationship. Nursing managers believe that the nursing diagnosis system should facilitate work issues.

3.2.1. Having potential of facilitating

For nursing managers, considering the importance of establishing a therapeutic relationship between the nurse and the patient and the ensuing satisfaction in the patient and family, which would, in turn, lead to the promotion of nursing care, the selected nursing diagnoses should facilitate the establishment and maintenance of a deep and effective relationship between the nurse and the patient and his/her family. High-level nursing managers cite that all elements of the treatment system will be negatively affected if the system is not able to establish the expected nurse–patient relationship. In this regard, participants 7 and 10 stated, respectively,

"We are constantly emphasizing that the patient is not a robot and our nurses should have a good relationship with the patient … Many of our actions in the form of in-service es are directed at a similar notion … I can say that the optimal relationship between the patient and nurse is one of our top priorities, hence its significance in nursing diagnoses."
"One of the things we always closely follow in nursing job interviews is the ability to establish a good relationship with the patient. That is, the nursing diagnoses that are deemed ineffective in this regard will make us fall behind the competition, which is not pleasant for the system at all."

According to nursing managers, the rules issued by the Ministry of Health and medical universities cause nurses to spend a lot of time performing repetitive

hand-written documentation in nursing stations, and hence, nurses cannot spend much time at the patient's bedside and offer their nursing care. That is, nursing diagnoses should not only alleviate this issue but should also encourage the nurse to be present at the patient's bedside as much as possible to provide actual care. In this regard, participant 10 stated

"We have discussed many times in the meetings of the nursing directors of the hospitals with the director of nursing and the deputy director of treatment of the university that the rules must encourage the nurse to spend more time with the patient and not in the nursing office forming the documents … the upcoming diagnoses should not make the situation worse than it is already."

Nursing managers are actively seeking to alter the attitudes on nursing from a mere occupation and source of income to a humane and valuable profession that is different from other professions, an objective that seems possible only through the virtue of proper nursing diagnosis. According to nursing managers, a change in nursing attitude can lead to a change in the style of providing nursing care, as a result of which patients and their families can establish a friendly relationship with the nursing team. Participants 5 and 9 stated, respectively,

"We would love for nurses to have the view that a nurse is not like an office worker who works a few hours a day in the hospital and gets paid at the end of the month … It's one of the ideals of my management team to change the current perception of a nurse of their jobs … Nursing diagnoses that can make this shift should be simply recognized as the golden standard of all diagnoses."

"I have seen many times that patients are upset that the nurse and the doctor are thinking of making money instead of healing them … The doctor is constantly talking about going to his/her private office and the nurse talking about private nursing at homes for the rich … many patients are simply bothered by this … efficient nursing diagnoses should alter this view to great effect."

3.2.2. Adaptation to patient care conditions

Most mid-level and lower-level nursing managers believe that the set of nursing diagnoses should be highly applicable and scalable to be used effectively in all wards of a hospital. They further believe that nursing diagnoses should be multidimensional, in general, to create unity of procedure and be applicable to different parts of a medical center. In this regard, participants 1 and 3 stated, respectively,

"Nursing diagnoses should be in such a way that, for example, when a patient is transferred from the intensive care unit to the internal ward, the same care is maintained… If the nursing diagnoses are designed in such a way that the nursing flow is dismissed, nurses might get confused in their diagnosis."

"In my opinion, the nursing diagnoses should be developed in such a way that even when a patient is transferred from one hospital to another, the previous flow of nursing is maintained."

Nursing managers also believe that nursing diagnoses should include all phases of care from patient admission, triage, to end-of-life care. According to some nursing managers, current nursing diagnoses are specific to the middle days of a patient's hospitalization and do not cover the entire timeline of admission to death. In this regard, participants 2 and 5, respectively,

"Our nurses believe that nursing diagnoses can only be used for conscious patients with good clinical conditions and are not very useful for critically ill or dying patients."

"Nursing care easily straddles the range of life and death, so nursing diagnoses should be able to cover this range given the varying nature of the patients' conditions."

Regardless of differences of opinion and consideration of different criteria by managers, they agreed that appropriate nursing diagnosis should consider both outcomes and processes. That is, being process-driven improves care safety and reduces work stress, while being outcome-driven leads to expected and determined success at the ward and hospital levels. According to nursing managers, these features lead to optimal nursing care. As such, participants 4 and 10 stated, respectively,

"It is very important for me, or any head nurse for that matter, that the delegation of tasks in each shift is accurate and in line with principles"

"For some hospitals, only the outcome is important, but for us, the process of nursing is as important as the outcome … If our nurses use accurate nursing diagnoses, all our hard work to achieve the outcome expected by the hospital administration would be owing to the quality of the process."

4. Discussion

The present study was conducted to examine the criteria of nursing managers at different organizational levels in selecting effective nursing diagnosis. According to the

participants, the nursing diagnosis consists of two parts, namely, (1) centrality of the nursing profession and (2) covering the patient care aspect. Based on the results of our study, nursing expertise and perspective is an efficient tool for enhancing the performance of nurses. Fukada[16] argues that the preparation and development of specialized training for nurses is an efficient way to improve the educational performance of nursing staff. Furthermore, optimal diagnosis capacity is one of the key skills to increase the quality of nurses' performance in the workplace. This is consistent with the findings of Tan Hovey et al. who reported that diagnosis capacities can be maintained through continuous practical and theoretical training deployed by senior nurses.[16]

The results of our study showed that accurate and timely diagnosis of nurses is very effective in the proper management of patients. Lack of familiarity of nurses with the scientific concepts of nursing will lead to their discouragement and confusion and would cause serious problems for the patients. As such, the nursing managers participating in this study believed that the implementation of continuous training can be very effective in achieving this feat. The findings of the current study are consistent with those of Anderson et al.[17]who stated that familiarity of the nursing community with modern science and its accurate implementation, along with familiarity with the description of duties defined in each group according to the instructions of the Ministry and also the laws proposed in the judicial system, can provide strong support for the active and effective presence of nurses at the bedside and generate a performance free from all negligence and error. Bozorgzad and Hemati[18] showed that the use of human resources without priory considering the ability of individuals, the use of expert but inexperienced personnel as managers, and the failure to assess one's ability to manage a nursing department would have a highly detrimental effect on integrity of patient care. The researchers further stated that failure to provide the required in-service training routines and not being familiar with the job descriptions of the staff not only increase the probability of medical errors but also would increase the probability of lawsuits. The results of the present study are consistent with those of the study by Lewis et al.[19] who stated that although it is not possible to eliminate work errors, reducing the workload, increasing the number of nurses, and using an accurate monitoring system and proper training can greatly reduce nursing errors.

According to the results of the research, the ability to create and strengthen the team relationship between nurses, doctors, and patients has a significant effect on strengthening the morale of patients and equipping the hospital's medical staff with appropriate skills. In this regard, various studies have pointed to the need to enrich team communication between nurses and also the relationship between nurses and patients. Shohani and Tavan[20] reported that because the training of communication skills and communication between patients and nurse can have an effect on patients' conditions, managers and officials of nursing education should pay attention to improving the communication skills of nurses. In-service training courses can improve the communication skills of nurses, which would lead to a higher quality of services. The results of this study are consistent with those of a study conducted by Fawaz et al.[21] who reported that the implementation of regular training programs for nurses in different care departments leads to better nursing performance and reduce the rate of errors. They also pointed out that regular training programs should be implemented in hospitals and also strongly recommended conducting pilot studies similar to their own.

Nursing managers also acknowledged that nursing diagnoses for clinical cases require up-to-date skills and knowledge of nurses. In line with the results of this study, Alshammari et al.[22] reported that to adapt to the rapidly changing health care settings of the modern medical realm, nursing educators should regularly review their training curricula, teaching–learning strategies, and programs adopted to prepare new professional nurses. On the other hand, Dubey and Mlotshwa[23] argued that the most important practical lesson that nurses can be taught is to what to observe, how to observe, what signs indicate that patients are recovering, and which symptoms are more important. In addition, linking professional nursing skills with mastery of scientific knowledge of environmental health concepts from interdisciplinary studies is essential to modify the educational process of health professions. Environmental impacts on the health and well-being of individuals, families, and communities are increasingly becoming interdisciplinary. These effects require integrated knowledge of prevention and improvement of environmental health consequences in the education of all health professions.

Establishing a proper therapeutic relationship between nurses and patients, as well as adopting measures to improve the satisfaction of patients and their families, will lead to sustained high-quality nursing care. In addition, the managers who participated in this study pointed out that the selected nursing diagnoses should facilitate the establishment and maintenance of a deep and effective patient–nurse relationship. The results of this study are consistent with those of Lotfi et al.[23] who reported in their study that the weak communication

between nurses and patients leads to lower levels of patient satisfaction. They also reported that improving patient satisfaction in the hospital should be a priority for hospital managers.[24] Therefore, the training of personnel, especially nurses, and the identification of motivational factors and job dissatisfaction can be a prelude to the development of patient satisfaction. On the other hand, sparing a lot of time on training medical staff and nurses increases costs for manual and repetitive documentation in nursing stations, and nurses hence cannot spend much time at the patient's bedside, leading to the poor performance of nurses. Kieft et al.[25] reported that the inclusion of the element of education and daily practice for nursing lead to positive experiences for nurses and patients. However, given that nurses work in the field of health care, they must reconcile efficiency, cost, and responsibility with their willingness to provide nursing care based on the patient's needs and preferences. Nurses should have autonomy in their performance to be able to practice nursing.[25]

One of the key factors in improving nursing performances is to change their attitude toward their profession, from being perceived as a simple employee to being deemed as an effective element in the process of diagnosing and treating patients. Our study revealed that nursing managers believed that enhancing the quality of nursing education can unearth its gold standard. Similarly, John et al.[26] reported that even though the majority of nurses were satisfied with their job description, they were not satisfied with their performance incentives/bonuses. Nurses generally think that having the title of an employee with a fixed salary makes them less satisfied, in turn leading to poor performance. Therefore, top-level nursing managers acknowledge the constructive effect of nursing care and hence provide optimal ground for their efficient performance.

Nurses should be equipped with high levels of diagnosis capacity to be able to efficiently manage patients from one ward to another. During the study, managers stated that nursing diagnoses should apply to all stages of care, from the moment the patient is admitted to the triage to end-of-life care in the inpatient or intensive care unit. In a similar study, Schewe et al.[27] reported that enhancing the diagnosis capacity of nurses enables proper and optimal management of patients and increases the quality of their treatment during the period of hospital care. On the other hand, the number of elderly patients referred to the emergency department is higher than that of other patients. However, according to their studies, the diagnosis capacity of nurses and treatment staff decreases as the age of patients increases.

5. Conclusions

The findings of this study indicate that nursing managers of different organizational levels have varying views, yet all agree that an effective system should cover all elements involved in the field of treatment, including patients, nurses, and ward conditions. In determining the effectiveness of nursing diagnoses, high-level nursing managers have rather organizational and macro-scale perspectives, while mid- and lower-level managers have an operational and functional attitude toward nursing.

Limitation

The COVID-19 epidemic and the heavy workload of nursing managers made it difficult to coordinate with them to conduct interviews for the research team.

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Ethical approval

This study was approved by the Ethics Committee of the Alborz University of Medical Sciences with registration number IR.ABZUMS.REC.1400.168.

Conflicts of interest

All contributing authors declare no conflicts of interest.

References

1. Porcel-Gálvez AMJEC. Diagnosis and its applicability on the clinical settings. Enferm Clin (Engl Ed). 2021;31:1–3.
2. Perry AG, Potter PA. *Fundamentals of Nursing*. St. Louis, Missouri: Elsevier Mosby; 2001.
3. Petro-Yura H, Walsh MB. The nursing process: assessing, planning, implementing, evaluating. Appleton-Century-Crofts; 1983.
4. Wang Z. Planning the nursing diagnosis with project scheduling problem. *Am J Appl Sci*. 2021;11:58–66.

5. Rubensson A, Salzmann-Erikson M. A document analysis of how the concept of health is incorporated in care plans when using the nursing diagnosis classification system (NANDA-I) in relation to individuals with bipolar disorder. *Scand J Caring Sci*. 2019;33:986–994.
6. Berman A, Snyder SJ, Kozier B, et al. *Kozier and Erb's Fundamentals of Nursing*. Singapore: Pearson Education. Inc; 2010.
7. Lopes MV, Silva VM, Araujo TL. Validation of nursing diagnosis: Challenges and alternatives. *Rev Bras Enferm*. 2013;66:649–655 (in Portuguese).
8. D'Agostino F, Pancani L, Romero-Sánchez JM, et al. Nurses' beliefs about nursing diagnosis: A study with cluster analysis. *J Adv Nurs*. 2018;74:1359–1370.
9. Lotfi M, Zamanzadeh V, Valizadeh L, Khajehgoodari M, Ebrahimpour Rezaei M, Khalilzad MA. The implementation of the nursing process in lower-income countries: an integrative review. *Nurs Open*. 2019;7:42–57.
10. Gazari T, Apiribu F, Afaya RA, et al. Qualitative exploration of the challenges and the benefits of the nursing process in clinical practice: a study among registered nurses in a municipal hospital in Ghana. *Nurs Open*. 2021;8:3281–3290.
11. Zamanzadeh V, Valizadeh L, Tabrizi FJ, Behshid M, Lotfi M. Challenges associated with the implementation of the nursing process: a systematic review. *Iran J Nurs Midwifery Res*. 2015;20:411–419.
12. Foroozan AS, Tahereh A. Factors influencing implementation of nursing process by nurses: a qualitative study. Knowledge Health. 2011;6:16–23.
13. Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs*. 2008;62:107–115.
14. Wildemuth BM. Applications of Social Research Methods to Questions in Information and Library Science. London, UK: Bloomsbury Publishing; 2016.
15. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Beverly Hills, CA: SAGE Publications, Inc; 1985.
16. Fukada M. Nursing competency: definition, structure and development. *Yonago Acta Med*. 2018;61:1–7.
17. Anderson WG, Puntillo K, Cimino J, et al. Palliative care professional development for critical care nurses: a multicenter program. *Am J Crit Care*. 2017;26:361–371.
18. Bozorgzad M, Hemati Z. Frequency of errors in nursing and associated factors in the cases referred to the Mortality Committee in Shahrekord University of Medical Sciences during 2006-2012. *J Clin Nurs Midwifery*. 2015;4:52–58.
19. Lewis EJ, Baernholdt M, Hamric AB. Nurses' experience of medical errors: an integrative literature review. *J Nurs Care Qual*. 2013;28:153–161.
20. Shohani M, Tavan H. Factors affecting medication errors from the perspective of nursing staff. *J Clin Diagnostic Res*. 2018;12:IC01-IC04.
21. Fawaz MA, Hamdan-Mansour AM, Tassi A. Challenges facing nursing education in the advanced healthcare environment. *Int J Africa Nurs Sci*. 2018;9:105–110.
22. Alshammari F, Saguban R, Pasay-an E, Altheban A, Al-Shammari L. Factors affecting the academic performance of student nurses: a cross-sectional study. *J Nurs Educ Pract*. 2017;8:60.
23. Dube MB, Mlotshwa PR. Factors influencing enrolled nursing students' academic performance at a selected private nursing education institution in KwaZulu-Natal. *Curationis*. 2018;41:e1–e7.
24. Lotfi M, Zamanzadeh V, Valizadeh L, Khajehgoodari M. Assessment of nurse–patient communication and patient satisfaction from nursing care. *Nurs Open*. 2019;6:1189–1196.
25. Kieft RA, de Brouwer BB, Francke AL, Delnoij DM. How nurses and their work environment affect patient experiences of the quality of care: a qualitative study. *BMC Health Serv Res*. 2014;14:249.
26. Jun SY, Rho HJ, Lee JH. The impact of organizational justice, empowerment on the nursing task performance of nurses: focused on the mediating effect of job satisfaction and organizational commitment. *Korean J Occup Health Nurs*. 2014;23:55–66.
27. Schewe J-C, Kappler J, Dovermann K, et al. Diagnostic accuracy of physician-staffed emergency medical teams: a retrospective observational cohort study of prehospital versus hospital diagnosis in a 10-year interval. *Scand J Trauma Resusc Emerg Med*. 2019;27:36.