Presenting the Organizational Knowledge Creation Pattern in Military Nursing Education in Iran

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Original Article

Abstract

INTRODUCTION: Due to the limited current knowledge about the appropriate trainings for the improvement of competence in military nurses, it seems necessary to use the processes of creating and sharing knowledge to fill the gap between the current knowledge and the required one. Therefore, this research has searched for the pattern of organizational knowledge creation in military nursing education using a meta-synthesis method.

METHODS: The research was conducted using the meta-synthesis method (thematic analysis), and the findings were systematically reviewed based on the seven-step pattern of Sandelowski, Barroso and Voils (2007). For this purpose, 348 articles were reviewed, and finally, 33 articles were confirmed by referring to valid and accessible documents of the sites.

FINDINGS: The network of extracted themes was identified as an eight-component pattern including team-oriented approach, individual factors, managerial factors, technological factors, communication factors, organizational policy, implementation of knowledge creation process, and organizational culture.

CONCLUSION: The implementation of knowledge creation leads to the promotion of military nursing education and, as a result, to the improvement of military nurses' performance. To this end, factors such as culture building, using the knowledge of experienced nurses, past successful experiences and updating systems with new information technology tools are effective in creating knowledge. This approach can be an influential factor in advancing the scientific and practical goals of the commanders regarding the creation of knowledge and reducing the waste of time and financial resources.

Keywords: Organizational knowledge creation; Education; Military nursing; Meta-synthesis.

Introduction

In the 21st century, knowledge is the most important asset (1) and the reason for the stability and growth of successful organizations (2). Knowledge development plays a significant role in increasing the competitiveness of organizations in the international arena (3). Buckminster Fuller (1981), an American theoretician, proposed the "Knowledge Doubling Curve." He found that human knowledge doubled roughly every century until 1900 and doubled every 25 years at the end of World War II. A few years later, knowledge was predicted to double every 12 hours by 2020 (4). Nowadays, there are different views regarding different types and rates of knowledge growth; however, human knowledge is increasing at an extraordinary speed (5), but the lifespan of knowledge is decreasing. As a result, there is a need to replace new knowledge with newer one constantly (4).

Nowadays, organizations successfully acquire new knowledge and learning tools to improve their performance and maintain their competitive advantage (6). Therefore, military organizations, as centers that can significantly promote national goals, should prioritize knowledge management

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and creation (7, 8).

Military universities, similar to other organizations involved in knowledge management, play an essential role in the development and sharing of knowledge as huge repositories of knowledge and are considered the center of development, transformation, and the main training center for specialized and trained human resources (9, 10). Meanwhile, universities of medical sciences, as a part of the higher education system, deal with human life (11), and some fields in these universities are more complex and practical (12). Military nursing is a discipline formulated with a different approach, especially for battle scenes or crises, and trains nurses who are required to work in unpredictable, violent, stressful, and sometimes deadly scenes (13). Some studies have shown that military nurses have not acquired sufficient competencies to face acute conditions, indicating insufficient training (14). Detailed strategic planning and structured management to improve the competencies of military nurses can also lead to the improvement of civilian nursing (15). Among the other challenges of military nursing education in Iran are student acceptance criteria, need assessment and improvement of clinical education, validation of educational content following the needs of the three military forces, development of tools for evaluating graduates' competencies, and the use of team-oriented and interprofessional educational approaches that need to be reviewed, modified, and improved (16). Due to the limited and insufficient knowledge available regarding appropriate training to improve competence in military nurses (17, 18), it is necessary to use the processes of knowledge creation and sharing to fill the gap between the required knowledge and the current knowledge (19). Unfortunately, in our country, no effective action has been taken for this matter despite its necessity. Therefore, in this study, this pattern was searched to help solve this challenge relying on the meta-synthesis method and the approach of Sandelowski, Barroso and Voils (2007) (20).

Methods

In the present investigation, the meta-synthesis method, according to the seven-step approach of Sandelowski, Barroso, and Voils (2007), was employed to review the literature. Meta-synthesis is an approach that aims to summarize library data

and information to create deep knowledge regarding a problem or phenomenon (21). The main purpose of this research was to identify a research plan to discover possible ways of creating knowledge in the organization for military nursing education. In line with the aim of the research, articles were collected from databases to identify literature related to organizational knowledge development. In this study, both theoretical and conceptual articles were included in the literature review process. For this purpose, 348 articles were reviewed and studied, and finally, 33articles were selected and confirmed by referring to valid and available documents in the sites.

Findings

The network of extracted themes was identified as an eight-component pattern, including team-oriented approach, individual factors, managerial factors, technological factors, communication factors, organizational policy, implementation of knowledge creation process and organizational culture (Table 2). In the following, the mentioned seven-step approach is mentioned:

The first step, setting research questions: The first step of meta-synthesis is to set the research questions. "What" is the first question to start a meta-synthesis; it is also possible to ask questions about the studied society (Who), (When), and (How). These questions were investigated in the study: *What* are the dimensions and components of organizational knowledge creation in military nursing education? *What* factors are effective in creating organizational knowledge in military nursing education? *What* is the studied community to achieve the creation of organizational knowledge in military nursing education? In which period were the above items reviewed and searched? *What* method was used to provide the studies?

The second step, the systematic literature review: In this step, the relevant keywords were first selected. Therefore, several keywords were used in the database, which included organizational knowledge development, military nursing education, knowledge management in military nursing, and their equivalent in English language.

Using different search engines, the researcher searched systematically for valid articles published in foreign databases such as Google Scholar, Web of Science, Science Direct, Scopus, PubMed, and Iranian databases including Magiran and Noormags (articles related to humanities). The database of the Academic Jihad Scientific Information Center was searched with the aim of determining valid, reliable, and relevant documents in the period from 2005 to 2022, and the collection of articles containing keywords was identified.

The third step, searching and reviewing relevant articles: In this stage, the relevant articles were reviewed and identified, and the appropriateness of the selected studies was analyzed for thematic analysis using the protocol suggested by Krippendorff (22). Moreover, the citation score of all documents was checked to ensure the reliability of the findings presented

through the literature review process. The inclusion and exclusion criteria included the research language (Persian and English), the study period (2005 to 2022), the study method (qualitative and mixed), and the type of study (article). These articles were screened and extracted based on title, abstract, content, and research method.

In the initial search, a total of 348 articles were obtained. Then, articles with unrelated titles (80 articles) and articles with unrelated abstracts (86 articles) were removed. Next, articles with irrelevant content or lack of access to the entire article file were removed (149); finally 34 articles were identified and included (Table 1).

In Figure 1, the review pattern of the meta-synthesis process is presented for this analysis method according to the approach of Sandelowski, Barroso, and Voils (2007).

Figure 1. Screening pattern of the meta-synthesis process based on the Sandelowski, Barroso & Voils' approach (2007)
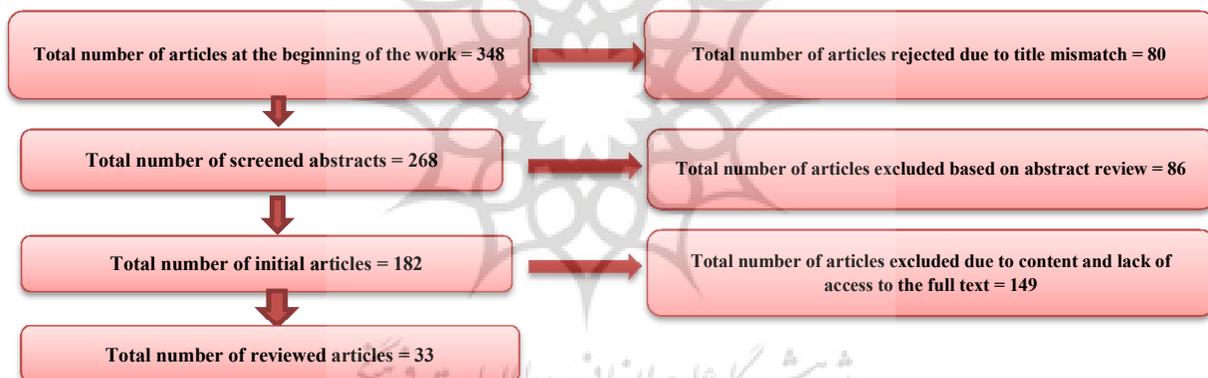

Table 1. Articles extracted from databases.

NO.	Author	NO.	Author	NO.	Author
1	Moludpournia (2020) (23)	12	Adnan et al. (2020) (34)	23	Cauwelier et al. (2019) (44)
2	Farajpahlou et al. (2017) (24)	13	Tian et al. (2009) (35)	24	Azari Arani et al. (2019) (45)
3	Kashian et al. (2016) (25)	14	Vahidi and Danesh (2022) (36)	25	Hautala (2011) (46)
4	Askari et al. (2020) (26)	15	Ayub et al. (2019) (37)	26	Tan et al. (2021) (47)
5	Khalilpour and Zarifmanesh (2021) (27)	16	Niazmand et al. (2022) (38)	27	Rusland et al. (2020) (7)
6	Phetmeesri ,& Nualyong (2015) (28)	17	Li et al. (2020) (39)	28	Ghorbankhani (2021) (48)
7	Moghtader Kargaran and Khodaie Mahmoudi (2022) (29)	18	Soleimani and Maleki (2020) (8)	29	Singh and Gupta (2022) (49)
8	Bahrami et al. (2020) (30)	19	Zahedi et al. (2019) (40)	30	Bamdad Soufi et al. (2020) (50)
9	Yaghoubi et al. (2017) (31)	20	Şandor & Tonţ (2021) (41)	31	Pierce et al. (2021) (51)
10	Narenji Sani et al. (2018) (32)	21	Chamani et al. (2021) (42)	32	Lis (2014) (52)
11	Khalili et al. (2019) (33)	22	Bavakhani et al. (2020) (43)	33	Mattila (2016) (53)

Table 2. Dimensions and components of organizational knowledge creation

Dimensions	Component
Team-oriented approach	Expressing individual experience, developing teamwork, forming think rooms, knowledge management strategic council, creating think rooms, knowledge building teams, knowledge-sharing motivation.
Individual factors	Behavioral competencies, psychological characteristics, individual capabilities, personality characteristics, individual attitude.
Management factors	Reducing centralism, leadership style, senior management support, independence, mutual trust
Technological factors	Information technology, infrastructure improvement, implementation of special technologies, provision of information resources, technology and internet infrastructure, employees' access to the Internet.
Communication factors	Gaining knowledge from collaborative organizations, university-government partnerships, stakeholders' mobilization, collaboration between faculties, national and international level communications, academic travels, and networking.
Organizational policy	Development of an adequate financial infrastructure, legislation and regulations, increased educated workforce, empowerment of researchers, and the design of responsive strategic plans.
Implementation of the knowledge-creation process	Externalization (from implicit to explicit knowledge), socialization (from implicit to implicit knowledge), combination (from explicit to explicit knowledge), internalization (from explicit to implicit knowledge).
Organizational culture	Participatory culture, creativity, organizational learning, organizational culture.

The fourth step of extracting the information from the articles: In this stage, the content of the selected articles was carefully and continuously investigated several times, and the basic indicators were extracted eventually. At the end, data were extracted and placed in a table by including the author's name and surname, year, and important variables related to the creation of organizational knowledge and its dimensions for each article.

The fifth step of analysis and synthesis of qualitative findings: In order to identify the components of organizational knowledge creation in the field of nursing education, primary conceptual codes were extracted by spending enough time and repeatedly rereading the data. Approximately 178 primary conceptual codes were counted from 33 articles at this research stage. Then, in the axial coding stage, category codes and similar codes were put together, and 43 main categories were obtained. Afterward, according to their type of analysis, these 43 components were formed in selective coding in the form of eight dimensions called team-oriented approach, individual factors, managerial factors, technological factors, communication factors, organizational policy, implementation of the knowledge creation process and organizational culture.

The sixth step is the validity and reliability of the pattern: Every research must be valid and reliable and qualitative study and meta-synthesis

analysis are no exception to this rule. Therefore, the valuable opinions of university professors and experts were used to ensure the validity of the research and the accuracy of the findings. In order to determine the reliability of the research, the researcher's opinion was compared with another expert's, and also Cohen's kappa coefficient (1960) (54) was used in order to evaluate the agreement between the two. In this study, five articles were given to one of the experts (elites) for coding. Evaluation and coding results indicated that the Kappa coefficient was 0.78 which indicated a high agreement between the coders and the validity of the extracted codes.

The seventh step, the presentation of the findings: After examining all extractive articles and analyzing articles related to the creation of organizational knowledge, 33 articles were selected based on the coding of the findings of the mentioned articles; then, 178 basic concepts were extracted, which were converted into 43 components by classifying similar codes, and finally 8 main dimensions and component were formed. The main dimensions identified in this research are: 1) team-oriented approach (expression of individual experience, development of teamwork, formation of think rooms, knowledge management strategic council, creation of think rooms, knowledge-building teams, and knowledge-sharing motivation); 2) individual factors (behavioral competencies, psychological characteristics, individual

capabilities, personality characteristics, individual attitude); 3) managerial factors (reduction of centralism, leadership style, senior management support, independence, and mutual trust); 4) technological factors (information technology, infrastructure improvement, implementation of special technologies, provision of resources information, technological infrastructure using the Internet and access to the Internet by employees); 5) communication factors (acquiring knowledge from partner organizations, university-government alliance, mobilization of educational stakeholders, communication and cooperation between faculties, communication at the national

and international level, academic travel, and networking); 6) organizational policy (development of the appropriate financial platform, laws and regulations, increase in educated workforce, and empowerment of researchers and responsive policy design); 7) implementation of knowledge creation process (externalization (implicit to explicit knowledge), socialization (implicit to implicit knowledge), combination (explicit to explicit knowledge), and internalization (explicit to implicit knowledge); 8) organizational culture (collaborative culture, creativity, organizational learning and organizational atmosphere) (Figure 2).
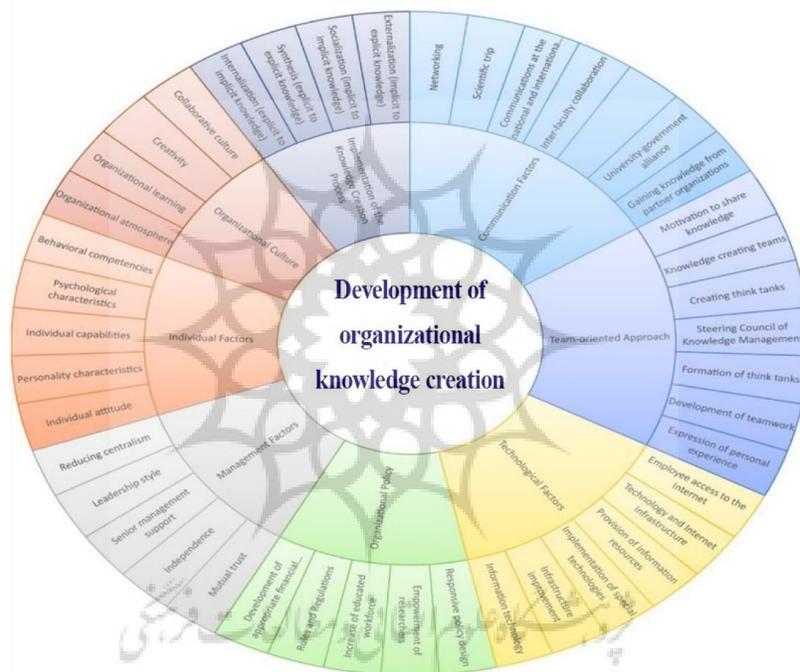

Figure 2. Organizational knowledge creation pattern in military nursing education resulting from meta-synthesis

1) Team-oriented approach: Nowadays, the inclination towards working teams across organizational units, especially in specialized organizations providing services, has rapidly grown. Leveraging military knowledge management experiences and accessing internal and external organizational information to identify implicit and explicit knowledge, document knowledge achievements, and enhance the production of knowledge, innovation, and the quantitative and qualitative development of specialized topics while incorporating them into the vision document and other upper-level

documents, can contribute to organizational knowledge creation.

2) Individual factors: Individualism and a sense of competition in people have been considered a deterrent and obstacle to knowledge-sharing in organizations. In fact, people's personality traits, vision, opinions, and culture are effective in this regard, and organizations should pay much attention to this point during recruitment. A positive attitude towards sharing and creating knowledge by individuals creates new opportunities and innovations in the organization.

3) Management factors: The leaders of the organizations are the role models of their employees. For this reason, they directly affect how the organization accepts and deals with the actions and processes of knowledge creation. The process of creating knowledge must be institutionalized at all levels of the organization. This issue requires the attention of the managers and leaders of the organization to the creation of knowledge and efforts to institutionalize a knowledge-oriented culture at the level of the organization. The selection of a suitable leadership style in the organization plays a significant role in implementing knowledge creation and institutionalizing its processes in the organization.

4) Technological factors: Wide access to knowledge through information and communication technology plays an essential role in creating organizational knowledge. These technologies are key tools in knowledge management and allow the organization to absorb, acquire, store, change, and share knowledge more effectively. Artificial intelligence, electronic discussion groups, computer-based simulators, databases, decision support systems, management information systems, video conferencing, etc., can be mentioned among the technologies that support management and knowledge creation.

5) Communication factors: Effective communication plays a significant role in creating knowledge. Knowledge management and, consequently, knowledge creation and research communication have become increasingly important for research investors in industry, government, society, and members of the public. Without communication, it will not be easy to maintain effective knowledge management. The university graduates and the industry hire them to meet their needs. When it comes to knowledge creation, there should be better and more cooperation between industry and university.

6) Organizational policy: Policies are determined, implemented, evaluated, and changed due to the existing problems, and finally are completed based on their success or failure. Knowledge creation necessarily involves creating, discovering, organizing, applying and sharing knowledge as a resource. However when management and knowledge creation play an important role in the long-term policymaking of organizations, competitive advantages are obtained.

7) Implementation of the knowledge creation process: Many organizations focusing on knowledge creation and extensive investment in the field of information technology seek to access the benefits of knowledge creation and try to improve their performance by implementing it. The challenge here is that creating knowledge is a systematic issue, a category whose successful implementation requires an all-round and comprehensive approach to various organizational factors. This process includes four basic stages: externalization (implicit to explicit knowledge), socialization (implicit to implicit knowledge), synthesis (explicit to explicit knowledge), and internalization (explicit to implicit knowledge).

8) Organizational culture: This factor is important in the success of knowledge management. The organization must implement a culture encouraging employees to create and share knowledge. People are encouraged to share knowledge and benefit from each other's experiences by believing and accepting knowledge creation as a fundamental value and approach. In addition, creating an environment where the value of knowledge creation as a behavior is considered can be a powerful stimulus for knowledge development and sharing in that organization.

Discussion and Conclusion

Nonaka and Takeuchi (1995) suggested the theory of organizational knowledge creation which is influential in the field of knowledge management. Innovation as one of the key manifestations of organizational knowledge creation represents an active process to identify and define new problems, followed by the active development of new knowledge to solve problems (55). Organizational knowledge creation is the process of accessibility and development of the knowledge that the organization's people have produced (43). The basis of creating organizational knowledge is the distinction between implicit and explicit knowledge. Implicit knowledge is personal and stored within the individual. It is limited to context and may be difficult to explain. However, the explicit knowledge does not reside in the individual anymore. Instead, it is coded and formalized in human language, making it transferable (55). People are always the starting point of knowledge creation (56)

Niazmand et al. (2022) investigated and formulated knowledge management strategies with environmental factors of military organizations, carrying out numerous theoretical research projects in the field of knowledge management in AJA, forming think rooms (thinking centers), strategic council of knowledge management and elite center of AJA have been among the identified components in the field of knowledge creation (38). Soleimani and Maleki addressed challenges and obstacles in implementing knowledge management in the armed forces and proposed solutions. In their research, they highlighted components in the obstacles section, such as individual constraints such as personnel transfers and limited access to the Internet. On the other hand, they pointed out solutions, including the judicious use of encouragement and rewards to motivate employees to knowledge-sharing, the establishment of think tank groups to advance knowledge-sharing, integration of knowledge management into the organizational structure, cultural development for knowledge-sharing among employees, and the familiarity of senior and middle managers with the concept and function of knowledge management (8). Askari et al. (2020) referred to components in their study, such as the level of organizational systems (organizational culture, goals and strategies, and driving forces), laws and regulations, organizational capabilities, and organizational structure at the organizational level. Moreover, they examined group-level factors (leadership style, communication, social and teamwork capital) and individual-level factors (behavioral competencies, psychological characteristics, and individual capabilities) (26). Bamdad Soufi et al. (2020) simultaneously emphasized the importance of structural, content, capital, and knowledge management dimensions in their study, along with hierarchy in organizational structure and special and temporary structures. They also highlighted the importance of a suitable strategy for acquiring, sharing, and utilizing knowledge by various organizational elements as the most critical factor for implementing a knowledge-based pattern in the organization (50). Yaghoubi et al. (2017) mentioned reward allocation, managerial style, researcher's independence, and colleague encouragement as influential factors in knowledge creation (31).

In the context of creating knowledge in military nursing education, personal experience is considered a fundamental factor. Through the development of teamwork and the establishment of think rooms, individuals benefit from each other's experiences, and the strategic council of knowledge management facilitates the guidance and control of this process. The creation of think tank groups and knowledge-building teams help exchange knowledge and experiences among organization members, and motivating participation in the knowledge creation process contributes to improving the quality of military nurse education and enhancing organizational capabilities in the field of military nursing.

In military nursing education, behavioral competencies such as commitment to duties, discipline in crises, and teamwork coordination are essential. Psychological characteristics such as stress management and emotional intelligence help nurses make better decisions when facing challenges. Individual capabilities, such as communication and problem-solving skills, and personality traits, such as professional ethics, self-confidence, and the ability to work in a team, are among the critical factors in the knowledge creation process and the enhancement of the knowledge level of military nurses in facing the upcoming challenges.

Among other factors involved in creating knowledge, reducing centralism and increasing independence in nurses is very important. The managers' leadership style and their support also play an important role in encouraging and guiding the military nurses in the learning process. Moreover, mutual trust between the members of the training team and military nurses in the exchange of knowledge and experiences has helped to create effective knowledge, and the sum of these factors will lead to continuous progress and improvement in the field of military nursing education.

The improvement of infrastructure and the use of information technology in military nursing education, up-to-date facilities, and quick access to reliable resources facilitate the creation of organizational knowledge and improve the capabilities of military nurses. Cooperation with partner organizations, especially in the field of convergence with military and medical goals, national and international communication, and scientific trips, is a turning point in ensuring the growth, development, and creation of nursing knowledge. In this regard, the development of the

financial platform, the implementation of efficient laws, the increase of expert and capable personnel, and the design of a responsive policy have particular importance and guarantee the improvement of military nursing education level.

Ultimately, the utilization of four dimensions in the knowledge creation process, through the establishment of a culture where individuals naturally and without resistance share their knowledge and experiences, combining measurable and explicit knowledge with other existing knowledge, and leveraging individual experiences, thoughts, and perceptions of the environment, can enhance the capabilities and performance of military nurses. In this regard, the development of organizational culture plays a crucial role, and the path to development and knowledge creation becomes smoother by developing a participatory culture that emphasizes interaction and mutual commitment.

This research aimed to identify an organizational knowledge creation pattern in military nursing education using the method of meta-synthesis. Meta-synthesis is accepted as a method to clarify the concepts of patterns and results obtained from refining existing knowledge states and to generate unified and new interpretations of findings. The implementation of knowledge creation leads to the improvement of military nursing education and, consequently, enhances the performance of military nurses. In this regard, cultural development, the utilization of experienced nurses' knowledge, successful past experiences, and updating systems with new information technology tools are effective factors. Additionally, considering the connection between knowledge management and consequently, knowledge creation, strategic management and policies necessary for employing knowledge creation methods are essential for nursing education managers.

Similar to other investigations, the present study has limitations in its reported findings. In content analysis coding, issues such as bias in sampling, coding, and reliability are limitations of this method. For example, the examination conducted in this study may not be comprehensive, and some biases may have entered the coding. However, despite these limitations, this investigation and the presented classification provide a unified and comprehensive tool for further testing and developing theory. The identification of indicators

for measuring various components of knowledge creation allows organizations to assess the contribution of each element to performance improvement. The precise nature of how knowledge creation processes contribute to organizational added value has not yet been thoroughly examined. Future research should explore this relationship from various perspectives.

Ethical Consideration

Acknowledgments

Conflict of Interests

The authors declare no conflict of interest.

References

1. Akhavan A, Zebarjady M, Sadri Esfahani A. The effect of organizational culture and information-communication technology on productivity, services quality, customer satisfaction, and change management through knowledge management. Tolooebehdasht. 2021; 20 (1), 80-94. (In Persian).
2. Taherian H. Investigation and analysis of influential factors in knowledge management (case study: artificial intelligence). New Research Approaches in Management Sciences 2018(4): 69-88. (In Persian).
3. Ahadi M, Asadi A, Yazdanipour MA. Survey the relationship between knowledge management and performance of nurses from their viewpoint in the emergency departments. Research in Medical Education 2021; 14(3): 61-70. (In Persian).
4. Chamberlain P. Knowledge is not everything. Design for Health. 2020; 4(1): 1-3.
5. Broo DG, Kaynak O, Sait SM. Rethinking engineering education at the age of industry 5.0. Journal of Industrial Information Integration. 2022; 25:100311
6. Danaei N, Namdarzadegan M, Zare R. Investigating the impact of knowledge governance on project performance: explaining the moderating role of social processes and the mediating role of knowledge-sharing and absorptive capacity. Sci

Technol Policy Lett. 2020; 10 (3): 91-107. (In Persian).

7. Rusland SL, Jaafar NI, Sumintono B. Evaluating knowledge creation processes in the Royal Malaysian Navy (RMN) fleet: Personnel conceptualization, participation and differences. Cogent Bus Manag. 2020; 7 (1).

8. Soleimani E, Maleki A. Challenges and obstacles of implementing knowledge management in the armed forces and providing solutions. Contemporary Researches in Management and Accounting Sciences. 2020; 2 (4), 1-18 (In Persian).

9. Goldaste A, Homayoun S, Maghsoudi B. Structural modeling of factors affecting knowledge-sharing among faculty members. Organ Knowl Manag. 2022; 5(18): 37-67 (In Persian).

10. Safa R, Razavizadeh A. Investigating the effect of organizational structure on knowledge creation in J.A.A. army officer universities. Scientific Quarterly Journal of Human Resources Studies 2016; 7(3): 1-30 (In Persian).

11. Hassandoust F, Vanaki Z. Application of knowledge management in an educational system. Quarterly Scientific Research Journal of Nursing Management 2018; 7(3): 46-58 (In Persian).

12. Nikro S, Mahmoudi H. Pathology of military nursing: a hybrid study. J Mil Med 2020; 22 (8): 818-28 (In Persian).

13. Khaghanizadea M, Goushi Dehaghi M. Necessary Preparations for Military Nurses to be Present in War Zones. Iran J Syst Rev Med Sci (IJSR). 2021; 2(2): 62-75 (In Persian).

14. Ma H, Niu A, Sun L, et al. Development and evaluation of competency-based curriculum for continuing professional development among military nurses: a mixed methods study. BMC Med Educ. 2022; 22: 793.

15. Anders RL. What can we learn from U.S. military nursing and COVID-19? Nurs Inq 2020; 27(4): e12384.

16. Gholami H, Vafadar Z. Comparative Study of the Educational Program of Military Nursing in Iran, USA, India. J. Mil. Med 2020; 22(11): 1099-09 (In Persian).

17. Ma H, Lin L, Zhang S, et al. Exploring competencies of military nurses in general hospitals in China: a qualitative content analysis. BMC Nurs. 2021; 20: 152.

18. Nejadshafiee M, Sarhangi F, Rahmani A, Salari MM. Necessity for learning the knowledge and skills required for nurses in disaster. Educ Strat Med Sci. 2017; 9(5): 328-34 (In Persian).

19. Atashzadeh Shorideh F, Emani E, Zaghari Tafreshi M. Reviewing knowledge management and its significance in nursing practice. Dev Strateg Med Educ 2016; 3(1): 20-34 (In Persian).

20. Sandelowski M, Barroso J, Voils CI. Using qualitative metasummary to synthesize qualitative and quantitative descriptive findings. Res Nurs Health. 2007; 30(1): 99-111.

21. Asgari A, Taskoh AK, Nodooshan SG, Ghazinoori SS, Yazdi MSK. Defining the concept and providing a model for the implementation of innovation districts: A meta-synthesis analysis using text-mining. Rahyaft. 2021;31(81):21-41 (In Persian).

22. Krippendorff K. Content analysis: An introduction to its methodology: Sage publications; 2018.

23. Moludpournia R. An overview of the knowledge creation process and identifying the components of knowledge creation measurement in organizations. 5th National Conference on Humanities Sciences; Kish Island 2020.

24. Farajpahlo AH, Assareh F, Karimi R. Designing and testing the evaluation model of the knowledge-creating environment in Islamic research centers. Inf Res Public Libr 2018 Autumn; 24(3): 94 (In Persian).

25. Kashian SB, Afrazeh A, Tabatabaei SM, Biglar M. Evolutionary Knowledge Creation Model Validation Based on Multi Case Study and Simulation. Payavard Salamat. 2016; 10(5): 443-52 (In Persian).

26. Askari A, Ardalan O, Minaee H. Introducing a model for managing military knowledge based on behavioral approach. Sci Q J Def Strat. 2020; 17(68): 37-63 (In Persian).

27. Khalilipour SA, Zarifmanesh H. Knowledge Management Enablers in the Armed Forces. Q Sch Sci J Strat Def Stud. 2021; 19(85): 83-124 (In Persian).

28. Phetmeesri, S. A., & Nualyong, A. Academic administration network in Military Nursing Colleges. Procedia-Social and Behavioral Sciences. 2015; 197, 2159-2163.

29. Moghtader Kargaran J, Khodaie Mahmoudi R. Provide an effective knowledge management model with a strategic approach in the military. Fut Stud Manag. 2022; 32(128) (In Persian).

30. Bahrami M, Rahimi S, Zare A. An Investigation of the Relationship between Knowledge Enabling Factors and Knowledge Creation among Librarians of Public Libraries. Libr Inf Sci Res. 2020; 10(1): 35-54 (In Persian).

31. Yaghoubi M, Ghardashi F, Izadi A. Investigating and designing a model for influencing factors in the production of knowledge in an institute of military medical university: A Confirmatory factor analysis. J Mil Med. 2017; 19(1): 22-30 (In Persian).

32. Narenji Sani F, Mir Kamali SM. A qualitative research about the identification of knowledge creation obstacles in the university. Q J Res Plann High Educ. 2018(90): 71-98 (In Persian).

33. Khalili A, Khalili M, Ebrahimi Horyat F, Hassanian ZM. Designing Nursing Knowledge Management

Questionnaire. Pajouhan Scientific Journal. 2019; 18(1): 23-29 (In Persian).

34. Adnan HR, Hasani LM, Sensuse DI, editors. Exploring Knowledge Management Practices in Military RnD Agency: An Indonesian Case Study. 2020 3rd International Conference on Computer and Informatics Engineering (IC2IE). 2020: IEEE.

35. Tian J, Nakamori Y, Wierzbicki AP. Knowledge management and knowledge creation in academia: a study based on surveys in a Japanese research university. J Knowledge Manag. 2009;13(2):76-92.

36. Vahidi H, Danesh Z. Challenges to Implementing Knowledge Management in Iranian Organizations: A Finding Based on Ultra combination Method. Sci J Strat Manag Organ Knowl. 2022; 5(1): 73-106 (In Persian).

37. Ayub MU, Kanwal F, Kausar AR. Developing knowledge creation capability: The role of big-five personality traits and transformational leadership. Pak J Commer Soc Sci (PJCSS). 2019; 13(1): 30-61.

38. Niazmand A, Zarei Matin H, Rahmati M. Environmental factors affecting the development of knowledge management strategies in military organizations. J Strat Manag Stud. 2022; 13(50): 39-60 (In Persian).

39. Li X, Peng X, Lei S, Liu T. Analysis of Military Theoretical Research Based on Subject Knowledge Map. 2020 2nd International Conference on Industrial Artificial Intelligence (IAI). IEEE. 2020.

40. Zahedi MR, Akhwan P, Naqdi Khanachah S. Identifying key obstacles of knowledge management and lessons learned in military project-oriented organizations. Q Military Manag. 2019; 19(4): 29-68 (In Persian).

41. Şandor A, Tonţ G, editors. Knowledge Management in Military Organizations: A SECI Model Perspective. Int Conf knowledge-based organization. 2021; 27(1).

42. Chamani AM, Ghaffari S, Ziaei S, Chalack AM. Analysis of knowledge management components in higher education resources and curricula (using meta-synthesis method). Libr Inf, 2021; 24(4): 178-204.

43. Bavakhani A, Rezaei Sharifabadi S, Ghaebi A, Najafi M. Developing organizational knowledge creation model in knowledge-based firms of Iran. Libr Inf Sci. 2020; 23(1): 121-50 (In Persian).

44. Cauwelier P, Ribiere V.M., Bennet A. The influence of team psychological safety on team knowledge creation: a study with French and American engineering teams. Journal of Knowledge Management. 2019; 23(6), 1157-1175.

45. Azari Arani G, Rezaeenour J. The Structural Model of National Knowledge Creation Processes: An Interpretative Structural Modeling Approach. Technol Educ J (TEJ). 2019; 13(2): 386-400 (In Persian).

46. Hautala J. International academic knowledge creation and ba. A case study from Finland. Knowl Manage Res Pract. 2011; 9: 4-16.

47. Tan SC, Chan CKK, Bielaczyc K, Ma L, Scardamalia M, Bereiter C. Knowledge building: aligning education with needs for knowledge creation in the digital age. Educ Technol Res Dev. 2021; 69: 2243-66.

48. Ghorbankhani M, Salehi K. A Phenomenological Approach to the Study of Obstacles of Creation of Knowledge in Humanities Based on the Perception and Lived Experience of the University Elites and Scholars. Q Cult Strat Sci Res. 2021; 13(52): 75-110 (In Persian).

49. Singh MK, Gupta V. An empirical study of knowledge environment and suitability of performance measures of a civil organization for a knowledge-based military force. Kybernetes. 2022.

50. Bamdad Soufi J, Khatami Firouzabadi SM, Tagavifard SMT, Fathabadi H. The model of future military organizations with a knowledge-based approach. Strat Def Stud. 2020; 18(80): 283-306 (In Persian).

51. Pierce PP, Kabo F, Killian J, Stucky C, Huffman S, Migliore L, Braun L. Social network analysis: Exploring connections to advance military nursing science. Nurs Outlook. 2021; 69(3): 311-21.

52. Lis A. Knowledge Creation and Conversion in Military Organizations: How the SECI Model is Applied Within Armed Forces. J Entrep Manag Innov. 2015; 10(1): 57.

53. Mattila J. European Conference on Knowledge Management; Kidmore End: Academic Conferences International Limited. 2016: 1053-62.

54. Cohen J. A Coefficient of Agreement for Nominal Scales. Educ Psychol Meas 1960; 20: 37-46.

55. Tan YH, Tan SC. Conceptions of Knowledge Creation, Knowledge and Knowing: A Phenomenography of Singapore Chinese Language Teachers. Springer Nature. 2020.

56. Hatami S. Knowledge Management in Organizations (Challenges & Solutions). Editor: Taherzadeh Mousovian SF. Tehran: Atran. 2022. (In Persian).